Pacific Gas and Electric Company's R-1408 Pipeline Replacement Project

Initial Study/Mitigated Negative Declaration

August 2022

Pacific Gas and Electric Company

Pacific Gas and Electric Company's R-1408 Pipeline Replacement Project

Project No: D31321CY

Document Title: Draft Initial Study/Mitigated Negative Declaration

Document No.: PPS0407221323BAO

Date: August 2022

Client Name: Pacific Gas and Electric Company

Project Manager: Jessica Simkin

Author: Joza Burnam

Jacobs

155 Grand Avenue
Suite 800
Oakland, CA 94612
United States
O +1.510.251.2888
F +1.510.622.9000
www.jacobs.com

Contents

Appendixes

Tables

Figures

Abbreviations and Acronyms

µg/m^3	microgram(s) per cubic meter
AB	Assembly Bill
ACAPCD	Amador County Air Pollution Control District
ACRA	Amador County Recreation Agency
AOI	area of interest
APE	area of potential effects
ARSA	Amador Regional Sanitation Authority
AWA	Amador Water Agency
BLM	Bureau of Land Management
BMP	best management practice
BP	Before Present
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
cal	calibrated years
CalEEMod	California Emissions Estimator Model
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCIC	Central California Information Center
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	*Code of Federal Regulations*
CH_4	methane
CIWMA	California Integrated Waste Management Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
Commission	Native American Heritage Commission
County	Amador County
CPUC	California Public Utilities Commission

CRS	cultural resource specialist
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
DPM	diesel particulate matter
DTSC	California Department of Toxic Substances Control
EAP	Energy Action Plan
EIR	environmental impact report
FEMA	Federal Emergency Management Agency
FESA	federal Endangered Species Act
FHWA	Federal Highway Administration
FP	Field Protocol
FPA	Forest Practice Act
GHG	greenhouse gas
HCP	habitat conservation plan
HDD	horizontal directional drill
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
L-	Line
LHMP	Local Hazard Mitigation Plan
LRA	Local Responsibility Area
MBTA	Migratory Bird Treaty Act
MP	mile point
MRHCP	Multiple Region Habitat Conservation Plan
MRZ	Mineral Resource Zone
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
National Register	National Register of Historic Places
NCCP	Natural Community Conservation Plan
NEHRP	National Earthquake Hazards Reduction Program
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NOAA Fisheries	National Oceanic and Atmospheric Administration's National Marine Fisheries Service
NOx	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
OES	Amador County Office of Emergency Services

OPLA	Omnibus Public Lands Act
OSHA	Occupational Safety and Health Administration
PG&E	Pacific Gas and Electric Company
$PM_{2.5}$	particulate matter less than 2.5 micrometers in aerodynamic diameter
PM_{10}	particulate matter less than 10 micrometers in aerodynamic diameter
ppm	parts per million
PRC	Public Resources Code
PRP	Paleontological Resources Preservation
ROG	reactive organic gas
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SLCP	Short-Lived Climate Pollutant
SMARA	Surface Mining and Reclamation Act
SO_2	sulfur dioxide
SR	State Route
SRA	State Responsibility Area
SSC	Species of Special Concern
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCP	Timber Conversion Permit
TCR	Tribal cultural resource
TPH	total petroleum hydrocarbon
TPZ	Timberland Production Zone
USACE	U.S. Army Corps of Engineers
U.S.C.	*United States Code*
USEPA	U.S. Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan

MITIGATED NEGATIVE DECLARATION/INITIAL ENVIRONMENTAL STUDY

Project Title:	Pacific Gas and Electric Company's (PG&E's) R-1408 Pipeline Replacement Project (project)
Lead Agency Name and Address:	Amador County Planning Department 810 Court Street, Jackson, CA 95642
Contact Person/Phone Number:	Chuck Beatty, 209-233-6380
Project Location:	Within Jackson Creek and along Buena Vista Road and Coal Mine Road in a sparsely developed area near Buena Vista in Amador County, California (38.171436° -120.544628°).
Project Sponsor's Name and Address:	Pacific Gas and Electric Company (PG&E) 404 West Lane, Building #9, Stockton, CA 95204
General Plan Designation(s):	PS – Public Service
Zoning:	"X," Special Use District
Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or offsite features necessary for its implementation.)	The project consists of replacing approximately 950 linear feet of gas transmission line 197C-2 to address an exposure of the pipeline where it crosses Jackson Creek near the community of Buena Vista, located in Amador County. The project includes replacing a portion of PG&E's 4-inch gas pipeline at Jackson Creek with a 4-inch nominal diameter steel gas transmission pipeline via horizontal directional drill methods. Once the installation of the replacement pipeline is complete, portions of the existing pipeline would be decommissioned by removing approximately 148 linear feet of exposed pipe within Jackson Creek and slurry filling and retiring in place the approximately 802 feet of the remaining portion of pipeline. Please refer to Section 2, Project Description, for further details.
Surrounding land uses and setting: (Briefly describe the project's surroundings.)	The area surrounding the project site is sparsely developed, and land uses around the project site are predominately rural agricultural. The project work areas to the north and south of the Jackson Creek crossing consist predominately of irrigated pasture, grazing land, and disturbed gravel road surface.
Other public agencies whose approval is required (for example, permits, financing approval, or participation agreement)	California Department of Fish and Wildlife, Regional Water Quality Control Board, and U.S. Army Corps of Engineers

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of the initial evaluation:

☐	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.
☐	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
☐	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Signature – *Name* Date

1. Introduction

Pacific Gas and Electric Company (PG&E) is replacing gas transmission line (L-) 197C-2 between mile points 2.42 and 2.63 in Amador County, California. The replacement work, referred to as R-1408 (L-197C, milepost 2.42), is a federal undertaking that requires compliance from the U.S. Army Corps of Engineers (USACE) as the federal lead agency, Amador County as the California Environmental Quality Act (CEQA) lead agency, and PG&E is the project proponent. Project activities are described in detail in Section 2, Project Description. The California Public Utilities Commission (CPUC) has exclusive authority over the design, siting, construction, and operation of PG&E's gas line facilities.

Under CEQA, the lead agency is the public agency with primary responsibility for carrying out or approving a project that has the potential for resulting, directly or indirectly, in a physical change to the environment (CEQA Guidelines Section 15367). Amador County is the CEQA lead agency.

This document has been prepared in accordance with CEQA and the CEQA Guidelines. An Initial Study (IS) is prepared by a lead agency to determine if a project may have a significant effect on the environment (Cal. Code Regs. Tit. 14, Section 15063, subd. (a)), and thus to determine the appropriate environmental document. In accordance with CEQA Guidelines Section 15070, a "public agency shall prepare…a proposed negative declaration or mitigated negative declaration…when: (a) The Initial Study shows that there is no substantial evidence…that the project may have a significant impact on the environment, or (b) The Initial Study identifies potentially significant , but: (1) Revisions in the project plans or proposals made by or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and (2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment." In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the project would not have a significant effect on the environment, and therefore does not require the preparation of an Environmental Impact Report (EIR). By contrast, an EIR is required when the project may have a significant environmental impact that cannot clearly be reduced to a less than significant effect by adoption of mitigation or by revisions in the project design.

2. Project Description

The project consists of replacing approximately 950 linear feet of gas transmission line L-197C-2 to address an exposure of the pipeline where it crosses Jackson Creek near the community of Buena Vista, located in Amador County. The project includes replacing a portion of PG&E's 4-inch gas pipeline at Jackson Creek with a 4-inch nominal diameter steel gas transmission pipeline via horizontal directional drill (HDD) methods. Once the installation of the replacement pipeline is complete, portions of the existing pipeline would be decommissioned by removing approximately 148 linear feet of exposed pipe within Jackson Creek and slurry filling and retiring in place the approximately 802 feet of the remaining portion of pipeline. Figure 1 shows the project vicinity.

The purpose of PG&E's project is to replace a portion of its natural gas system to address the exposure of the existing pipeline crossing at Jackson Creek to maintain the safety and reliability of PG&E's natural gas system.

2.1 Site Preparation

All unpaved existing access roads and work/staging areas for all activities may require grading or blading to facilitate vehicle and equipment access. Grading and blading would be limited to the minimum necessary to implement the project. Existing access routes are 12 to 60 feet in width and vary by location and proximity to the nearest paved road. No widening of existing access routes will take place as part of project activities. Base rock, timber mats, and/or other matting may be temporarily spread throughout staging/laydown areas, work areas, and access routes to facilitate safe driving and working conditions for large equipment.

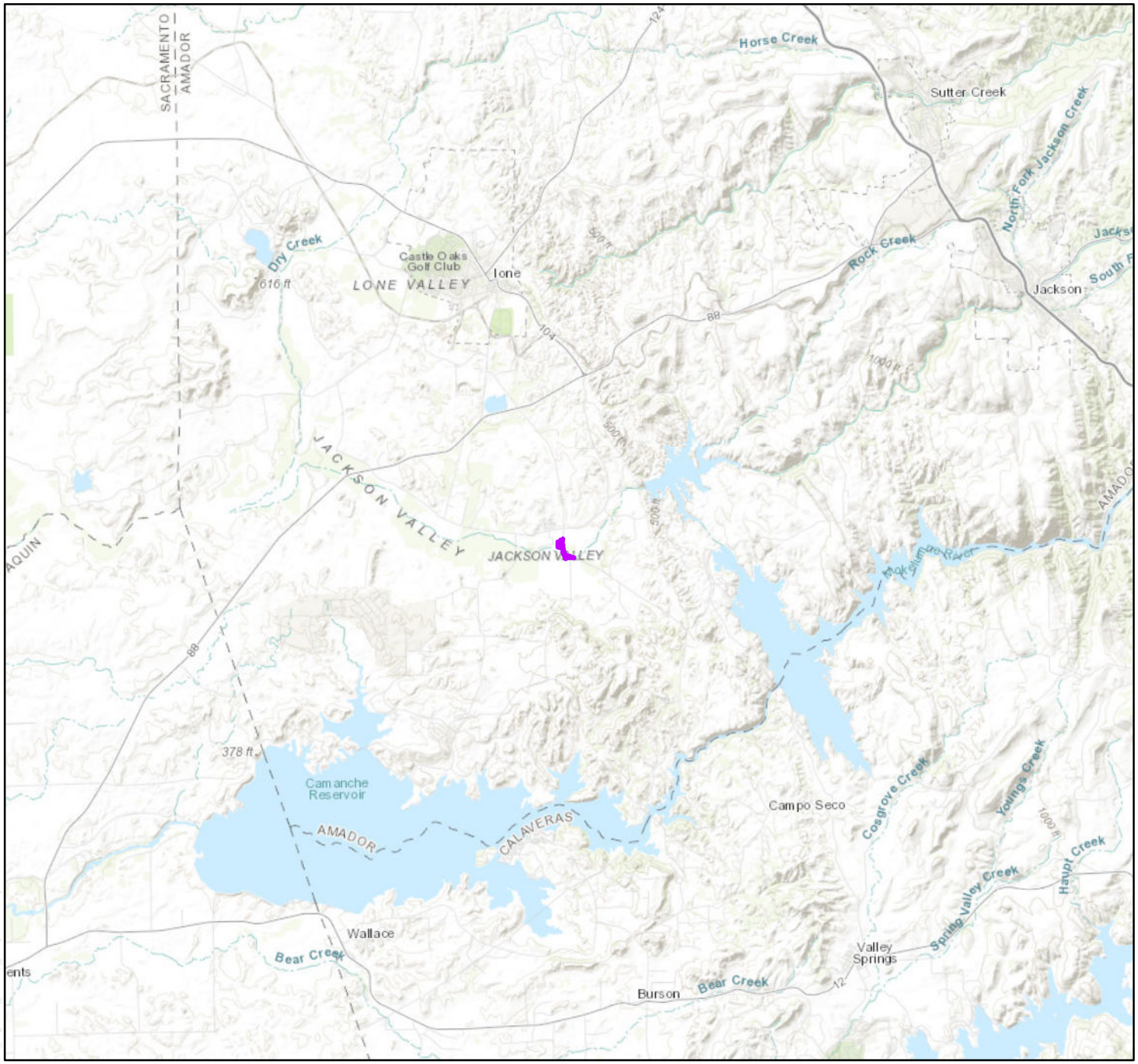
Vegetation management of the work/staging locations and along access routes may require mowing, brush clearing, tree trimming, and tree removal. Vegetative clearing will mainly be conducted through mechanical means, however, clearing within Jackson Creek may be conducted through non-mechanical means such as utilizing non-mechanical weed whackers and string trimmers. In upland areas, vegetation clearing may extend up to 20 feet beyond the temporary fencing that would be installed around workspace boundaries as a fire prevention measure. Tree trimming and removal may be required at discrete areas within the project footprint to facilitate project work, staging, and access.

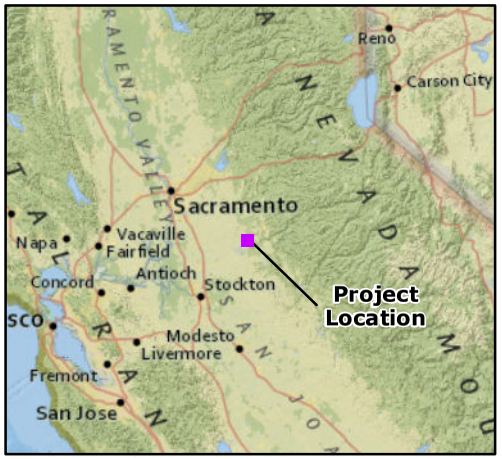
2.1.1 Phase 1 – Installation of Replacement Pipeline

As part of Phase 1 efforts, approximately 950 linear feet of L-197C-2 will be temporarily removed from service and purged of natural gas to facilitate installation of the replacement pipeline. Staging for compressed natural gas support may take place at various locations along the pipeline to provide customers with natural gas while the line is temporarily out of service.

2.1.1.1 Work Areas, Access Roads, and Excavations

Work areas on the north and south side of Jackson Creek would be required in Phase 1 to install and tie in the replacement pipeline. No work will take place within Jackson Creek during Phase 1.





Legend

PGE-R1408 Project

Sources:
1) ESRI World Topographic Map

0 1.185 2.37 4.74
Miles

FIGURE 1
Project Vicinity
PG&E R-1408 Project
Ione, Amador County, CA

01_Figure1_R1408_ProjectVicinity.mxd drubio 2/24/2022 2:38:23 PM

2.1.1.2 Phase 1 – Southern Work Area

Work on the south side of Jackson Creek would take place within an approximate 119,850-square-foot work area located within and along both sides of Buena Vista Road. Access to the southern work area would be via one of two routes, including an existing unpaved access road along the southern edge of the work area south of Buena Vista Road and an existing access road that transitions from paved to unpaved north of Buena Vista Road. Excavations during Phase 1 activities within the southern work area will include one 10-foot-long by 10-foot-wide by 5-foot-deep HDD entry bore pit; one 10-foot-long by 12-foot-wide by 8-foot-deep bell hole north of the entry bore pit to serve as a connector point where the replacement pipeline will be connected to the cross section across Buena Vista Road; one 6-foot-long by 6-foot-wide by 7-foot-deep bell hole to continue to connect the new pipeline across Buena Vista Road; one 40-foot-long by 12-foot-wide by 11-foot-deep bell hole where the replacement pipeline would be tied in to the existing gas transmission system on the northern side of Buena Vista Road; and one 6-foot-long by 6-foot-wide by 8-foot-deep sniff hole 100 feet southeast of the tie-in point. A sniff hole is a safety measure that allows construction personnel to verify that there is no natural gas in the pipeline while work is occurring. In addition, one 130-foot-long by 2-foot-wide by 10-foot-deep trench would be excavated from the 10-foot-long by 12-foot-wide by 8-foot-deep bell hole north of the HDD entry point across Buena Vista Road to the 40-foot-long by 12-foot-wide by 11-foot-deep tie-in point excavation to tie in the new replacement pipe with the existing southern L-197C-2 pipeline system.

2.1.1.3 Phase 1 – Northern Work Area

The northern work area would encompass approximately 291,290 square feet directly west of and along Buena Vista Road. Access to the northern work area would be via an existing paved access route off Buena Vista Road to the southern portion of this work area. Excavations during Phase 1 activities within the northern work area will include a 6-foot-long by 6-foot-wide by 2-foot-deep HDD bore exit pit; one 10-foot-long by 12-foot-wide by 8-foot-deep bell hole south of the bore exit pit to serve as a connector point where the replacement pipeline will be connected to the cross section and tie-in point on Buena Vista Road; one 40-foot-long by 12-foot-wide by 8-foot-deep bell hole for the tie-in point; one 6-foot-long by 6-foot-wide by 6-foot-deep sniff hole 100 feet north of the tie-in point; and one 25-foot-long by 2-foot-wide by 8-foot-deep trench from the connector point to the tie-in point to connect the new replacement pipe with the existing northern L-197C-2 pipeline system.

2.1.1.4 Horizontal Directional Drill Methods

The following is a summary of tasks required to install the proposed replacement pipeline via HDD methods:

- One directional bore drill rig located on the south side of Jackson Creek would be used to conduct a pilot bore. A bore pit (entry/exit pit) would be excavated at each end of the replacement pipeline alignment. The drill rig located directly south of the entry point in the southern HDD workspace would drill a pilot bore to a depth of approximately 27 feet below Jackson Creek extending approximately 950 linear feet north to the exit bore pit. The Inadvertent Return Analysis determined a 27-foot depth would provide sufficient coverage to resist the fluid pressures during the pilot bore operations.

- Following completion of the pilot bore, the drill rig would forward ream to increase the diameter of the downhole pathway to produce an 8-inch-diameter bore, which would provide sufficient free space for the replacement pipeline string to move easily.

- During the HDD drilling, the new 4-inch-diameter pipeline will be strung linearly to the north in the northern workspace and welded in preparation for pull-back. A pre-pull hydrostatic pressure test will be performed on the 4-inch drill pipe. Following drilling operations, the new 4-inch pipeline will be pulled back through the directional drill hole.

- After reaming operations and pipeline string testing are completed, the welded pipeline string (pull section) would be pulled back into the opened hole from the exit (south) side.

- Once HDD installation is complete, the HDD rig will be removed from the southern workspace and the excavation of the trenches to the tie-in points will commence.

2.1.1.5 Pilot Hole Drilling

At the northern and southern HDD drill points, bore pits would be excavated within the designated work areas before the start of drilling. The northern (exit) pit would be approximately 6 feet wide by 6 feet long by 2 feet deep. The southern (entry) pit would be approximately 10 feet wide by 10 feet long by 5 feet deep. Soils excavated from the pits would be stockpiled within the adjacent work areas until construction is complete, then backfilled into the pits. To initiate the HDD, a pilot hole, a small diameter bore that is first drilled before the hole is enlarged for the pipe installation, would be drilled at the southern bore/entrance pit site. To complete the pilot hole, a drill rig would be positioned along the selected directional alignment (azimuth). Next, the bottom hole assembly containing the steering probe would be drilled in at the entrance point. The pilot hole would then be advanced and kept on course by using non-rotating drill string with an asymmetrical leading edge. The drilling progress is achieved by hydraulic cutting action using nozzles configured at the apex of the drill head. The actual path of the pilot hole would be monitored during drilling by taking periodic readings of the inclination and azimuth of the leading edge using a tracking system used to calculate the horizontal and vertical coordinates relative to the initial entry point on the surface.

If drilling fluid circulation is poor in the shallow portion of the pilot hole near the bore pits, pilot hole drilling would be paused, and the drill string removed. The initial pilot bore would be enlarged by reaming, and a short steel casing would be pushed into the enlarged pilot bore from the drill rig. Once the casing is installed, the drill string would be reinserted into the drill hole through the casing and drilling would resume, allowing the drilling fluid to return to the bore pit through the casing.

Water and drilling fluid additives such as bentonite clay would be mixed together and added to the circulating drilling fluid as the drill string advances and increases the volume of the borehole, which must remain filled with drilling fluid. Fresh water (typically water suitable for agricultural use or potable water, depending on availability) would be trucked from an offsite source and deposited in a portable water tank at the drill site. Drilling fluid would be constantly circulated in a loop during the drilling process. Starting at the drill head, the pressurized drilling fluid inside the drill pipeline exits through nozzles in the drill head and sweeps cuttings (solids such as gravel, sand, and silt dislodged by the drill head) away from the drill head. The cuttings-laden drilling fluid then flows back through the borehole to the bore pit. The pit pump then moves the cuttings-laden drilling fluid from the bore pit to the reclaimer. The reclaimer separates the cuttings from the drilling fluid using screens and hydro-cyclones, which are metal cones that use circular motion (centripetal force) to separate solids (drill cuttings) from the drilling fluid. Cuttings are moved from the reclaimer to the cuttings bins to be temporarily stored prior to being trucked offsite for disposal. Reclaimed drilling fluid is then pumped back into the drill string to return to the drill head and start the cycle over again.

To minimize the potential for inadvertent release (unplanned movement outside the drill hole), the HDD contractor would mathematically model the drilling fluid in use and calculate the expected annular pressure for the length of the drilled hole. The annular pressure would be monitored and continuously recorded during drilling of the pilot hole using an electronic sensor package.

2.1.1.6 Reaming and Hole Opening

After the drilling of the pilot hole has been completed, the pilot hole would be enlarged using a reaming process. This process involves repeatedly introducing larger diameter reamers into the hole until it reaches a diameter of 8 inches, which would provide sufficient free space for the replacement pipeline string to move easily. The reaming tools consist of a circular set of cutters and drilling fluid jets. Drilling fluid composed of nontoxic compounds, such as bentonite, would be used to help ream the pilot holes. The pressurized drilling fluid serves three purposes: to cool the cutting tools, support the reamed hole, and lubricate the trailing drill pipe. The drilling fluid returns coming back to the drill rig side would be pumped to the reclaimer and recirculated.

2.1.1.7 Pipeline String Assembly and Pre-HDD Strength Testing

The approximately 950-foot-long pipeline string would be assembled from 40-foot sections of pipeline (delivered by flatbed truck) and laid out on rollers along the approximately 850-foot-long pipeline string layout area. To level the rollers, they would be dug into place on bare ground or placed on shims. The pipeline would be welded together and tested for strength, and a measuring instrument would be used to verify the welded inside diameter. The welded pipeline string would be hydrostatically tested by filling the string with water, pressurizing the water, and monitoring for pressure changes. The purpose of this initial test is to identify any issues when repairs are easier to perform prior to pulling the pipeline string into the drill hole. However, final testing would be conducted after pipeline tie-in. Water used for initial hydrostatic testing would be stored onsite and reused for the final hydrostatic test. Once the pipeline string has passed hydrostatic testing, a fusion-bonded epoxy pipeline coating would be applied as the primary line coating for corrosion protection. Additionally, an abrasion resistant coating would also be applied as a layer on top of the corrosion protection coating before the pipeline is pulled through the HDD borehole.

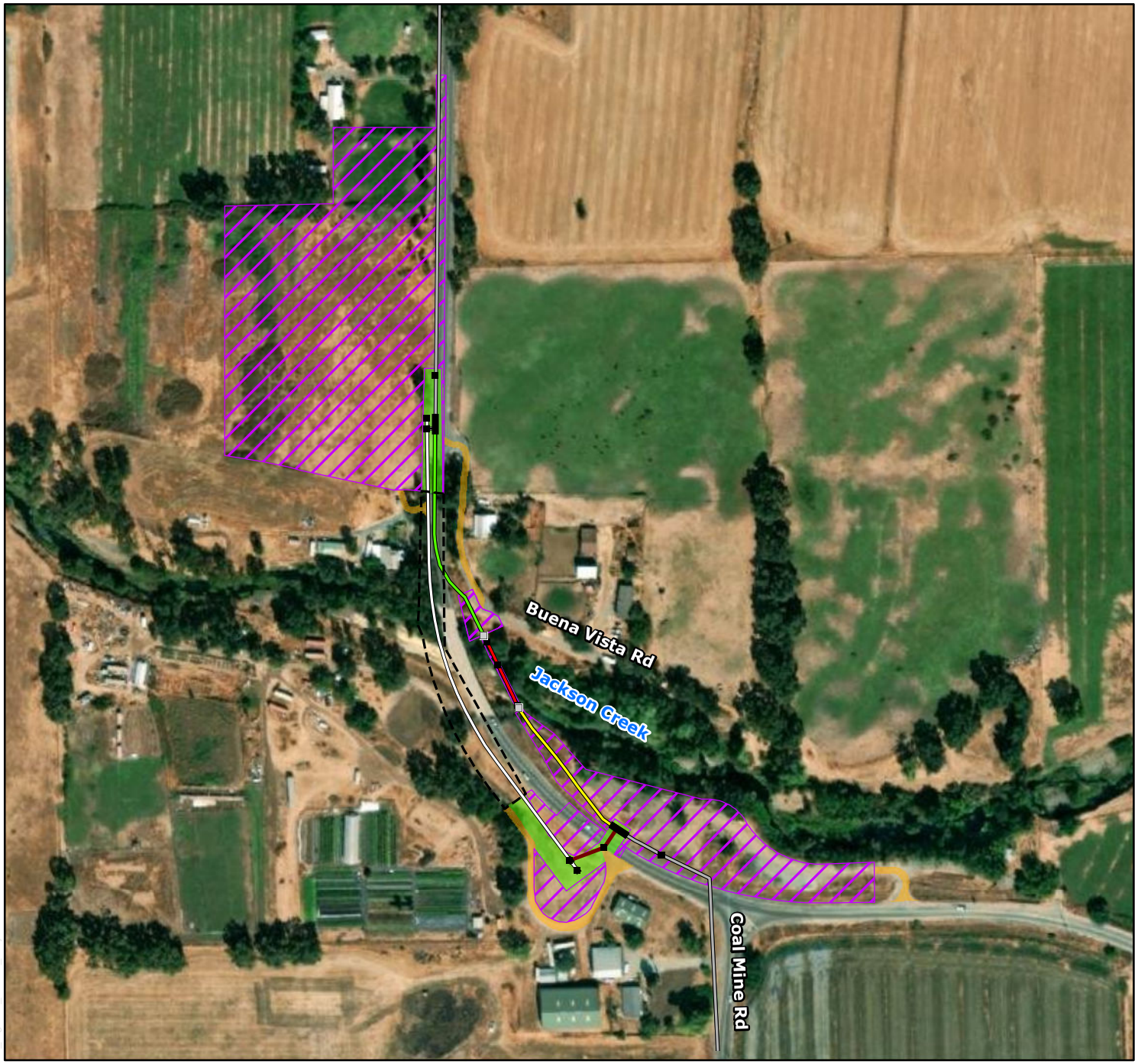
2.1.1.8 Pipeline Pull-back Procedure

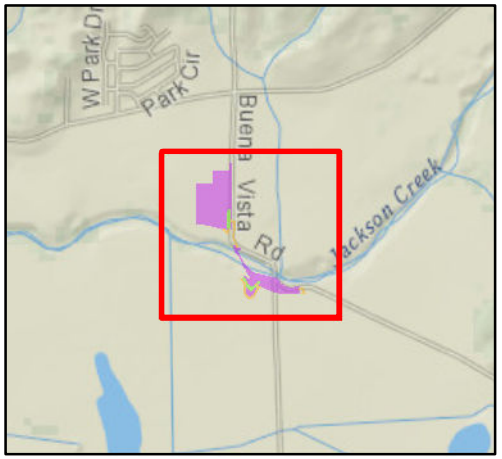
After reaming operations and pipeline string testing are completed, the welded pipeline string (pull section) would be pulled back into the opened hole from the exit (north) side. The pull-back process is similar to the reaming phase except that a reamer would be used to pull the pipeline string back through the bore hole to the north side of the creek crossing. A swivel would connect the pull section to the reamer thus minimizing torsion forces transmitted to the pull section. The pull section would be supported by positioned pipeline rollers located north of Jackson Creek. Side boom pipelayers with cradles would support the pipeline entering the bore hole. The lead side boom pipelayer would be used to align the pipeline so that it is pulled through the borehole at the same angle as the exit hole.

2.1.1.9 Pipeline Tie-In and Post-HDD Strength Testing

The replacement pipeline would tie-in to the existing L-197C-2 pipeline system north and south of Jackson Creek in the upland area adjacent to Buena Vista Road. The northern tie-in would occur at Buena Vista Road approximately 1,150 feet northwest of the intersection of Buena Vista Road and Coal Mine Road and approximately 20 feet southeast of the exit bore pit, within the northern work area as shown on Figure 2. A 25-foot-long by 2-foot-wide by 8-foot-deep trench would be required to connect (weld) the replacement pipeline segment to the existing northern L-197C-2 network at the northern tie-in point. The northern pipeline tie-in would require a temporary excavation of approximately 40 feet long by 12 feet wide by 8 feet deep to expose the existing pipeline and provide space for welding and valve installation. The southern tie-in would occur approximately 300 feet northwest of the intersection of Buena Vista Road and Coal Mine Ride and approximately 115 feet northeast of the entry bore pit, within the southern work area shown on Figure 2. A 130-foot-long by 2-foot-wide and 10-foot-deep trench would be required to weld the replacement pipeline segment to the southern tie-in point and the existing southern L-197C-2 transmission network. The southern pipeline tie-in would require a temporary excavation of 40 feet long by 12 feet wide by 11 feet deep to expose the existing pipeline and provide space for welding and valve installation.

The entire replacement pipeline segment installed in Phase 1 between the two tie-in points, including the HDD and trench installed segments, would be hydrostatically tested according to federal and PG&E standards. The newly installed pipeline will also be pressurized with natural gas up to 100 pounds per square inch gauge and a soap test will be performed on all welds that were not included in the hydrostatic test. A soap test is conducted by submerging the pipeline in a tank of water infused with soap; leaks are identified by the presence of bubbles where any hole is. Newly installed pipe will be pressurized with natural gas up to normal operating pressure and a soap test will be repeated on all welds previously soap-tested. Once all testing is complete, backfilling and restoration would commence, and the gas system will then be put back in service and gas will flow through the newly installed line.





Legend

- Cut Point
- Proposed L-197C-2
- Northern Slurry Filled Segment (Existing L-197C-2)
- Pipe Removal From Jackson Creek (Existing L-197C-2)
- Southern Slurry Filled Segment (Existing L-197C-2)
- Existing Pipe Alignment
- Bellhole
- Trench
- PG&E Easement
- Existing Access
- Workspace Within Proposed PG&E Easement
- Workspace

Sources:
1) ESRI World Imagery Basemap

N

0 150 300 600
Feet

FIGURE 2
Project Location
PG&E R-1408 Project
Ione, Amador County, CA

2.1.1.10 Pipeline Markers

Once the testing of the new pipe is complete, approximately five pipeline markers would be installed along the replacement pipeline alignment in areas that would not interfere with agricultural cultivation and outside of jurisdictional areas, such as wetlands. The pipeline markers would be striped orange and white and extend at least 7 feet above grade. Excavations for the pipeline markers will be approximately 14 inches in diameter to a depth of approximately 31 inches below ground surface. The pipeline markers will be installed after the completion of Phase 1.

2.1.2 Phase 2 – Decommissioning of Existing Pipeline

Decommissioning would begin by pigging and flushing the remaining pipeline segments to remove any potential contaminants. Specific segments would be removed, and specific segments would be slurry-filled, as shown on Figure 2. The total length of L-197C-2 to be removed in Phase 2 is approximately 148 feet.

The decommissioning of the existing pipeline will not begin until a clearance has been taken on the existing line and the newly installed pipeline has been tied in and put in service. Work within Jackson Creek would take place during the dry season when water is not expected to be present; however, dewatering may be required at the northern bank excavation via a pipe cutting sump box and is explained in greater detail in the following sections.

2.1.2.1 Work Areas, Access Roads, and Excavations

Decommissioning of the existing pipeline would take place within an 85,040-square-foot work area south of Jackson Creek and north of Buena Vista Road also used during Phase 1 project activities. A 10-foot-wide by 165-foot-long workspace located within Jackson Creek would also be required to access and remove the existing exposed pipeline. There would also be a 4,760-square-foot workspace north of Jackson Creek to provide equipment support to the northern excavation cut and cap in Jackson Creek and to allow for equipment to lift and dislodge the pipe from the creek bed for removal. The removal of the pipeline within Jackson Creek will require one 15-foot-long by 6-foot-wide by 6-foot-deep excavation in the southern bank of Jackson Creek and one 6-foot-long by 6-foot-wide by 6-foot-deep excavation at the northern bank of Jackson Creek. If there is excessive soil resistance against the pipe being lifted from Jackson Creek, an additional 1-foot-wide by 12-foot-long by 1-foot-deep excavation will be made near the center of the removal within the creek where the pipe has approximately 1 foot of cover. There will be temporary disturbance associated with the pipe removal along the existing pipeline within the 10-foot-wide and 165-foot-long workspace within Jackson Creek.

Access to the 85,040-square-foot work area would be via the same existing paved access road north of Buena Vista Road used during Phase 1. Access to the 4,760-square-foot workspace will be provided via an existing paved access road from Buena Vista Road north of Jackson Creek to facilitate foot traffic only to the workspace within Jackson Creek.

2.1.2.2 Pigging and Flushing

The first operation to be performed as part of Phase 2 decommissioning would be the testing or “pigging” and flushing of the existing L-197C-2 pipeline segments to remove contaminants. A “pig” is a pipeline inspection gauge or gadget used to perform various maintenance operations; such as cleaning the pipeline. In preparation for this activity, a pig launcher would be installed at the Phase 1 northern tie-in point within the northern work area (refer to Figure 2) along Buena Vista Road and a receiver would be installed at the Phase 1 southern tie-in point within the southern work area along Buena Vista Road. Temporary tanks, piping, pumps, and other water handling equipment would be set up within the staging areas and connected prior to any pigging and flushing operations. Approximately 600 gallons of freshwater would be required for pigging and flushing. This water would be supplied and trucked from a local well if authorized by the owner. Alternatively, water would be trucked to the project site from a potable water source within 20 miles of the site.

The existing pipeline would be pigged until the flush water is found to have a total petroleum hydrocarbon (TPH) content of less than 15 parts per million (ppm). The pigging would be performed in pig runs consisting of a three-pig train using a mixture of freshwater and surfactant pushed by a “pill” inserted between the first and second pigs. The volume of water required to push the pigs all the way through the pipeline is approximately 600 gallons. Therefore, two pig runs are estimated to consume about 300 gallons of water. Flush water generated by pigging and flushing operations would be fully contained within piping, valves, and temporary tanks. The release of flush water to the environment from the pipeline is not anticipated because the flushing would be conducted at much lower pressures than what are currently present in the active pressurized pipeline. Flush water samples would be taken after each run and sent to a State-certified testing laboratory to measure TPH in the sample. Additional pig runs would be conducted as needed until flush water sample test results indicate that TPH is below 15 ppm.

2.1.2.3 Decommissioning Methods/Pipeline Removal

Decommissioning methods for the pipeline crossing under Jackson Creek are discussed in the following segments. Figure 2 provides the location of the pipeline segment to be decommissioned.

The pipeline crossing under Jackson Creek will be decommissioned as follows:

- Northern Slurry-Filled Segment – Fill approximately 476 feet of existing pipeline (from mile point [MP] 2.414 to 2.504) with cement slurry from the northern tie-in location in Buena Vista Road, through Buena Vista Road, and terminating at a point in the northern creek bank where the pipe has a minimum of 1 foot of cover below the existing grade and abandon in place.

- Southern Slurry-Filled Segment – Fill approximately 326 feet of existing pipeline (from MP 2.532 to 2.592) with cement slurry from the termination point on the southern creek bank to the southern tie-in location along Buena Vista Road and abandon in place.

- Removal of Exposed Pipe from Creek Crossing – Remove the exposed pipeline (approximately 148 feet from MP 2.504 to MP 2.532) in its entirety from the termination of the northern slurry-filled segment to the southern creek bank. The pipe will be mechanically excavated at the northern and southern cut points as described in the following paragraph and will be mechanically lifted from the creek. If there is excessive soil resistance against the pipe being lifted, an additional 1-foot-wide by 12-foot-long by 1-foot-deep excavation will be made near the center of the removal within the creek where the pipe has approximately 1 foot of cover. The pipe will be pulled to the southern workspace where it will be cut into sections and disposed of. Upon completion of the pipe removal, the excavated area will be returned to the original grade.

To remove the 148 feet of pipeline from Jackson Creek, 15 linear feet of pipeline will be mechanically excavated by an excavation 15 feet in length, 6 feet in width, and 6 feet in depth to a location where the existing pipe has 5 feet of cover in the southern bank. The northern cut point on the north bank of Jackson Creek will be 6-feet-long by 6-feet-wide by 6-feet-deep. If dewatering of the northern cut point excavation is required, a sump box will extend approximately 2 feet below the pipe at the northern excavation cut point to allow room for tools to work around the pipe. The approximately 148 feet of pipe will be removed by mechanically lifting the pipe at the northern and southern cut points via excavators staged within the approximate 85,040-square-foot workspace south of Jackson Creek and within the approximate 4,760-square-foot workspace north of Jackson Creek. If there is excessive soil resistance against the pipe being lifted, an additional 1-foot-wide by 12-foot-long by 1-foot-deep excavation will be made near the center of the removal within the creek where the pipe has approximately 1 foot of cover. The pipe will be pulled via excavator to the southern workspace for sectioning and disposal. The workspace north of Jackson Creek will also provide equipment support to the excavation and cut and cap within the northern bank of the creek and to lift and dislodge the pipe from the creek bed for removal. Some hand digging at the excavation locations may occur as necessary.

Limited dewatering may be necessary at the northern cut/cap excavation location (via pipe cutting sump box) and will not require creek diversion. If dewatering is required, the pipe cutting sump box will be

installed as follows: once the creek bottom is excavated to expose the pipe and adequate working space on the sides and below the pipe, a two-part box will be constructed that can be fitted around the pipe. The box will have seals where the pipe penetrates the box and where the halves of the box come together to minimize water leakage into the box. Once the box is in place, a submersible pump will be placed inside the box structure and water will be pumped out of the box to create a semi-dry working area and to contain any cuttings or coating that will be dislodged from the pipe when the pipe is cut and the dresser fitting is installed. Water removed from the box will be plumbed via flexible hose to a tank to contain discharged water for testing and disposal. Once the pipe is cut and the cap installed, any debris will be removed from the box. The box will then be removed, and work will proceed with the pipe removal within the creek and slurry filling of the abandoned pipe segment north of the creek.

Silt curtains may also be required at all excavations within the Jackson Creek area for sedimentation control and turbidity. After pipeline removal operations have been completed, all excavations will be backfilled, compacted, and returned to approximate pre-project contours.

2.1.3 Water, Groundwater, and Wastewater Management

The amount of groundwater generated by the project will depend in part on how much rainfall there is in the winter and spring leading up to mobilization and the water level in Jackson Creek. With reported groundwater at 15 feet below ground surface in the project area, groundwater is not anticipated to be encountered in the HDD pits. If groundwater is encountered during the HDD, the water would be managed as wet spoils on either end of the bore and staged in low-profile wet spoils bins pending testing/characterization for off-haul and proper disposal. Groundwater may also be encountered in trenches/excavations in or adjacent to Jackson Creek during decommissioning. Groundwater encountered within trenches/bell holes will be adaptively managed depending on volume encountered during construction and the pipe cutting sump box will be used at the northern cut point excavation within Jackson Creek as necessary. In addition, groundwater encountered within trenches and bell holes will be adaptively managed depending on the volume encountered during construction: if the daily dewatering volume is relatively low, then the groundwater will be beneficially reused onsite or within the temporary construction easement(s) (TCEs) and workspaces for dust suppression; if daily dewatering volume is substantial, then groundwater in excess of the volume that can reasonably be used for dust suppression will be used as general irrigation on an approved upland location and/or discharged to Jackson Creek downstream of the work area. Both land and surface water discharges of construction groundwater are authorized under the Statewide General Order for Discharges from Natural Gas Utility Construction, Operations and Maintenance Activities (Order WQ 2017-0029-DWQ; General Order).

Prior to discharge, dewatered groundwater will be transferred into onsite steel fractionation tanks, where particulate settling will occur. At a minimum, groundwater will be passed through particulate filtration prior to discharge. Prior to any discharge to Jackson Creek, groundwater quality will be evaluated to ensure effluent limits of the General Order will be met. If necessary, to meet effluent limitations, groundwater may be passed through granular activated carbon following filtration to remove particulates.

The General Order requires all discharges to comply with program-level best management practices (BMPs) and a control strategy plan. Land and/or surface water discharges performed under the General Order will implement applicable measures identified in PG&E's BMPs and control strategy plan. The project will also implement applicable monitoring and reporting requirements of the General Order.

Source water for hydrotesting may be supplied and trucked from a local residential or agricultural well if authorized by the owner. Alternatively, water may be trucked to the site from a local offsite source.

The water collected from the hydrostatic testing and pigging and flushing operations will be stored in temporary tanks separately from groundwater and would be tested to characterize the type and concentrations of any contaminants. The test results would be used to determine whether the water should be treated onsite, transported to an offsite wastewater treatment facility, or a combination thereof (onsite pretreatment, then transportation). It is assumed that hydrostatic test water would be trucked to a wastewater treatment facility for disposal. If it is determined that water could be treated and released onsite, authorization under a National Pollutant Discharge Elimination System (NPDES) permit would be

obtained for discharge of treated hydrostatic test water. Discharge to land may be authorized under statewide General Order WQO-2003-003, while discharge to surface waters may be authorized under General Order R5-2016-0076-01 (NPDES No. 4 CAG995002). The treated water would be tested as required by permit conditions. If needed, hydrostatic test water would be stored onsite until permit authorization is obtained.

Residual drilling fluid and solids would be disposed of by trucking to an appropriate waste disposal site. It is assumed that residual drilling fluid and cuttings would be considered nonhazardous waste and would be trucked to a solid waste facility.

2.1.4 Site Restoration

Following the completion of all project activities identified in the previous sections, all excavations would be backfilled and construction material and debris would be removed and disposed of at appropriate permitted landfills within 4 weeks of the completion of construction activities. All work areas, including unpaved or non-graveled access routes as well as Jackson Creek, would be restored to approximate pre-project contours and conditions. Base rock that is laid down would generally be removed upon project completion, although it may also remain in areas that have been previously rocked or if landowners ask that the rock to remain. Site restoration will be required to close out stormwater construction permits associated with this project. PG&E's Environmental Management team is responsible for completing softscape restoration within 14 days following demobilization.

The native topsoil that was segregated from the subsoil would be re-spread over excavation locations to help re-establish the vegetation that was present at each site before construction; PG&E's Environmental Management team recommends that native topsoil (0 to 12 inches) be conserved to maintain the natural seed bank. In addition, the project environmental field specialist's crew will hydroseed the disturbed areas with a weed-free, native seed mix to accelerate growth, but restoration depends heavily on nature's cooperation (wet winters/rain). This seed mix would be applied to the disturbed work areas but would not be applied to preexisting access routes or within Jackson Creek. Modifications to the seed mix may be required based on seed availability. Sloped areas may require the installation of biodegradable jute netting and/or slope breaks with biodegradable fiber roll to reduce erosion.

3. Environmental Impact Assessment

3.1 Introduction

The evaluation of environmental impacts provided in this section is based on the environmental setting (also referred to as the "existing conditions") and environmental impact questions contained in Appendix G of the CEQA Guidelines. The CEQA impact levels include potentially significant impact, less-than-significant impact with mitigation measures, less-than-significant impact, and no impact. This checklist identifies physical, biological, social, and economic factors that might be affected by the project. Checklist questions applicable to each topic are included at the beginning of each subsection.

3.2 Aesthetics

Would the Project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	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 nonurbanized 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 that would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.2.1 Introduction

This section describes the existing physical conditions within the project locations and concludes that any changes to the visual landscape would be less than significant.

3.2.2 Regulatory Setting

3.2.2.1 Federal

National Scenic Byways Program

Under the National Scenic Byways Program, a program of the U.S. Department of Transportation Federal Highway Administration (FHWA), certain roads are recognized as National Scenic Byways based on their archaeological, cultural, historic, natural, recreational, and scenic qualities. A road must have at least one intrinsic quality of regional significance to be considered for National Scenic Byway status. FHWA requires that a corridor management plan be submitted when applying for National Scenic Byway status, outlining a strategy for achieving goals and providing a framework for integrating planning efforts within the corridor to ensure the intrinsic qualities are protected.

3.2.2.2 State

California State Scenic Highway Program

The California Department of Transportation (Caltrans) manages the California Scenic Highway Program. The goal of the program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. For designated highways, Caltrans requires that local jurisdictions prepare and implement a monitoring program that reviews and enforces scenic-corridor protection measures to preserve scenic views. Under the scenic-corridor protection program, a city or county must adopt ordinances, zoning, and/or planning policies to preserve the scenic quality of the corridor, or document that such regulations already exist in various portions of local codes. The regulations should be written in sufficient detail to avoid broad discretionary interpretation and demonstrate a concise strategy for effectively maintaining the scenic character of the corridor. The local agency is required to report to Caltrans once every 5 years on the success and continued enforcement of the protection measures.

Caltrans requires developers of projects located adjacent to a state scenic highway to consult with the agency to determine whether the project would constitute a minor, moderate, or major intrusion on the scenic quality of the corridor. A minor intrusion is one that either is complementary to the landscape or is recognized for its cultural or historical significance (for example, widely dispersed buildings with visual screenings). A moderate intrusion is one that is integrated into the landscape and does not degrade or obstruct scenic views (for example, orderly and well-landscaped developments with or without roadway screening). A major intrusion is one that dominates the landscape and degrades or obstructs views (for example, dense and continuous development that dominates the view).

3.2.2.3 Local

Because CPUC has exclusive jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary regulations. This section includes a description of local plans and policies related to aesthetic resources and is provided for informational purposes and to assist with CEQA review.

Amador County General Plan

The purpose of the Open Space Element of the Amador County General Plan was developed in part to help maintain the County's scenic beauty. The purposed of the Open Space Element is to identify goals, policies, and implement measures that manage, conserve, and enhance these resources for current and future residents and visitors.

3.2.3 Existing Conditions

The project site is situated within Jackson Creek and along Buena Vista Road, northwest of Coal Mine Road that features moderate to dense riparian tree cover. The project work areas to the north and south of the Jackson Creek crossing consist predominately of irrigated pasture, grazing land, and disturbed gravel road surface.

There are no designated scenic highway corridors within or near the project area. The southeast portion of SR 88 that Caltrans has designated as a scenic highway corridor is approximately 28 miles from the project site.

3.2.4 Impacts

Scenic Vistas and Visual Character: For the purposes of determining significance under CEQA, a scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Scenic vistas are often designated by a public agency. A substantial adverse impact on a scenic vista would be one that degrades the view from such a designated location. The

project area does not include any designated public viewing areas or areas where the surrounding aesthetic elements are an identified vantage point. Therefore, there would be **no impact**.

Scenic Highways: The project is not located within a designated scenic highway corridor; therefore, there would be **no impact**.

Light and Glare: No new facilities or structures would be developed as part of the project; therefore there would be no permanent impacts from new sources of light or glare. Construction equipment and activities could result in a temporary increase in light and glare sources at the identified project locations. However, temporary lighting would be shielded and directed downward if night work was required. Therefore, impacts from light and glare would be **less than significant**.

3.2.5 Mitigation

None required.

3.3 Agriculture and Forest Resources

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program, 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 PRC §12220(g)), timberland (as defined in PRC §4526), or timberland zoned Timberland Production (as defined by Government Code § 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.3.1 Introduction

This section describes agricultural and forestry resources within the project area and analyzes potential impacts on these resources from construction and operation of project facilities. Based on the following evaluation, the project would cause a less than significant impact on agriculture or forestry resources with mitigation measures incorporated.

3.3.2 Regulatory Setting

3.3.2.1 State

California Land Conservation Act (Williamson Act)

In 1965, the California State Legislature enacted the California Land Conservation Act, or Williamson Act, to encourage the preservation of the state's agricultural lands and to prevent their premature conversion to non-agricultural uses. To preserve agricultural uses, the Williamson Act program established an agricultural preserve contract procedure by which any local jurisdiction within the state would tax agricultural landowners at a reduced rate, based on the value of the land for its current use as opposed to its unrestricted market value. In return, the landowners would sign a Williamson Act contract with the local jurisdiction, agreeing to keep their land in agricultural production or another approved compatible use for at least a 10-year period. The contract is renewed automatically each year unless the owner files a notice of non-renewal with the county clerk. In addition, a landowner has the option to file for immediate cancellation of the contract as long as the proposed immediate cancellation application is consistent with the cancellation criteria provided in the California Land Conservation Act and those adopted by the applicable county or city. Lands that qualify as Class I and Class II in the Soil Capability Classification System or lands that qualify for a rating of 80 to 100 in the Storie Index Rating are considered to be Prime Agricultural Land under the Williamson Act.

An "agricultural preserve" as defined by the California Department of Conservation defines the boundary of an area within which a city or county will enter into a Williamson Act contract with landowners. The Williamson Act states that a board or council by resolution shall adopt rules governing the administration

of agricultural preserves. The rules of each agricultural preserve state the allowed uses. Generally, any commercial agricultural use will be permitted within any agricultural preserve. In addition, local governments may identify compatible uses permitted with a use permit.

California Government Code Section 51238 states that, unless otherwise decided by a local board or council, the erection, construction, alteration, or maintenance of gas and other facilities are determined to be compatible uses within any agricultural preserve.

3.3.2.2 Local

Because CPUC has exclusive jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary regulations. This section includes a description of local plans and policies related to agriculture and forestry resources which is provided for informational purposes and to assist with CEQA review.

Amador County Right-to-Farm Ordinance

The Agricultural Lands and Operations Disclosure (Ordinance Code 1504, Title 19, Chapter 19.80) implements Amador County's Right-to-Farm ordinance. The purpose of this ordinance is to promote the general health, safety, and welfare of the County and to preserve and protect those lands, however zoned, where agricultural operations do or may occur; to support and encourage the continued agricultural operations in the County; and to warn prospective purchasers and residents of property adjacent to agricultural operations of the inherent problems associated with the agricultural uses, including but not limited to, noise, dust, odor, smoke, fertilizers, and pesticides that may accompany agricultural operations.

Sellers of any parcel located in the unincorporated area of the County, however zoned, and whether improved or unimproved, are required to disclose the Right-to-Farm ordinance provisions to prospective buyers as part of real estate transactions.

3.3.3 Existing Conditions

The project is located near Buena Vista in Amador County, California, along natural gas pipeline L-197C-2 within Jackson Creek and along Buena Vista Road and Coal Mine Road. Land uses surrounding the project area are predominately rural agriculture. The project site includes a northern work area, the portion of the project site that crosses Jackson Creek, and a southern work area. The northern work area consists mostly of irrigated pasture, cattle grazed and un-grazed grasslands with patches of vegetation, and rural residential properties. The portion of the project site that crosses Jackson Creek includes moderate to dense riparian tree cover. The southern work area consists mostly of grassland and disturbed gravel road surface. The project site is located in an area designated as "Grazing" or "Other Lands" on the Amador County Important Farmland 2018 map, published by the California Department of Conservation, Division of Land Resource Protection (California Department of Conservation 2019a).

3.3.4 Impacts

Farmland Conversion: The project will not result in the conversion of Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance to other uses. The project site is located in an area designated as "Grazing" or "Other Lands" on the Amador County Important Farmland 2018 map. There will be **no impact** on the farmlands identified in this section.

Williamson Act: The project does not include land subject to a California Land Conservation Act contract. The project does not conflict with existing zoning for agricultural use or a Williamson Act contract. Therefore, there will be **no impact**.

Timberland Zoning and Zoning for Forest Lands: The project site is not located in an area zoned for forest land, timberland, or a Timberland Production Zone. The project does not propose the rezoning of

land designated as forest land timberland, or Timberland Production Zone. Therefore, there will be **no impact** on timberland zoning or zoning for forest lands.

Loss or Conversion of Forest Lands: The project area is not designated as forest land, and no timberland uses currently exist onsite. The project, from both a construction and operational perspective, would not introduce a new use that would result in the loss of or the conversion of forest land to a non-forest land use. Therefore, there will be **no impacts** related to the loss or conversion of forest land.

Other Changes Resulting in Farmland or Forest Conversion: The lack of farmland or forest resources on the project precludes conversion or loss of significant agricultural or forest areas. There will be **no impact**.

3.3.5 Mitigation

None required.

3.4 Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	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?	☐	☐	☒	☐

3.4.1 Introduction

This section describes the air quality and regulatory setting in the area of the project and evaluates potential air quality impacts from project activities. This analysis concludes that project activities would result in less than significant impacts related to criteria air pollutant and toxic air contaminant (TAC) emissions.

3.4.2 Regulatory Setting

3.4.2.1 Federal and State Regulations

Federal air quality policies are regulated through the federal Clean Air Act (CAA). The U.S. Congress adopted the CAA in 1970 and passed amendments to the CAA in 1977 and 1990. Pursuant to the CAA, the U.S. Environmental Protection Agency (USEPA) establishes and periodically updates nationwide air quality standards to protect public health and welfare, with an adequate margin of safety. The National Ambient Air Quality Standards (NAAQS), promulgated in Title 40 of the *Code of Federal Regulations* (CFR) Part 50, establish protective limits on allowable atmospheric concentrations for criteria pollutants, including ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), particulate matter less than 10 micrometers in aerodynamic diameter (PM_{10})/particulate matter less than 2.5 micrometers in aerodynamic diameter ($PM_{2.5}$), sulfur dioxide (SO_2), and lead. The NAAQS include primary standards to protect public health and secondary standards to protect public welfare.

The California Air Resources Board (CARB) regulates emissions from mobile sources throughout the state and oversees implementation of the state air quality laws and regulations, including the California Clean Air Act (CCAA). The CCAA, which was approved in 1988 and amended in 1992, established the California Ambient Air Quality Standards (CAAQS). States are required to adopt standards that are at least as stringent as the NAAQS. CAAQS include standards for the same criteria pollutants as the NAAQS, as well as visibility-reducing particulates, sulfates, hydrogen sulfide, and vinyl chloride. NAAQS and CAAQS are listed in Table 3-1.

Table 3-1. National and California Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS[b]	NAAQS[a]	
			Primary[c]	Secondary[d]
O_3	8 hours 1 hour	0.070 ppm 0.09 ppm	0.070 ppm –	0.070 ppm –
PM_{10}	Annual arithmetic mean 24 hours	20 µg/m^3 50 µg/m^3	– 150 µg/m^3	– 150 µg/m^3
$PM_{2.5}$	Annual arithmetic mean 24 hours	12 µg/m^3 –	12 µg/m^3 35 µg/m^3	15 µg/m^3 35 µg/m^3
CO	8 hours 1 hour	9.0 ppm 20 ppm	9 ppm 35 ppm	– –
NO_2	Annual arithmetic mean 1 hour	0.03 ppm 0.18 ppm	0.053 ppm 0.100 ppm	0.053 ppm –
SO_2	24 hours 3 hours 1 hour	0.04 ppm – 0.25 ppm	– – 0.075 ppm[e]	– 0.5 ppm –
Lead[f]	Calendar quarter Rolling 3-month average 30-day average	– – 1.5 µg/m^3	1.5 µg/m^3 (certain areas) 0.15 µg/m^3 –	1.5 µg/m^3 – –
Visibility-reducing particles	8 hours	[g]	–	–
Sulfates	24 hours	25 µg/m^3	–	–
Hydrogen sulfide	1 hour	0.03 ppm	–	–
Vinyl chloride[f]	24 hours	0.01 ppm	–	–

Source: CARB 2016

[a] NAAQS other than ozone, particulate matter, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, is equal to or less than the standard.

[b] CAAQS for ozone, CO (except Lake Tahoe), SO_2 (1-hour and 24-hour), NO_2, and suspended particulate matter (PM_{10}, $PM_{2.5}$, and visibility-reducing particles) are not to be exceeded. All others are not to be equaled or exceeded.

[c] NAAQS Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[d] NAAQS Secondary Standards: The levels of air quality necessary to protect the public welfare from known or anticipated adverse effects of a pollutant.

[e] Final rule signed June 2, 2010. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 parts per billion.

[f] CARB has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure for adverse health effects determined. CARB made this determination following the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[g] In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Note:

µg/m^3 = microgram(s) per cubic meter

USEPA works with the states to monitor ambient air quality concentrations and classify or designate air basins (or portions thereof) as either “attainment” or “nonattainment” with respect to each national air quality standard. Those areas of the country where air quality does not meet the NAAQS for one or more pollutants are identified as nonattainment areas. For these areas, the states are required to formulate and submit a State Implementation Plan to USEPA to detail how the state will attain and maintain the NAAQS within the required time frame.

The State Implementation Plan serves as a tool to help avoid and minimize emissions of nonattainment criteria pollutants and their precursor pollutants, and to achieve compliance with the NAAQS. In any area where monitored ambient concentrations exceed the NAAQS or CAAQS, the CCAA requires the local air district to prepare an air quality management plan to achieve compliance with the standards.

In addition to the criteria air pollutants, the federal and state agencies also regulate emissions of hazardous air pollutants, or TACs. TACs include airborne inorganic and organic compounds that can have both short-term (acute) and long-term (carcinogenic, chronic, and mutagenic) impacts on human health. USEPA regulates hazardous air pollutants/TACs through its National Emission Standards for Hazardous Air Pollutants. These standards are authorized by Section 112 of the 1970 CAA and the regulations are published in 40 CFR Parts 61 and 63.

California regulates TACs from mobile sources primarily through state and local risk management programs designed to eliminate, avoid, or minimize the risk of adverse health effects from public exposure to TACs. The project would be subject to CARB’s airborne toxic control measures for mobile sources and portable engines, and asbestos emissions control measures if the project involves soil disturbance in areas with naturally occurring asbestos.

3.4.2.2 Regional Plans and Regulations

The project is in Amador County within the jurisdiction of the Amador County Air Pollution Control District (ACAPCD). ACAPCD is the agency charged under state law with preparing, adopting, and implementing emission control measures and standards for mobile, stationary, and area sources of air pollution for the County. ACAPCD’s primary responsibility is to attain and maintain the NAAQS and CAAQS in the region by regulating air pollution emissions from stationary and industrial sources. These responsibilities are met by adopting and enforcing rules and regulations applicable to air pollutant sources, issuing permits for stationary sources of air pollutants, and inspecting stationary sources to confirm compliance (Amador County 2016a). The proposed project is subject to the ACAPCD requirements for control of dust emissions from construction activities in Rule 218, Fugitive Dust Emissions.

3.4.3 Impacts

3.4.3.1 Project Emissions

Criteria air pollutant emissions of nitrogen oxides (NO_X) and reactive organic gases (ROGs), CO, SO_2, PM_{10}, and $PM_{2.5}$ from the project construction activities were estimated using expected construction activity levels and the following methodology:

- Construction equipment emissions, fugitive dust from earthmoving activities, and material loading and unloading were estimated using construction equipment exhaust emission factors from the California Emissions Estimator Model (CalEEMod) User’s Guide (Breeze Software 2021).

- Vehicle emissions including vehicle exhaust, tire wear, and brake wear emission factors were obtained from EMFAC2017 (Version 1.0.3), which is CARB’s model for assessing emissions from on-road vehicles in California.

- Fugitive dust emissions were calculated using emission factors for paved and unpaved roads from AP-42, Fifth Edition, Compilation of Air Pollutant Emission Factors (USEPA 2011 and USEPA 2006, respectively), as recommended by the CalEEMod User’s Guide (Breeze Software 2021).

Project construction emissions are summarized in Table 3-2. Detailed construction emission calculations and assumptions are presented in Appendix A.

Table 3-2. Construction Emissions Summary

	ROG	CO	NO_x	SO_x	Exhaust PM_{10}	Fugitive PM_{10}	Exhaust $PM_{2.5}$	Fugitive $PM_{2.5}$
Average Daily Emissions (in pounds per day)	3.33	41.99	30.68	0.08	1.57	13.60	1.44	1.50
Total Construction Emissions (in tons)	0.11	1.41	1.03	0.00	0.05	0.46	0.05	0.05

The project would not have emission increases compared to current conditions once the construction is completed.

Air Quality Plan: The project is in Amador County in an area that is currently designated as nonattainment for ozone under the NAAQS and CAAQS (USEPA 2022; CARB 2022). The area is in attainment or unclassified for all other pollutants. Unlike some California air districts, ACAPCD has not adopted quantitative CEQA thresholds of significance for air pollutant emissions.

Consistency with the applicable air quality plan was evaluated based on estimates of the potential emissions from the project, and a qualitative evaluation of whether the project would comply with the applicable state and local regulations and requirements for emissions control.

The project construction activities would have the potential to cause air pollutant emissions from fuel combustion in off-road equipment, on- and off-road vehicle travel, and earthmoving activities during construction phase. The project's estimated average daily emissions during construction are summarized in Table 3-2, Construction Emissions Summary. Construction emissions would be limited by the small number and types of equipment required, infrequent vehicle trips, and the size of the construction area (the project would replace about 0.2 mile of pipeline). The construction phase of the project would last only approximately 3 months. The project construction emissions would be temporary and eliminated once the construction is completed.

The project would implement BMPs to control fugitive dust and minimize air pollutant emissions, including air quality training sessions for construction workers, as further discussed in the following section. The project would not conflict with or obstruct implementation of the applicable air quality plan because it would comply with ACAPCD rules and implement BMPs consistent with the emission mitigation measures required under the Amador County General Plan (Amador County 2016a), both of which were developed to achieve or maintain the NAAQS and CAAQS in the region. Therefore, a **less than significant impact** is anticipated.

Increase in Criteria Pollutants: The project area is designated as nonattainment for ozone under both NAAQS and CAAQS. While the project would result in emissions of ozone precursors, that is, NOx and ROG, from operation of the off-road construction equipment and on- and off-road vehicles during construction, it is not expected to generate a substantial amount of NOx and ROG during construction, based on the emissions estimates shown in Table 3-2. Air pollutant emissions from the project would be temporary, and the project would comply with applicable regulatory requirements and implement BMPs, as discussed in the following paragraphs.

The project would implement fugitive dust control measures to meet the requirements of Amador Air District Rule 218 (Fugitive Dust), which is also consistent with General Plan Mitigation Measure 4.3-1a: Implement Measures to Control Particulate Matter Emissions Generated by Construction Activities. Example measures include, but are not limited to:

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.

- Cover or maintain at least 2 feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along major roadways should be covered.

- Limit vehicle speeds on unpaved construction roads to 15 miles per hour.

- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

- Water exposed soil with adequate frequency for continued moist soil. However, do not overwater to the extent that sediment flows off the site.

- Suspend excavation, grading, and/or demolition activity when wind speeds exceed 20 miles per hour.

- Plant vegetative ground cover (fast-germinating native grass seed) in disturbed areas as soon as possible. Water appropriately until vegetation is established.

- Treat site accesses to a distance of 100 feet from the paved road with a 6- to 12-inch layer of wood chips, mulch, or gravel to reduce generation of road dust and road dust carryout onto public roads.

- Post a publicly visible sign with the telephone number and person to contact at the construction site regarding dust complaints. This person will respond and take corrective action within 48 hours.

The project will also implement measures to reduce exhaust emissions from construction equipment, consistent with General Plan Mitigation Measure 4.3-1b: Reduce Exhaust Emissions from Construction Equipment. Example measures include:

- Where feasible, equipment requiring the use of fossil fuels (for example, diesel) will be replaced or substituted with electrically driven equivalents (provided that they are not run via a portable generator set).

- To the extent feasible, alternative fuels and emission controls will be used to further reduce exhaust emissions.

- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes (as required by the state airborne toxics control measure [Title 13, Section 2485 of California Code of Regulations (CCR)]). Provide clear signage that posts this requirement for workers at the entrances to the site.

- The hours of operation of heavy-duty equipment and/or the amount of equipment in use at any one time will be limited.

- Staging areas for heavy-duty construction equipment will be located as far as possible from sensitive receptors.

- Implement construction BMPs to minimize fugitive dust emissions. BMPs could include, but are not limited to, Sacramento Metropolitan Air Quality Management District's Basic Construction Emission

Control Practices. To the extent feasible, use best available control technology at the time of construction activities to minimize exhaust emissions from construction equipment and vehicles. Provide a construction management plan for minimizing fugitive dust and exhaust emissions to ACAPCD for approval before commencing construction activities.

Because the project would comply with applicable regulations and would implement BMPs to meet emission control requirements during its construction phase, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under NAAQS or CAAQS. Operation and maintenance of the project would be similar to the existing activities, and emissions changes for project-related operation and maintenance activities would be negligible. Accordingly, air quality impacts associated with project operation and maintenance would be less than significant. Therefore, a **less than significant impact** is anticipated.

Sensitive Receptors: Sensitive receptors include hospitals, residences, libraries, schools, daycare facilities, elderly housing, and convalescent facilities. These are places where the occupants may be relatively more susceptible to the adverse effects of exposure to TAC emissions and other pollutants. The project site is in rural area surrounded by agricultural land use. There are only several scattered residences near the project site. The residential community nearest to the project site is 1,700 feet northwest of project work area. There are no schools within 4 miles of the project site.

During project construction, sensitive receptors may have limited exposure to emissions from the construction activities. The main pollutant of concern during project construction would be diesel particular matter (DPM) emitted from the diesel-powered construction equipment and vehicles because long-term exposure to DPM has the potential to cause cancer and non-cancer chronic health effects. The construction activities and associated emissions would be temporary, relatively short-term, and restricted to relatively small areas where only a limited amount of construction equipment would be operating at any one time. As a result, long-term exposure of human receptors to DPM from construction of the project would not occur.

As described previously, the project would implement BMPs to minimize air pollutant emissions during project construction. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations during construction, and impacts would be **less than significant**.

Operational emissions from regular operation and maintenance activities would not change materially from the current levels. Therefore, project operations would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be **less than significant**.

Other Emissions Such as Objective Odor: Odorous emissions from construction equipment typically includes exhaust from diesel-fueled engines that power both on- and off-road vehicles and heavy construction equipment. However, such emissions would be localized to the immediate area under construction, temporary in nature, and quick to disperse. Additionally, the project would not include the siting of a new, permanent source of odors. Therefore, exposure of sensitive receptors to odors would be minimized, and impacts would be **less than significant**.

3.4.4 Mitigation

None required.

3.5 Biological Resources

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CA Dept. of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CA Dept. of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

3.5.1 Introduction

This section describes biological resources (vegetation, fish, wildlife, habitat, and wetlands) in the vicinity of the project and identifies potential impacts on sensitive biological resources that could result from implementation of the project. The analysis concludes that the project would have less than significant impacts on biological resources with the implementation of mitigation measures described in Section 3.5.3. The project's potential effects on biological resources were evaluated using the significance criteria set forth in Appendix G of the CEQA Guidelines.

3.5.2 Regulatory Setting

3.5.2.1 Federal

Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 (16 *United States Code* [U.S.C.] 1531–1544), as amended, protects plants, fish, and wildlife that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) or the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries). Section 9 of the FESA prohibits the "take" of listed fish and wildlife, where "take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 CFR 17.3). For plants, this statute prohibits removing, possessing, maliciously damaging, or destroying any listed plant *under federal jurisdiction* and removing,

cutting, digging-up, damaging, or destroying any listed plant in knowing violation of state law (16 U.S.C. 1538).

The FESA allows for issuance of incidental take permits to private parties either in conjunction with a habitat conservation plan (HCP) or as part of a Section 7 consultation (which is discussed in the following paragraph). Under Section 10 of the FESA, a private party may obtain incidental take coverage by preparing an HCP to cover target species within the project area, identifying impacts on the covered species, and presenting the measures that will be undertaken to avoid, minimize, and mitigate such impacts.

Under Section 7 of the FESA, federal agencies are required to consult with USFWS and/or NOAA Fisheries, as applicable, if their actions—including permit approvals or funding—may affect a federally listed species (including plants) or designated critical habitat. If the project is likely to adversely affect a species, the federal agency will initiate formal consultation with the USFWS and/or NOAA Fisheries and issue a biological opinion as to whether a proposed agency action(s) is likely to jeopardize the continued existence of a listed species (jeopardy) or adversely modify critical habitat (adverse modification). As part of the biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity, provided that the action will not jeopardize the continued existence of the species or adversely modify designated critical habitat.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. Sections 703–711) protects all migratory birds, including active nests and eggs. Birds protected under the MBTA include all native waterfowl, shorebirds, hawks, eagles, owls, doves, and other common birds such as ravens, crows, sparrows, finches, swallows, and others, including their body parts (for example feathers and plumes), active nests, and eggs.
A complete list of protected species can be found in 50 CFR 10.13. Enforcement of the provisions of the federal MBTA is the responsibility of USFWS.

Waters and Wetlands: Clean Water Act Sections 401 and 404

The purpose of the Clean Water Act (CWA) (33 U.S.C. Section 1251 et seq.) is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Waters of the United States include rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas “that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3).

USACE issues permits for work in wetlands and other waters of the United States based on guidelines established under Section 404 of the CWA. Section 404 of the CWA prohibits the discharge of dredged or fill material into waters of the United States, including wetlands, without a permit from USACE. USEPA also has authority over wetlands and may, under Section 404, subdivision (c), veto a USACE permit.

Section 401 of the CWA requires all Section 404 permit actions to obtain a state Water Quality Certification or waiver, as described in more detail in Section 3.11, Hydrology and Water Quality.

In 2015, USACE and USEPA issued the Clean Water Rule (2015 Rule), intended to clarify areas under the jurisdiction of the CWA. The 2015 Rule was stayed in court rulings soon afterwards. On February 17, 2017, an Executive Order was issued regarding the 2015 Rule. The Executive Order and the subsequent USEPA and USACE Proposed Rule called for the 2015 Rule to be reviewed and rescinded or revised in accordance with the Executive Order. On August 16, 2018, the U.S. Court of Appeals for the Sixth Circuit stay was enjoined by the U.S. District Court for South Carolina. USACE and USEPA are reviewing the August 16, 2018 District Court order enjoining the suspension to determine next steps. The new Navigable Waters Protection Rule was made effective June 22, 2020, and is effective in all states except Colorado. California filed a complaint in the Northern District of California and a motion for an

injunction/stay of the rule; however, the judge issued a ruling denying these. There are several other pending suits filed in California challenging the current rule.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. 668–668c) prohibits anyone, without a permit issued by the Secretary of the Interior, from “taking” bald eagles, including their parts, nests, or eggs. The Act provides criminal and civil penalties for persons who “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof.” The Act defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” “Disturb” is defined as “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

3.5.2.2 State

California Endangered Species Act

The California Endangered Species Act (CESA) (Sections 2050–2098 of the California Fish and Game Code) prohibits the take of state-listed endangered, threatened, or candidate species unless specifically authorized by California Department of Fish and Wildlife (CDFW). The state definition of “take” is to hunt, pursue, catch, capture, or kill a member of a listed species, or attempt to do so. CDFW administers CESA and authorizes take through permits or memorandums of understanding issued under Section 2081 of CESA, or through a consistency determination issued under Section 2080.1. Section 2090 of CESA requires state agencies to comply with threatened and endangered species protection and recovery and to promote conservation of these species.

Protection for Lakes and Streams: Fish and Game Code

Section 1602 of the Fish and Game Code requires a Lake or Streambed Alteration Notification for project activities that may substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use material from the bed, channel, or bank of any river, stream or lake; or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into a river, stream or lake. Upon notification, CDFW determines whether the activity will substantially adversely affect an existing fish or wildlife resource and if so, issues a Streambed Alteration Agreement.

Fully Protected Species Under the Fish and Game Code

The Fish and Game Code designates certain fish and wildlife species as “fully protected” under sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish). Fully protected species may not be taken or possessed at any time, and no permits may be issued for incidental take of these species, except as allowed under a Natural Communities Conservation Plan.[1]

Protection for Birds: Fish and Game Code

Fish and Game Code Section 3503 et seq. state that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird.

[1] While take of fully protected species may be authorized by CDFW under a Natural Community Conservation Plan (NCCP), the PG&E project is not covered by an NCCP so this permitting option is not available.

Native Plant Protection Act of 1973

The Native Plant Protection Act of 1973 (Fish and Game Code Sections 1900–1913) includes provisions that prohibit the taking of endangered or rare native plants. CDFW administers the Native Plant Protection Act, which applies to plants listed as "rare" under CCR Title 14, Section 670.2, subdivision (c). CDFW may issue permits, agreements, plans, or programs that authorize rare plant impacts pursuant to CCR Title 14, Section 786.9.

Fish and Game Code Section 1913, subdivision (b) includes a specific provision to allow for the incidental removal of endangered or rare plant species, if not otherwise salvaged by CDFW, within a right-of-way (ROW) to allow a public utility to fulfill its obligation to provide service to the public.

California Species of Special Concern

Species of Special Concern (SSC) is a category conferred by CDFW to fish and wildlife species that satisfies one or more of the following (not necessarily mutually exclusive) criteria: is extirpated from the state or, in the case of birds, is extirpated in its primary season or breeding role; is listed as federally- but not state-threatened or endangered; meets the state definition of threatened or endangered but has not formally been listed; is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state-threatened or endangered status; or has naturally small populations exhibiting high susceptibility to risk from any factor(s) that, if realized, could lead to declines that would qualify it for state threatened or endangered status. SSC is an administrative classification only, but these species should be considered "special-status" for the purposes of the CEQA analysis (refer to the significance criteria in Section 3.5.5, Impacts).

Porter-Cologne Water Quality Control Act

The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs) have jurisdiction over all surface water and groundwater in California, including wetlands, headwaters, and riparian areas. The SWRCB or applicable RWQCB must issue waste discharge requirements for any activity that discharges waste that could affect the quality of waters of the state, as described in more detail in Section 3.11, Hydrology and Water Quality.

3.5.2.3 Local

Because CPUC has exclusive jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary regulations. This section includes a description of local plans and policies related to biological resources and is provided for informational purposes and to assist with CEQA review.

Amador County General Plan

The purpose of the Biological Resources Element of the Amador County General Plan was developed to focus on the western foothill region of the county, where the effects of the General Plan and threats to biological diversity and sensitive resources are greatest (Amador County 2016a). Important planning issues in this region include increased urbanization, habitat fragmentation, and water pollution.

3.5.3 Methods

This section summarizes the methods used to identify biological resources and analyze potential impacts, including waters, wetlands, and special-status plants and wildlife.

As used here, the term "special-status species" is defined as including plants and animals meeting the criteria defined as follows.

Special-status plants include species that met one or more of the following criteria:

- Listed, proposed for listing, or candidate for listing, as threatened or endangered under the FESA (50 CFR 17.11 for wildlife; 50 CFR 17.12 for plants; 67 *Federal Register* 40658 for candidates) and various notices in the *Federal Register* for proposed species).
- Listed under CESA as threatened or endangered, proposed, or candidate for listing.
- Designated as rare under the Native Plant Protection Act.
- Species that otherwise meet the definition of rare, threatened, or endangered species under CEQA Guidelines Section 15380. This includes species listed by the California Native Plant Society (CNPS) in the online version of its *Inventory of Rare and Endangered Plants of California* (CNPS 2022) in List 1A, 1B, 2A, or 2B.

Special-status wildlife include species that met one or more of the following criteria:

- Listed, proposed for listing, or candidate for listing as threatened or endangered under FESA
- Listed or candidates for listing as threatened or endangered under CESA
- Designated as Species of Special Concern or a Fully Protected Species by CDFW
- Species that otherwise meet the definition of rare, threatened, or endangered species under CEQA Guidelines Section 15380.

Natural communities were considered to be of special status if they are identified on the CDFW List of Vegetation Alliances and Associations as being highly imperiled, also classified by CDFW as ranks S1 to S3 in the California Natural Diversity Database (CNDDB; CDFW 2022) and natural communities of special concern.

3.5.3.1 Database and Literature Review

The following biological databases were queried for records of special-status plants, natural communities, and wildlife that might have potential to occur in the project footprint:

- USFWS list of federally listed and proposed endangered, threatened, and candidate species and their designated critical habitat (USFWS 2022)
- National Marine Fisheries Service (NMFS) list of federally listed and proposed endangered, threatened, and candidate species and their designated critical habitat (NMFS 2022)
- CNPS online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2022)
- CNDDB (CDFW 2022)

A CNDDB database search for special-status species included the Ione U.S. Geological Survey (USGS) 7.5-minute quadrangle, where the project footprint is located, and the eight surrounding quadrangles: Carbondale, Irish Hill, Amador City, Goose Creek, Jackson, Clements, Wallace, and Valley Springs.

The CNPS online inventory was also queried for the aforementioned quadrangles.

3.5.4 Existing Conditions

3.5.4.1 Regional Setting

The project is located in the Camanche Terraces subsection of the Central California Foothills and Coastal Mountains ecological sections of California (Miles and Goudey 1997). The Camanche Terraces subsection is underlain by sandstone, andesitic conglomerate, rhyolitic tuff, and some clay. The geomorphology of this subsection is gently sloping to moderately steep hills and dissected terraces along the eastern edge of the Central Valley, downslope from the central Sierra Nevada foothills. The project is

located within the Sierra Nevada Foothills subregion of the Sierra Nevada floristic region (Baldwin et al. 2012).

3.5.4.2 Local Setting

The project work areas are primarily located within row crop agricultural fields, irrigated pastureland, riparian woodlands associated with Jackson Creek, and disturbed roadside shoulders. Surrounding these work areas are pastureland, hayfields, and rural residential areas.

3.5.4.3 Landcover, Vegetation, and Wildlife Habitats

Four landcover types/vegetation communities were identified within the survey area, including Nonnative Annual and Perennial Grassland, Riverine, Valley Foothill Riparian, and Non-native Ornamental Hardwood. The west side of Buena Vista Road contains mostly irrigated pasture and cattle grazed and ungrazed grassland that has patches of blackberry shrubs and rural residential properties. Large irrigated fields of barley and two more residential developments are located on the east side of Buena Vista Road. Aquatic habitats in the immediate vicinity include Jackson Creek and three agricultural retention ponds that were not accessible during the field survey. Southern HDD workspaces include the southern bank of Jackson Creek, which is mostly a disturbed area with gravel substrate road surface, and discarded piles of building material such as rock and asphalt, as well as staged construction vehicles. The mapped work areas south of Jackson Creek also stretch along the road shoulders of Buena Vista Road, including a recently mowed grassy field within an access road between Jackson Creek and Coal Mine Road, which was designated as a possible site for the excavation of the HDD entry pit. Just south of the proposed HDD entry pit a dried former pond is located at the edge of a row crop field. The pond has been silted in and vegetation, including cattails (*Typha* sp.), has been burned in a controlled fire. Other areas just outside of the study area included buildings used as greenhouses and warehouses.

3.5.4.4 Wetlands and Aquatic Resources

A total of 1.80 acres of aquatic resources (Jackson Creek) were identified within the 2.73-acre aquatic resources survey area. No aquatic resources were identified in the upland areas of the survey area.

3.5.4.5 Special-status Species

The CNDDB, CNPS, NMFS, and USFWS database searches identified 35 special-status species within a 5-mile radius of the project footprint, including 16 special-status plant species and 19 special-status wildlife species (Appendix B). There is no designated critical habitat within the project area.

This section describes special-status species observed (present) during project field surveys and any species considered likely to occur, have the potential to occur, or that are seasonally present in the project area. Special-status species that are unlikely to be found in the project footprint or otherwise be affected by the project are not discussed in this section.

There is potential for six special-status plant species, including lone manzanita (*Arcostaphylos myrtifolia*), lone buckwheat (*Eriogonum apricum* var. *apricum*), Tuolomne button celery (*Eryngium pinnatisectum*), Stanislaus monkeyflower (*Erythranthe marmorata*), Parry's horkelia (*Horkelia parryi*), and pincushion navarretia (*Navarretia myersii* ssp. *myersii*) to occur in and adjacent to the project footprint because of the presence of potentially suitable habitat and known occurrences.

There is potential for eight special-status wildlife species, including California tiger salamander (*Ambystoma californiense*), western pond turtle (*Emys marmorata*), tricolored blackbird (*Agelaius tricolor*), golden eagle (*Aquila chrysaetos*), northern harrier (*Circus hudsonius*), white-tailed kite (*Elanus leucurus*), Swainson’s hawk (*Buteo swainsonii*), and western red bat (*Lasiurus blossevillii*) to occur in and adjacent to the project footprint because of the presence of potentially suitable habitat and known occurrences.

3.5.4.6 Habitat Conservation Plans

The project is within the area covered by the Multiple Region Habitat Conservation Plan (MRHCP) that provides a comprehensive framework for conserving sensitive habitats for protected species. The project qualifies as an activity which is covered by the MRHCP (ICF, 2020). The project will be covered under this MRHCP and all relevant measures from this document have been included as mitigation measures in Section 3.5.6.

3.5.5 Impacts

The significance criteria used for determining standards of significance for biological resources was derived from Appendix G of the CEQA Guidelines. Potential impacts on vegetation and wildlife are discussed in the following sections.

(a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

As described in this section, the project would have a less-than-significant impact on candidate, sensitive, or special-status species populations with incorporation of mitigation measures. For example, per Mitigation Measure BIO-10, all habitat areas for special-status species that are temporarily disturbed as a result of project activities will be restored upon completion of construction. As such, these species are not anticipated to be adversely affected by project activities. Substantial adverse effects on candidate, sensitive, or special-status plant and wildlife species would indicate a significant impact under CEQA. Potential substantial adverse effects and associated mitigation measures to avoid or reduce project impacts are further described in the following discussion.

Eight special-status wildlife species have potential to occur in and adjacent to the project footprint because of the presence of potentially suitable habitat and known occurrences, including California tiger salamander, western pond turtle, tricolored blackbird, golden eagle, northern harrier, white-tailed kite, Swainson's hawk, and western red bat.

With implementation of the following mitigation measures, potential impacts on these species and their habitats will be avoided:

- BIO-1: Development and Implementation of a Worker Environmental Awareness Program
- BIO-2: Nesting Bird Impact Avoidance and Prevention
- BIO-3: Conduct Preconstruction Surveys for Special-status Species and Sensitive Biological Resources Areas
- BIO-4: Identification and Marking of Sensitive Areas
- BIO-5: Exclusion Fencing
- BIO-6: Biological Monitor Onsite during Construction Activities in Sensitive Biological Resource Areas
- BIO-8: Special-status Amphibian and Reptile Impact Avoidance and Protection
- BIO-9: Implement General Protection Measures for Wetlands and Other Waters
- BIO-10: General Resource Protection
- BIO-11: Inadvertent Drilling Fluid Release Contingency Plan

These measures include preconstruction surveys and avoiding suitable habitat to the extent feasible, measures to minimize potential impacts on these species and their habitats during wet weather, installation of exclusion fencing, and biological monitoring. These measures will minimize the potential for impacts on these species and their habitats through habitat avoidance, minimize the potential for individuals to enter work areas through exclusion fencing, educate workers on these species and measures that will be implemented to minimize the potential to affect them, restore disturbed habitat after construction, and describe required cleanup measures in the unlikely event of an inadvertent release of drilling fluids during HDD and jack-and-bore activities.

Therefore, impacts on candidate, sensitive, or special-status species will be **less than significant** with the incorporation of **Mitigation Measures BIO-1** through **BIO-11** and **PG&E MRHCP Field Protocols (FPs)**.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Riparian vegetation exists within the project footprint, mostly bordering Jackson Creek. All temporarily disturbed natural vegetation would be restored to approximate pre-project conditions following construction.

There are work activities that would occur within riparian habitats; however, with implementation of **Mitigation Measures BIO-1, BIO-4** through **BIO-6,** and **BIO-9** through **BIO-11**, impacts on riparian corridors and other sensitive natural communities would be **less than significant**.

- BIO-1: Development and Implementation of a Worker Environmental Awareness Program
- BIO-4: Identification and Marking of Sensitive Areas
- BIO-5: Exclusion Fencing
- BIO-6: Biological Monitor Onsite during Construction Activities in Sensitive Biological Resource Areas
- BIO-9: Implement General Protection Measures for Wetlands and Other Waters;
- BIO-10: General Resource Protection
- BIO-11: Inadvertent Drilling Fluid Release Contingency Plan

c) Would the project 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?

An aquatic resources delineation of the project area was conducted on April 16, 2021. A total of 1.80 acres of aquatic resources (Jackson Creek) were identified within the 2.73-acre aquatic resources survey area. No aquatic resources were identified within the upland survey area. Project activities will result in direct temporary impacts on no more than approximately 0.03 acres of waters of the United States. Direct temporary impacts will result from the establishment of a workspace and removal of the existing exposed pipeline within Jackson Creek. Jackson Creek would be restored to approximate pre-project contours and conditions. Project activities will not result in direct permanent impacts on waters of the United States. The temporary impacts were calculated by measuring the area of all impact areas that is below the ordinary high-water mark within Jackson Creek.

There is the unlikely potential for inadvertent release of drilling fluids during HDD and jack-and-bore activities; however, any potential release is anticipated to be very minor and would be cleaned up

immediately. With implementation of **Mitigation Measures BIO-4** through **BIO-6** and **BIO-9** through **BIO-11**, impacts on Jackson Creek would be **less than significant**.

- BIO-4: Identification and Marking of Sensitive Areas
- BIO-5: Exclusion Fencing
- BIO-6: Biological Monitor Onsite during Construction Activities in Sensitive Biological Resource Areas
- BIO-9: Implement General Protection Measures for Wetlands and Other Waters
- BIO-10: General Resource Protection
- BIO-11: Inadvertent Drilling Fluid Release Contingency Plan

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

Discrete portions of the project footprint are located within the dispersal range for California tiger salamander and habitat for western pond turtle and if work activities occur during migratory movement for these species, they may impede their movements. However, work activities are not anticipated to take place during the wet season, so they are not expected to impede movements of these species. In addition, the portions of the work area in the vicinity of habitat for these species are surrounded by upland dispersal habitat, so in the unlikely event that individuals make overland movements during construction activities, fenced work areas, per BIO-5: Exclusion Fencing, would exclude species from entering the work area and not impede their movements between the nearest breeding habitat and upland habitat. As all project activities are temporary and disturbed areas would be restored to preexisting conditions, there would be no migratory barriers present after completion of the project. Therefore, potential impacts would be **less than significant**.

Migratory birds may move through the project area during work activities and may nest in the vicinity. Construction activities may temporarily degrade nesting habitat within the immediate vicinity of the work locations; however, any potential effect is expected to be minimal due to the disturbed nature of the work locations, and large amount of surrounding habitat. Mitigation Measure BIO-2: Preconstruction Nesting Bird Surveys will also be implemented to minimize any potential impacts on nesting birds.

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

The project is located within the jurisdiction of Amador County. Although not subject to local regulation, PG&E strives to be consistent with local requirements for the protection of biological resources, where feasible, while remaining consistent with safety considerations. Project activities are not anticipated to conflict with any local policies or ordinances protecting biological resources. In addition, mitigation measures listed below would be implemented as part of the project in accordance with agency permit conditions, and **no impacts** are anticipated.

f) Would the project 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 project is located within the boundaries of the PG&E MRHCP (ICF 2020), and FP-1 through FP-19 and Wetland-2 are consistent with the measures in the MRHCP. Therefore, there would **be no impact**.

3.5.6 Mitigation

PG&E will implement the following mitigation measures. These include FP-01 through FP-19 and Wetland-2, which are required measures under the PG&E MRHCP:

BIO-1: Development and Implementation of a Worker Environmental Awareness Program. A qualified biologist will conduct an environmental awareness program for all onsite construction personnel before they begin work on the project. Training will include a discussion of the avoidance and minimization measures that are being implemented to protect biological resources as well as the terms and conditions of project permits. Training will include information about the federal and state Endangered Species Acts and the consequences of noncompliance with these acts. Under this program, workers will be informed of the presence, life history, and habitat requirements of all special-status species that may be affected in the project footprint, and about state and federal laws protecting nesting birds, wetlands, and other water resources. An educational brochure will be produced for construction crews working on the project. Color photos of special-status species will be included, as well as a discussion of specific avoidance or minimization measures for special-status species and habitats.

BIO-2: Nesting Bird Impact Avoidance and Protection. If construction is to occur during the avian nesting season (February 1 through August 15), a preconstruction migratory bird and raptor nesting survey will be performed by a qualified biologist. Surveys will occur only in publicly accessible areas and areas where PG&E has existing access; private property will not be accessed and will instead be observed from adjacent accessible areas.

Preconstruction nesting bird surveys will be performed in accordance with PG&E's Nesting Bird Management Plan. The preconstruction survey will cover a radius of 300 feet for non-listed raptors and 100 feet for non-listed passerines at all locations. The survey will cover all affected areas where ground disturbance or vegetation clearing is required. If any active nests containing eggs or young are found, an appropriate nest exclusion zone will be established by the PG&E biologist in accordance with PG&E's Avian Protection Plan/Nesting Bird Management Plan; the biologist will evaluate whether sufficient screening buffers (such as trees or intervening topography) exist that work may proceed in the area and will determine what level of nest monitoring is needed. To the extent practicable, no project vehicles, chain saws, or heavy equipment will be operated in this exclusion zone until the biologist has determined that the nest is no longer active and or the young have fledged. If it is not practicable to avoid work in an exclusion zone around an active nest, work activities will be modified to minimize disturbance of nesting birds but may proceed in these zones at the discretion of the biologist. The biologist will monitor all work activities in these zones daily when construction is occurring and assess their effect on the nesting birds. If the biologist determines that activities pose a high risk of disturbing an active nest, the biologist will recommend additional, feasible measures to minimize the risk of nest disturbance. If work cannot proceed without disturbing the nesting birds, or signs of disturbance are observed by the monitor, work may need to be halted or redirected to other areas until the nesting and fledging is completed or the nest has otherwise failed for non-construction-related reasons.

BIO-3: Conduct Preconstruction Survey(s) for Special-status Species and Sensitive Biological Resource Areas. A qualified biologist will conduct preconstruction survey(s) in areas having habitat for special-status species and sensitive biological resource areas, either during the appropriate phenological period for plants or within 48 hours prior to construction activities for wildlife. If any special-status species is encountered during the preconstruction survey(s), the PG&E project biologist will be contacted immediately.

BIO-4: Identification and Marking of Sensitive Biological Resource Areas. Sensitive biological resources (for example, special-status plants, wetlands) in or adjacent to construction work areas identified during the preconstruction surveys, will be clearly marked in the field and on project maps. Such areas will be avoided during construction to the extent practicable.

BIO-5: Exclusion Fencing. At the discretion of the PG&E biologist, prior to any ground-disturbing work in proximity to suitable habitat for special-status species or adjacent to wetlands or waters, exclusion fence

will be installed around workspaces as appropriate. Exclusion fencing will be routinely inspected during project activities; any damage, such as holes or gaps, will be promptly repaired.

BIO-6: Biological Monitor Onsite during Construction Activities in Sensitive Biological Resource Areas. At the discretion of the PG&E biologist, a qualified biologist will be onsite during ground-disturbing construction activities in sensitive biological resource areas identified in BIO-4 above unless the area has been protected by barrier fencing to protect sensitive biological resources and previously cleared by the qualified biologist and the PG&E Biologist. The qualified biologist will ensure implementation and compliance with all avoidance and mitigation measures and have the authority to stop or redirect work if construction activities are likely to affect sensitive biological resources.

BIO-7: Special-status Plant Impact Avoidance and Protection. Prior to the start of construction and in conjunction with BIO-3, a qualified botanist will resurvey mapped populations of Sebastopol meadowfoam and flag or otherwise mark (for example, stake, fence) all special-status plant populations documented adjacent to construction work areas for avoidance. After project activities have been completed at a given worksite, all staking, fencing, or flagging will be removed.

BIO-8: Special-status Amphibian and Reptile Impact Avoidance and Protection. During wet weather or the rainy season, all open holes, pits, and trenches will be protected to ensure that frogs, salamanders, and/or turtles do not become entrapped. Protective fencing, coverings, or ramps will be installed to either prevent wildlife from falling into excavations or to allow for escape. At the end of each workday, steep-walled holes or trenches more than 6 inches deep will be covered or provided with one or more escape ramps and/or fenced. Open excavations will be inspected each day, prior to the start of construction activities, to ensure that no wildlife are trapped. Construction personnel will also check underneath vehicles and within materials to be moved (that is, tires, tracks, pipes, etc.) for the presence of frogs, salamanders, and/or turtles when parked or placed near suitable aquatic or upland dispersal habitat. Any species found will be captured and relocated to an approved location as approved by the resource agencies, if required, and in compliance with any regulatory permits issued for the project.

BIO-9: Implement General Protection Measures for Wetlands and Other Waters. PG&E will implement the following general measures to minimize or avoid impacts on wetlands and other waters:

- Avoid wetlands and other waters during construction activities.
- Conduct all fueling of vehicles at least 100 feet from wetlands and other water bodies unless approved by a qualified biologist.
- Implement a stormwater pollution prevention plan to keep construction-related erosion and sediment from entering nearby waterways (refer to WQ-1).

BIO-10: General Resource Protection Measures. This measure consists of the following components:

- **Hazardous materials spills**. Emergency spill response and cleanup kits will be readily available for immediate containment and cleanup of an accidental spill. Construction crews will be trained in the safe handling of hazardous materials and cleanup responsibilities. Any spills into aquatic habitat will be reported to the applicable resource agencies within 24 hours.
- **Reporting and communication.** The PG&E project biologist will be responsible for immediately reporting any capture and relocation, or inadvertent harm, entrapment, or death of a federally or state-listed species under the FESA or CESA to the applicable resource agencies.
- **Restore temporarily disturbed habitats**. All habitat areas for special-status species that are temporarily disturbed as a result of project activities will be restored upon completion of construction. Disturbed areas will be restored to approximate pre-project conditions in coordination with landowners.

- **Erosion control materials.** Only tightly woven netting or similar material will be used for all geo-synthetic erosion control materials such as coir rolls and geo-textiles. No plastic monofilament matting will be used. Sod may be used when restoring landscaped areas.

- **Minimize grading and vegetation removal along access roads and construction work areas, to the extent feasible.** PG&E will trim, clear, or remove vegetation only as necessary to establish the access routes and allow equipment use. Trees will be directionally felled away from sensitive biological resource areas, and if that is not possible, removed in sections. Damage to adjacent trees will be avoided to the extent possible.

- **Weed management.** Vehicles and construction equipment will be cleaned of mud and dirt on site at a PG&E wash facility or otherwise approved wash-down location as needed to minimize transport of weed plant parts or seed. Vehicles will also be cleaned at the completion of the project or when off-road use for that vehicle has been completed.

- **Work Hours.** To the maximum extent feasible, in sensitive areas all construction activities will cease 0.5 hour before sunset and will not begin prior to 0.5 hour after sunrise to maximize the potential for visual identification and avoidance of special-status species.

BIO-11: Inadvertent Drilling Fluid Release Contingency Plan. An Inadvertent Drilling Fluid Release Contingency Plan will be prepared and implemented in the unlikely event of the release of drilling fluids during HDD or jack-and-bore activities. This plan will include applicable cleanup measures and notification criteria. Appropriate materials for cleaning up inadvertent drilling fluid releases will be kept onsite during drilling activities.

PG&E MRHCP Field Protocols

- **FP-01:** Hold annual training on habitat conservation plan requirements for employees and contractors performing covered activities in the project area that are applicable to their job duties and work.

- **FP-02:** Park vehicles and equipment on pavement, existing roads, or other disturbed or designated areas (barren, gravel, compacted dirt).

- **FP-03:** Use existing access and ROW roads. Minimize the development of new access and ROW roads, including clearing and blading for temporary vehicle access in areas of natural vegetation.

- **FP-04:** Locate off-road access routes and work sites to minimize impacts on plants, shrubs, and trees, small mammal burrows, and unique natural features (for example, rock outcrops).

- **FP-06:** Minimize potential for covered species to become trapped, injured, or killed in pipes, culverts, or under materials or equipment. Inspect pipes and culverts wide enough to be entered by a covered species that could inhabit the area where pipes are stored for wildlife species prior to moving pipes and culverts. Contact a biologist if a covered species or other federally listed species is suspected or discovered.

- **FP-07:** Vehicle speeds on unpaved roads will not exceed 15 miles per hour.

- **FP-08:** Prohibit trash dumping, firearms, open fires (such as barbecues), hunting, and pets (except for safety in remote locations) at work sites.

- **FP-10:** Minimize the covered activity footprint and minimize the amount of time spent at a work site to reduce the potential for take of species.

- **FP-11:** Utilize standard erosion and sediment control BMPs (pursuant to the most current version of PG&E's Stormwater Field Manual for Construction Best Management Practices) to prevent construction site runoff into waterways.

- **FP-12:** Stockpile soil within established work site boundaries and locate stockpiles so as not to enter water bodies, stormwater inlets, other standing bodies of water. Cover stockpiled soil prior to precipitation events.

- **FP-13:** Fit open trenches or steep-walled holes with escape ramps of plywood boards or sloped earthen ramps at each end if left open overnight. Field crews will search open trenches or steep-walled holes every morning prior to initiating daily activities to ensure wildlife is not trapped. Field crews will not handle covered species. If any covered wildlife species is found, work will stop and a biologist will be notified. A biologist with appropriate take permits will relocate the species to adjacent habitat or the species will be allowed to naturally disperse, as determined by a biologist.

- **FP-14:** If the covered activity disturbs 0.1 acre or more of habitat for a covered species in grasslands, the field crew will revegetate the area with a commercial weed-free seed mix. (Except in suitable habitat for Mount Hermon June beetle, Ohlone tiger beetle, and Zyante band-winged grasshopper.)

- **FP-15:** Prohibit vehicular and equipment refueling within 250 feet of the edge of wetlands, streams, or waterways. If refueling must be conducted closer to wetlands, construct a secondary containment area subject to review by an environmental field specialist and/or biologist. Maintain spill prevention and cleanup equipment in refueling areas.

- **FP-16:** Maintain a buffer of 250 feet from the edge of wetlands, ponds, or riparian areas. If maintaining the buffer is not practicable because the covered activity footprint is within the buffered area, other measures as prescribed by the biologist or the habitat conservation plan administrator to minimize impacts such as flagging access routes or paths, requiring foot access, restricting work until the dry season, or requiring a biological monitor during the activity.

- **FP-17:** Directionally fall trees away from an exclusion zone, if an exclusion zone has been defined. If this is not practicable, remove the tree in sections. Avoid damage to adjacent trees to the extent practicable. Avoid removal of snags and conifers with basal hollows, crown deformities, and/or limbs more than 6 inches in diameter.

- **FP-18:** Nests with eggs and/or chicks will be avoided: contact a biologist or the Avian Protection Program Manager for further guidance. Work will be stopped until the crew can obtain clarification from a biologist or the Avian Protection Program Manager on how to proceed.

- **FP-19:** Inspect and maintain exclusion fencing installed to exclude species from work areas.

- **Wetland-2:** Identify wetlands, ponds, and riparian areas and establish and maintain a buffer of 50 feet around wetlands, ponds, and riparian areas. If maintaining the buffer is not practicable because the work sites are within any part of the buffered area, the field crew will implement other measures as prescribed by the biologist to minimize habitat impacts. These measures may include flagging access, requiring foot access, restricting work until the dry season, or requiring a biological monitor during the activity. Activities must maintain the hydrology necessary to support the wetland, pond, or riparian area (inclusive of downstream).

3.6 Cultural Resources

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

3.6.1 Introduction

This section describes the existing cultural resources in the project vicinity, and discusses potential impacts associated with construction of the project. Based on the following evaluation, impacts from the project on cultural resources would be less than significant.

3.6.2 Regulatory Setting

Because CPUC has exclusive jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary cultural resource regulations. This section includes a description of plans and policies related to cultural resources generally, and it is provided for informational purposes to assist with CEQA review.

Cultural resources include architectural and historical resources or prehistoric archaeological resources and may include Traditional Cultural Properties as defined in the National Park Service National Register Bulletin 38. Cultural resource identification efforts for the proposed project included conducting a cultural resources inventory in support of the proposed project in an effort to identify historic properties within the area of potential effects (APE) in compliance with Section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR Part 800). Native American outreach was also conducted, and is discussed in detail in Section 3.19, Tribal Cultural Resources.

3.6.2.1 Federal

Section 106 of the National Historic Preservation Act (36 CFR 800) requires that projects undertaken by federal agencies (and/or federally funded projects or projects requiring federal approval) consider the effects of their actions on properties that may be eligible for listing, or are listed in, the National Register of Historic Places (National Register). To determine whether an undertaking could affect National Register-eligible properties, cultural resources (including archaeological and architectural properties) must be inventoried and evaluated for listing in the National Register.

Antiquities Act of 1906

The Antiquities Act of 1906 was enacted to protect cultural resources in the U.S. This act explicitly prohibits appropriation, excavation, injury, and destruction of any historic or prehistoric ruin or monument, or any “object of antiquity” located on lands owned or controlled by the federal government, without prior permission of the secretary of the federal department that has jurisdiction over the site. The act also establishes criminal penalties, including fines and/or imprisonment, for these acts. The Antiquities Act contains a requirement for studies by qualified experts in the subject matter and contains precise stipulations regarding the management/curation of collected materials.

3.6.2.2 State

Under Section 21083.2 of CEQA, an important archaeological or historical resource is an object, artifact, structure, or site that is listed on, or eligible for listing in, the California Register. A resource that is listed on, or has been determined eligible for listing in, the National Register will also be automatically eligible for listing in the California Register. In addition, Points of Historical Interest nominated from January 1998 onward are to be jointly listed as Points of Historical Interest and on the California Register.

Resources listed in a local historical register or deemed significant in a historical resources survey, as provided under PRC Section 5024.1(g), are presumed to be historically or culturally significant unless the preponderance of evidence demonstrates that they are not. A resource that is not listed on or determined to be ineligible for listing in the California Register, not included in a local register of historical resources, or not deemed significant in a historical resources survey may, nonetheless, be historically significant, as determined by the lead agency (PRC Sections 21084.1 and 21098.1).

California Health and Safety Code and Public Resources Code

Broad provisions for the protection of Native American cultural resources are contained in the California Health and Safety Code, Sections 8010 through 8030. Several provisions of the PRC also govern archaeological finds of human remains and associated objects. Procedures are detailed under PRC Section 5097.98 through 5097.996 for actions to be taken whenever Native American remains are discovered. Furthermore, Section 7050.5 of the California Health and Safety Code states that any person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the PRC. Any person removing human remains without authority of law or written permission of the person or persons having the right to control the remains under PRC Section 7100 has committed a public offense that is punishable by imprisonment.

PRC Chapter 1.7, Sections 5097.5 through 5097.9 (Stats. 1965, c. 1136, p. 2792), titled Archaeological, Paleontological, and Historical Sites, defines any unauthorized disturbance or removal of a fossil site or remains on public land as a misdemeanor, and specifies that state agencies may undertake surveys, excavations, or other operations as necessary on state lands to preserve or record paleontological resources.

3.6.3 Existing Conditions

3.6.3.1 Sources Consulted

Cultural resource identification efforts for the proposed project included conducting a Native American Heritage Commission (Commission) Sacred Lands File search, an archival records search, a buried site sensitivity study, historical map research, and a pedestrian survey.

Native American Coordination

A request was sent to the Commission for a search of the Sacred Lands File, but the Commission provided contact information for consultation with the Ione Band of Miwuk Indians, as well the nine other representatives who have knowledge of cultural resources within the area. Any results received will be forwarded to the USACE and the County so that these parties can continue with Native American outreach efforts.

Records Search

The archival records search, conducted on February 24, 2021, reviewed PG&E's MapGuide Database cultural layer, which includes both in-house records and the North Central Information Center of the California Historical Resources Information System's files. The records search included all of the potential staging and work areas that comprise the APE, as well as a one-quarter-mile buffer around these areas. The search resulted in the identification of 10 cultural resources: 4 precontact, 3 historic-era

archaeological, 2 historic-era built environment, and 1 unknown historic-era resource within one-quarter mile of the APE, none of which intersect the APE.

Buried Sensitivity Analysis

The buried site sensitivity analysis was conducted to assess the likelihood of the presence of, and potential for encountering, subsurface archaeological deposits during construction. Landform age can be used as a relative measure of the potential (that is, probability) for buried sites since buried soils (paleosols) represent formerly stable land surfaces. Proximity to water, topographic setting, and distributions of plants and animals are also indicators of areas with past human occupation and thus, burial sites. Detailed maps of the age of surface landforms in the area (based on digital soil survey data) referenced against an extensive radiocarbon database allow for the findings of buried archaeological sites not visible on the surface. The APE is located by Jackson Creek on a fairly level floodplain near the base of the Sierra Nevada foothills. Based on the age of soils, the buried site sensitivity analysis identified a Moderate to High potential to encounter buried precontact resources within the workspaces south of Jackson Creek. There is also an elevated potential to encounter subsurface historic-era road features along Buena Vista Road, north of Jackson Creek.

Historical Map Review

The historical map research included the following inventories: National Register, California Inventory of Historic Resources (1976), California Register, California Historic Landmarks, the California Points of Historical Interest, and the California Department of Transportation Historic Bridge Inventory. Topographic maps from 1889 to the mid-twentieth century show the APE as being occupied by Buena Vista Road and surrounded by sparse agricultural development. Historical maps and aerial photographs from the 1940s onward show the APE as remaining largely agricultural with minimal additional growth in the north portions (near Buena Vista) beginning in the mid-twentieth century. Overall, the historical map research indicated no listed cultural resources within one-half mile of the APE.

Pedestrian Survey

On March 5 and May 14, 2021, an intensive pedestrian survey of the entire APE was conducted using a digital camera, printed aerial and topographic field maps, and a Trimble Global Positioning System unit for field documentation. The systematic archaeological survey footprint was 19.27 acres. All potential pipeline locations, access points, and staging areas were systematically surveyed in 5- to 15-meter transect intervals. Significant amounts of vegetation, including tall grasses and blackberry, as well as extensive historic and modern disturbances, such as private driveways and paved roads, resulted in little to no intact native soils present and poor ground surface visibility. All in all, no new cultural resources were identified during the pedestrian survey.

3.6.3.2 Natural Setting

Cultural resources encompass archaeological, traditional, and built environment resources, including but not necessarily limited to buildings, structures, objects, districts, and sites. The APE lies within the lower foothills of the west-central Sierra Nevada approximately 4 and a half miles south of the city of Ione. Today, the Ione Formation is an important source of silica sand and kaolin clay, which have been mined for nearly 150 years. In addition, the fossilized remains of Eocene-age plants, as well as animal burrows and trails, also occur locally in the formation, and these are potentially important paleontological resources (Creely and Force 2007; Merrill 1984; Waucoba n.d.). Local vegetation consists largely of even-stand blue oak woodland, valley oak woodland, blue oak foothill/pine woodland, chaparral (especially Ione chaparral), and various annual grasses and forbs. Special species such as buckwheats, manzanitas, plants of the rose family, and others that grow in the area had importance for the native Miwok people (Izzi 2021).

3.6.3.3 Prehistorical Setting

The Latest Pleistocene/Early Holocene Period

People were living in the Amador/Calaveras region by perhaps 10,000 years ago. Their habitations are marked by large-stemmed dart points of the Western Stemmed tradition, along with large, leaf-shaped bifaces and a variety of cutting, scraping, and perforating tools. No plant-processing implements (milling stones, mortars, slicks) have been identified from this period, and organic remains such as bone and charred plants are unlikely to have survived for so long. Consequently, archaeologists know little about the larger subsistence or settlement practices of these early people, although the current theory is that most early populations in California were highly mobile groups who traveled between key resource areas. This is reflected in part by the high diversity of exotic tool stones present in most early period toolkits. In the Ione vicinity, only one site has yielded clear evidence of latest Pleistocene/early Holocene use (Wulf and Wooten 1999; Delacorte et al. 2000).

The Middle Holocene/Middle Archaic Period

More information is available for the middle Holocene, especially after about 6,500 years ago. Sites from this period contain a much wider variety of artifacts—not only large-stemmed dart points but also broad-stemmed and square-stemmed points (Milliken et al. 1997) and large side and corner-notched darts (Rosenthal 2008), as well as milling gear, atlatl weights, steatite objects, keeled scrapers, abraders/smoothing stones, and other implements suggesting a more-intensive and more-inclusive suite of activities. The middle Holocene was marked by severe and prolonged drought in many parts of the west, and there were likely concomitant changes in the way people lived on the land.

The Late Holocene/Late Archaic Period

At the end of the mid-Holocene droughts, sometime after 4,000 years ago (depending on location), water and other key resources would have been more abundant again. “Late Archaic” temporal components (ca. 3000–1,100 Before Present [BP]) were the most common in their Sonora sites, which are about 35 miles from the proposed project area. Not many technological, dietary, or land use differences distinguishing the Middle from the Late Archaic periods were found in the area.

The Late Holocene/Late Prehistoric Period

The archaeological record for the period after about 1,000–500 years ago resembles the settlement patterns, resource use, and material culture of the people who were living in the region when the first non-natives arrived, ca. AD 1840. The first half of this period saw severe and prolonged droughts across much of the west, punctuated by extremely wet periods; this dramatic fluctuation has been termed the Medieval Climatic Anomaly and can be traced in the environmental record throughout California and the western Great Basin (Jones et al. 1999; Waechter and Andolina 2005).

After about 500 years ago, at the end of the Medieval Climatic Anomaly, climatic conditions became much the same as today, and the ethnographic-period patterns were established. Among the most important changes in the archaeological record of this area is the introduction of the bow and arrow at about 1,100 calibrated years (cal) BP, an innovation apparently borrowed from neighboring groups to the north or east. It remains unclear whether bedrock mortars were first widely used during this time period, but their common occurrence at sites in the Late Prehistoric Period sites suggests that they became an important milling technology by at least 610 cal BP.

Native American Historical Setting

The APE falls within the traditional homeland of the people who spoke Northern Sierra Miwok.

The project area is located at the base of the foothills, at these lower elevations; however, Sierra Miwok people were bound together with their nearest neighbors by bonds of economic reciprocity and intermarriage. The nature and extent of ethnographic-period inter-group warfare is poorly documented in

the Sierra Miwok regions. By the time ethnographers spoke with young Sierra Miwok people in the late nineteenth century, their main enemies for many years had been the invading Anglo-Americans (Izzi 2021).

The Buena Vista Rancheria of Me-Wok Indians of California has been listed by the Secretary of the Interior as a federally recognized Indian tribe since 1985. The Tribe's Rancheria land is a 67-acre parcel in Amador County just outside the town of Buena Vista (Buena Vista Rancheria Tribe 2022). The tribe is still present in the region and is taking an active role in preserving their culture through events, community involvement, and protecting their Tribal cultural resources. The Jackson Rancheria Band of Miwuk Indians (federally recognized since 1898) is another tribe in the region that are still present on their native land and are invested in the protection of their cultural heritage. Through their enterprises, including a casino, they contribute on a community level, but also are invested in environmental and cultural preservation.

Historical Setting

Buena Vista is located on the Rancho Arroyo Seco, granted to Teodosio Yerba (Yorba) on May 8, 1840, by Mexican Governor Juan Bautista Alvarado. Rancho Arroyo Seco included 11 leagues of land and was bounded on the north by the Cosumnes River, on the south by the Mokelumne River and the Sacramento Road, and on the east by the Sierra Nevada (Mason 1881). Yorba made no effort to occupy the land, and in 1852 he sold it to Andrés Pico for 500 head of longhorn cattle (Mason 1881). Pico made no attempt to occupy the Grant until the after the American occupation. Many American settlers arrived shortly after the gold discovery of 1848 and, believing the land was in the public domain, established 160-acre farms and communities within its boundaries. Pico's emissaries soon informed the settlers that they were trespassing and ordered them to vacate the land. A society, or league, was then formed to contest the Grant (Andrews 1967; Mason 1881). Pico began selling Grant land in April 1855, continuing through 1857. In April 1855, Pico sold a portion of the Arroyo Seco to Ramon De Zaldo for $2,000, and soon thereafter Pico and De Zaldo sold several of the mines, including all the quartz leads then known to be valuable, as well as the townsites of Amador, Sutter, and Jackson. By 1866, when the first official map of Amador County was produced, the towns of Buena Vista and Ione City had been permanently established. The rich Jackson Valley fed by Jackson Creek made Buena Vista a successful farming community (Mason 1881), with Ione being the nearest developed town. Ione developed rapidly, with a brick store in 1855, a flour mill the same year, a school house and town hall in 1858, and a Methodist Church built of Muletown brick, in 1862 (Mason 1881). Buena Vista saw the construction of its own schoolhouse in 1857.

3.6.4 Impacts

Historical and Archaeological Resources: The records search resulted in the identification of 10 cultural resources within one-quarter mile of the APE, none of which intersect the APE. The buried site sensitivity analysis identified a Moderate to High potential to encounter buried precontact resources within the workspaces south of Jackson Creek; the proposed excavations in these locations are a tie-in point, a bell hole, and an HDD access bell hole and entry pit. There is also an elevated potential to encounter subsurface historic-era road features along Buena Vista Road, north of Jackson Creek. No historic properties were identified during the pedestrian inventory; however, visibility was poor throughout the APE due to dense vegetation and disturbances.

A review of Exhibit 4.5-2, Cultural Resource Sensitivity, of the Amador County General Plan Final EIR indicates the site is in an area identified as having moderate and high cultural resource sensitivity. Although the General Plan does not apply to PG&E's project due to CPUC preemption, its information is relevant and its provisions concerning cultural resources are consistent with the requirements of CEQA Guidelines Section 15126.4(b)(3) and PRC Section 21083.2, with which PG&E must comply. General Plan Mitigation Measure 4.5-1b requires applicants for discretionary projects within County jurisdiction that could have significant adverse impacts on prehistoric or historic-era archaeological resources to assess impacts and provide mitigation as part of the CEQA process. These regulations generally require consultation with appropriate agencies, the Native American Heritage Commission, knowledgeable and

Native American groups and individuals, new and updated record searches conducted by the North Central Information Center and federal and incorporated local agencies within and in the vicinity of the project site, repositories of historic archives including local historical societies, and individuals, significance determinations by qualified professionals, and avoidance of resources if feasible. Tribal outreach and communication conducted for this project is further discussed in Section 3.19, Tribal Cultural Resources. If avoidance is not feasible, recovery, documentation and recordation of resources is required prior to project implementation, and copies of the documentation will be forwarded to the North Central Information Center. The impacts on unknown historical and archaeological resources is considered **less than significant.**

Human Remains: This site is a known burial site or formal cemetery. Based on the age of soils, the buried site sensitivity analysis identified a Moderate to High potential to encounter buried precontact resources within the workspaces south of Jackson Creek. Dozens of buried Native American archaeological sites have been discovered in valleys within the Sierra foothills, including Jackson Creek Valley, but it is especially difficult to predict exactly where they may be located. While there is work planned within the highest potential zone, the footprints are small. Instead, the deepest and most extensive earth disturbances will occur within the Perkins loam north of the creek, where the site potential is low or lowest, and within an area most likely not occupied by long-term human settlements historically. Therefore, the project has the potential to disturb or damage any as-yet-unknown archaeological resources or human remains.

The project will implement **Mitigation Measures CUL-1 through CUL-5** to reduce impacts from ground-disturbing activities, which is also consistent with General Plan Mitigation Measure 4.5-2 of the Amador County General Plan EIR. The impacts on as-yet-undiscovered significant resources are considered **less than significant.**

3.6.5 Mitigation

CUL-1: Develop and Implement Worker Environmental Awareness Program Before Construction. PG&E will design and implement a worker environmental awareness program that will be provided to all project personnel involved in earthmoving activities. This training will be administered by a qualified cultural resource professional either as a stand-alone training or as part of the overall environmental awareness training required by the project, and may be recorded for use in subsequent training sessions. No construction worker will be involved in field operations without having participated in the worker environmental awareness program. The worker environmental awareness program will include, at a minimum:

- A review of archaeology, history, prehistory, and Native American cultures associated with historical resources in the project vicinity
- A review of applicable local, state, and federal ordinances, laws, and regulations pertaining to historic preservation
- A discussion of procedures to be followed if unanticipated cultural resources are discovered during implementation of the project
- A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and PG&E policies
- A statement by the construction company or applicable employer agreeing to abide by the worker education program, PG&E policies, and other applicable laws and regulations

CUL-2: Manage Unanticipated Discovery of Cultural Resources. A PG&E-approved cultural resources principal investigator that meets the Secretary of Interior's Professional Qualifications Standards in archaeology or architectural history in coordination with the on-site Tribal monitor, if present, will implement the following procedures if an unanticipated cultural resource is discovered during construction.

If cultural resources are inadvertently discovered during site preparation or construction activities, work within 100 feet of the discovery will be halted. The location of any such finds must be kept confidential and measures shall be taken to secure the area from site disturbance and potential vandalism including erecting protective barriers or fencing with signage identifying the area as an “environmentally sensitive area.” Construction activities will be redirected to another location until a qualified cultural resources specialist along with the on-site Tribal monitor, if present, can examine the find. The find will be secured, and PG&E’s cultural resource specialist or designated representative will be contacted immediately. If the on-site Tribal monitor is not present, the appropriate Tribal representative will also be contacted. The qualified cultural resources specialist and, the Tribal monitor will inspect the discovery and determine whether further investigation is required. If it is possible to avoid the resource, no further measures are necessary.

If avoidance is not feasible, then the resource must be subject to Phase II investigations to determine whether it is eligible for the California Register of Historical Resources using the criteria outlined in Section 5024.1 of the California Public Resources code. A treatment plan, if needed to address the significance of the find, shall be developed by cultural resources principal investigator and, for Tribal Cultural Resources, the culturally affiliated Tribal monitor, and submitted to the appropriate Tribal representative and the PG&E CRS for review, input, and concurrence prior to implementation of the plan. Any approval to resume construction work after discovery of an intact deposit or feature will be given by the PG&E CRS after coordination with the cultural resources principal investigator and Tribal monitor. The Phase II investigations will be documented in a technical report conforming to professional standards and archived at the Central California Information Center (CCIC). This technical report may be submitted at the end of project construction.

Resources found to not be significant need not be treated further, and construction may resume. Impacts on resources determined to be significant will be treated through the development and execution of a Phase III data recovery plan. The measures to be used during Phase III data recovery will be developed specific to the resource, but are likely to include additional site recording, controlled excavation, and, as appropriate, post-field laboratory analysis. Because it is extremely unsafe and impractical to recover buried cultural resources from within an auger bore or drill hole, and to do so could unnecessarily disturb the resource further, no effort will be made to recover buried cultural resources identified in auger spoils. However, the location and nature of the cultural resource materials identified will be recorded, and this will be documented in the Phase III report. The results of Phase III work will be documented in a report submitted at the end of project construction, and the report may include additional cultural resources studies performed during the course of construction.

CUL-3: Follow Statutory Requirements for Treatment of Human Remains. If human remains or suspected human remains are uncovered during construction, all work within 100 feet of the discovery will be halted and redirected to another location. The find will be secured, and PG&E’s cultural resource specialist or designated representative will be contacted immediately to inspect the find and determine whether the remains are human. If the remains are not human, the cultural resources specialist will determine whether the find is an archaeological deposit and whether Mitigation Measures CUL-2 applies. If the remains are human, the cultural resources specialist will immediately implement the provisions in PRC Sections 5097.9 through 5097.996, beginning with the immediate notification to the affected county coroner. The coroner has 2 working days to examine human remains after being notified. If the coroner determines that the remains are Native American, California HSC 7050.5 and PRC Section 5097.98 require that the cultural resources specialist contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC, as required by PRC Section 5097.98, determines and notifies the Most Likely Descendant. PG&E will work with the Most Likely Descendant to determine appropriate treatment of the remains.

CUL-4: Monitoring During Construction. Although the project area has been heavily impacted by agriculture, road and utility construction, and urban development, the potential for buried archaeological sites still exists. Based on the current project design, full-time archaeological monitoring is recommended during the initial 10 feet of excavation required for the bell hole, the HDD access bell hole, and entry pit locations. Spot-check monitoring is recommended at depths between 10 and 20 feet, and no archaeological monitoring is required for depths greater than 20 feet. Full-time monitoring is also required during grading and other ground-disturbing activities.

The Buena Vista Rancheria of Me-Wuk Indians have indicated that the project area is culturally significant and a native plant gathering area. As such, a representative of the Buena Vista Rancheria of Me-Wuk Indians will be invited to monitor the initial 10 feet of excavation required for the bell hole, the HDD access bell hole, entry pit locations, grading and other ground disturbing activities. Spot-checking monitoring is recommended at depths between 10 and 20 feet and no Tribal monitoring is required for depths greater than 20 feet.

The frequency and duration of spot checking will be guided by field observations, and decisions to alter the cadence or monitoring depth, or to discontinue such spot-checks will be made in consultation with the on-site archaeological monitor, on-site Buena Vista Rancheria of Me-Wuk Indians representative and PG&E Cultural Resource Specialist.

If cultural resources are discovered during construction monitoring, work within 100 feet of the discovery will be halted and redirected to another location until the cultural resource specialist and Tribal monitor can examine the find and determine whether further investigation is required. If so, the procedures outlined in Mitigation Measure CUL-2 will be implemented.

CUL-5: Undiscovered Potential Tribal Cultural Resources. The following procedure will be employed (after stopping work and following the procedure for determining eligibility in Mitigation Measure CUL-2) if a resource is encountered and determined by the project's on-site Tribal monitor in coordination with the cultural resources principal investigator to be a Tribal Cultural Resource as defined by PRC Section 2107:.

The PG&E Cultural Resource Specialist will be notified of the discovery. The on-site Tribal monitor in coordination with the project's cultural resources principal investigator will participate with the PG&E Cultural Resource Specialist in discussions to determine the tribe(s)' preferred method of mitigation. If no agreement can be reached regarding mitigation after discussions with the Tribe(s) or it is determined that the tribe(s)' preferred mitigation is not feasible, PG&E will consult with the Lead Agency and implement one of the example mitigation measures listed in PRC Section 21084.3(b), or other feasible mitigation.

3.7 Energy

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

3.7.1 Introduction

This section describes impacts on energy associated with the project's transportation-related energy use, and during construction and operation. The project would result in less than significant impacts from energy consumption during construction and operation. The project would have no impact on state or local plans for renewable energy or energy efficiency.

3.7.2 Regulatory Setting

3.7.2.1 Federal

Energy Policy Act of 2005

The Energy Policy Act created energy-related tax incentives from 2005 to 2016 to promote energy efficiency and conservation, renewable energy, oil and gas production and transmission, coal production, and electric generation and transmission.

American Recovery Reinvestment Act of 2009

As part of a larger stimulus package, the Recovery Act authorized federal funding to the U.S. Department of Energy to forward specific energy priorities, including modernizing the nation's electric transmission grid.

3.7.2.2 State

Renewable Portfolio Standard Program

Established in 2002, California's Renewable Portfolio Standard aims to ensure that a minimum amount of renewable energy is included in the portfolio of electricity resources offered by electricity providers. In September 2018, Senate Bill (SB) 100 was signed into law, which directed the CPUC, California Energy Commission, and State Air Resources Board to plan for 100 percent of total retail sales of electricity in California to come from eligible renewable-energy resources and zero-carbon resources by December 31, 2045. The law notes that new and modified electric transmission facilities may be necessary to facilitate the achievement of the state's renewables portfolio standard targets.

Renewable Energy Transmission Initiative

The Renewable Energy Transmission Initiative 2.0 is a statewide, nonregulatory planning effort convened by the California Natural Resources Agency, with participation from the California Energy Commission, CPUC, California Independent System Operator, and the U.S. Bureau of Land Management (BLM) California Office. The Renewable Energy Transmission Initiative 2.0 was created to explore the renewable generation potential available to California utilities to help meet statewide greenhouse gas

(GHG) reduction and renewable-energy goals, and to identify the potential transmission implications of accessing and integrating these resources.

Senate Bill 100—The 100 Percent Clean Energy Act of 2018

Under SB 100, the Public Utilities Commission established a portfolio standard that requires eligible renewable-energy resources and zero-carbon resources supply 100% of retail sales of electricity to California by December 31, 2045. The bill requires utilities to procure 50% of electrical power from renewable resources by 2026, 60% by 2030, and 100% from renewable and zero-carbon resources by 2045.

California 2008 Energy Action Plan Update

Originally developed in 2003 and updated in 2005 and 2008, the California Energy Action Plan identifies specific action areas to ensure that California's energy resources are adequate, affordable, technologically advanced, and environmentally sound. The plan's first-priority actions to address California's increasing energy demands are energy efficiency and demand response (that is, reduction of customer energy usage during peak periods to address system reliability and support the best use of energy infrastructure). Additional priorities include the use of renewable sources of power and distributed generation. The plan also notes that investment in conventional transmission infrastructure is crucial to helping the state meet its renewable-energy goals.

3.7.2.3 Local

Because CPUC has exclusive jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary regulations. This section includes a description of local plans and policies related to energy, which is provided for informational purposes and to assist with CEQA review.

3.7.2.4 Amador County General Plan

The Amador County General Plan Land Use Element includes policies to guide land use patterns and building sites and designs toward more energy-efficient modes. The Land Use Element discusses strategies to decrease energy use. Some of these strategies include mixed-use development, pedestrian and bicycle connections, providing additional local services in town centers to support outlying rural communities, and infill development of underdeveloped land to place homes and destinations closer together.

3.7.2.5 Amador County Energy Action Plan

The Amador County Energy Action Plan (EAP) is a roadmap for expanding energy efficiency and renewable-energy efforts already underway in the County. The goal of the plan is to reduce electrical energy used in 2020 by 14% (from Baseline Year 2005) natural gas use by 7% and propane use by 7% (Amador County 2015). The EAP provides goals, strategies, and actions to reduce energy use throughout the County. Some goals include increasing energy efficiency in existing structures, increase the energy performance of new construction, and increase renewable-energy use.

3.7.3 Existing Conditions

Amador County's electricity and natural gas utilities are distributed by PG&E. Amador County has five power plants generating electricity from natural gas, hydroelectric, municipal solid waste, and solar power. The largest electric power generator in Amador County is the Electra Powerhouse, with a capacity of approximately 102.5 megawatts of natural gas-fired power.

Energy Conservation

PG&E sponsors several energy conservation programs that include education, solar energy incentives, electric cars, florescent lighting business program, and a weatherization program for low-income families. These services are intended to reduce energy consumption in homes through the replacement of inefficient appliances and minor housing repairs, making homes more energy efficient. Consumers also receive educational materials that provide energy-saving tips and information.

3.7.4 Impacts

Wasteful Consumption of Energy Resources: The project will not result in potentially significant impacts because of wasteful, inefficient, or unnecessary consumption of energy resources. The replacement pipeline will serve the same purpose as the existing pipeline in the regional system.

Construction to replace the existing pipeline will be short-term and temporary. PG&E's engineering and construction management staff have developed an efficient construction plan and sequence that minimizes vehicle trips and avoids wasteful, inefficient, or unnecessary consumption of energy.

Additionally, any related construction and operation of the project would follow industry standard BMPs to reduce impact of energy waste. The project will temporarily introduce an increase in construction-related energy use but would not result in significant environmental impacts because of energy resource management. There is no long-term project construction or long-term operational changes resulting in substantial energy use; therefore, there would be a **less than significant impact**.

Conflict with Plan: Construction of the project will support state and local plans for developing renewable energy and energy efficiency. The only local energy plan is the EAP, which provides goals and strategies to reduce energy consumption throughout the County. The project would not conflict with or obstruct plans within the EAP; therefore, there would be **no impact**.

3.7.5 Mitigation

None required.

3.8 Geology and Soils

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	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 geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

3.8.1 Introduction

This section describes the existing geology and soils setting, including paleontological resources, and the potential impacts associated with the project. Based on the following evaluation, impacts from the project on geology and soils would be less than significant.

3.8.2 Regulatory Setting

3.8.2.1 Federal

Federal Earthquake Hazards Reduction Act

Congress established the National Earthquake Hazards Reduction Program (NEHRP) as a coordinated program through the Earthquake Hazards Reduction Act of 1977 (P.L. 95-124) and most recently reauthorized the program in 2018 (P.L. 115-307). Four federal agencies have responsibilities related to earthquake hazards and risk reduction: USGS, the National Science Foundation, the Federal Emergency Management Agency (FEMA), and the National Institute of Standards and Technology. Congress designated the National Institute of Standards and Technology as the lead agency for NEHRP in 1990 (NEHRP 2021). These agencies perform the four major NEHRP activities:

- Develop effective measures for earthquake hazards reduction
- Promote the adoption of earthquake hazards reduction measures
- Improve understanding of earthquakes and their effects
- Continue the development of the Advanced National Seismic System, a nationwide network of seismic stations operated by the USGS

Antiquities Act of 1906

The Antiquities Act of 1906 was enacted to protect cultural resources in the U.S. This act explicitly prohibits appropriation, excavation, injury, and destruction of any historic or prehistoric ruin or monument, or any "object of antiquity" located on lands owned or controlled by the federal government, without prior permission of the secretary of the federal department that has jurisdiction over the site. The act also establishes criminal penalties, including fines and/or imprisonment, for these acts. The Antiquities Act contains a requirement for studies by qualified experts in the subject matter and contains precise stipulations regarding the management/curation of collected materials. Although the Antiquities Act itself and its implementing regulation do not specifically mention paleontological resources, "objects of antiquity" have been interpreted to include paleontological resources by the National Park Service, BLM, the U.S. Forest Service, and other federal agencies (National Park Service 2022).

Paleontological Resources Preservation, Omnibus Public Lands Act

The Omnibus Public Lands Act (OPLA) is legislation directing the Secretaries (Interior and Agriculture) to manage and protect paleontological resources on federal land using scientific principles and expertise. OPLA Paleontological Resources Preservation (PRP) incorporates most of the recommendations of the report of the Secretary of the Interior titled Assessment of Fossil Management on Federal and Indian Lands (2000) to formulate a consistent paleontological resources management framework. In passing the OPLA-PRP, Congress officially recognized the scientific importance of paleontological resources on some federal lands by declaring that fossils from these lands are federal property that must be preserved and protected. The OPLA-PRP codifies existing policies of the BLM, National Park Service, U.S. Forest Service, U.S. Bureau of Reclamation, and USFWS, and provides the following:

- Uniform criminal and civil penalties for illegal sale and transport, and theft and vandalism of fossils from federal lands
- Uniform minimum requirements for paleontological resource-use permit issuance (terms, conditions, and qualifications of applicants)
- Uniform definitions for "paleontological resources" and "casual collecting"
- Uniform requirements for curation of federal fossils in approved repositories
- Federal legislative protections for scientifically significant fossils for projects that take place on federal lands (with certain exceptions such as the Department of Defense). If any portion of the project occurs on federally managed (that is, BLM) lands, federal protections for paleontological resources on those lands apply under the National Environmental Policy Act, the Federal Land Policy and Management Act, and OPLA-PRP (BLM 2015).

3.8.2.2 State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act is the state law that focuses on hazards from earthquake fault zones. The purpose of this law is to mitigate the hazard of surface fault rupture by regulating structures designated for human occupancy near active faults.

However, the project does not involve the construction of buildings for human occupancy and would not be subject to the laws set by the Alquist-Priolo Earthquake Fault Zoning Act. As required by the act, the California Geological Survey has delineated earthquake fault zones along known active faults in California.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was enacted in 1990 to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the state geologist to map areas subject to seismic hazards (California Department of Conservation 2019b). In cases where site-specific seismic hazard risks are present, a geotechnical investigation of the site must be conducted, and appropriate mitigation measures must be incorporated into the project design before development permits would be granted. Additionally, the act (as amended June 9, 1998) requires that a Standardized Natural Hazards Disclosure Statement form be completed by real estate sellers if a property is within one of the designated natural hazards areas.

California Public Resources Code

The PRC Sections 5097.5 and 30244 include additional state-level requirements for the assessment and management of paleontological resources. These statutes require reasonable mitigation of adverse impacts on paleontological resources resulting from development on state lands, define the removal of paleontological sites or features from state lands as a misdemeanor, and prohibit the removal of any paleontological site or feature from state land without permission of the applicable jurisdictional agency. Section 30244 requires reasonable mitigation for impacts on paleontological resources that occur as a result of development on public lands. Further, California Penal Code Section 622.5 sets the penalties for damaging or removing paleontological resources.

3.8.2.3 Local

Because the CPUC has sole jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary regulations. This section includes a description of local plans and policies related to geology and soils, which is provided for informational purposes and to assist with CEQA review.

Amador County Multi-hazard Mitigation Plan

In 2020, the Amador County Office of Emergency Services (OES) updated the 2014 Local Hazard Mitigation Plan (LHMP), which identifies potential long-term risks to people and property from natural hazards and their effects. The plan lays out a strategy that will enable Amador County to become less vulnerable to future disaster losses. The LHMP was prepared to meet the requirements of the Disaster Mitigation Act of 2000 to maintain Amador County's eligibility for FEMA Pre-Disaster Mitigation and Hazard Mitigation Grant Program. The Hazard Mitigation Grant Program covers unincorporated Amador County; the incorporated communities of Amador City, Ione, Jackson, Plymouth, and Sutter Creek; the Amador Water Agency; and the Jackson Valley Irrigation District. The Hazard Mitigation Grant Program includes an examination of the recorded history of losses resulting from natural hazards, an analysis of future risks posed to Amador County by these hazards (for example, wildfires, floods, and drought), and several mitigation goals and an objective based on the results of the risk assessment and includes specific recommendations for actions that can mitigate potential future disaster losses (Amador County 2020).

3.8.3 Existing Conditions

3.8.3.1 Regional Geology

Amador County is located in the foothills of the Sierra Nevada, on the eastern fringe of the Sacramento Valley. The County's elevation ranges from less than 300 feet above sea level at the western end of the County to a high of more than 9,000 feet in the easternmost portion of the County. The Sierra Nevada trends north-northwest from Bakersfield to Lassen Peak, and includes the Sierra Nevada mountain range and a broad belt of western foothills. The Sierra Nevada block is composed of northwest-trending belts of metamorphic, volcanic, and igneous rocks that have undergone intense deformation, faulting, and intrusion. Active faults that mark the eastern edge of the Sierra Nevada have resulted in upthrusting and tilting of the entire Sierra Nevada block in the last 5 million years—steeply on the eastern edge (adjacent to the Mono Basin), and gently along the western edge. The gently rolling Sierra Nevada foothills are comprised of metamorphosed sedimentary rocks that have been intruded by igneous rocks. The rock formations that make up the western edge of the Sierra Nevada block likely originally formed as a volcanic arc that was later accreted (added) to the western margin of the continent during the Jurassic period (Day 1992).

3.8.3.2 Project Site Geologic Units

The project site is located within Quaternary-aged sedimentary and metasedimentary rocks of the Riverbank and Modesto Formations (Amador County 2016b).

3.8.3.3 Seismicity, Landslides, or Liquefaction Hazard

Seismic activity may result in geologic and seismic hazards, including seismically induced fault displacement and rupture, ground shaking, liquefaction, lateral spreading, landslides and avalanches, and structural hazards. The project site, based on the Department of Conservation's Ground Motion Interpolator online tool, has a 2% chance in 50 years of experiencing up to 0.211 peak ground acceleration from an earthquake (California Department of Conservation 2019c).

Amador County is located within an area with relatively low seismic activity. Seismic activity may result in geologic and seismic hazards, including seismically induced fault displacement and rupture, ground shaking, liquefaction, lateral spreading, landslides and avalanches, and structural hazards. No Alquist-Priolo earthquake fault zones are located in the APE (California Department of Conservation 2022).

The Amador County LHMP, Figure 4-66, maps the project site area as having a low (less than 1.5%) likelihood of a landslide. The plan also states that "no known liquefaction areas exist in Amador County" (Amador County 2020).

3.8.3.4 Soils

Soils in the project area are mapped as having a "Slight – Slight" erosion protentional (Amador County 2016b). Mapped soils in the project area of interest (AOI) include Ho north of the river described as Honcut very fine sandy loam, PrA on the north side of the river described as Perkins loam, moderately deep, 0 to 3% slopes, and Pw Placer diggings and Riverwash (U.S. Department of Agriculture n.d.).

3.8.4 Impacts

Risk of Loss Injury or Death due to Geologic Hazards: Pursuant to Division 2, Chapter 7.5, Section 2622 of the PRC (Alquist-Priolo Earthquake Fault Zoning Act), the California Geological Survey has determined there are no sufficiently active, or well-defined faults or areas subject to strong ground shaking, liquefaction, landslides, or other ground failure in Amador County as to constitute a potential hazard to structures from surface faulting or fault creep. California Geological Survey's online Maps of Earthquake Fault Zones does not include the project site as an area with known geologic faults (California Department of Conservation 2022). The impact would be **less than significant**.

Soil Erosion and Loss of Topsoil: Any grading activity moving more than 50 CY of soil will require a ministerial grading permit. Grading Permits are reviewed and approved by the County in accordance with Ordinance 1619 (County Code 15.40), and conditions/requirements are applied to minimize potential erosion (Amador County 2021). The issuance of a grading permit, along with the implementation of erosion controls, would minimize any potential erosion resulting from the project to a **less than significant impact**.

Potential Subsidence or Liquefaction: As previously indicated, the California Geological Survey has determined there are no sufficiently active or well-defined faults or areas subject to strong ground shaking, liquefaction, landslides, or other ground failure in the County that would constitute a potential hazard to structures from surface faulting or fault creep. Therefore, the impact would be **less than significant**.

Expansive Soils: Expansive or collapsible soils are characterized by the ability to undergo significant volume change (shrink and swell) as a result of variation in soil moisture content. Soil moisture content can change because of many factors, including perched groundwater, landscape irrigation, rainfall, and utility leakage. Expansive soils are commonly very fine-grained with a high to very high percentage of two-to-one clays. The project is not located in an area identified as having a high shrink-swell potential as shown in General Plan EIR Exhibit 4.6-2, Soil Limitations.

Additionally, because there are no structures proposed as part of this project, it is unlikely that even if expansive soils are found at the project site, there would be impacts detrimental to the project, property, or current uses. Therefore, the impact would be **less than significant.**

Paleontological Resources and Geological Features:

The paleontological report found that the project site and surroundings were determined to have paleontological sensitivity ranging from low to high (BLM Potential Fossil Yield Classification System Classes 2 to 4b). However, the likelihood of impacting scientifically significant fossils during project construction is low because of the geological units likely to be impacted by the project and because of the nature of the excavation.

The maximum depth of open excavation for the project would be 8 feet below ground surface north of Jackson Creek and 11 feet south of Jackson Creek. Several excavations for bore pits, bell holes, and trenches are required on both sides of the river. Given the extent of excavation and the fact that scientifically significant fossils have been found in the Modesto and Riverbank Formations elsewhere, there is a chance of encountering them for this project during bore pit, bell hole, and trench excavation.

HDD excavation would exceed 27 feet below ground surface to tunnel under Jackson Creek. However, HDD excavation uses a small gauge drill, which would destroy any fossils encountered. Thus no fossils could be salvaged from HDD excavation. The Ione Formation has high sensitivity but occurs on upland areas and is unlikely to be impacted by the project.

Implementation of **Mitigation Measures PALEO-1** through **PALEO-3** would reduce project impacts on fossils found within the project area. Therefore, impacts on paleontological resources would be **less than significant.**

3.8.5 Mitigation

PALEO-1: Worker Environmental Awareness Training. Training on paleontological resources protection will be administered for excavations deeper than 3 feet below ground surface at all work locations. It may be provided by the project paleontologist/archaeologist as a stand-alone training or it may be included as part of the overall environmental awareness training as required by the project.

The training will include, at minimum, the following:

- The types of fossils that could occur at the project site

- The types of lithologies in which the fossils could be preserved
- The procedures that should be taken in the event of a fossil discovery
- Penalties for disturbing paleontological resources

PALEO -2: Monitoring. Monitoring will be required for excavation deeper than 2 feet below ground surface by qualified field paleontologists. After the first 25% of excavations north of the creek and south of the creek are completed, monitoring can cease or consist of spot checking if no significant finds have been made at the discretion of the principal investigator. If fossils are encountered, monitoring will be full time until excavations are complete. Monitoring activities will be documented in daily logs and summarized in a report that documents daily activities, the geology encountered, description of any resources encountered, and measures taken to protect or recover discoveries. HDD boring will not be monitored because the small gauge would render any fossils encountered nonrecoverable. During the design phase of the project, a paleontological resources monitoring and mitigation plan and worker environmental awareness training program for paleontological resources will be prepared by a qualified paleontologist.

PALEO -3: Unanticipated Discovery. If significant paleontological resources are discovered during construction activities, the following procedures will be followed:

- Stop work immediately within 100 feet.
- Contact the designated project inspector and cultural resource specialist (CRS) immediately.
- Protect the site from further impacts, including looting, erosion, or other human or natural damage.
- The project CRS will arrange for a principal paleontologist to evaluate the discovery. If the discovery is determined to be significant, PG&E will implement measures to protect and document the paleontological resource. Work may not resume within 100 feet of the find until approved by the paleontologist and CRS.
- The fossil will be curated in an appropriate repository.

3.9 Greenhouse Gas Emissions

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

3.9.1 Introduction

This section describes the regulatory setting and GHG emissions associated with the project and analyzes the impacts from project activities. This analysis concludes that project activities would result in less than significant impacts related to GHG emissions.

3.9.2 Regulatory Setting

3.9.2.1 Federal

GHG emissions that contribute to global climate change include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride. In April 2007, the U.S. Supreme Court held that GHG emissions are pollutants within the meaning of the CAA. In reaching its decision, the Supreme Court also acknowledged that climate change results, in part, from anthropogenic causes (*Massachusetts et al. v. Environmental Protection Agency*, 549 U.S. 497, 2007). The Supreme Court's ruling paved the way for the regulation of GHG emissions by USEPA under the federal CAA.

In response to this Supreme Court decision, on December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA:

- Endangerment Finding: That the current and projected concentrations of GHGs in the atmosphere threaten the public health and welfare of current and future generations.

- Cause or Contribute Finding: That the combined emissions of GHGs from new motor vehicles and new motor vehicle engines contribute to GHG pollution, which threatens public health and welfare.

In 2009, USEPA issued the Final Mandatory Reporting of Greenhouse Gases Rule, which requires reporting of GHG emissions from large sources and suppliers in the U.S. This rule requires suppliers of fossil fuels and industrial GHGs, manufacturers of vehicles and engines outside the light-duty sector, and facilities that emit more than 25,000 metric tons (MTs) of carbon dioxide equivalent (CO_2e) per year from stationary sources to submit annual reports to USEPA. CO_2e is the number of MTs of CO_2 emissions with the same global warming potential as 1 metric ton of another GHG, and is calculated using global warming potential (GWP) from the 2014 Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (IPCC 2014). This is most often calculated over 100 years and is known as the 100 year GWP.

With the 2010 GHG Tailoring Rule, USEPA mandated that Prevention of Significant Deterioration (PSD) and Title V operating permit requirements would apply to facilities whose potential to emit for CO_2e emissions from stationary sources would exceed 100,000 tons per year. This changed in 2014, when the Supreme Court decision in *Utility Air Regulatory Group v. Environmental Protection Agency, et al.* (573 U.S. 302) found that USEPA does not have the authority to require PSD and Title V permitting for facilities based solely on GHG emissions. Rather, the Supreme Court found that USEPA can regulate

GHG emissions from sources that are already subject to PSD and Title V operating permit requirements due to emissions of other pollutants.

The project would not be subject to the above federal laws and regulations because no stationary sources are associated with the project.

3.9.2.2 State

Executive Order S-3-05, issued in 2005, established GHG emissions reduction targets for the State of California. The targets called for a reduction of GHG emissions to 2000 levels by 2010, 1990 levels by 2020, and 80% below 1990 levels by 2050. The California Environmental Protection Agency Secretary is required to coordinate development and implementation of strategies to achieve the GHG reduction targets.

In 2006, the California State Legislature passed the Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32), which provides the framework for regulating GHG emissions in California. This law requires CARB to design and implement emission limits, regulations, and other measures such that statewide GHG emissions are reduced in a technologically feasible and cost-effective manner to

Part of CARB's direction under AB 32 was to develop a scoping plan that contains the main strategies California will use to reduce the GHG emissions that contribute to climate change. CARB first approved the AB 32 Scoping Plan in 2008 and released its latest update in 2017. The Scoping Plan includes a range of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and a fee regulation to fund the AB 32 program.

One key regulation resulting from AB 32 was CARB's Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, which came into effect in January 2009, with the most recent amendments in 2018. This regulation requires annual GHG emissions reporting from electric power entities, fuel suppliers, carbon dioxide (CO_2) suppliers, operators of petroleum and natural gas systems, and industrial facilities that emit 10,000 MT or more of CO2e per year from stationary combustion and/or process sources. The project would not be subject to this regulation because no stationary sources are associated with the project.

CARB adopted the California Cap-and-Trade Program on October 20, 2011. Under this program, most covered entities have an obligation to hold GHG allowances, including fuel suppliers and public utility gas corporations operating in California (CARB 2019b).

On April 29, 2015, Governor Brown issued Executive Order B-30-15, directing state agencies to implement measures to reduce GHG emissions 40% below their 1990 levels by 2030 and to achieve the previously stated goal of an 80% GHG reduction by 2050. On September 8, 2016, SB 32 was enacted, which extends California's commitment to reduce GHG emissions by requiring the state to reduce statewide GHG emissions by 40% below 1990 levels by 2030. The 2017 update to CARB's Scoping Plan established a path that will get California to its 2030 target.

To best support the reduction of GHG emissions consistent with AB 32, CARB released the Short-Lived Climate Pollutant (SLCP) Reduction Strategy in March 2017. This plan, required by SB 605, established targets for statewide reductions in SLCP emissions of 40% below 2013 levels by 2030 for CH_4 and hydrofluorocarbons and 50% below 2013 levels by 2030 for anthropogenic black carbon (CARB 2017). The SLCP Reduction Strategy was integrated into the 2017 update to CARB's Scoping Plan.

3.9.2.3 Local

The project is in Amador County, which is within the jurisdiction of the ACAPCD. ACAPCD is the agency charged under state law with preparing, adopting, and implementing emission control measures and standards for mobile, stationary, and area sources of air pollution for Amador County. The proposed

project is subject to ACAPCD requirements. Amador County currently does not have an adopted Climate Action Plan.

3.9.3 Existing Conditions

CO_2, methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride, hydrofluorocarbons, and perfluorinated compounds are all GHGs that contribute to global climate change. Emissions of CO_2 occur largely from combustion of fossil fuels. The major categories of fossil fuel combustion sources can be broken into five sectors: residential, commercial, industrial, transportation, and electricity generation. GHGs other than CO_2 (for example, CH_4, N_2O, and fluorinated gases, which occur in smaller quantities) are also tracked by state inventories.

Under AB 32's annual reporting requirements, PG&E reports GHG emissions to CARB, including emissions from electricity generation facilities, natural gas compressor stations, natural gas supplied to customers, and the fugitive emissions from its natural gas distribution system and compressor stations. PG&E's historical reported emissions from natural gas releases associated with regular operation and maintenance of the gas distribution system are provided in Table 8-1, Fugitive GHG Emissions from PG&E's Gas Distribution System within the Project Area. The GHG emissions presented in this section for existing conditions were derived from CARB's Mandatory GHG Reporting data.

Table 8-1. Fugitive GHG Emissions from PG&E's Gas Distribution System within the Project Area

Year	GHG Emissions[a] (MT CO_2e per year)
2016	2.49
2017	2.59
2018	2.05
2019	2.05
2020	2.05

Source: CARB 2019c

[a] Emissions from PG&E's gas distribution system within the project area were calculated by averaging PG&E's reported annual GHG emissions for the entire service territory on a per-mile basis (48,579 miles) and multiplying this average by the total length of pipeline in the project area (0.2 mile).

3.9.4 Impacts

GHG Emissions: GHG emissions from project include those from equipment and vehicles used during the construction phase, as well as fugitive GHG emissions from the pipeline operation. Project construction-related GHG emissions were quantified using the same methodology described for criteria air pollutants in Chapter 3. The project is not anticipated to increase GHG emissions once the construction is completed. Maintenance activities would remain the same as current levels. Fugitive GHG emissions from the pipeline operation are not expected to change because the project would not add additional pipeline length.

The project's construction-related GHG emissions were summarized in Table 8-2. ACAPCD has not set significance thresholds for operations-related or construction-related GHG emissions, and there is no County-adopted GHG reduction plan. As a general comparison, the estimated construction emissions are well below GHG thresholds established other California air quality districts, such as the South Coast Air Quality Management District's GHG significance threshold of 10,000 MTs CO_2e per year for industrial source operations, including amortized project construction emissions over 30 years of project lifetime. The GHG emissions from this project construction amortized over 30 years would be 8 MTs per year and would not contribute significantly to GHG levels within Amador County. Therefore, GHG emissions generated during project construction would result in a less than significant impact.

Table 8-2. GHG Emissions from Project Construction

	CO_2e Emissions (MT per year)
Construction Emissions	237

Note:

CO_2e values were calculated using the following GWPs (GWP, 100-year GWP) from 40 CFR Appendix Table A-1 to Subpart A of Part 98 - Global Warming Potentials

GHG construction emissions would be further reduced with implementation of BMPs, as further described in the following section. With implementation of these measures, the project would not generate substantial GHG emissions, and the impact would be **less than significant**.

Plans and Policies for GHG Emissions: The project construction activities are short-term and not associated with the construction and operation of new stationary sources. Equipment and vehicles supporting the project would comply with CARB requirements to reduce GHG emissions, and would be consistent with state and local plans developed to meet the goals of AB 32. Furthermore, emission reduction measures and BMPs would be implemented during project construction.

The project would implement measures to reduce exhaust emissions from construction equipment. Example measures include:

- Where feasible, equipment requiring the use of fossil fuels (for example, diesel) will be replaced or substituted with electrically driven equivalents (provided that they are not run via a portable generator set).
- To the extent feasible, alternative fuels and emission controls will be used to further reduce exhaust emissions.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes (as required by the state airborne toxics control measure [Title 13, Section 2485 of the CCR]). Provide clear signage that posts this requirement for workers at the entrances to the site.
- The hours of operation of heavy-duty equipment and/or the amount of equipment in use at any one time will be limited.
- Staging areas for heavy-duty construction equipment will be located as far as possible from sensitive receptors.
- Implement construction BMPs to minimize fugitive dust emissions. BMPs could include, but are not limited to Sacramento Metropolitan Air Quality Management District's Basic Construction Emission Control Practices. To the extent feasible, use best available control technology at the time of construction activities to minimize exhaust emissions from construction equipment and vehicles. Provide a construction management plan for minimizing fugitive dust and exhaust emissions to ACAPCD for approval before commencing construction activities.

By implementing the emission reduction measures that comply with the state and local requirements and are consistent with the AB 32's goals, the project would not conflict applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. The project would have **less than significant impacts**.

3.9.5 Mitigation

None required.

3.10 Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
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 §65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☒	☐	☐

3.10.1 Introduction

This section describes the environmental setting and impacts related to hazards and hazardous materials. For the purposes of this analysis, the term “hazards” refers to risk associated with such issues as fires, explosions, exposure to hazardous materials, and interference with emergency response plans.

The term “hazardous material” is defined in different ways for different regulatory programs. For this analysis, hazardous material is defined by the California Health and Safety Code Section 25501: “because of their quantity, concentration, or physical or chemical characteristics, (hazardous materials) pose a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.”

Hazardous waste is a subset of hazardous materials. For this analysis, hazardous waste is defined by the California Health and Safety Code Section 25517, and in CCR, Title 22, Section 66261.2: because of their quantity, concentration, or physical or chemical characteristics, may either cause, or significantly contribute to an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Based on the impact analysis, the project would not result in potentially significant adverse impacts from hazards or hazardous materials.

3.10.2 Regulatory Setting

3.10.2.1 Federal

Refer to Section 3.11.2 in the Hydrology and Water Quality section for information regarding the CWA and NPDES permit to discharge water. In addition, the following federal regulations also apply to the proposed project:

- CAA (42 U.S.C. 7401 et seq., as amended), administered by USEPA, regulates accidental releases of hazardous materials through hazard assessments and response programs.

- Resource Conservation and Recovery Act, administered by California Department of Toxic Substances Control (DTSC), regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. The DTSC is also authorized to implement the state's hazardous waste management program for the USEPA.

- Toxic Substances Control Act 1976 (15 U.S.C. 2605), administered by USEPA, provides reporting requirements, record keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures.

- Comprehensive Environmental Response, Compensation and Liability Act, administered by USEPA, provides funding to clean up uncontrolled or abandoned hazardous waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment.

- Hazardous Materials Transportation Act – 49 U.S.C. Sections 5101–5127 regulates the transportation of hazardous materials, types of hazardous materials, and vehicle marking during transport.

- Occupational Safety and Health Act (29 CFR 1910) (administered by Occupational Safety and Health Administration [OSHA]) protects workers by setting standards related to safety and health.

3.10.2.2 State

The following apply to the proposed project:

- The Department of Industrial Relations requires employee training, safety equipment, prevention, and hazardous substance exposure warnings through the California Occupational Safety and Health Act, and also requires employers to monitor exposure to listed hazardous substances and to notify employees of exposure.

- The State Office of Emergency Services requires the preparation of hazardous materials business plans that include an inventory of hazardous materials that are handled, their storage locations, an emergency response plan, employee safety training, and emergency response procedures.

- The California Office of Environmental Health Hazard Assessment protects drinking water from chemical contamination through the Safe Drinking Water and Toxic Enforcement Act.

- The Office of Environmental Health Hazard Assessment has an inspection program for aboveground storage tanks. The Aboveground Petroleum Storage Act requires owners or operators of aboveground petroleum storage tanks to file a storage statement and to implement measures to prevent spills.

- California Department of Forestry and Fire Protection (CAL FIRE) requires that owners of property located within the responsibility area of CAL FIRE create defensible spaces around structures where firefighters can provide protections during a wildfire (PRC Section 4291). CAL FIRE guidelines for compliance with Section 4291 have been incorporated into the Sonoma County Community Wildfire

Protection Plan (Fire Safe Sonoma n.d.). According to these guidelines, a firebreak should be maintained by removing and clearing away all flammable vegetation and other combustible growth within 30 feet of each building or structure. Single specimens of trees or other vegetation may be retained if they are well spaced, well pruned, and not conducive to the spread of fire. Section 4291 requires maintenance of a Reduced Fuel Zone with clearing treatments at a distance of 30 to 100 feet from a structure.

- In January 2018, the CPUC adopted its statewide High Fire-Threat District Map designed specifically to show areas where there is an increased risk for utility-associated wildfires. The High Fire-Threat District Map designates three areas where there is an increased risk from wildfires: Tier 3 (extreme fire risk), Tier 2 (elevated fire risk), and Zone 1 (U.S. Forest Service and CAL FIRE Tree Mortality High Hazard Zone Tier 1 not included in Tier 3 or Tier 2). Tier 2 fire-threat areas depict areas where there is an elevated risk (including likelihood and potential impacts on people and property) from utility-associated wildfires. Tier 3 fire-threat areas depict areas where there is an extreme risk (including likelihood and potential impacts on people and property) from utility-associated wildfires (CPUC 2020). These CPUC designations do not replace CAL FIRE's fire hazard severity zones. CAL FIRE is required to identify areas based on the severity of fire hazard that is expected to prevail there. These areas, or "zones," are based on factors such as fuel, slope, and fire weather. There are three zones, based on increasing fire hazard: medium, high, and very high.

3.10.2.3 Local

Because CPUC has exclusive jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary regulations. This section includes a description of local plans and policies related to hazards and hazardous materials, which is provided for informational purposes and to assist with CEQA review.

- Safety Element of the Amador County General Plan. The purpose of the Safety Element is to reduce or avoid potential hazards to community residents, structures, community facilities, and infrastructure. The objectives of the Safety Element include reducing risks associated with natural and human-caused disasters and respond effectively to emergencies.

- Amador County 2020 LHMP. The LHMP identifies potential long-term risks to people and property from natural hazards and their effects. The plan lays out a strategy that will enable Amador County to become less vulnerable to future disaster losses.

3.10.3 Impacts

Hazardous Materials Transport and Handling: Proposed work on the natural gas lines may require the use of hazardous materials (for example, lubricants, paints, oils, and solvents), which could potentially impact the health and safety of project personnel, nearby residents, and the environment. An inadvertent spill of one or more of these hazardous materials could potentially occur. PG&E would transport hazardous wastes, or enter into contracts for the transportation of hazardous wastes, in compliance with U.S. DOT, USEPA, California Highway Patrol, and California Department of Toxic Substances Control regulations. In addition to regulatory compliance, implementation of **Mitigation Measure HAZ-1**, Hazardous Materials Program, would ensure that hazardous materials are properly stored, transported, handled, and cleaned up.

Additional hazardous materials that could potentially be used at temporary work areas include gasoline, diesel fuel, pipe coatings, lubricants (for example, WD-40), and spray paint. During project activities, compressed gas containers of oxygen, nitrogen, argon, acetylene, hydrogen, and helium may be used for welding, cutting, and brazing. In addition, epoxy coatings and related solvents may be used for coating newly welded sections of pipeline. Fuel used to power portable engines would also be onsite during testing activities, but it would be kept in PG&E's vehicles and not stored onsite. Implementation of **Mitigation Measure HAZ-2**, Worker Environmental Awareness Training, would ensure that project personnel are prepared to transport, handle, and store hazardous materials. Therefore, impacts resulting from the transport, use, or disposal of hazardous materials would be **less than significant**.

Natural gas would be released during the project. Each section of pipeline to be worked on would be removed from service and purged of natural gas. PG&E proposes to minimize the volumes of natural gas released during purging by bundling the project activities so that one blowdown would occur on each line as necessary. Sniff holes would be used to verify that the lines were purged of gas for safety. Blowdowns are standard practices when performing maintenance on natural gas pipelines, and PG&E's workforce is trained to complete such actions. Additionally, as required by **Mitigation Measure (HAZ-3)** GEO-1, PG&E would implement the procedures outlined in PG&E's 2019 Gas Safety Plan (PG&E 2019). If a rupture were to occur, PG&E would immediately notify emergency responders and conduct emergency response procedures as outlined in **Mitigation Measure HAZ-**6 (**4**). With implementation of the mitigation measures and standard operating procedures, this impact would be **less than significant**.

Hazardous Materials Upset and Release: The storage, transport, and use of hazardous materials associated with vehicles and equipment used for project activities could result in an inadvertent release or spill. However, the volume of potentially hazardous materials used during project activities would be relatively small. Implementation of **Mitigation Measure HAZ-**4 (**5**), Project Personnel Training, would further minimize potential impacts and ensure that project personnel are adequately trained to contain and clean up potential spills in accordance with standard BMPs and PG&E's Hazardous Materials Program. In addition, implementation of **Mitigation Measure HAZ-**3 (**6**) would ensure that BMPs are followed regarding the storage of hazardous materials and the cleanup of any potential spills.

Project activities would involve excavations that could potentially result in damage to subsurface utilities and infrastructure, including the associated infrastructure within the work area for Location D. To avoid potential damage to existing facilities, PG&E would contact Underground Service Alert before conducting excavation activities and would use potholing methods to determine the specific location of existing underground utilities before ground disturbance. Per **Mitigation Measure HAZ-3** (GEO-1), PG&E would implement the procedures outlined in PG&E's 2019 Gas Safety Plan. As discussed in the response to checklist question (a) in this section, PG&E would implement its Hazardous Materials Program, the measures within the 2019 Gas Safety Plan, and applicable BMPs during project-related construction activities. If a rupture were to occur, PG&E would immediately notify emergency responders and conduct emergency response procedures as outlined in **Mitigation Measure HAZ-**6 (**4**). Therefore, impacts resulting from reasonably foreseeable upset or accident conditions would be **less than significant**.

Hazardous Emissions and Acutely Hazardous Materials Near Schools: The project is not likely to emit hazardous emissions or handle hazardous, acutely hazardous materials, substances or wastes nor is the project located within one-quarter mile of an existing or proposed school. There would be **no impact**.

Hazardous Materials Sites: Project applicant(s) will comply with requirements of the California Department of Toxic Substances Control, the Central Valley RWQCB, and/or other applicable agencies regulating the investigation and cleanup of the site. Impacts will be **less than significant** on hazardous materials sites.

Hazards and Airports (Public and Private): The project is located approximately 1.5 miles northeast of Camanche Skypark Airport. However, the site is not located in the approach or departure path for aircraft and will not result in a safety hazard for people residing or working in the project area. The impact would be **less than significant**.

Emergency Response Plan and Emergency Evacuation Plan: The project does not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; therefore, there would be **no impact**.

Wildland Fire Hazards: The project is located in Moderate Fire Risk Zones and therefore will conform with all standard fire safety regulations as determined by Amador County Fire Department and the California Building Standards Code. The project could potentially result in a fire attributable to the increased presence of vehicles, equipment, and human activity in areas of elevated fire-threat classes. In particular, heat or sparks from construction vehicles or equipment could potentially ignite dry vegetation

or materials. **Mitigation Measure HAZ-7, Fire Safety Practices**, would ensure that fire safety practices are in accordance with OSHA standards. In addition, PG&E would implement its Wildfire Safety Plan, which outlines PG&E's wildfire reduction programs and measures, including enhanced vegetation management, real-time weather monitoring, and other controls.

As described earlier in this section, natural gas would be released by PG&E before work on the pipelines begins. The accidental ignition of natural gas in areas designated as moderate to extreme threat class could potentially result in wildland fires. However, work methods and techniques described in this section as well as implementation of **Mitigation Measures HAZ-3** and **HAZ-4**, wherein emergency responders are notified immediately and emergency response procedures are conducted in the event of a rupture, would minimize this risk. PG&E's fire response measures would be conducted on an as-needed basis at the request of local fire departments, and may include creating firebreaks or fire roads to stop the spread of fire and minimize the resulting damage.

While the project is located within a moderate wildfire hazard area, impacts associated with wildland fire are not anticipated because of the implementation of OSHA fire safety standards, the implementation of **Mitigation Measure HAZ-7**, and implementation of PG&E's Wildfire Safety Plan, which outlines PG&E's wildfire reduction programs and measures, including enhanced vegetation management, real-time weather monitoring, and other controls. PG&E would notify emergency responders and would respond to fires at the discretion of local fire department during project activities. Therefore, people or structures would not be subject to the risk of loss, injury, or death involving wildland fires, and potential impacts would be **less than significant**.

3.10.4 Mitigation

HAZ-1: Hazardous Materials Program. As part of PG&E's Hazardous Materials Program, PG&E personnel and/or licensed contractors are trained in the legal requirements for the storage, transportation, handling, and cleanup of hazardous materials before conducting project activities. In addition, PG&E personnel will keep spill kits onsite for use in the event of a spill; avoid the storage of hazardous materials on or near work areas; and conduct fueling servicing vehicles offsite in accordance with PG&E's Hazardous Materials Program. When the storage of hazardous materials within or near work areas is required, the quantities of hazardous materials stored onsite will be minimized, and the materials will be stored in closed containers that are located away from drainage courses, storm drains, and areas of stormwater infiltration. In addition, hazardous liquids, wastes, and chemicals will be stored in watertight containers with secondary containment to prevent any spillage or leakage.

HAZ-2: Worker Environmental Awareness Training. As part of PG&E's standard environmental awareness training, project personnel will be provided specific information and protocols regarding the transportation, handling, and storage of hazardous materials. This information typically includes definitions of hazardous materials; legal requirements for hazardous materials storage, transportation, and handling; and a description of agency oversight.

HAZ-3: Gas Safety Plan. Implementation of the 2019 Gas Safety Plan will be adhered to as a part of the project.

HAZ-4: Emergency Responder Notification. PG&E will immediately notify emergency responders and conduct emergency response procedures in the event of a rupture. PG&E's fire response measures will be conducted on an as-needed basis at the request of local fire departments, and may include creating firebreaks or fire roads to stop the spread of fire and minimize the resulting damage.

HAZ-5: Project Personnel Training. Project personnel will be trained to identify and handle hazardous materials, as well as trained in the location, use, and contents of spill kits. If hazardous materials are encountered during ground-disturbing activities, project personnel will stop work immediately and implement cleanup measures in accordance with PG&E's Hazardous Materials Program.

HAZ-6: Best Management Practices. BMPs include keeping a spill kit at work areas, avoiding the storage of hazardous materials on or near work areas to the extent feasible, fueling and servicing

vehicles offsite, and storing hazardous materials in secondary containment. Project personnel will also be trained to properly store, transport, and handle hazardous materials in accordance with the applicable regulations.

HAZ-7: Fire Safety Practices. PG&E will implement fire safety practices in accordance with OSHA standards and PG&E's Wildfire Safety Plan. These standards include ensuring access to firefighting equipment, maintaining firefighting equipment in operating condition, ensuring access to a temporary or permanent water supply, staging internal combustible-engine-powered equipment away from combustible materials, and prohibiting smoking in the vicinity of activities that constitute a fire hazard. In addition, PG&E will clear vegetation as necessary to ensure the safe and efficient use of equipment within temporary access routes, staging areas, and work areas.

3.11 Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
i) result in a substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

3.11.1 Introduction

This section documents the existing hydrological and water quality setting in the project area and evaluates the potential impacts of project implementation.

3.11.2 Regulatory Setting

3.11.2.1 Federal

The CWA (33 U.S.C. Section 1251 et seq.) is the primary federal law governing surface water quality. The goal of the CWA is to restore and maintain the physical, chemical, and biological integrity of the waters of the U.S. The CWA guides restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.

Implementation of the CWA is managed by USEPA; however, other agencies have been delegated primary regulatory responsibility for certain sections of the CWA. CWA Section 401, 402, and 404 requirements specifically apply to construction projects that might affect jurisdictional wetlands and waters of the U.S.

Per Section 401 of the CWA, a federal agency may not issue a permit or license to conduct any activity that may result in a discharge into waters of the U.S. unless the state issues a water quality certification verifying compliance with state water quality requirements or waives the certification requirement. The certification requirement applies to federal permits or licenses such as 404 permits issued by the USACE or Federal Energy Regulatory Commission hydropower licenses. In California, the State Water Resources Control Board (SWRCB) and the nine RWQCBs have the primary responsibility for administering state and federal regulations related to water quality, including Section 401 water quality certification. The project would fall under the jurisdiction of the Central Valley RWQCB.

Section 402 established the NPDES, which regulates permits to discharge a pollutant (except dredge or fill material) into waters of the United States. Construction projects with disturbance areas greater than 1 acre that are implemented as part of the Program require coverage under the state's Construction General Permit (CAS0000001, Order 2009-0009-DWQ as amended by Orders 2010-0014-DWQ and 2012-0006-DWQ). Specifically, compliance with this General Permit requires the following:

- Develop and implement a stormwater pollution prevention plan (SWPPP) specifying BMPs that would prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters.

- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation.

- Perform inspections of all BMPs.

Section 404 of the CWA established the USACE permit program regulating the discharge of dredged or fill material into jurisdictional wetlands and waters of the U.S. The USACE's dredge and fill regulations are in 33 CFR Parts 320 through 330. Implementation of dredge and fill permitting follows the Section 404, subdivision (b)(1) Guidelines, which were jointly developed by USEPA and USACE (40 CFR Part 230). The Section 404, subdivision (b)(1) Guidelines allow the discharge of dredged or fill material into an aquatic system only if no practicable alternative with fewer adverse effects is available. Section 404 compliance is discussed further in Section 3.5, Biological Resources.

FEMA administers the National Flood Insurance Program, which subsidizes flood insurance to communities that limit development in floodplains. As part of this program, FEMA maps all U.S. areas that fall within a 100-year floodplain (that is, areas with a greater than 1% annual probability of flooding). The project work area is located within FEMA Zone A, which is an area subject to inundation by the 1% annual chance flood event.

3.11.2.2 State

The 1969 Porter-Cologne Water Quality Control Act gives statutory authority to regulate surface water and groundwater quality in the state to the SWRCB and the RWQCBs. This act is implemented by the SWRCB and nine RWQCBs, which regulate all pollutant or nuisance discharges that may affect surface water resources. The federal CWA authority under Section 402 was extended to the SWRCB and RWQCBs in 1972. The Porter-Cologne Water Quality Control Act protects the beneficial uses of surface water, as well as groundwater, in California, with a focus on water quality. The SWRCB and RWQCBs have the authority under this act to regulate waste discharge to surface waters or land, and also to provide the certification required by CWA Section 401 as described above.

Refer to Section 3.5, Biological Resources, for information regarding Section 1602 of the Fish and Game Code.

3.11.3 Impacts

Water Quality Standards and Waste Discharge Requirements: Potential water pollutants associated with the project could be generated during the construction phase and could include soil sediment and petroleum-based fuels or lubricants. The project involves ground-disturbing activities that could potentially cause the release of excess sediment outside of work areas.

Grading and excavation activities have the potential to increase runoff due to temporary changes to surface contours. Sediment transport from construction work areas to adjacent water resources could contribute to water quality degradation. The erosion potential at most of the work areas is low because the majority of work would occur in areas with flat to gentle sloping terrain and work would be conducted during the dry season. PG&E would obtain coverage under the Construction General Permit (2009-0009-DWQ) and implement a SWPPP to control impacts associated with stormwater runoff as outlined in **Mitigation Measure WQ-1**. Implementation of the SWPPP would help stabilize graded areas and reduce erosion and sedimentation through the use of BMPs, thereby minimizing the potential of the project to degrade surface water quality or violate water quality standards. **Mitigation Measure WQ-2** would require worked environmental awareness training that would include spill prevention and response measures, as well as proper BMP implementation. **Mitigation Measure WQ-3** would specify that vehicle and equipment fueling and maintenance operations be conducted in designated areas only that are equipped with appropriate spill control materials and containment.

Potential impacts on water quality would be minimized through implementation of the BMPs. In addition, implementation of Mitigation Measures WQ-1, WQ-2, and WQ-3, along with BMPs outlined in the California Stormwater Quality Association's *Construction BMP Handbook* (California Stormwater Quality Association 2019) would reduce water quality impacts to less than significant.

No other foreseeable sources of pollution are anticipated to be associated with these activities. Given the generally flat topography and that work will be conducted in the dry season, as well as implementation of the project SWPPP and Mitigation Measures WQ-1, WQ-2, and WQ-3, the project is not expected to violate any water quality standards or waste discharge requirements. As a result, project activities would not otherwise substantially degrade water quality, and impacts would be **less than significant**.

Groundwater Supplies: Project activities would not involve the significant use or loss of groundwater and would not impede groundwater recharge.

The amount of groundwater generated by the project will depend in part on how much rainfall there is in winter and spring leading up to mobilization. Total groundwater volumes encountered could range from approximately 1,000 gallons to 1,000,000 gallons. If groundwater is encountered, it would be containerized until a representative sample has been sampled and characterized. This water would then be discharged to land in several parcels in the vicinity of the project area. Groundwater discharged to land would act to replenish the local groundwater supplies. If the land discharge parcels become saturated, then additional groundwater would be discharged into a sanitary sewer discharge location within Buena Vista Road. Discharge would be coordinated and permitted with the RWQCB to ensure compliance with water quality regulatory requirements.

Water used for dust control would be obtained from a nearby municipal supply, which could be sourced from surface water or groundwater. Although dust control water may be sourced from groundwater supplies, the volume is minor and anticipated to have a negligible effect on groundwater supplies because the project does not involve the direct extraction of groundwater for dust control. Water availability would be confirmed by PG&E closer to when construction is scheduled to commence. In addition, the project would not result in the creation of any new impervious surfaces and would therefore not impede groundwater recharge.

Because a majority of the groundwater encountered by project activities would be discharged to land, thereby recharging local groundwater supplies, impacts from dewatering and dust control are anticipated to be less than significant, and because no new impervious surfaces would be created, the project would have **less than significant** impacts on groundwater depletion and recharge.

Drainage Patterns and Erosion/Siltation/Flooding: The project will not alter the course of surface water drainage patterns of the area, or substantially increase the rate or amount of surface runoff in a manner which would result in substantial erosion or siltation onsite or offsite. PG&E would obtain coverage under the Construction General Permit (2009-0009-DWQ) and implement a SWPPP to control impacts associated with erosion and sedimentation as outlined in Mitigation Measure WQ-1. Implementation of the SWPPP would help stabilize graded areas and reduce erosion and sedimentation through the use of BMPs, thereby minimizing the potential for erosion or siltation. BMPs in both the general SWPPP and site-specific SWPPP would be implemented to reduce erosion and siltation on- and offsite. Construction would occur between June and August, during a time of year when precipitation is generally low. However, if weather forecasts during construction suggest that flowing water may intrude into project work areas before backfill and restoration, sandbags would be placed to divert water around the work areas to minimize the potential for both on- and offsite erosion and sedimentation. As a result, impacts would be less than significant.

No new impervious surfaces would be created as part of project activities. In addition, a weed-free, native seed mix would be used for site revegetation to stabilize project locations. Because all locations would be returned to approximate pre-project contours and conditions upon the completion of project activities, impacts on erosion and siltation on- or offsite would remain largely unchanged from existing conditions and would be **less than significant**.

Flood Hazard/Seiche/tsunami/mudflow: The project site is located in Zone A (100-year floodplain) as identified on the most recent FEMA Flood Insurance Rate Maps (FEMA n.d.). As described previously, construction would occur between June and August, during a time of year when precipitation is generally low. However, if weather forecasts during construction suggest that flowing water may intrude into project work areas before backfill and restoration, sandbags would be placed to divert water around the work areas to minimize the potential for inundation and the release of any pollutants into flood waters.

As previously described, project activities have the potential to introduce new sources of pollutants, including soil sediment and petroleum-based fuels or lubricants. However, BMPs in both the general SWPPP (2009-0009-DWQ) and site-specific SWPPP would be implemented. As a result of these standard measures, activities would not result in substantial additional sources of pollutants that could be released into floodwaters, and impacts would be **less than significant**.

Water Quality Control Plan: The existing stormwater system consists of natural overland flow into intermittent and perennial streams. No planned stormwater drainage systems are proposed by the project. As previously described, the project would result in a less than significant impact on water quality. Additionally, there is no existing water quality control plan or sustainable groundwater management plan in the vicinity of the project. Therefore, the project would have **no impact**.

3.11.4 Mitigation

WQ-1: SWPPP Development and Implementation. Following project approval, PG&E will prepare and implement an SWPPP or an amendment to an existing SWPPP to minimize construction impacts on surface water and groundwater quality. Implementation of the SWPPP will help stabilize graded areas and reduce erosion and sedimentation. The plan will designate BMPs that will be adhered to during construction activities. Erosion and sediment control measures, such as straw wattles, covers, and silt fences, will be installed before the onset of winter rains or any anticipated storm events. Suitable stabilization measures will be used to protect exposed areas during construction activities, as necessary. During construction activities, measures will be in place to prevent contaminant discharge from vehicles and equipment.

The project SWPPP will include erosion control and sediment transport BMPs to be used during construction. BMPs, where applicable, will be designed by using specific criteria from recognized BMP design guidance manuals. Erosion-minimizing efforts will include measures such as the following:

- Defining ingress and egress within the project area

- Implementing a dust control program during construction
- Properly containing stockpiled soils

Temporary measures such as silt fences or wattles, intended to minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have been stabilized. The plan will be updated during construction as required by the SWRCB.

WQ-2: Worker Environmental Awareness Training. The project's worker environmental awareness training will communicate environmental issues and appropriate work practices specific to this project. This training will include spill prevention and response measures, as well as proper BMP implementation. The training will emphasize site-specific physical conditions to improve hazard prevention (such as identification of flow paths to nearest water bodies) and will include a review of all site-specific water quality requirements, including applicable portions of erosion control and sediment transport BMPs, health and safety plan, and hazardous substance control and emergency response plan.

WQ-3: Vehicles and Equipment Fueling and Maintenance. Vehicle and equipment fueling and maintenance operations will be conducted in designated areas only; these will be equipped with appropriate spill control and containment materials.

3.12 Land Use and Planning

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	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 Introduction

This section includes information on the regulatory and environmental setting, and includes analysis of potential land use impacts resulting from the project. No impact would occur on land use as a result of the project.

3.12.2 Regulatory Setting

Because CPUC has exclusive jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary land use and planning regulations. This section includes a description of local plans and policies related to land use and planning issues generally, and it is provided for informational purposes to assist with CEQA review.

3.12.2.1 Amador County General Plan

The Land Use Element of the Amador County General Plan sets forth the County's vision for future land uses and identifies how the physical environment will be shaped. The Land Use Element does not have specific land use policies related to utilities. The project is primarily located within land designated for agricultural uses.

3.12.3 Existing Conditions

The project area is zoned as a "Special Use District" and is within the "Public Service" and "Agricultural General" designations in Amador County. Land uses surrounding the project area are predominately rural agriculture. The project site includes a northern work area, the portion of the project site that crosses Jackson Creek, and a southern work area. The northern work area consists mostly of irrigated pasture, cattle grazed and un-grazed grasslands with patches of vegetation, and rural residential properties. The portion of the project site that crosses Jackson Creek includes moderate to dense riparian tree cover. The southern work area consists mostly of grassland and disturbed gravel road surface.

3.12.4 Impacts

Divide an Established Community: The project involves the assessment and potential replacement of existing gas pipelines, and these proposed activities would not result in the physical division of an established community. No new features or other built components would be implemented that would otherwise introduce a new barrier that physically divides an established community. Therefore no impacts on existing established communities would result, and **no impacts** would occur.

General Plan and Zoning Consistency: The project site includes the following General Plan land use designation:

- PS, Public Service, described in the General Plan as public, quasi-public, or public utility sites used for public services such as schools, public buildings, corporation yards, public airports, fairgrounds,

water and sewer plants, cemeteries, and power substations, etc. Large acreages in highway ROWs may be included.

- AG, Agricultural General, described in the General Plan as valley and foothill areas that are best suited for grazing and varied agricultural uses. Agriculture is the primary use. Permitted density in this designation is based on site factors including the slope of the parcel, soil conditions, and water availability.

Zoning districts for the project are:

- X, Special; Use District. Per the Zoning Code, uses permitted include all uses not otherwise prohibited by law, subject to securing a use permit as specified in this title; provided, however, that agricultural uses as defined in this title, shall not be subject to a use permit.

The project does not conflict with any applicable land use plan. There would be **no impact**.

3.12.5 Mitigation

None required.

3.13 Mineral Resources

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
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?	☐	☐	☒	☐

3.13.1 Introduction

This section describes the existing mineral resources in the project vicinity, and discusses potential impacts associated with construction of the project. The analysis concludes that the project would have less than significant impacts on mineral resources with the implementation of the mitigation measures presented in Section 3.13.4.

3.13.2 Regulatory Setting

3.13.2.1 State

Surface Mining and Reclamation Act

The California Surface Mining and Reclamation Act of 1975 (SMARA) classifications (indicating lands needed for their mineral content) have been applied to several areas of the Amador County. SMARA was enacted in response to land use conflicts between urban growth and essential mineral production. The classification system is intended to ensure consideration of statewide or regionally significant mineral deposits in planning and development administration. These mineral designations are intended to prevent incompatible land use development on areas determined to have significant mineral resource deposits.

SMARA (PRC Section 2710 et seq.) is the primary regulation for onshore surface mining in the state. SMARA mandated that aggregate resources throughout the state be identified, mapped, and classified by the state geologist so that local governments could make land use decisions in light of the presence of aggregate resources and the need to preserve access to those resources. Local jurisdictions are required to enact specific plan procedures to guide mineral conservation and extraction at particular sites, and to incorporate mineral resource management policies into their general plans.

The Division of Mines and Geology has prepared Mineral Land Classification Maps for aggregate resources. The Mineral Land Classification Maps designate four different types of resource sensitivities. The four sensitivity types are as follows:

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

The establishment of MRZs is based on a geologic appraisal of the mineral resource potential of the land. This appraisal includes research of geologic and mining-related literature, compilation of geologic maps, and plotting of reported mines and prospects using publications and mine data of the Department of Conservation's Division of Mines and Geology (DMG), U.S. Geological Survey, the former U.S. Bureau of Mines, and the BLM. It also involves field work which includes site investigations of mines and mineral prospects, sampling of rocks for chemical and physical analyses and petrographic studies, geophysical surveys, and geologic mapping as appropriate.

Permitted uses within an MRZ include mining, uses that support mining such as smelting and storage of materials, or uses that will not hinder future mining such as grazing, agriculture, large-lot rural development, recreation, and open space. The most important zone with respect to the presence of resources is MRZ-2, which is defined as "areas where adequate information indicates that significant mineral (aggregate) deposits are present (2a) or where it is judged that there is a high likelihood for their presence (2b)." This zone is applied to known mineral deposits or where well-developed lines of reasoning, based on economic geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is high.

California Department of Conservation

The California Department of Conservation is the primary agency with regard to mineral resource protection. The department is charged with conserving earth resources (PRC Sections 600-690) and has four program divisions that address mineral resource issues:

- California Geological Survey (CGS) – provides scientific products and services about the state's geology, seismology, and mineral resources. They also provide the SMARA Land Classification maps.

- Division of Oil, Gas, and Geothermal Resources (DOGGR) – provides regulatory programs that emphasize the wise development of oil, natural gas, and geothermal resources. They also provide well location and production data.

- Office of Mine Reclamation – provides oversight of local governments as they administer SMARA within their respective jurisdictions. The primary focus is on existing mining operations and the return of those mined lands to a usable and safe condition.

- State Mining and Geology Board – develops policy direct regarding the development and conservation of mineral resources and reclamation of mined lands.

3.13.2.2 Existing Conditions

Minerals are defined as any naturally occurring chemical elements or compounds formed from inorganic processes and organic substances. Minable minerals, or an "ore deposit," are defined as a deposit of ore or mineral having a value materially in excess of the cost of developing, mining, and processing the mineral and reclaiming the area.

A variety of mineral resources are present in Amador County, many of them being actively mined. A large gold deposit runs along California State Route 49. To the west of the gold deposit, approximately centered on the city of Ione, a large area contains a variety of minerals including sand, clay, lignite, copper, zinc, and gold. Smaller areas of substantial mineral deposits containing limestone, lode gold, talc, and gold are scattered around the remainder of the western portion of Amador County.

The project area is located within MRZ-2b meaning it is an area where adequate geologic information indicates that a high likelihood for the presence of mineral resources exists. Areas classified MRZ-2b contain discovered deposits that are either inferred reserves or deposits that are presently sub-economic as determined by limited sample analysis, exposure, and past mining history. Further exploration work and/or changes in technology or economics could result in upgrading areas classified MRZ-2b to MRZ-2a. A typical MRZ-2b area would include sites where there are good geologic reasons to believe

that an extension of an operating mine exists or where there is an exposure of mineralization of economic importance.

3.13.3 Impacts

Known Mineral Resources and Sites/Conflict with Local Plans: A Review of Exhibit 4.6-4 (Mineral Resource Zones) in the Amador County General Plan EIR indicates that a portion of the project site is located within an identified mineral resource zone (MRZ-2b).

Currently, mining in Amador County includes refractory sand, clay, gold, lignite, and aggregate materials. In addition to other mineral resources present in the planning area, the Ione Formation, located in western Amador County, is the only large source of super duty refractory clay in the western United States. This resource is used in the production of heat-resistant brick for high-temperature furnaces. Amador County's MRZ-2 areas include areas with known or inferred deposits of gold, lode gold, copper, zinc, talc, limestone, sand, silica sand, clay, and lignite. These MRZ-2 designations are intended to prevent incompatible land use development on areas determined to have significant mineral resource deposits. Although the County's General Plan identifies the importance of mineral extraction to the County's economy, and the County has designated many areas with mineral resources into the MRZ land use and/or MRZ district, the project could potentially prevent or restrict the availability of either state- or locally designated mineral resources. However, upon project completion, all locations would return to their approximate preconstruction state. Therefore, the impacts on known mineral resources is considered **less than significant**.

3.13.4 Mitigation

None required.

3.14 Noise

Would the project result in:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

3.14.1 Introduction

This section analyses the potential noise sources associated with construction of the project, including equipment used during excavating/trenching, pipe removal/installation, backfilling, and grading within the project work areas. The analysis concludes that noise impacts from construction and operation of the project would be less than significant with the implementation of mitigation measures presented in Section 3.14.5.

3.14.2 Regulatory Setting

3.14.2.1 State

Although there is no statewide noise regulation or specific threshold for determining what constitutes a maximum allowable absolute noise level or a substantial increase in noise level, the CEQA Checklist identifies the general types of impacts that must be considered when analyzing a project's potential to result in temporary and permanent impacts on sensitive receptors because of noise.

3.14.2.2 Local

Because CPUC has exclusive jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary regulations. This section includes a description of local plans and policies related to noise generally, and it is provided for informational purposes to assist with CEQA review.

Amador County General Plan

The Amador County Municipal Code does not include ordinances specifically related to noise; however, the Noise Element of the Amador County General Plan provides policies and implementation measures to control noise. The purpose of the Noise Element is to reduce noise through a combination of land use planning, site criteria, site and building design approaches, and enforcement strategies. The policies and programs described in the element focuses on protecting the quality of life found within rural communities, residential areas, schools, and other noise-sensitive uses from the persistent hazards of excessive noise, and on protecting existing and potential noise generators from encroachment by noise-sensitive uses.

3.14.3 Existing Conditions

As previously stated, the project is located in a rural area of Buena Vista in Amador County. Noise-sensitive receptors are facilities or areas (for example, residences, hospitals, schools, churches, or public

libraries) where excessive noise may cause annoyance. The proposed project site is situated between two residential properties, one located directly north of Jackson Creek and one located south of Jackson Creek. The dominant noise source in the project area is traffic traveling on Buena Vista Road and Coal Mine Road.

3.14.4 Impacts

Noise Levels in Excess of Standards: While this project is not subject to local noise regulations, the project will be consistent with the Noise Element of the General Plan. Construction activities will take place primarily during daytime hours. If night work is required, it would be limited and short-term in duration.

Typical construction equipment that would generate temporary increases in ambient noise includes backhoes, excavators, welding rigs, generators, trailers, personnel vehicles, air movers, sandblasting pods, and blue rooms. Activities would include replacing portions of an existing gas pipeline to maintain the safety and reliability of PG&E's natural gas system. The project location is immediately adjacent to local arterial roads that currently generate noise from vehicle travel. Construction activities would be short-term, temporary, and limited to daytime to the extent possible. PG&E will also implement **Mitigation Measure NO-1** during construction to further reducing noise from construction equipment. Upon completion of construction activities, noise levels at all project locations would return to existing conditions. No new permanent sources of noise would result from project activities. Therefore, temporary noise impacts during construction would be **less than significant**.

Groundborne Vibrations and Noise Levels: Construction activities including excavating, grading, and movement of heavy construction equipment may generate localized groundborne vibration and noise. The construction activity that typically generates the most severe vibrations is impact pile driving, which would not take place as part of project activities. A large bulldozer operating 25 feet from a structure does not exceed the criteria for structures that are "extremely susceptible to vibration damage" (FTA 2018). Therefore, heavy equipment operation is not expected to result in excessive groundborne vibration. Groundborne vibration and noise will occur during daytime hours and will be of short-term duration immediately adjacent to existing roads and highways. Therefore, vibration impacts would be **less than significant**.

Noise Levels and Public and Private Airports/Airstrips: The project is located within 2 miles of Camanche Skypark Airport and Howard Private Airport and approximately 8 miles from Amador County Airport. The project site is located outside the Amador County Airport Noise Contours. There are no specific contours available for Skypark Airport and Howard Private Airport. However, existing noise contours provided in the Noise Element of the Amador County General Plan show the project site is located within the 60 dB contour line. Therefore, impacts would be **less than significant**.

3.14.5 Mitigation

NO-1: Noise Minimization with Quiet Equipment. Quiet equipment (for example, equipment that incorporates noise control elements into the design; quiet model air compressors or generators can be specified) will be used during construction whenever feasible.

3.15 Population and Housing

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	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 people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.15.1 Introduction

This section describes the existing conditions and potential impacts on population and housing. The project would neither impact the regional or local population nor require the displacement of existing housing, therefore this section concludes that no impact would occur.

3.15.2 Regulatory Setting:

Because CPUC has exclusive jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary population, growth, and housing regulations. This section includes a description of local plans and policies related to population and housing generally, and it is provided for informational purposes to assist the CEQA review.

3.15.2.1 Amador County General Plan

The Housing Element of the Amador County General Plan presents goals, objectives, policies, and supporting information related to the provision of housing for existing and future residents of the County. Goals identified in the element include sustaining existing affordable housing programs and units, promoting the use of available sites for affordable housing construction and providing adequate infrastructure, and promote production of affordable housing units (Amador County 2015).

3.15.3 Impacts

Induce Substantial Population Growth: The project would not alter the location, distribution, density, or growth rate of the population. The project would not include new housing or businesses or any other land use changes that would induce population growth in the area. The project activities would be limited to the assessment, modification, and replacement of an existing pipeline facility. These project-related activities would not require or demand an increase in utility or infrastructure capacity. The majority of construction workers for the project are expected to come from the local area or commute from neighboring counties and cities. Because the local workforce is anticipated to be sufficient, it is not expected that the construction workforce would relocate to the area and induce any unplanned growth. Therefore, **no impact** associated with unplanned population growth would occur.

Displace Existing Housing or People: The project will not result in the displacement of existing housing or people; therefore, there would be **no impact**.

3.15.4 Mitigation

None required.

3.16 Public Services

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

3.16.1 Introduction

This section describes the existing conditions and potential impacts on public services. Public services include fire and police protection and maintenance of public facilities, such as schools and hospitals. Less than significant impacts would occur on public services as a result of this project.

3.16.2 Regulatory Setting

Because CPUC has exclusive jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary aesthetic regulations. This section includes a description of local plans and policies related to aesthetics generally, and it is provided for informational purposes to assist with CEQA review.

3.16.2.1 California Occupational Safety and Health Administration

In accordance with CCR Title 8, Sections 1270 “Fire Prevention” and 6773 “Fire Protection and Fire Equipment,” the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials; fire hose sizing requirements; restrictions on the use of compressed air; access roads; and the testing, maintenance, and use of all firefighting and emergency medical equipment.

3.16.2.2 Local

Because CPUC has exclusive jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary public service regulations. This section includes a description of local plans and policies related to public services generally, and it is provided for informational purposes to assist with CEQA review.

Amador County General Plan

The Land Use Element of the Amador County General Plan addresses the need to plan for and provide adequate fire protection and emergency services concurrent with future development. Amador County is a large, rural community with many parts that face infrastructure challenges. Goals of the Land Use Element include ensuring that adequate water supply, wastewater disposal, and public services are

available prior to development. Additionally, goals include ensuring the provision of accessible health care services, and maintaining high quality childcare facilities, schools, and libraries.

3.16.3 Existing Conditions

The Jackson Valley Fire Protection District provides fire protection and basic life support services in the southwestern portion of Amador County, including the communities of Camanche Village, Camanche North Shore, and Buena Vista. The nearest fire station to the project site belongs to the Jackson Valley Fire Protection District and is located approximately 3.5 miles southwest of the project location. The Ione Police Department is the 23-hour municipal law enforcement agency that operates within the city limits.

The project site is within the Amador County Unified School District; however, no public schools, preschools, day care centers, and/or private educational facilities are located within 0.25 mile of the project area. The closest school to the project site is Ione Junior High School, located approximately 4.3 miles northwest. The nearest medical facilities and hospitals to the project include Prime Med Clinic in Ione, California, and Sutter Amador Hospital in Jackson, California. Parks near the project site include Pardee Lake Recreation, located approximately 2.25 miles east of the project site, and Camanche Hills Hunting Preserve, located approximately 3.75 miles southwest of the project site.

3.16.3.1 Impacts

Fire and Police Protection: These proposed improvements would not involve the expansion, upsizing, or increases in the capacity of the gas pipeline system, and the proposed improvements would not change the provision of fire services and police protection services.. Additionally, the project improvements would not involve adverse physical impacts associated with government facilities, including adversely affecting service ratios, response times, or other performance objectives for any of the public services or require new services. Therefore, **no impact** on fire or police protection would occur.

Schools: There are no schools located in the vicinity of the project site. Implementation of the project would not cause an increase in the number of students attending a school within the Amador County Unified School District and would not have a physical impact on any school facilities. Therefore, **no impact** would occur.

Parks: There are no parks in the vicinity of the project site. No new or improved parks would be required as a result of this project and the project would not affect any parks. Therefore, **no impact** would occur.

Other Public Facilities: The project is consistent with the General Plan and the project is not anticipated to require the provision of new or physically altered governmental facilities to maintain acceptable service ratios, response times or other performance objectives on public facilities. Therefore, **no impact** would occur.

3.16.4 Mitigation

None required.

3.17 Recreation

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	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?	☐	☐	☐	☒

3.17.1 Introduction

This section describes the existing recreational facilities in the project vicinity, and discusses potential impacts associated with construction and operation of the project. The project would not result in no impacts on recreational resources.

3.17.2 Regulatory Setting

Because CPUC has exclusive jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary recreational regulations. This section includes a description of local plans and policies related to recreation generally, and it is provided for informational purposes to assist with CEQA review.

3.17.2.1 Local

In October 2003, the Amador County Recreation Agency (ACRA) was formed as a joint powers authority of local agencies that represent recreational needs, including parks, trails, and water recreation areas, that are important to residents and visitors alike. ACRA is responsible for meeting the recreation facility needs for the county as a whole, including both unincorporated areas and cities. In 2006, a Recreation Master Plan was prepared by ACRA. The plan inventoried parks and recreational facilities in the county, as well as identified existing deficiencies and future needs, including park needs for the unincorporated communities of Pine Grove, Volcano, and Camanche Village. ACRA established a “parks concept” identifying goals for recreational facilities in Amador County:

- Provide a neighborhood or community park within convenient walking distance of most residents. The walking distance is assumed a maximum of one-half mile.
- Provide 10-15 acres of multi-use community parks in communities or population centers exceeding 3,000 residents. These parks are to provide all of the facilities and services, including sport fields, for that community. Provide smaller five-acre neighborhood parks in neighborhoods where no park exists. The basic purpose of these parks is to provide open space and passive park activities.
- Develop a sport field complex suitable for competitive play and tournaments.

Overall, Amador County’s General Plan policies and programs, such as the Recreation Master Plan, establish a blueprint to support the continued expansion of recreational facilities and program offerings within the county to meet the needs of residents and visitors.

3.17.3 Existing Conditions

More than 30 parks and/or recreational facilities are located within Amador County. Overall, Amador County includes over 700 acres of developed parkland and designated recreational open space owned by the cities, community service districts, the County, and ACRA. In addition to developed parks and recreation areas, the county contains many areas of publicly owned, undeveloped open space land that is available for passive recreation uses. The majority of the land located in the eastern portion of the county (above Dew Drop) is part of the Eldorado National Forest, which extends into Alpine, El Dorado, and Placer Counties. The national forest contains more than 600 miles of fishable streams, nearly 300 lakes (including 11 large reservoirs), miles of trails, campgrounds, and a variety of vegetation types including chaparral, woodlands, mixed conifer, true fir, and subalpine. Recreational uses include camping, hiking, hunting, fishing, cycling, horseback riding, target shooting, off-road vehicle use, skiing, snowshoeing, snowboarding, and snowmobiling. In addition, numerous rivers and lakes offer water sports like boating, canoeing, kayaking, and swimming.

The proposed project area consists of rural surroundings mostly made up of farmland and vacant lots. The nearest recreational opportunity would be Pardee Lake which is located approximately 2.30 miles from the project area. Situated at the foothills of the Sierra Nevada Mountain Range and along the North Fork Mokelumne River, Pardee Recreation Area provides stunning views and offers diverse activities, including fishing, hiking, camping, and much more. However, this recreational site would not be impacted by the proposed project. All in all, there are no recreational opportunities within the project footprint that would be directly or indirectly impacted by the construction or operation of the project.

3.17.4 Impacts

Increased Use of Parks and Construction or Expansion of Recreational Facilities: The project is consistent with the General Plan and is not anticipated to have a significant impact on recreational facilities because no parks or recreational facilities identified in the General Plan are located in the project area. No new or improved parks are planned or required as a result of this project. Additionally, the project would not involve the construction or operation of structures or infrastructure improvements that could directly or indirectly induce population growth, including during construction activities, that would generate demand for additional recreational facilities. Thus, the project would not increase the use of existing park or recreational facilities, nor would it require the construction of new or expansion of existing recreational facilities. Therefore, there would be **no impact** related to recreation from the construction or operation of the project, and no mitigation would be required.

3.17.5 Mitigation

None required.

3.18 Transportation

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	☐	☐	☐	☒
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☒	☐	☐

3.18.1 Introduction

This section describes existing transportation conditions in the project area. The analysis concludes that the project would have less than significant impacts on transportation with the implementation of the Mitigation Measure described in Section 3.18.4.

3.18.2 Regulatory Setting

Because CPUC has exclusive jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary regulations. This section includes a description of local plans and policies related to noise generally, and it is provided for informational purposes to assist with CEQA review.

3.18.2.1 Amador County General Plan

The Circulation Element of the Amador County General Plan addresses the location and extent of planned transportation routes and facilities and includes goals, objectives, and policies affecting the mobility of future residents, businesses, and visitors (Amador County 2016a). State Route (SR) 88 is the closest major arterial roadway to the project site. SR 88 travels in an east–west direction from Stockton in the San Joaquin Valley, crossing the Sierra Nevada at Carson Pass, and ending at the Nevada state line.

3.18.2.2 Amador Countywide Pedestrian and Bicycle Plan

The goal of the Amador Countywide Pedestrian and Bicycle Plan is to make walking and biking safer and easier in Amador County. Policies identified to reach this goal include integrating pedestrian and bicycle needs into transportation planning activities and maximize capacity for implementation of pedestrian and bicycle projects.

3.18.3 Impacts

Conflict with a Program, Plan, Ordinance, or Policy: Transportation or traffic impacts resulting from conflicts with a program, plan, ordinance, or policy are not anticipated. Temporary transportation effects would be a function of construction workers traveling to and from the project sites and any respective construction deliveries. The greatest impacts would likely be from construction worker trip generation using the local and regional roadway networks; however, these construction worker trips would be temporary. In addition, these construction trips would not necessarily occur at the same time or during the peak periods used by general commuter traffic. Temporary road closures of Buena Vista Road may be necessary to facilitate work at the project site; however, upon completion of construction activities, traffic conditions within the project area would return to existing conditions. Construction and operation of the

project would not conflict with any programs, plans, ordinances, or policies regarding traffic or transportation; therefore, **impacts would be less than significant**.

CEQA Guidelines Section 15064.3 subdivision (b): The project would involve maintenance activities on an existing natural gas pipeline but would not constitute a land use or transportation project as defined in the referenced and applicable CEQA Guidelines Sections 15064.3, subdivisions (b)(1) and (b)(2). As described in detail above, the potential traffic operations impacts would be a function of construction workers traveling to and from the sites and construction deliveries. Traffic on local roadways would be temporary and limited to project construction. Temporary road closures of Buena Vista Road may be necessary to facilitate work the project site; however, upon completion of construction activities, traffic conditions within the project area would return to existing conditions. The project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Therefore, **no impacts** would occur.

Hazards Resulting from Design Features/Incompatible Uses: The project does not include any improvements or design features that would pose a hazard to others accessing the project area. No modifications to geometric features or intersections would occur, and no incompatible uses would be introduced as part of the project. Therefore, **no impacts** would occur.

Emergency Access: As discussed previously, temporary road closure of Buena Vista Road may be necessary to facilitate work at the project site. Implementation of **Mitigation Measure T&T-1** would decrease impacts on emergency services. Upon completion of construction activities, traffic conditions at all project locations would return to existing conditions. Routes for emergency vehicles would be maintained throughout project construction, and impacts would be **less than significant**.

3.18.4 Mitigation

T&T-1: Traffic Coordination. Emergency service providers will be notified of the timing, location, and duration of construction activities. Traffic control devices and signage will be used as needed.

3.19 Tribal Cultural Resources

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

3.19.1 Introduction

This section describes the existing TCRs in the project area, and discusses potential impacts associated with construction of the project. The analysis concludes that the project would have less than significant impacts on tribal cultural resources with the implementation of mitigation measures listed in Section 3.19.5. (NOTE: The County, as lead agency, will update this chapter after complying with the consultation requirements.)

3.19.2 Regulatory Setting

The project requires state permits, necessitating compliance with CEQA. CEQA regulations require that effects to significant Tribal cultural resources be considered as part of the environmental analysis of a proposed project.

3.19.2.1 CEQA and the California Register of Historical Resources

Under Section 21074 of CEQA, Tribal cultural resources are:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following:
  - Included or determined to be eligible for inclusion in the California Register of Historical Resources.
  - Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe.

3.19.2.2 Assembly Bill 52 - Tribal Cultural Resources

In 2014, AB 52 added the term “tribal cultural resources” to CEQA, and the term is now codified in PRC Section 21080.3.1 and other provisions of CEQA. AB 52 established that TCRs must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. A TCR is a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American Tribe. A project that has the potential to impact a TCR, such that it would cause a substantial adverse change, constitutes a significant effect on the environment unless mitigation reduces such effects to a less than significant level.

AB 52 is commonly referenced instead of CEQA when discussing the process for identifying Tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). AB 52 requires the lead agency to consult with Native American tribes before release of a negative declaration, mitigated negative declaration, or EIR.

3.19.3 Existing Conditions

3.19.3.1 Ethnographic Setting

As discussed in Section 3.6 Cultural Resources, the APE falls within the traditional homeland of the people who spoke Northern Sierra Miwok. Eidsness and Milliken (2004) tentatively assign the Ione area to the Locolomne subgroup of Sierra Miwok. Their list of known ethnographic places (Appendix B of that report) includes the settlement of Chakanesü “exactly at Ione” on present-day Highway 104 but identifies nothing on SR 124 in the Ione vicinity.

The Buena Vista Rancheria of Me-Wok Indians of California has been listed by the Secretary of the Interior as a federally recognized Indian tribe since 1985 (Buena Vista Rancheria 2018). The Tribe’s Rancheria is located outside of the town of Buena Vista in Amador County. The 67-acre plot of land was purchased by the United States government in 1927; however, prior to that ownership it was occupied by the Oliver family. The Oliver family settled in the area in the early 1880s when they joined the Miwuk settlement of Upusani after being displaced many times over (Buena Vista Rancheria 2018). The United States government use the property as a location for homeless Indians and the Oliver family remained on the property. The Oliver family were deeded the property again in 1958 under the California Rancheria Act and it is still home to the Oliver decedents (Buena Vista Rancheria 2018). The tribe is still present in the region and is taking an active role in preserving their culture through events, community involvement, and protecting their Tribal cultural resources.

The Jackson Rancheria Band of Miwuk Indians (federally recognized since 1898) is another tribe in the region that are still present on their native land and are invested in the protection of their cultural heritage. Through their enterprises, including a casino, they contribute on a community level, but also are invested in environmental and cultural preservation.

3.19.3.2 Cultural Resources Records Search and Outreach By Applicant

As per PRC Section 21080.3.1, PG&E is undergoing an effort to identify members of the local Native American community who may attach religious and cultural significance to the project properties and request their input on the project. On behalf of PG&E, Far Western archaeologist Courtney Higgins sent a request for a search of the Sacred Lands File to the Commission (dated March 5, 2021) and the response, dated March 29, 2021, stated that Native American cultural sites are documented within the APE and to contact Ione Band of Miwuk Indians for more information. The Commission also provided a list of 10 Native American contacts who may have knowledge about archaeological and/Tribal cultural resources in the area.

At the request of Chuck Beatty, the representative for Amador County, PG&E sent notification letters to the tribes included on the Commission’s contact list. These included Buena Vista Rancheria of Me-Wuk Indians, Calaveras Band of Mi-Wuk Indians, Chicken Ranch Rancheria of Me-Wuk Indians, Ione Band of Miwok Indians, Jackson Rancheria, Shingle Springs Band of Miwok Indians, and United Auburn Indian

Community of Auburn Rancheria. The letters indicated that if the tribes wished to consult regarding the project, to contact Chuck Beatty at Amador County.

The letters were sent May 18, 2021. Buena Vista Rancheria of Me-Wuk Indians, Ione Band of Miwok Indians, and United Auburn Indian Community all responded requesting copies of the reports. PG&E plans to provide the tribes with these copies once the project design is finalized. Calaveras Band of Mi-Wuk Indians responded on June 3, 2021, deferring consultation to the other tribes. In September 2021, Ivan Senock of Buena Vista Rancheria reached out requesting a meeting to discuss the project, although the design had not been finalized. On November 4, 2021, Arran Bell, Sean Poirier, PG&E Land Planner, and Ivan Senock discussed the project via a phone call. Chuck Beatty was invited to the meeting as well; however, he did not attend. Mr. Senock relayed that the area was a traditional gathering place and requested monitors to be on site. PG&E agreed to have monitors on site. Mr. Senock also requested copies of the cultural documentation, which Ms. Bell informed him would be available as soon as the design was finalized. No responses to date have been received from Chicken Ranch Rancheria of Me-Wuk Indians, Jackson Rancheria, or Shingle Springs Band of Miwok Indians. PG&E Tribal outreach is still ongoing.

The results received have been forwarded to the County.

3.19.4 Lead Agency Consultation under AB 52

[County to describe compliance and results of consultation]

3.19.5 Impacts

California Register of Historical Resources: The records search resulted in the identification of 10 cultural resources within one-quarter mile of the APE, none of which intersect the APE. The project site is not listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources as defined in PRC Section 5020.1(k). No historic properties were identified during the pedestrian inventory; however, visibility was poor throughout the APE due to dense vegetation and disturbances. Therefore, the project has the potential to disturb or damage any as-yet-unknown archaeological resources. The impacts on as-yet-undiscovered significant resources is considered **less than significant with the incorporation of Mitigation Measures CUL-1** through **CUL-5**, discussed in Section 3.6, Cultural Resources.

Resource to a California Native American Tribe: The buried site sensitivity analysis identified a Moderate to High potential to encounter buried precontact resources within the workspaces south of Jackson Creek; the proposed excavations in these locations are a tie-in point, a bell hole, and an HDD access bell hole and entry pit. There is also an elevated potential to encounter subsurface historic-era road features along Buena Vista Road, north of Jackson Creek. Additionally, while meeting with Ivan Senock of Buena Vista Rancheria, he relayed that the area was a traditional gathering place and requested monitors to be on site. While no Tribal cultural resources have been identified within or near the Project site, implementation of **Mitigation Measures CUL-1** through **CUL-5** would reduce Project impacts on Tribal cultural resources to **less than significant**.

3.19.6 Mitigation

CUL-1 through CUL-5 in Section 3.6, Cultural Resources.

3.20 Utilities and Services Systems

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
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?	☐	☐	☒	☐

3.20.1 Introduction

This section evaluates the potential impacts of the project on utilities and service systems including wastewater, solid waste, stormwater drainage facilities, and water supplies. The project would not result in impacts on utilities or service systems, drainage facilities, or water supplies.

3.20.2 Regulatory Setting

Because CPUC has exclusive jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary aesthetic regulations. This section includes a description of local plans and policies related to aesthetics generally, and it is provided for informational purposes and to assist with CEQA review.

3.20.2.1 Urban Water Management Act

The California Urban Water Management Planning Act of 1983 requires that each urban water supplier, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, shall prepare, update and adopt its urban water management plan at least once every 5 years on or before December 31, in years ending in 5 and 0. The plan describes and evaluates sources of water supply, including groundwater; projected water needs; conservation; implementation strategy and schedule. The Amador Water Agency (AWA), the major water supplier for the County, prepared an urban water management plan (UWMP) in 2010.

3.20.2.2 California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the California Legislature passed the California Integrated Waste Management Act (CIWMA) of 1989 (AB 939), effective January 1990. According to the CIWMA, all cities and counties were required to divert 25% of all solid waste from landfill facilities by January 1, 1995, and 50% by January 1, 2000. Each city is required to develop solid waste plans demonstrating integration of the CIWMA plan with the County plan.

The plans must promote (in order of priority) source reduction, recycling and composting, and environmentally safe transformation and land disposal.

3.20.2.3 California Public Utilities Commission Decision 95-08-038

CPUC Decision 95-08-038 contains the rules for the planning and construction of new transmission facilities, distribution facilities, and substations. The decision requires permits for the construction of certain power line facilities or substations if the voltages would exceed 50 kilovolts (kV) or if the substation would require the acquisition of land or an increase in voltage rating above 50 kV. Distribution lines and substations with voltages less than 50 kV do not need to comply with this decision; however, the utility must obtain any nondiscretionary local permits required for the construction and operation of these projects. CEQA compliance is required for construction of facilities constructed in accordance with the decision.

3.20.3 Local

3.20.3.1 Mokelumne, Amador and Calaveras Integrated Regional Water Management Plan

The Mokelumne, Amador, and Calaveras integrated regional water management planning region was formed based on a cooperative effort by AWA, Calaveras County Water District, Amador County, City of Jackson, City of Sutter Creek, City of Plymouth, Amador Regional Sanitation Authority (ARSA), and East Bay Municipal Utility District. The Mokelumne, Amador and Calaveras Integrated Regional Water Management Plan was adopted in 2007 and established regional goals that focus on improved water supply reliability, water quality protection, environmental preservation and enhancement, flood protection strategies, and development of a forum for regional communication.

3.20.3.2 Amador Water Agency Urban Water Management Plan

The Amador Water Agency UWMP was prepared in 2010 by AWA and adopted by the AWA Board of Directors on August 25, 2011. The UWMP was prepared in accordance with the Urban Water Management Act as defined by the California Water Code, Division 6, Part 2.6, and Sections 10610 through 10657. The plan addresses water supply and demand issues, water supply reliability, water conservation, water shortage contingencies, and recycled-water usage within the AWA service area and incorporates the requirement under the Water Conservation Act of 2009 (Senate Bill X7-7) to reduce per capita water demands.

3.20.3.3 Amador County Regional Wastewater Management Plan

The Amador County Regional Wastewater Management Plan was developed to provide dischargers within the County guidance on what growth expectations should be taken into consideration for planning purposes and where this growth is most likely to occur. The Regional Plan provides guidance to dischargers within the County with the intent of avoiding the creation and unnecessary operation of "problem wastewater plants" that result in burdensome wastewater rates. The Regional Plan provides a roadmap to allow the various wastewater dischargers in the County to come together and respond to both current and future service demands, technology trends, and regulatory requirements in a unified, effective manner.

3.20.3.4 Amador County Stormwater Management Regulations

Title 15 of the County Code (“Buildings and Construction”) describes the County’s regulations, provisions, and ordinances for stormwater management and enforcement. Storm drainage and flood control are addressed in Chapter 15.16 “Floodplain Management Regulations.” Section 15.16.200 “Floodways” contains performance standards such that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge and flood damage shall be minimized. Chapter 17.48 sets forth standards for drainage facilities, and Section 17.90.120 “Drainage Standards” for streets and roads.

3.20.3.5 Amador County General Plan

The Land Use Element of the Amador County General Plan addresses the need to plan for and provide adequate utilities service systems concurrent with future development. Amador County does not provide water or sewer service. Rather, where available, water and sewer services are provided by the AWA, ARSA, the Jackson Valley Irrigation District, and other providers. Goals of the Land Use Element include ensuring adequate wastewater treatment, storage, and disposal capacity to serve the county's current and future demand; maintaining efficient solid waste service; and ensuring adequate water supply, wastewater disposal, and public services are available prior to development.

3.20.4 Existing Conditions

Water and sewer services in Amador County are provided by AWA, ARSA, the Jackson Valley Irrigation District, and other providers. The County does not provide water or sewer services. AWA provides services to approximately 10,000 customers in Amador County, including residents and businesses in unincorporated areas; the cities of Ione, Jackson, Plymouth, Sutter Creek, and Amador City; and several special districts (AWA 2022). The project site is served by the Jackson Valley Irrigation District. The Amador County Environmental Health Department has been designated by the California Department of Health Services as the Local Primary Agency overseeing small public water systems in the area.

The Amador County Environmental Health Department has been designated by the Department of Resources Recycling and Recovery (CalRecycle) as the Local Enforcement Agency for permitting solid waste handling and disposal facilities. Facilities include two solid waste transfer stations and a compostable materials operation. Currently there are no active landfills in the county; therefore, Amador County's disposable waste is processed through the Keifer Landfill located in Sacramento County.

3.20.5 Impacts

Relocation or Construction of New Water or Wastewater Treatment Facilities: The project is a temporary construction project that would not require the relocation or construction of new water or wastewater treatment facilities and it would not require use of any existing water or wastewater treatment facilities. There would be **no impact.**

Sufficient Water Supplies Available: The project would require some use of water during construction (for example, for dust control, during drilling, for pigging and flushing the pipeline). Water would be trucked in from an offsite source. The project is not located in an area of the County recognized as challenging in terms of groundwater yield. The project is unlikely to demand unusually high amounts of water. The impact is **less than significant.**

Wastewater Treatment Provider Capacity: The project would not be served by a wastewater treatment provider. There would be **no impact.**

Landfill Capacity: Routine construction activity and removal of a portion of the old pipeline may generate solid waste requiring disposal. Amador County meets its mandated capacity requirements through waste hauler contracts. Provided the project utilizes the Amador County franchise waste hauler, permitted waste disposal capacity is achieved. Kiefer Landfill is expected to approach capacity between the years 2035 - 2060. The franchise hauler also contracts with Lockwood Landfill in Nevada to provide backup capacity**.** The impact would be **less than significant.**

Compliance with Solid Waste Statutes and Regulations: The project is unlikely to generate problematic volumes or types of solid waste. The impact would be **less than significant.**

3.20.6 Mitigation

None required.

3.21 Wildfire

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	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, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

3.21.1 Introduction

This section describes the environmental setting and impacts related to wildfire. Based on the impact analysis, the project would not expose people or structures to significant impacts from wildfire.

3.21.2 Regulatory Setting

3.21.2.1 State

California Department of Forestry and Fire Protection

Pursuant to PRC Sections 4201-4204 and Government Code Sections 51175-89, CAL FIRE has created Fire Hazard Severity Zone maps for the state identifying areas within state or local responsibility for preventing or suppressing fires. These maps identify areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. The Fire Hazard Severity Zone zones define the application of various mitigation strategies to reduce risks associated with wildland fires. State Responsibility Areas (SRAs) are areas of the state in which the financial responsibility of preventing and suppressing fires has been determined to be primarily the responsibility of the state (PRC Section 4201). Local Responsibility Areas (LRAs) are areas in which the financial responsibility of preventing and suppressing fires is primarily the responsibility of local agencies, including cities and counties (Gov. Code, Sections 51175-51189). SRAs were originally mapped by CAL FIRE in 1985 and LRAs in 1996.

Within SRAs, the Director of CAL FIRE has designated areas as moderate, high, and very high fire hazard severity zones (PRC Section 4202.) Outside of SRAs—but within LRAs—the Director of CAL FIRE was charged with recommending the locations of very high fire hazard severity zones (Gov. Code, Section 51178.) These recommendations were to be reviewed and adopted in ordinances by local agencies (Gov. Code Section 51179), although not all local agencies have complied. All designations are mapped on the CAL FIRE website.

California Public Resources Code

PRC Sections 4290 to 4293 identify construction requirements to minimize fire hazards for structures located in SRAs, in which the financial responsibility of preventing and suppressing fires has been determined to be primarily the responsibility of the state. These PRC sections include the following:

PRC Section 4290 was adopted to establish minimum wildfire protection standards in conjunction with building, construction, and development of all residential, commercial, and industrial buildings in SRAs. Under this section, all residential, commercial, and industrial building construction within SRAs must provide for basic emergency access and perimeter wildfire protection measures, as specified in the PRC. Local standards that exceed those of PRC Section 4290 supersede Section 4290.

PRC Section 4291 addresses requirements for maintaining defensible space around buildings in SRAs.

PG&E Wildfire Safety Plan

On October 25, 2018, the CPUC entered an Order Instituting Rulemaking to Implement Electric Utility Wildfire Mitigation Plans Pursuant to Senate Bill 901 (2018), R.18-10-007. The decision implemented SB 901's additions to PUC Section 8386 requiring that PG&E and other utilities submit wildfire mitigation plans. PG&E submitted its Amended 2019 Wildfire Safety Plan on February 6, 2019, which "describes the enhanced, accelerated, and new programs that PG&E is and will aggressively continue to implement to prevent wildfires in 2019 and beyond." On June 3, 2019, the CPUC approved PG&E's Wildfire Mitigation Plan (Decision 19-05-037) and those of the other state utilities as being consistent with the requirements of SB 901. In a separate decision, the CPUC provided guidance on implementing these plans. (Decision 19-05-036.)

California Fire Code

The 2016 California Fire Code is based on the International Fire Code from the International Code Council and contains consensus standards related to establishing good practices to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new or existing buildings, structures, and premises.

Hazardous Waste Control Law

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) (Cal. Code Regs., tit 27) was mandated by the State of California in 1993. The Unified Program has six elements, including the Uniform Fire Code Hazardous Materials Management Plans and Hazardous Materials Inventory Statements.

At the local level, this program is accomplished by identifying a Certified Unified Program Agency (CUPA) that coordinates all of these activities to streamline the process for local businesses. The Amador County Environmental Health Department is the CUPA for Amador County (California Environmental Protection Agency 2015).

3.21.3 Local

Because CPUC has exclusive jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary regulations. This section includes a description of local plans and policies related to wildfire, which is provided for informational purposes and to assist with CEQA review.

3.21.3.1 Amador County General Plan – Safety Element

The General Plan includes a Safety Element with goals and policies to reduce damage from wildland fires and establishes the following goal:

- Goal S-2: Reduce fire risks to current and future structures.
- Goal S-3: Maintain or improve fire response times.

The Safety Element includes mapping of the “High” and “Very High” Wildland Fire hazard zones as identified in the County’s 2014 LHMP and consistent with the areas designated by CAL FIRE’s mapping. The Safety Element uses the LHMP and existing data on wildland and urban fire hazards to guide new development and to help reduce damage from fire hazards.

3.21.3.2 Amador County Office of Emergency Services

The Amador County OES’s primary responsibility is to coordinate the county government’s response to disasters or other large scale emergencies. The office is charged with providing the necessary planning, coordination, response support and communications with all agencies affected by large scale emergencies or disasters. The OES works cooperatively with other governmental jurisdictions within the county, such as law enforcement, fire, emergency medical services, state and federal agencies, utilities, private industry, and volunteer groups to provide a coordinated response to disasters. The Emergency Services Coordinator also manages the County Emergency Operations Center, which is located in the Sheriff's Office. The Emergency Operations Center becomes the single focal point for centralized management and coordination of emergency response and recovery operations during a disaster or other emergency affecting the Amador County Operational Area.

3.21.4 Impacts

Impair Emergency Plan: The project would not impair implementation of, or physically interfere with, an emergency response plan or emergency evacuation plan. Temporary road closure of Buena Vista Road may be necessary to facilitate work at project site. As described in Chapter 17, Transportation, as a routine construction measure, emergency service providers will be notified of the timing, location, and duration of construction activities, and impacts would be **less than significant with implementation of Mitigation Measure T&T-1**.

Slope, Prevailing Winds, and Other Factors: The project area is located within a moderate wildfire hazard area (Amador County 2016b). These fire-threat classes evaluate wildland fire threats based on the combination of potential fire behavior and expected fire frequency. The project could potentially result in a fire attributable to the increased presence of vehicles, equipment, and human activity in areas of moderate wildfire risk. In particular, heat or sparks from construction vehicles or equipment could potentially ignite dry vegetation or materials. PG&E would implement its Wildfire Safety Plan, which outlines PG&E’s wildfire reduction programs and measures, including enhanced vegetation management, real-time weather monitoring, and other controls. As described above, natural gas would be released by PG&E prior to work on the pipelines. The accidental ignition of natural gas in areas designated as moderate to extreme threat class could potentially result in wildland fires. PG&E’s fire response measures would be conducted on an as-needed basis at the request of local fire departments and may include creating firebreaks or fire roads to stop the spread of fire and minimize the resulting damage. Therefore, people or structures would not be subject to the risk of loss, injury, or death involving wildland fires, and potential impacts would be **less than significant**.

Installation or Maintenance of Infrastructure: No new permanent structures would be placed at any of the four project locations identified, and project activities would not involve the installation of infrastructure that may exacerbate fire risk. All unpaved existing access routes, new overland access routes, and work/staging areas for all activities may require grading or blading to facilitate vehicle and equipment access. Vegetation within the work areas and staging areas may be trimmed for fire safety. The project could potentially result in a fire attributable to the increased presence of vehicles, equipment, and human activity in areas of elevated fire-threat classes. In particular, heat or sparks from construction vehicles or equipment could potentially ignite dry vegetation or materials. PG&E would implement its Wildfire Safety Plan, which outlines PG&E’s wildfire reduction programs and measures, including enhanced vegetation management, real-time weather monitoring, and other controls. PG&E would notify emergency responders and would respond to fires at the discretion of local fire department during project activities. Therefore, installation or maintenance of temporary overland access routes that may exacerbate fire risk or result in temporary impacts, would be **less than significant**.

Downslope or Downstream Flooding or Landslides: The proposed project would not expose people or structures to significant risks resulting from downslope or downstream flooding or landslides from runoff, post-fire slope instability, or drainage changes. Project activities would not be located in highly populated areas. Therefore, the potential for post-fire instability resulting in downslope runoff and flooding would be low and potential impacts would be **less than significant**.

3.21.5 Mitigation

T&T-1 in Section 3.18, Transportation.

3.22 Mandatory Finding of Significance

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively are considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.22.1 Potential Degradation of the Quality of the Environment

Based on the analysis contained in this IS, impacts on aesthetics, agriculture, air quality, energy, GHG, land use and planning, mineral resources, population and housing, public services, recreation, and utilities and service systems would result in no impact or a less than significant impact on the environment.

Impacts on biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, transportation, Tribal cultural resources, and wildfire would be significant unless mitigated. Therefore, **Mitigation Measures BIO-1 through BIO-11, FP-1 through FP-19, Wetland-2, CUL-1 through CUL-5, PALEO-1 through PALEO-3, HAZ-1 through HAZ-7, WQ-1 through WQ-3, NO-1, and T&T-1** are required for the project.

The implementation of these mitigation measures would result in less than significant impacts on biological resources, cultural resources, geology and soils, hazards and hazardous materials, noise, transportation, Tribal cultural resources, and wildfire. Therefore, the project will not degrade the quality of the environment and no habitat, wildlife populations, and plant and animal communities would be impacted. All environmental topics are either considered to have "No Impact," "Less Than Significant Impact," or "Less than Significant Impacts with Mitigation Incorporated."

3.22.2 Cumulatively Considerable Impacts

Based on the analysis in this IS Checklist, the project is consistent with the County's General Plan land use projections. This is a pipeline maintenance project that does not create new development or change existing land uses. The analysis demonstrated that the project complies with all applicable state and local regulations. In addition, the project would not produce impacts that considered with the effects of other past, present, and probable future projects, would be cumulatively considerable; potential adverse environmental impacts were determined to be less than significant with the implementation of mitigation measures identified in this IS and no impacts will combine with other project impacts to create increased cumulative impacts.

3.22.3 Substantial Adverse Effects on Human Beings

As discussed in Chapters 1 through 19 of this IS, the project would not expose persons to substantial adverse impacts related to aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hazards or hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, Tribal cultural resources, utilities and service systems, or wildfire. The effects on these environmental issues were identified to have no impact, a less than significant impact, or a less than significant impact with mitigation incorporated. Therefore, the project does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

4. References

Amador County. 2015. *Amador County Energy Action Plan*. February. https://www.amadorgov.org/home/showpublisheddocument?id=20326.

Amador County. 2016a. General Plan. October. Accessed February 2022. https://www.amadorgov.org/home/showpublisheddocument/34501/637154583287970000.

Amador County. 2016b. General Plan Environmental Impact Report. July. Accessed February 2022. https://www.amadorgov.org/home/showpublisheddocument/23882/636035932502770000.

Amador County. 2020. *Local Hazard Mitigation Plan Update*. May. https://amadorsheriff.org/images/Amador_County_LHMP_Update_Complete1.pdf.

Amador County. 2022. Amador County Code. https://www.codepublishing.com/CA/AmadorCounty/.

Amador Water Agency (AWA). 2022. About Amador Water Agency. https://amadorwater.org/about/.

Andrews, John R. 1967. The Ghost Towns of Amador. New York: Carlton Press, Inc.

BREEZE Software, A Division of Trinity Consultants. 2021. California Emissions Estimator Model (CalEEMod) User's Guide. May. http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/01_user-39-s-guide2020-4-0.pdf?sfvrsn=6.

Buena Vista Rancheria. 2018. Tribal History. Accessed April 2021. https://www.buenavistatribe.com/history.html.

Bureau of Land Management (BLM). 2015. *Desert Renewable Energy Conservation Plan – Proposed Land Use Plan Amendment and Final Environmental Impact Statement*. October. https://eplanning.blm.gov/public_projects/lup/66459/20012409/250016956/00b._Executive_Summary.pdf.

California Air Resources Board (CARB). 2016. *Ambient Air Quality Standards*. May 4. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

California Air Resources Board (CARB). 2017. *California's 2017 Climate Change Scoping Plan*. November. https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf.

California Air Resources Board (CARB). 2019a. "California 1990 Greenhouse Gas Emissions Level and 2020 Limit." Accessed February 18, 2022. https://ww2.arb.ca.gov/ghg-2020-limit.

California Air Resources Board (CARB). 2019b. "Cap-and-Trade Program." Accessed February 18, 2022. https://ww3.arb.ca.gov/cc/capandtrade/capandtrade.htm.

California Air Resources Board (CARB). 2019c. "Mandatory GHG Reporting – Reported Emissions." Accessed February 18, 2022. https://www.arb.ca.gov/cc/reporting/ghg-rep/reported-data/ghg-reports.htm.

California Air Resources Board (CARB). 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. Stationary Source Division. Mobile Source Control Division. October. https://ww2.arb.ca.gov/sites/default/files/classic/diesel/documents/rrpfinal.pdf.

California Air Resources Board (CARB). 2022. "Maps of State and Federal Area Designations." October. Accessed February 28, 2022. https://www.arb.ca.gov/desig/adm/adm.htm.

California Department of Conservation. 2019a. "Amador County Important Farmland Data Availability." https://www.conservation.ca.gov/dlrp/fmmp/Pages/Amador.aspx.

California Department of Conservation. 2019b. “Seismic Hazards Mapping Act.” https://www.conservation.ca.gov/cgs/shma.

California Department of Conservation. 2019c. “Ground Motion Interpolator.” https://www.conservation.ca.gov/cgs/Pages/PSHA/ground-motion-interpolator.aspx.

California Department of Conservation. 2022. “Earthquake Zones of Required Investigation.” https://maps.conservation.ca.gov/cgs/EQZApp/app/.

California Department of Conservation, Division of Mines and Geology. (n.d.). Guidelines for Classification and Designation of Mineral Lands. https://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf.

California Department of Fish and Wildlife (CDFW). 2022. “California Natural Diversity Database.” Biogeographic Data Branch. California Department of Fish and Wildlife. Sacramento, CA. Accessed February 8, 2022. https://www.wildlife.ca.gov/data/cnddb.

California Environmental Protection Agency. 2015. Unified Program Regulator Directory. https://cersapps.calepa.ca.gov/Public/Directory.

California Native Plant Society (CNPS). 2022. “CNPS Rare Plant Inventory.” Advanced Search. Accessed February 8, 2022. https://rareplants.cnps.org/Search/Advanced.

California Public Utilities Commission (CPUC). 2020. “Fire-Threat Maps and Fire Safety Rulemaking.” https://www.cpuc.ca.gov/industries-and-topics/wildfires/fire-threat-maps-and-fire-safety-rulemaking.

California Stormwater Quality Association. 2019. *Construction BMP Handbook.* December.

Creely, Scott, and Eric R. Force. 2007. “Type Region of the Ione Formation (Eocene), Central California: Stratigraphy, Paleogeology, and Relation to Auriferous Gravels.” U.S. Geological Survey Open-File Report 2006-1378. Accessed February 2022. http://pubs.usgs.gov/of/2006/1378.

Delacorte, Michael G., John Berg, and Jack Meyer. 2000. Test Excavation and Evaluation at CA-AMA-369, Amador County, California, State Route 88, KP 11.4/12.4 (PM 7.1/7.7). Far Western Anthropological Research Group, Inc., Davis, California, and Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Submitted to California Department of Transportation, District 10, Stockton.

Eidsness, Janet P., and Randall T. Milliken. 2004. Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways, Alpine, Amador, Calaveras, San Joaquin, Mariposa, Merced, Stanislaus, and Tuolumne Counties, California; Volume IV: Ethnographic Study. Far Western Anthropological Research Group, Inc., Davis, California. Prepared for California Department of Transportation, District 10, Stockton.

Federal Emergency Management Agency (FEMA). (n.d). FEMA Flood Map Service Center. https://msc.fema.gov/portal/search?AddressQuery=5423%20buena%20vista%20blvd%2C%20ione%2C%20california#searchresultsanchor.

Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment Manual. FTA Report No. 0123. Prepared by John A. Volpe National Transportation Systems Center. September. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

ICF International Inc. 2020. Multiple Region Operations and Maintenance Habitat Conservation Plan. Final. May. ICF 00647.17. Sacramento, CA. Prepared for Pacific Gas and Electric Company, San Francisco, CA.

Intergovernmental Panel on Climate Change (IPCC). 2014. Fifth Assessment Report (AR5). https://www.ipcc.ch/assessment-report/ar5/.

Izzi, Sarah L., and Courtney Higgins. 2021. Cultural Resources Inventory of PG&E R-1408 Pipeline Replacement Project on Line 197C (MP 2.42-2.63), Amador County, California.

Jones, Terry L., Gary M. Brown, L. Mark Raab, Janet L. Mcvickar, W. Geoffrey Spaulding, Douglas J. Kennett, Andrew York, and Phillip L. Walker. 1999. Environmental Imperatives Reconsidered: Demographic Crises in Western North America during the Medieval Climatic Anomaly. *Current Anthropology*. 40(2):137–170.

Mason, Jesse Dimon. 1881. History of Amador County. Oakland, California: Thompson & West.

Merriam, C. Hart. 1967. Ethnographic notes on California Indian Tribes, III, Ethnological Notes on Central California Indian Tribes. Reports of the University of California Archaeological Survey 68(3).

Merrill, Robert D. 1984. Ophiomorpha and Other Nonmarine Trace Fossils from the Eocene Ione Formation, California. *Journal of Paleontology*. 58(2):542–549.

Milliken, Randall T., William Bloomer, Susan Stratton, Jim Nelson, D. Furlong, D. Craig Young, Eric Wohlgemuth, Julia Costello, Pat Mikkelsen, Tim Carpenter, and Debbie Jones. 1997. The Taylors Bar Site (CA-CAL-1180/H): Archaeological and Ethnohistoric Investigations in Calaveras County, California. Far Western Anthropological Research Group, Inc., Davis, California. Submitted to Calaveras County Water District, San Andreas, California. On file, Central California Information Center (CICC), California State University, Stanislaus, Turlock, California.

National Earthquake Hazards Reduction Program (NEHRP). 2021. Background and History. January 21. https://www.nehrp.gov/about/history.htm.

National Marine Fisheries Service (NMFS). 2022. California Species List Tool. Queried for endangered and threatened species within Ione USGS 7.5-minute topographic quadrangle. Accessed January 8, 2022. National Park Service. 2022. Title 16 – Conservation. https://www.govinfo.gov/content/pkg/USCODE-2011-title16/pdf/USCODE-2011-title16-chap1-subchapLXI.pdf.

Pacific Gas and Electric Company (PG&E). 2019. “2019 Gas Safety Plan.” March 15. https://www.pge.com/pge_global/common/pdfs/safety/gas-safety/safety-initiatives/pipeline-safety/2019GasSafetyReport.pdf.

Rosenthal, Jeffrey S. 2008. The Prehistory of the Sonora Region: Archaeological and Geoarchaeological Investigations for Stage 1 of the East Sonora Bypass Project, State Route 108, Tuolumne County, California. DRAFT Volume Ia-1b: Synthesis. Far Western Anthropological Research Group, Inc., Davis, California. Prepared for Central Sierra Environmental Services Branch, California Department of Transportation, District 10, Stockton.

U.S. Department of Agriculture, Natural Resources Conservation Service. (n.d.). “Web Soil Survey.” Amador County, California. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

U.S. Department of the Interior. 2020. Assessment of Fossil Management on Federal & Indian Lands. May. Available: https://www.blm.gov/sites/default/files/programs_paleontology_quick%20links_Assessment%20of%20Fossil%20Management%20on%20Federal%20%26%20Indian%20Lands%2C%20May%202000.pdf.

U.S. Environmental Protection Agency (USEPA). 2006. AP-42, Fifth Edition, Compilation of Air Pollutant Emission Factors. Chapter 13.2.2, Unpaved Roads. November.

U.S. Environmental Protection Agency (USEPA). 2011. AP-42, Fifth Edition, Compilation of Air Pollutant Emission Factors. Chapter 13.2.1, Paved Roads. January.

U.S. Environmental Protection Agency (USEPA). 2022. “Nonattainment Areas for Criteria Pollutants (Green Book).” Accessed February 28, 2022. https://www.epa.gov/green-book.

U.S. Fish and Wildlife Service (USFWS). 2022. “IPAC Information for Planning and Conservation.” Accessed February 8, 2022. https://ecos.fws.gov/ipac/.

Waechter, Sharon A., and Darren Andolina. 2005. Ecology and Prehistory in Sierra Valley, California: Excavations at CA-PLU-1485. Far Western Anthropological Research Group, Inc., Davis, California. Submitted to California Department of Transportation, District 2, Redding.

Waucoba, (no first name). (n.d.). Fossil Plants of the Ione Basin, California: The Eocene Ione Formation Project. Accessed February 2022. http://members.aol.com/Waucoba5/ione/ioneproject.html.

Wulf, E., and K. Wooten. 1999. Archaeological Survey Report for a Proposed Realignment of Jackson Valley Road and the Construction of Left Turn Lanes on California State Highway 88 between Post Mile 7.1 and 7.1 (KP 11.4/12.4) in Amador County, California 10-AMA-88 P.M. 7.1/7.7 EA 10-1A670K.

JACOBS

Appendix A
Air Quality Emissions and Calculations

TABLE 1

Construction Air Quality Emissions Summary

PG&E: R-1408

	Average Daily Emissions (lbs/day)							
	ROG	**CO**	**NOx**	**SOx**	**Exhaust PM_{10}**	**Fugitive PM_{10}**	**Exhaust $PM_{2.5}$**	**Fugitive $PM_{2.5}$**
Construction Emissions Per Day [a]	**3.33**	**41.99**	**30.68**	**0.08**	**1.57**	**13.60**	**1.44**	**1.50**
	Total Emissions (tons/project)							
Emissions by Phase	**ROG**	**CO**	**NOx**	**SOx**	**Exhaust PM_{10}**	**Fugitive PM_{10}**	**Exhaust $PM_{2.5}$**	**Fugitive $PM_{2.5}$**
Site Preparation	0.03	0.30	0.26	0.00	0.01	0.00	0.01	0.00
Construction	0.08	0.99	0.74	0.00	0.03	0.28	0.03	0.03
Site Restoration	0.00	0.01	0.01	0.00	0.00	0.02	0.00	0.00
General Support	0.00	0.10	0.02	0.00	0.00	0.15	0.00	0.02
Construction Total	**0.11**	**1.41**	**1.03**	**0.00**	**0.05**	**0.46**	**0.05**	**0.05**

Notes:

[a] The total duration of project is 67 days, which was used to calculate average daily emissions.

TABLE 2

Construction Greenhouse Gas Emissions Summary

PG&E: R-1408

	CO_2e Emissions (metric tons/year)
Construction Emissions from Project Activities	**237**
30-Year Amortized Construction Emissions	**8**
Emissions by Phase	**CO_2e Emissions (metric tons/phase) [b]**
Site Preparation	51.99
Construction	158
Site Restoration	1.7
General Support	25.4
Construction Total	**237**

Notes:

[a] The project's total construction emissions were divided by 30 years to calculate 30-year amortized emissions. There are no operational emissions expected as a result of this project.

[b] The emissions per phase are calculated based on the total duration of the construction phase, regardless of which month(s) or year(s) the phase occurs.

TABLE 3

Construction Emissions Calculations [a]

PG&E: R-1408

Equipment / Vehicle List [b]	Equipment / Vehicle Type	Horsepower	Load Factor	Quantity [e]	Number of Days Used [f]	Hours per Day [g]	Miles per Day [h]	Emissions (lbs/day) [c]								Emissions (metric tons/day) [c,l]	Emissions (lbs/phase) [c]								Emissions (metric tons/phase) [c,l]
								ROG	CO	NOx	SOx	Exhaust PM_{10} [d]	Fugitive PM_{10} [d]	Exhaust $PM_{2.5}$ [d]	Fugitive $PM_{2.5}$ [d]	CO_2e	ROG	CO	NOx	SOx	Exhaust PM_{10} [d]	Fugitive PM_{10} [d]	Exhaust $PM_{2.5}$ [d]	Fugitive $PM_{2.5}$ [d]	CO_2e
Site Preparation																									
Tractor and Mower	Construction Equipment	97	0.37	1	10	8	-	0.151	2.231	1.536	0.003	0.076	-	0.070	-	0.138	1.513	22.313	15.357	0.032	0.760	-	0.696	-	1.380
Chainsaw	Construction Equipment	81	0.73	6	10	8	-	2.002	21.944	15.505	0.038	0.770	-	0.770	-	1.615	20.023	219.438	155.052	0.375	7.696	-	7.696	-	16.152
Trucks	Light-Duty Truck	-	-	2	20	4	80	0.013	0.622	0.074	0.001	0.016	0.106	0.007	0.026	0.053	0.265	12.436	1.472	0.023	0.329	2.120	0.138	0.530	1.061
Water Buffalo	Construction Equipment	402	0.38	2	20	1	-	0.126	0.822	0.892	0.003	0.032	-	0.030	-	0.146	2.519	16.442	17.839	0.067	0.647	-	0.593	-	2.929
Truck and Tree Chipper	Construction Equipment	402	0.38	1	15	4	-	0.252	1.644	1.784	0.007	0.065	-	0.059	-	0.293	3.779	24.663	26.759	0.101	0.970	-	0.889	-	4.394
Chip Truck	Heavy-Duty Diesel	-	-	2	20	4	100	0.030	0.155	2.407	0.007	0.058	0.132	0.031	0.033	0.350	0.606	3.100	48.142	0.140	1.152	2.650	0.627	0.662	7.000
Grapple Truck	Heavy-Duty Diesel	-	-	1	4	8	100	0.015	0.077	1.204	0.003	0.029	0.066	0.016	0.017	0.175	0.061	0.310	4.814	0.014	0.115	0.265	0.063	0.066	0.700
Bucket Truck	Heavy-Duty Diesel	-	-	1	2	8	60	0.009	0.046	0.722	0.002	0.017	0.040	0.009	0.010	0.105	0.018	0.093	1.444	0.004	0.035	0.079	0.019	0.020	0.210
String Trimmer	Construction Equipment	88	0.34	8	20	8	-	1.300	15.396	12.343	0.021	0.709	-	0.654	-	0.908	26.005	307.920	246.869	0.422	14.184	-	13.087	-	18.163
Construction																									
Backhoe	Construction Equipment	97	0.37	1	40	8	-	0.151	2.231	1.536	0.003	0.076	-	0.070	-	0.138	6.051	89.251	61.426	0.127	3.038	-	2.785	-	5.521
Excavator	Construction Equipment	158	0.38	2	20	8	-	0.377	6.515	3.097	0.011	0.152	-	0.140	-	0.458	7.539	130.308	61.944	0.212	3.050	-	2.796	-	9.156
Loader	Construction Equipment	97	0.37	1	20	8	-	0.151	2.231	1.536	0.003	0.076	-	0.070	-	0.138	3.026	44.626	30.713	0.063	1.519	-	1.393	-	2.761
Generator	Construction Equipment	84	0.74	2	50	8	-	0.612	7.339	5.431	0.013	0.257	-	0.257	-	0.566	30.587	366.930	271.553	0.658	12.827	-	12.827	-	28.295
Light Tower	Construction Equipment	84	0.74	7	50	8	-	2.141	25.685	19.009	0.046	0.898	-	0.898	-	1.981	107.053	1284.256	950.434	2.302	44.893	-	44.893	-	99.033
Air Mover	Construction Equipment	78	0.48	1	1	8	-	0.256	2.415	1.737	0.004	0.094	-	0.094	-	0.171	0.256	2.415	1.737	0.004	0.094	-	0.094	-	0.171
Sandblasting Pod	Construction Equipment	13	0.3	1	7	8	-	0.043	0.241	0.299	0.001	0.013	-	0.013	-	0.018	0.298	1.689	2.092	0.004	0.090	-	0.090	-	0.124
HDD Drill Rig	Construction Equipment	221	0.5	1	8	8	-	0.214	2.033	2.040	0.010	0.066	-	0.060	-	0.419	1.715	16.263	16.316	0.078	0.530	-	0.483	-	3.352
Sideboom	Construction Equipment	231	0.29	2	5	8	-	0.702	3.669	7.631	0.012	0.319	-	0.293	-	0.512	3.509	18.344	38.155	0.059	1.595	-	1.465	-	2.558
185 CFM Air Compressor	Construction Equipment	78	0.48	1	7	8	0	0.256	2.415	1.737	0.004	0.094	-	0.094	-	0.171	1.789	16.903	12.161	0.028	0.661	-	0.661	-	1.194
1,200 CFM Air Compressor	Construction Equipment	78	0.48	1	3	8	-	0.256	2.415	1.737	0.004	0.094	-	0.094	-	0.171	0.767	7.244	5.212	0.012	0.283	-	0.283	-	0.512
Welder Rig	Heavy-Duty Diesel	-	-	2	15	-	5	0.002	0.008	0.120	0.000	0.003	1.855	0.002	0.186	0.017	0.023	0.116	1.805	0.005	0.043	27.827	0.024	2.790	0.262
Hydrotest Equipment Trailer	Construction Equipment	402	0.38	1	1	8	-	0.504	3.288	3.568	0.013	0.129	-	0.119	-	0.586	0.504	3.288	3.568	0.013	0.129	-	0.119	-	0.586
Truck and Lowboy Trailer	Heavy-Duty Diesel		-	1	10	-	130	0.020	0.101	1.565	0.005	0.037	24.116	0.020	2.418	0.227	0.197	1.007	15.646	0.045	0.374	241.164	0.204	24.181	2.275
Ton Truck and Gooseneck Trailer	Heavy-Duty Diesel	-	-	1	40	-	10	0.002	0.008	0.120	0.000	0.003	1.855	0.002	0.186	0.017	0.061	0.310	4.814	0.014	0.115	74.204	0.063	7.440	0.700
Haul Truck (to import gravel)	Heavy-Duty Diesel	-	-	4	2	-	50	0.030	0.155	2.407	0.007	0.058	0.132	0.031	0.033	0.350	0.061	0.310	4.814	0.014	0.115	0.265	0.063	0.066	0.700
Haul Truck (to export soil)	Heavy-Duty Diesel	-	-	4	2	-	50	0.030	0.155	2.407	0.007	0.058	0.132	0.031	0.033	0.350	0.061	0.310	4.814	0.014	0.115	0.265	0.063	0.066	0.700
Onsite Crew Truck	Light-Duty Truck	-	-	6	40	-	5	0.002	0.117	0.014	0.000	0.003	5.565	0.001	0.558	0.010	0.100	4.663	0.552	0.009	0.123	222.613	0.052	22.321	0.398
Fugitive Dust [i,j]	Grading	-	-	-	45	-	-	-	-	-	-	-	0.005	-	0.000	-	-	-	-	-	-	0.207	-	0.022	-
Fugitive Dust [k]	Truck Dumping/Loading	-	-	614	1	-	-	-	-	-	-	-	0.069	-	0.010	-	-	-	-	-	-	0.069	-	0.010	-
Pipe Blowdown Gas Releases [m]	Pipe Blowdown	-	-	0	0	-	-	-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	0.000
Site Restoration																									
Tractor and Disc	Construction Equipment	97	0.37	1	2	8	2	0.151	2.231	1.536	0.003	0.076	-	0.070	-	0.138	0.303	4.463	3.071	0.006	0.152	-	0.139	-	0.276
Hydroseed Truck	Heavy-Duty Diesel	-	-	1	2	8	5	0.001	0.004	0.060	0.000	0.001	0.928	0.001	0.093	0.009	0.002	0.008	0.120	0.000	0.003	1.855	0.002	0.186	0.017
Onsite Crew Truck	Light-Duty Truck	-	-	6	6	-	5	0.002	0.117	0.014	0.000	0.003	5.565	0.001	0.558	0.010	0.015	0.700	0.083	0.001	0.019	33.392	0.008	3.348	0.060
Asphalt Paving Machine	Construction Equipment	132	0.36	1	1	8	-	0.171	2.557	1.603	0.004	0.078	-	0.072	-	0.181	0.171	2.557	1.603	0.004	0.078	-	0.072	-	0.181
Vibratory Roller	Construction Equipment	80	0.38	1	1	8	-	0.154	1.852	1.610	0.003	0.088	-	0.081	-	0.116	0.154	1.852	1.610	0.003	0.088	-	0.081	-	0.116
Haul Truck (to import asphalt)	Heavy-Duty Diesel	-	-	2	2	-	50	0.015	0.077	1.204	0.003	0.029	0.066	0.016	0.017	0.175	0.030	0.155	2.407	0.007	0.058	0.132	0.031	0.033	0.350
Haul Truck (to export asphalt)	Heavy-Duty Diesel	-	-	4	2	-	50	0.030	0.155	2.407	0.007	0.058	0.132	0.031	0.033	0.350	0.061	0.310	4.814	0.014	0.115	0.265	0.063	0.066	0.700
General Support																									
Water Truck	Heavy-Duty Diesel	-	-	1	67	-	20	0.003	0.015	0.241	0.001	0.006	3.710	0.003	0.372	0.035	0.203	1.038	16.128	0.047	0.386	248.584	0.210	24.925	2.345
Passenger Vehicles (Worker Commutes)	Light-Duty Auto/Truck	-	-	25	67	-	50	0.059	3.092	0.304	0.007	0.128	0.828	0.053	0.207	0.344	3.962	207.149	20.375	0.499	8.554	55.479	3.546	13.870	23.077

Notes:

- = Parameter not required for computing emissions.

[a] Unless otherwise noted, equipment/vehicle list, daily use, and mileage provided by PG&E.

[b] A portable office building (trailer building) will be included throughout every construction phase. The office trailer is assumed to be powered by the biggest generator, for which emissions are already accounted. Therefore, there are no separate emissions estimated for the office trailer.

[c] The following conversion factors were used to estimate emissions:

1 lb =	453.6	g
1 metric ton =	1,000,000	g
1 metric ton =	2,204.62	lbs
1 ton =	2,000	lbs
1 yd^3 =	1.2641662	tons
Blade width of grading equipment =	12	ft
1 acre =	43,560	ft^2
1 mile =	5,280	ft
1 yd =	3	ft

[d] PM_{10} and $PM_{2.5}$ emissions are separated by exhaust and fugitive emissions. Fugitive emissions include dust emissions associated with road travel, tire wear, and brake wear, grading activities, and truck dumping/loading activities.

[e] Quantity is the number of each equipment or vehicle used, unless noted otherwise, as described here. Quantities for Fugitive Dust (under Equipment / Vehicle List) are in volume in cubic yards, provided by PG&E, as listed in Footnote k.

[f] It is assumed that haul trucks importing gravel and haul trucks exporting soil will only complete one roundtrip per day maximum.

[g] All construction equipment are assumed to be used 8 hours per day, based on a 10 hour workday. It is conservatively assumed that all generators and light towers operate at full usage.

[h] It is assumed that each onsite crew truck and heavy-duty diesel truck will travel up to 2 and 1 miles per day around the site, respectively. It is conservatively assumed that each passenger vehicle will travel up to 50 miles per day for worker commutes. In addition, haul trucks will travel approximately 0.5 miles one-way (1 mile roundtrip) to obtain gravel and 56 miles one-way (112 miles roundtrip) to drop off soil.

[i] The area to be disturbed (i.e., graded) is estimated to be: 0.5 acres/day per Section 4.3 of Appendix A of the CalEEMod User's Guide (BREEZE Software, 2021).

[j] The number of days for grading activities was estimated to be the maximum duration of the Construction phase, which is 45 days.

[k] Fugitive dust emissions from Truck Dumping/Loading activities are a result of excavating for pipeline removal/replacement, and are conservatively assumed to occur in a single day. Volumes were provided by PG&E, as follows:

Activity	Quantity	Volume (yd^3)
Gravel Hauled Onsite for Offloading	1	100
Excavated Soil	1	204
Backfilled Soil	1	204
Soil Loaded for Hauling Offsite	1	106

[l] CO_2e values were calculated using the following global warming potentials (GWP, 100-year GWP) from the *2014 IPCC Fifth Assessment Report* (AR5):

Chemical	AR5 GWP
Carbon Dioxide (CO_2)	1
Methane (CH_4)	28
Nitrous Oxide (N_2O)	265

[m] No blowdowns are assumed to take place during the project.

TABLE 4

Construction Equipment Emission Factors

PG&E: R-1408

Equipment	OFFROAD Equipment Category	Horsepower [a]	Load Factor [a]	Emission Factors (g/bhp-hr) [b]						
				ROG	CO	NOx	SOx	PM_{10}	$PM_{2.5}$	CO_2e [c]
185 CFM Air Compressor	Air Compressors	78	0.48	0.387	3.657	2.631	0.006	0.143	0.143	569.251
1,200 CFM Air Compressor	Air Compressors	78	0.48	0.387	3.657	2.631	0.006	0.143	0.143	569.251
Air Mover	Air Compressors	78	0.48	0.387	3.657	2.631	0.006	0.143	0.143	569.251
Asphalt Paving Machine	Paving Equipment	132	0.36	0.204	3.051	1.913	0.005	0.093	0.086	474.919
Backhoe	Tractors/Loaders/Backhoes	97	0.37	0.239	3.525	2.426	0.005	0.120	0.110	480.743
Chainsaw	Concrete/Industrial Saws	81	0.73	0.320	3.507	2.478	0.006	0.123	0.123	569.084
Excavator	Excavators	158	0.38	0.178	3.076	1.462	0.005	0.072	0.066	476.561
Generator	Generator Sets	84	0.74	0.279	3.347	2.477	0.006	0.117	0.117	568.999
HDD Drill Rig	Bore/Drill Rigs	221	0.5	0.110	1.043	1.047	0.005	0.034	0.031	473.962
Hydrotest Equipment Trailer	Off-Highway Trucks	402	0.38	0.187	1.221	1.324	0.005	0.048	0.044	479.361
Light Tower	Generator Sets	84	0.74	0.279	3.347	2.477	0.006	0.117	0.117	568.999
Loader	Tractors/Loaders/Backhoes	97	0.37	0.239	3.525	2.426	0.005	0.120	0.110	480.743
Sandblasting Pod	Pressure Washers	13	0.30	0.618	3.508	4.345	0.008	0.186	0.186	569.839
Sideboom	Cranes	231	0.29	0.297	1.553	3.229	0.005	0.135	0.124	477.258
String Trimmer	Other General Industrial Equipment	88	0.34	0.308	3.647	2.924	0.005	0.168	0.155	474.256
Tractor and Disc	Tractors/Loaders/Backhoes	97	0.37	0.239	3.525	2.426	0.005	0.120	0.110	480.743
Tractor and Mower	Tractors/Loaders/Backhoes	97	0.37	0.239	3.525	2.426	0.005	0.120	0.110	480.743
Truck and Tree Chipper	Off-Highway Trucks	402	0.38	0.187	1.221	1.324	0.005	0.048	0.044	479.361
Water Buffalo	Off-Highway Trucks	402	0.38	0.187	1.221	1.324	0.005	0.048	0.044	479.361
Vibratory Roller	Rollers	80	0.38	0.287	3.455	3.003	0.005	0.165	0.152	478.220

Notes:

[a] Unless otherwise noted, Horsepower and Load Factors taken as the default, average values provided in Table 3.3 of Appendix D of the *CalEEMod User's Guide* (Breeze Software, 2021).

[b] Emission Factors in grams per brake-horsepower-hour (g/bhp-hr) taken as the defaults for the year 2023 provided in Table 3.4 of Appendix D of the *CalEEMod User's Guide* (Breeze Software, 2021).

[c] CO_2e values were calculated using the following global warming potentials (GWP, 100-year GWP) from the *2014 IPCC Fifth Assessment Report* (AR5):

Chemical	AR5 GWP
Carbon Dioxide (CO_2)	1
Methane (CH_4)	28
Nitrous Oxide (N_2O)	265

TABLE 5
Vehicle Emission Factors
PG&E: R-1408

Vehicle	Vehicle Class	Onroad or Offroad Vehicle	EMFAC2017 Emission Factors (g/mile) [a]							Fugitive Emission Factors (g/mile) [b]	
			ROG	CO	NOx	SOx	PM_{10}	$PM_{2.5}$	CO_2e [c]	PM_{10}	$PM_{2.5}$
Onsite Crew Truck	Light-Duty Truck	Offroad	0.038	1.763	0.209	0.003	0.047	0.020	331.485	84.148	8.437
Haul Truck (to import gravel)	Heavy-Duty Diesel	Onroad	0.069	0.352	5.459	0.016	0.131	0.071	1,749.974	0.300	0.075
Haul Truck (to export soil)	Heavy-Duty Diesel	Onroad	0.069	0.352	5.459	0.016	0.131	0.071	1,749.974	0.300	0.075
Haul Truck (to import asphalt)	Heavy-Duty Diesel	Onroad	0.069	0.352	5.459	0.016	0.131	0.071	1,749.974	0.300	0.075
Haul Truck (to export asphalt)	Heavy-Duty Diesel	Onroad	0.069	0.352	5.459	0.016	0.131	0.071	1,749.974	0.300	0.075
Chip Truck	Heavy-Duty Diesel	Onroad	0.069	0.352	5.459	0.016	0.131	0.071	1,749.974	0.300	0.075
Grapple Truck	Heavy-Duty Diesel	Onroad	0.069	0.352	5.459	0.016	0.131	0.071	1,749.974	0.300	0.075
Bucket Truck	Heavy-Duty Diesel	Onroad	0.069	0.352	5.459	0.016	0.131	0.071	1,749.974	0.300	0.075
Hydroseed Truck	Heavy-Duty Diesel	Offroad	0.069	0.352	5.459	0.016	0.131	0.071	1,749.974	84.148	8.437
Ton Truck and Gooseneck Trailer	Heavy-Duty Diesel	Offroad	0.069	0.352	5.459	0.016	0.131	0.071	1,749.974	84.148	8.437
Truck and Lowboy Trailer	Heavy-Duty Diesel	Offroad	0.069	0.352	5.459	0.016	0.131	0.071	1,749.974	84.148	8.437
Water Truck	Heavy-Duty Diesel	Offroad	0.069	0.352	5.459	0.016	0.131	0.071	1,749.974	84.148	8.437
Welder Rig	Heavy-Duty Diesel	Offroad	0.069	0.352	5.459	0.016	0.131	0.071	1,749.974	84.148	8.437
Trucks	Light-Duty Truck	Onroad	0.038	1.763	0.209	0.003	0.047	0.020	331.485	0.300	0.075
Passenger Vehicles (Worker Commutes)	Light-Duty Auto/Truck	Onroad	0.021	1.122	0.110	0.003	0.046	0.019	275.541	0.300	0.075

Notes:

[a] EMFAC2017 Emission Factors in grams per mile (g/mile) from EMFAC2017 v1.0.3 for Amador County, calendar year 2023.

[b] Paved and unpaved road dust emission factors calculated using CalEEMod methodology, as described below. Vehicles categorized as "Offroad" were assumed to be traveling 50% of the miles on unpaved road and 50% of the miles on paved road.

[c] CO_2e values were calculated using the following global warming potentials (GWP, 100-year GWP) from the *2014 IPCC Fifth Assessment Report* (AR5):

Chemical	AR5 GWP
Carbon Dioxide (CO_2)	1
Methane (CH_4)	28
Nitrous Oxide (N_2O)	265

TABLE 5
Vehicle Emission Factors
PG&E: R-1408

Derivation of Paved Road Emission Factors

Parameter	PM_{10}	$PM_{2.5}$
Average Weight [a]	2.4	2.4
k [b]	1	0.25
sL [a]	0.1	0.1
Emission Factor (g/mile) [c]	**0.300**	**0.075**

Notes:

[a] Average Weight and sL taken as the default value from CalEEMod.

[b] k taken from Table 13.2.1-1 of Section 13.2.1 of *AP-42* (USEPA, 2011).

[c] Emission factor calculated using Equation 1 from Section 13.2.1 of *AP-42* (USEPA, 2011), which is generally consistent with Section 5.3 of Appendix A of the *CalEEMod User's Guide* (Breeze Software, 2021):

Emission Factor (g/mile) = k (g/mile) x $[sL\ (g/m^2)]^{0.91}$ x $[\text{Average Weight (tons)}]^{1.02}$

Derivation of Unpaved Road Emission Factors

Parameter	PM_{10}	$PM_{2.5}$
Mean Vehicle Weight [a]	2.4	2.4
Silt Content [b]	8.5	8.5
k [c]	1.50	0.15
a [c]	0.9	0.9
b [c]	0.45	0.45
P [d]	63	63
Emission Factor (g/mile) [e]	**373.321**	**37.332**
Reduction for Watering 2x Daily [f]	55%	55%
Controlled Emission Factor (g/mile)	**167.995**	**16.799**

Notes:

[a] Mean vehicle weight of 2.4 tons, taken from Section 5.3 of Appendix A of the *CalEEMod User's Guide* (Breeze Software, 2021).

[b] Silt content taken from Table 13.2.2-1 of Section 13.2.2 of *AP-42* (USEPA, 2006) for a Construction Site, Scraper Route; this value is consistent with the CalEEMod defaults.

[c] k, a, and b taken from Table 13.2.2-2 of Section 13.2.2 of *AP-42* (USEPA, 2006) for industrial roads.

[d] P (days of precipitation) taken as the CalEEMod default for the Amador County climate region. Taken from Table 1.1 of Appendix D of the *CalEEMod User's Guide* (Breeze Software, 2021).

[e] Emission factor calculated using Equations 1a and 2 from Section 13.2.2 of *AP-42* (USEPA, 2006):

Emission Factor (g/mile) = $\{k\ (lbs/mile) \times [\text{Silt Content}\ (\%) / 12]^{a} \times [\text{Mean Vehicle Weight (tons)} / 3]^{b}\} \times [(365-P) / 365] \times 453.6\ (g/lb)$

[f] Percent reduction taken from Table XI-D of the *SCAQMD CEQA Air Quality Analysis Handbook* (SCAQMD, 2007).

TABLE 6

Fugitive Dust Emission Factors

PG&E: R-1408

Fugitive Dust Emission Factors for Truck Dumping/Loading

Truck Dumping on a Pile or Loading to a Truck from a Pile

Parameter	PM_{10}	$PM_{2.5}$
k [a]	0.35	0.053
U [b]	4.9	4.9
M [a]	12	12
Emission Factor (lb/ton) [c]	0.00009	0.000014

Notes:

[a] k and M taken from Section 4.3 of Appendix A of the *CalEEMod User's Guide* (Breeze Software, 2021).

[b] U taken as the CalEEMod default for the Amador County climate region. Taken from Table 1.1 of Appendix D of the *CalEEMod User's Guide* (Breeze Software, 2021). Value converted from units of m/s to mph.

[c] Emission factor calculated using the following equation from Section 4.3 of Appendix A of the *CalEEMod User's Guide* (Breeze Software, 2021):

Emission Factor (lb/ton) = $k \times 0.0032 \times [U\ (mph) / 5]^{1.3} / [M\ (\%) / 2]^{1.4}$

Fugitive Dust Emission Factors for Grading

Grading Equipment Passes

Parameter	PM_{10}	$PM_{2.5}$
S [a]	7.1	7.1
F [a]	0.6	0.031
Emission Factor (lb/VMT) [b]	1.543	0.167
Reduction from Watering Disturbed Areas Every Three Hours [c]	61%	61%
Emission Factor (Controlled, lb/VMT)	0.602	0.065

Notes:

[a] S and F taken from Section 4.3 of Appendix A of the *CalEEMod User's Guide* (Breeze Software, 2021).

[b] Emission factors calculated using the following equations from Section 4.3 of Appendix A of the *CalEEMod User's Guide* (Breeze Software, 2021):

PM_{10} Emission Factor (lb/VMT) = $0.051 \times [S\ (mph)]^{2.0} \times F_{PM10}$

$PM_{2.5}$ Emission Factor (lb/VMT) = $0.04 \times [S\ (mph)]^{2.5} \times F_{PM2.5}$

[c] Control efficiency taken from Table XI-A of the *SCAQMD CEQA Air Quality Analysis Handbook* for Construction Activities (SCAQMD, 2007).

Appendix B
Species List

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Ione (3812038) OR Carbondale (3812141) OR Irish Hill (3812048) OR Amador City (3812047) OR Goose Creek (3812131) OR Jackson (3812037) OR Clements (3812121) OR Wallace (3812028) OR Valley Springs (3812027))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
Agrostis hendersonii Henderson's bent grass	PMPOA040K0	None	None	G2Q	S2	3.2
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3	S3	WL
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Andrena blennospermatis Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arctostaphylos myrtifolia Ione manzanita	PDERI04240	Threatened	None	G1	S1	1B.2
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Balsamorhiza macrolepis big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Banksula rudolphi Rudolph's cave harvestman	ILARA14080	None	None	G1	S1	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Calycadenia hooveri Hoover's calycadenia	PDAST1P040	None	None	G2	S2	1B.3
Chrysis tularensis Tulare cuckoo wasp	IIHYM72010	None	None	G1G2	S1S2	
Crocanthemum suffrutescens Bisbee Peak rush-rose	PDCIS020F0	None	None	G2?Q	S2?	3.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S3	
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Eriogonum apricum var. apricum Ione buckwheat	PDPGN080F1	Endangered	Endangered	G2T1	S1	1B.1
Eriogonum apricum var. prostratum Irish Hill buckwheat	PDPGN080F2	Endangered	Endangered	G2T1	S1	1B.1
Eryngium pinnatisectum Tuolumne button-celery	PDAPI0Z0P0	None	None	G2	S2	1B.2
Erythranthe marmorata Stanislaus monkeyflower	PDPHR01130	None	None	G2?	S2?	1B.1
Falco mexicanus prairie falcon	ABNKD06090	None	None	G5	S4	WL
Gratiola heterosepala Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Horkelia parryi Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Ione Chaparral Ione Chaparral	CTT37D00CA	None	None	G1	S1.1	
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Navarretia myersii ssp. myersii pincushion navarretia	PDPLM0C0X1	None	None	G2T2	S2	1B.1
Navarretia paradoxiclara Patterson's navarretia	PDPLM0C150	None	None	G2	S2	1B.3
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Orcuttia viscida Sacramento Orcutt grass	PMPOA4G070	Endangered	Endangered	G1	S1	1B.1
Pandion haliaetus osprey	ABNKC01010	None	None	G5	S4	WL
Rana boylii foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Spea hammondii western spadefoot	AAABF02020	None	None	G2G3	S3	SSC
Sphenopholis obtusata prairie wedge grass	PMPOA5T030	None	None	G5	S2	2B.2
Thamnophis gigas giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	

Record Count: 49

Search Results

16 matches found. Click on scientific name for details

Search Criteria: CRPR is one of [**1A:1B:2A:2B**] , 9-Quad include [**3812048:3812121:3812027:3812037:3812028:3812038:3812141:3812047:3812131**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK
Arctostaphylos myrtifolia	Ione manzanita	Ericaceae	perennial evergreen shrub	Nov-Mar	FT	None	G1	S1	1B.2
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2
Calycadenia hooveri	Hoover's calycadenia	Asteraceae	annual herb	Jul-Sep	None	None	G2	S2	1B.3
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2
Eriogonum apricum var. *apricum*	Ione buckwheat	Polygonaceae	perennial herb	Jul-Oct	FE	CE	G2T1	S1	1B.1
Eriogonum apricum var. *prostratum*	Irish Hill buckwheat	Polygonaceae	perennial herb	Jun-Jul	FE	CE	G2T1	S1	1B.1
Eryngium pinnatisectum	Tuolumne button-celery	Apiaceae	annual/perennial herb	May-Aug	None	None	G2	S2	1B.2
Erythranthe marmorata	Stanislaus monkeyflower	Phrymaceae	annual herb	Mar-May	None	None	G2?	S2?	1B.1
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2
Horkelia parryi	Parry's horkelia	Rosaceae	perennial herb	Apr-Sep	None	None	G2	S2	1B.2
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1
Navarretia myersii ssp. *myersii*	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	None	None	G2T2	S2	1B.1
Navarretia paradoxiclara	Patterson's navarretia	Polemoniaceae	annual herb	May-Jun(Jul)	None	None	G2	S2	1B.3
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	Apr-Jul(Sep)	FE	CE	G1	S1	1B.1
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2
Sphenopholis obtusata	prairie wedge grass	Poaceae	perennial herb	Apr-Jul	None	None	G5	S2	2B.2

Showing 1 to 16 of 16 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2022. Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.0). Website https://www.rareplants.cnps.org [accessed 8 February 2022].

United States Department of the Interior

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

In Reply Refer To:
Project Code: 2022-0005006
Project Name: R-1408 Pipeline Replacement Project

February 08, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Project Code: 2022-0005006
Event Code: None
Project Name: R-1408 Pipeline Replacement Project
Project Type: Pipeline - Onshore - Maintenance / Modification - Below Ground
Project Description: Pipeline replacement project to remove exposed pipeline within Jackson Creek.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.2899057,-120.91399251952467,14z

Counties: Amador County, California

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii*	Threatened
There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2891	
California Tiger Salamander *Ambystoma californiense*	Threatened
Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2076	

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus*	Threatened
There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/321	

Insects

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

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Ione (incl. Irish Hill) Buckwheat *Eriogonum apricum (incl. var. prostratum)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8301	Endangered
Ione Manzanita *Arctostaphylos myrtifolia* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1806	Threatened

Critical habitats

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

IPaC User Contact Information

Name: Stephanie Owens
Address: 155 Grand Avenue, Suite 800
City: Oakland
State: CA
Zip: 94612
Email steph.owens16@gmail.com
Phone: 9254516490