
Draft

Initial Study and Draft Mitigated Negative Declaration

PG&E Gas Transmission Line 123 Pipeline
Replacement Project, Phase 2
Sections 2B2, 1C, 2C1, and 2C2

Prepared for
Central Valley Regional Water Quality Control Board

September 2014

CH2MHILL®

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Acronyms and Abbreviations

°F	degrees Fahrenheit
µg/m ³	microgram(s) per cubic meter
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACS	Avian Conservation Strategy
APE	area of potential effects
APM	Applicant-Proposed Measure
BAAQMD	Bay Area Air Quality Management District
BMP	best management practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CCR	California Code of Regulations
CDC	California Department of Conservation
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
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRPR	California Rare Plant Rank
CWA	Clean Water Act
CIWMB	California Integrated Waste Management Board
dBA	A-weighted decibel scale
DOT	Department of Transportation
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency

FESA	Federal Endangered Species Act
FGC	California Fish and Game Code
FMMP	Farmland Mapping and Monitoring Program
FPPA	Farmland Protection Policy Act
GC	General Construction
GHG	greenhouse gas
H ₂ S	hydrogen sulfide
HCP	Habitat Conservation Plan
HFC	hydrofluorocarbons
IS/MND	Initial Study/Mitigated Negative Declaration
L-123	Gas Transmission Line 123
lb	pound(s)
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NEHRP	National Earthquake Hazards Reduction Program
NEHRPA	National Earthquake Hazards Reduction Program Act
NHPA	National Historic Preservation Act
NIST	National Institute of Standards and Technology
NO ₂	nitrogen dioxide
NOA	naturally occurring asbestos
NOAA Fisheries	National Marine Fisheries Service
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	National Resources Conservation Service
NRHP	National Register of Historic Places
NSF	National Science Foundation
NSR	North State Resources, Inc.
NWP	nationwide permit
PCAPCD	Placer County Air Pollution Control District
PFC	perfluorocarbon
PG&E	Pacific Gas and Electric Company
PM ₁₀	particulate matter less than 10 microns in aerodynamic diameter
PM _{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
ppm	part(s) per million

Programmatic Consultation	<i>Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California</i>
PSEP	Pipeline Safety Enhancement Plan
PSD	Prevention of Significant Deterioration
QSP	Qualified SWPPP practitioner
RWQCB	Regional Water Quality Control Board
SF ₆	sulfur hexafluoride
SHPO	State Historic Preservation Officer (or Office)
SMARA	California Surface Mining and Reclamation Act of 1975
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SO ₄	sulfates
SPMUD	South Placer Municipal Utility District
SPWA	South Placer Wastewater Authority
SVAB	Sacramento Valley Air Basin
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic air contaminant
TCP	Traffic Control Plan
THPO	Tribal Historic Preservation Officer
UAIC	United Auburn Indian Community [of the Auburn Rancheria]
UBC	Uniform Building Code
UCMP	University of California Museum of Paleontology
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VOC	volatile organic compound
VRP	visibility-reducing particles
WDRs	waste discharge requirements

SECTION 1

Project Overview

The Central Valley Regional Water Quality Control Board (RWQCB) is the lead agency under the California Environmental Quality Act (CEQA) for this project because the RWQCB is responsible for issuing a water quality certification pursuant to Section 401 of the Clean Water Act (CWA). The Section 401 water quality certification is the only local or state discretionary action required for the project. The California Public Utilities Commission (CPUC) has exclusive discretionary jurisdiction over the design, construction, and operation of Pacific Gas and Electric Company's (PG&E's) natural gas pipeline projects. However, the CPUC does not require a discretionary permit for this type of maintenance project and thus does not have environmental review responsibility under CEQA.

PG&E proposes to replace four sections of gas transmission line 123 (L-123): Sections 2B2, 1C, 2C1, and 2C2. The project would replace approximately 0.83 mile of existing 12-inch-diameter underground natural gas transmission pipeline with approximately 0.95 mile of 16-inch-diameter underground natural gas transmission pipeline. The new pipeline mileage slightly exceeds the existing mileage because of installation methods and routing, described later in this document. The primary purpose of the project is to improve safety and reliability of the system. The proposed pipeline diameter increase will facilitate future automated inspection of the pipeline using a device called a "smart pig." Smart pigs collect data about the state of the pipeline and their use helps improve public safety. The remaining 12-inch pipeline sections of L-123 that will remain in service meet current CPUC compliance standards but will be replaced in the future with 16-inch pipeline to allow for "piggability" of the system. The proposed pipeline diameter increase will also incidentally address existing capacity demand issues in the project area. These existing capacity issues will be addressed by this project to maximize efficiencies and minimize future environmental impacts. The increased pipe diameter will not induce construction of new housing or businesses.

Additionally, PG&E proposes to retire the existing underground vaults south of Athens Avenue near Thunder Valley Casino and to construct a new underground vaults in Section 2B2. The new underground vaults are necessary because the current valve cluster does not have blowdown piping, which is needed to release gas for both routine maintenance and emergency situations.

The project would disturb a total of 11.21 acres. Of this, approximately 11.14 acres would be temporarily disturbed and approximately 0.07 acre would be permanently disturbed. Permanent disturbance would result from development of the new underground vaults. The project area contains suitable habitat for the federally listed vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardii*). The project has been designed to minimize potential effects on these species. Applicant-proposed measures (APMs) to minimize effects on these species are discussed in Section 3.4.4. APMs have been incorporated in the project design to minimize potential environmental effects to less-than-significant levels.

PG&E will mitigate unavoidable impacts on vernal pool fairy shrimp and vernal pool tadpole shrimp by purchasing conservation bank credits at a minimum 1:1 ratio for direct effects and indirect effects. Credits will be purchased at a conservation bank approved by the U.S. Fish and Wildlife Service (USFWS) and/or the U.S. Army Corps of Engineers (USACE).

1.1 Project Purpose

As part of pipeline modernization and safety, PG&E is replacing portions of its large transmission pipelines using industry-recognized and proven installation techniques. The replacements are critical to improving the system's reliability and safety while utilizing current construction and material standards for facilitating maintenance. The project will fulfill requirements contained in PG&E's August 2011 Pipeline Safety Enhancement Plan (PSEP) filing with the CPUC.

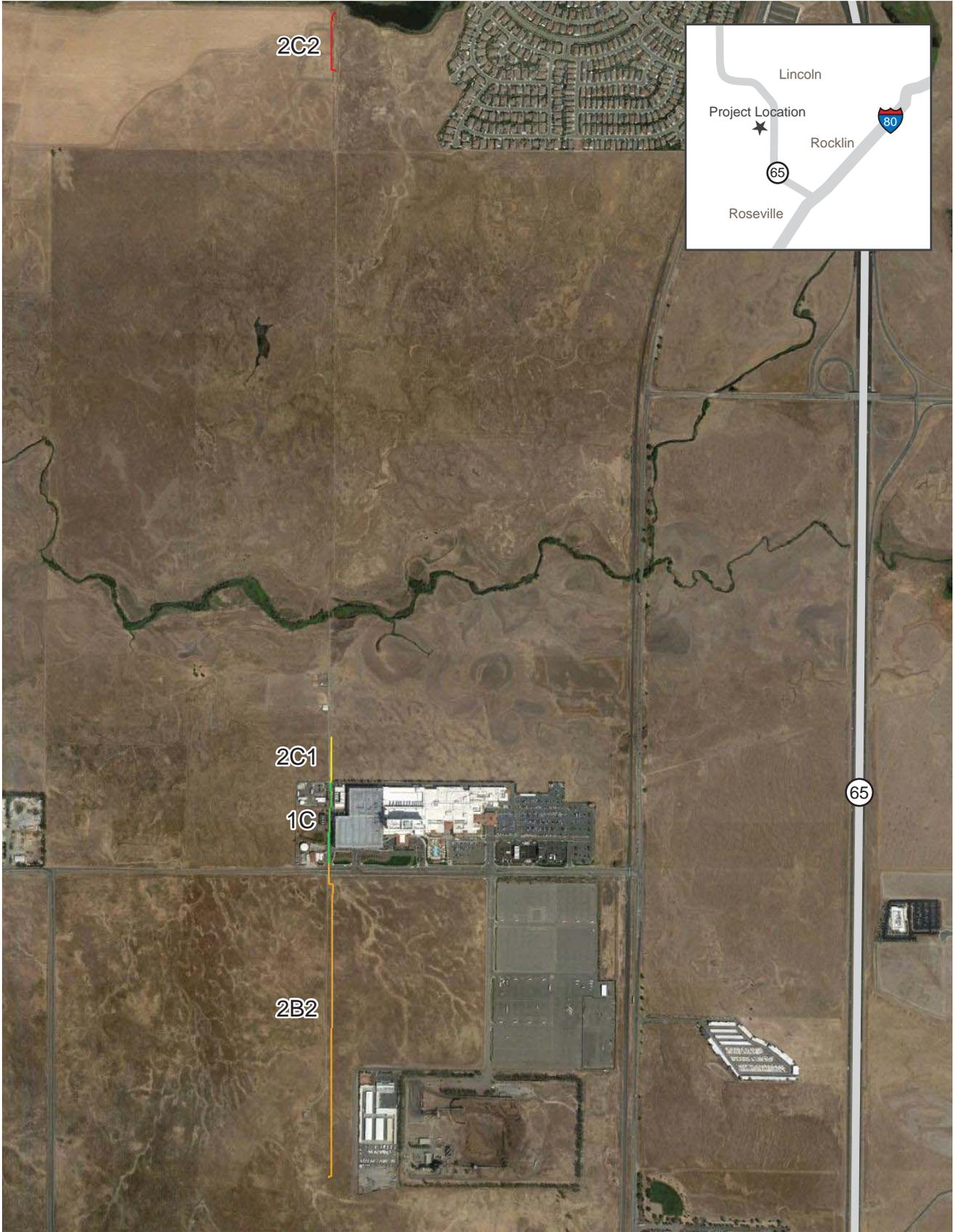
1.2 Location and General Information

The project is located in unincorporated portions of Placer County and the City of Lincoln. Figure 1-1 is a vicinity map showing all the replacement sections and Figures 1-2a, 1-2b, 1-2c, and 1-2d illustrate the work area for each of the replacement segments.

The project is located in the U.S. Geological Survey (USGS) Roseville 7.5-minute quadrangle. Table 1-1 shows general project information.

TABLE 1-1
General Project Information

CEQA lead agency	Central Valley Regional Water Quality Control Board Elizabeth Lee, 401 Water Quality Certification/Municipal Storm Water Unit Supervisor 11020 Sun Center Drive, Suite 200 Rancho Cordova, CA 95670
PG&E contact person	Cori Mustin, Senior Land Planner
Project location	County of Placer, California
Project sponsor	Pacific Gas and Electric Company Cori Mustin, Senior Land Planner Environmental Management 6111 Bollinger Canyon Road San Ramon, CA 94583
Land Use and Zoning Designations	Placer County Zoning: Industrial Park; Industrial; Open Space Placer County Land Use: Agriculture 20-acre minimum; Industrial City of Lincoln Zoning: Open Space; Low Density Residential City of Lincoln Land Use: Open Space; Low Density Residential



Aerial Courtesy of Google™ Earth, 2014

- LEGEND**
- Section 2C2
 - Section 2C1
 - Section 1C
 - Section 2B2



0 1,000
Approximate scale in feet

FIGURE 1-1
Regional Location and Project Overview
*PG&E Gas Transmission Line 123 Pipeline
Replacement Project, Phase 2
Sections 2B2, 1C, 2C1, and 2C2*



Source: PG&E L-123 Phase 2 Workspace and Aquatic Resources Figures, Placer County, April 29, 2014

FIGURE 1-2a
 Project Overview Map, Section 2B2
 PG&E Gas Transmission Line 123 Pipeline
 Replacement Project, Phase 2, Sections 2B2, 1C, 2C1, and 2C2

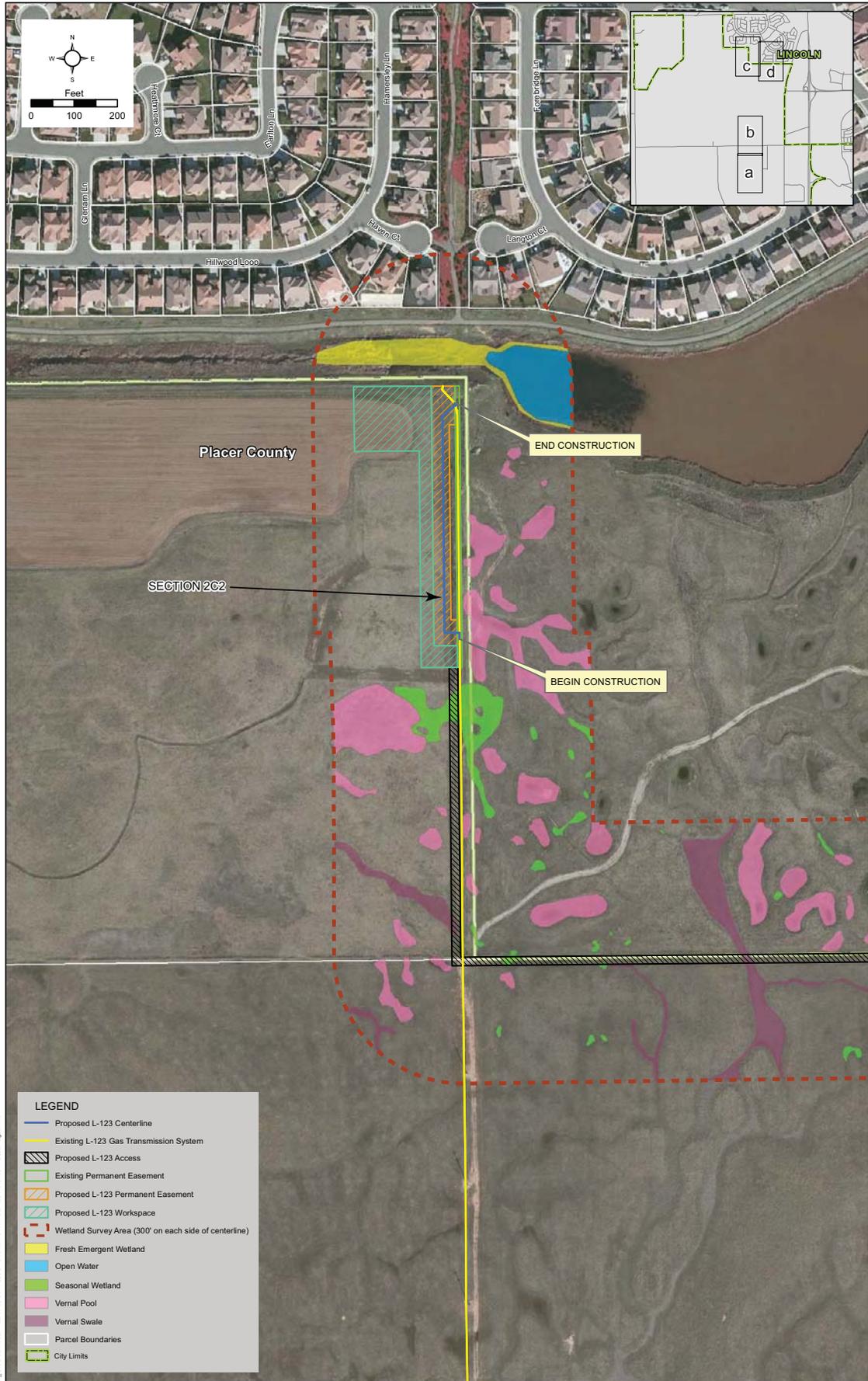


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LEGEND	
	Proposed L-123 Centerline
	Existing L-123 Gas Transmission System
	Proposed L-123 Franchise Encroachment
	Proposed L-123 Access
	Proposed L-123 Exclusive Permanent Easement
	Existing Permanent Easement
	Proposed L-123 Permanent Easement
	Proposed L-123 Workspace
	Wetland Survey Area (300' on each side of centerline)
	Perennial Stream
	Vernal Pool
	Parcel Boundaries
	City Limits

Source: PG&E L-123 Phase 2 Workspace and Aquatic Resources Figures, Placer County, April 29, 2014

FIGURE 1-2b
 Project Overview Map, Sections 2B2, 1C, 2C1
 PG&E Gas Transmission Line 123 Pipeline
 Replacement Project, Phase 2, Sections 2B2, 1C, 2C1, and 2C2



Source: PG&E L-123 Phase 2 Workspace and Aquatic Resources Figures, Placer County, April 29, 2014

FIGURE 1-2c
 Project Overview Map, Section 2C2, part 1
 PG&E Gas Transmission Line 123 Pipeline
 Replacement Project, Phase 2, Sections 2B2, 1C, 2C1, and 2C2



Source: PG&E L-123 Phase 2 Workspace and Aquatic Resources Figures, Placer County, April 29, 2014

FIGURE 1-2d
 Project Overview Map, Section 2C2, part 2
 PG&E Gas Transmission Line 123 Pipeline
 Replacement Project, Phase 2, Sections 2B2, 1C, 2C1, and 2C2

SECTION 2

Project Description

PG&E proposes to replace four sections of gas transmission line 123 (L-123): Sections 2B2, 1C, 2C1, and 2C2. The existing sections, totaling 0.85 mile of existing 12-inch-diameter natural gas transmission pipe, would be replaced with 0.91 mile of 16-inch-diameter pipe to improve the safety and reliability of the gas pipeline. New underground vaults would also be installed. Increasing the pipe diameter would improve future system consistency and allow pipe inspection equipment to pass through to enhance public safety. The proposed pipeline diameter increase will facilitate future automated inspection of the pipeline using a device called a “smart pig.” Smart pigs collect data about the state of the pipeline and their use helps improve public safety. The remaining 12-inch pipeline sections of L-123 that will remain in service meet current CPUC compliance standards but will be replaced in the future with 16-inch pipeline to allow for “piggability” of the system. The proposed pipeline diameter increase will also incidentally address existing capacity demand issues in the project area.

The project is designed to comply with all applicable regulations and ordinances—most notably, CPUC General Order 112E, which incorporates, in its entirety, Department of Transportation (DOT) Code of Federal Regulations (CFR) 49 part 192, “Transportation of Natural or Other Gas by Pipeline: Minimum Federal Safety Standards.” Quality assurance measures for construction and inspection would be incorporated into the project. Professional pipeline inspectors would inspect all aspects of construction, commissioning, and acceptance testing.

2.1 Proposed Replacement Sections and Underground Vaults

Section 2B2

The existing pipeline in Section 2B2 runs south from Athens Avenue in unincorporated southwestern Placer County and is 2,760 feet (0.52 mile) long. The new pipeline would be installed using open trenching and would be approximately 3,215 feet (0.61 mile) long. The south end would be connected to the existing 12-inch-diameter pipeline, which would remain in service and be replaced in the future for “piggability.” The north end would connect with the new 16-inch-diameter line to be installed in Section 1C. (See below.) The installed length would be longer than the existing line in this section because the new pipeline is being routed to avoid a large vernal pool located above the existing underground vault. The existing 0.52 mile of pipeline would be taken out of service, cleaned, and retired in place. This section would be accessed from Athens Avenue and from the industrial park located east of the new pipeline (see Figure 1-2a).

Underground Vaults

New underground vaults would be constructed west of the existing underground vaults, on the south side of Athens Avenue across from Thunder Valley Casino (Figure 1-2b). The new underground vaults would be located at the northern terminus for Section 2B2. The existing underground vaults are not fitted with blowdown piping, which is required by current gas transmission pipeline codes and is necessary to release gas for routine maintenance and during emergencies. The new underground vaults would be approximately 0.07 acre and would involve installing a main line valve, two bridle valves that connect the transmission pipeline to an 8-inch-diameter distribution feeder main, and two bridle valves that connect to the blowdown. The section south of the existing valve set would be taken out of service. The new valves, the new blowdown, and new southern piping would be connected to the existing section to the north and put into service. The section north of the existing valve set would then be taken out of service and the new northern piping would be connected to the new valve set. The new lot around the underground vaults would be graveled and the existing underground facility would be retired in place.

Section 1C

The existing pipeline in Section 1C is within paved areas of Thunder Valley Casino property and is 710 feet (0.13 mile) long. This section would be replaced using the open trenching method with approximately 730 feet (0.14 mile) of new pipeline, and would be connected on either end to new Sections 2B2 and 2C1. The new section would be longer than the existing section because it would be deeper than the existing line, which would be taken out of service and cleaned. Approximately 189 feet of the existing line would be removed due to the proximity to the new pipeline while the rest of the existing line would be retired in place. This section would be accessed from Athens Avenue.

Section 2C1

The existing pipeline in Section 2C1 begins at Thunder Valley Casino and extends northward into the Orchard Creek Conservation Bank. It is 430 feet (0.08 mile) long. All construction, including staging and access, would be contained within PG&E's existing right-of-way (ROW). The existing fence on the west side of the access road would be temporarily removed during construction so equipment such as backhoes and excavators would have room to swing and rotate while staged on the access road. The fence would be replaced after construction was complete. An offset temporary fence would be installed and maintained at the owner's request. The new pipeline would be installed within PG&E's current ROW, adjacent to the existing 12-inch-diameter pipeline. All temporary workspace for staging equipment would be on the west side of the easement in the existing access road. The southern end of this segment would be connected to the new pipeline installed in Section 1C. The northern end would be connected to the existing 12-inch-diameter pipeline that would remain in service. After the new pipeline is put into service, the existing 12-inch-diameter pipeline would be removed from the ground so that there would be no proximity concerns with the two pipelines. This section would be accessed from Athens Avenue and through Thunder Valley Casino's driveway.

Section 2C2

The existing pipeline in Section 2C2 begins approximately 0.05 mile south of Langton Court in the City of Lincoln and is 550 feet (0.10 mile) long. This section would be replaced using the open trenching method with approximately 630 feet (0.12 mile) of new pipeline. This section would be accessed from the southern point of Woodford Lane or Redcliff Court, in the housing subdivision located east of Section 2C2. Construction crews would access Section 2C2 by heading west on the paved utility corridor that borders the southern edge of the subdivision. Crews would then travel approximately 1,000 feet westward off road along the northern boundary of Orchard Creek Conservation Bank and northward approximately 700 feet to the southern end of the Section 2C2 workspace. The delineated extent of Waters of the U.S., Waters of the State, and suitable habitat for federally-listed branchiopods located within the off-road access route in Section 2C2 will be covered with 24-foot wide metal plates to minimize impacts to sensitive aquatic resources. A qualified biologist will oversee the installation of the temporary plating to ensure that the entire extent of jurisdictional waters and/or potential habitat for listed species is covered. The temporary access path would not be graded, and the metal plates would be removed upon completion of construction. The northern and southern ends of the sections would be connected with the existing 12-inch-diameter pipeline remaining in service. The 550 feet (0.10 mile) of existing line would be taken out of service, cleaned, and retired in place. To ensure public safety, orange construction fencing will be installed around the Section 2C2 workspace. Crews will ensure that the workspace is completely enclosed by orange fencing at the end of each work day.

2.1.1 Pipeline Construction Methods

All new pipeline sections would be installed by direct burial in open trenching. Steps would include site preparation, excavation, construction, backfilling, and grading. The 16-inch-diameter pipeline would be constructed within work areas that have been carefully selected for each section to minimize effects on sensitive resources. Prior to excavation, PG&E's existing underground pipelines would be located using the

“potholing” method, in which high-pressure water breaks apart the soil while a vacuum removes the water/soil mix to expose the top of the underground pipelines.

Site Preparation. Before soil disturbance, best management practices (BMPs) for erosion and sediment control would be installed. BMPs would be maintained throughout the construction period to contain excavated material within the approved temporary use areas, as needed. A project-specific stormwater pollution prevention plan (SWPPP) would be prepared and would include stormwater construction BMPs detailing sediment, erosion and discharge controls. All necessary local ministerial permits (grading, cut and fill, encroachment) would be obtained. To prepare each construction work area, workspaces would be graded and cleared of vegetation and debris. Excavated subsoil would be used for backfill or off-hauled for disposal.

Trenching. The top 12 inches of soil from the areas to be trenched would be removed and segregated for reuse during restoration. Topsoil from uplands will be segregated from topsoil in wetlands. Excavated subsoil would be maintained in a separate pile to be used as trench backfill following pipe installation. Table 2-1 shows approximate trench widths and depths and excavated volumes for each replacement section.

TABLE 2-1

Approximate Widths, Depths, and Excavated Volumes for Replacement Sections

	Section 2B2	Section 1C	Section 2C1	Section 2C2
Length of trench (ft)	3,215	730	430	630
Average width of trench (ft)	2.5	2.5	6.0 ^a	2.5
Average depth of trench (ft)	6	9	6	6
Approximate volume of excavated soils (yd ³)	1,786 ^b	608	573	350

^aTrench is wider for Section 2C1 because the existing 12-inch-diameter gas pipeline would be removed at this location. The new pipe would be installed approximately 2 feet from the existing pipeline.

^bIncludes excavation associated with the new underground vaults.

Stringing and Pipe Installation. Stringing operations would involve trucking lengths of pipe (joints) to the site and positioning them along the trench with a crane or side boom, parallel to the centerline of the trench. Temporary gaps in the strung pipe would be maintained for access, as needed.

Pipe installation operations would involve bending, welding, joint coating, and lowering in the pipe. Once bent (where necessary), the pipe joints would be welded together as continuous sections next to the trench. Each weld would be visually and radiographically inspected (X-rayed) to check for defects. After welding, a crew would coat the pipe joints with epoxy in accordance with PG&E standards. The pipe coating would be electronically tested to confirm that it is intact, which would be reapplied if necessary, and then re-tested. The pipe would then be lowered into the trench upon passing inspection. The trench bottom would be filled with fine-grained material such as sand to provide bedding for the pipe. Side boom tractors would lower the welded pipe sections into the trench. Before, during, and after installation of the pipeline, inspectors would check that the trench is deep enough, the bottom is free of damaging debris, the pipe is properly placed, all bends conform to the trench, and the external coating is not damaged.

Backfilling. If the native subsoil is not appropriate to pad the pipeline, sand would be used for backfill with at least 12 inches above the pipeline. The remainder of the trench would be backfilled with native subsoil, which would be compacted to 90 percent in unpaved areas and 95 percent in paved areas. Following the backfill, topsoil would be re-spread to return the surface to its pre-activity grade. Backfilling typically occurs within 72 hours of pipeline installation. At the conclusion of each day’s trenching activity, the open trench would be covered or ramped at an angle of less than 33 degrees to allow any wildlife that may have entered the trench to escape. All disturbed sites would be restored to pre-activity grade, with allowance for settling.

2.1.2 Equipment

A list of equipment anticipated to be used during construction is provided below:

- Light duty truck/car
- Pickup truck
- Heavy duty (> 1 ton) truck
- 10-wheel dump truck
- Tractor/trailer
- Water truck
- Welding rig
- Excavator
- Grader
- Loader
- Bulldozer
- Boom truck and trailer
- Sideboom crane
- Welding rig
- Compressor
- Sand blaster
- Smooth drum roller
- Liquid storage tank (water tanks and poly tanks)
- Hydrostatic testing equipment
- All-terrain vehicle (ATV)

2.1.3 Construction Workspace

The project's proposed workspaces were carefully selected, considering sensitive resources, land rights, and general space constraints. Workspaces would include PG&E's existing ROW, proposed new ROW, and temporary construction easement. Activities that would occur within the existing and proposed ROW include trenching, excavating, stockpiling, pipe installation, pipe retirement, dust control, off-hauling, welding, grading, and compacting.

In general, a uniform temporary construction easement of 30 feet in width is required for pipeline replacement work. A workspace of 0.83 acre would be required for construction of the new underground vault. Activities that would occur in the temporary workspace include driving, stockpiling, moving equipment, controlling dust, welding, and performing hydrostatic testing. Figures 1-2a, 1-2b, 1-2c, and 1-2d show the proposed location of the underground vaults as well as each section's existing pipeline alignment, proposed pipeline alignment, exclusive permanent easements, temporary workspaces, and proposed access routes to identify potential disturbance to surrounding land.

Table 2-2 shows the area that would be temporarily and permanently disturbed in each section. All disturbance associated with this project would be temporary with the exception of the new underground vaults south of Athens Avenue, which would have a graveled lot placed over it.

TABLE 2-2
Approximate Temporary and Permanent Disturbance Areas

	Temporary Disturbance (Acres)	Permanent Disturbance (Acres)
Section 2B2	6.4	0
Section 2C1	0.30	0
Section 1C	0.94	0
Section 2C2	2.67	0
Athens Avenue underground vaults	0.83	0.07

TABLE 2-2

Approximate Temporary and Permanent Disturbance Areas

	Temporary Disturbance (Acres)	Permanent Disturbance (Acres)
TOTAL	11.14	0.07

2.2 Hydrostatic Testing

After installation, each of the newly installed L-123 pipeline sections would be hydrostatically tested. Section 2C2 would be tested independently. Sections 2B2, 1C, and 2C1 would be connected and would thus be tested together. Hydrostatic testing, the industry standard for testing gas pipelines and pressure valves, is a safe method of verifying that a pipeline will handle the maximum operating pressure and ensuring the integrity of a pipeline. Water is used as the test medium during a hydrotest. For this project, test water would be purchased and pumped from a nearby hydrant or trucked in from an offsite facility and thereafter stored in water tanks before the pipeline filling process, or brought in by truck from off site. Test water would not be taken from any onsite aquatic resource such as wetlands or streams.

Once the pipeline section is filled with the appropriate amount of water, the water would be slowly pressurized to a calculated test pressure well above the pipeline's normal operating pressure. At the end of the test, the test water would be emptied into water tanks or trucks, then tested and disposed of at an appropriate offsite facility. Once the pipe section is drained, it would be dried with compressed air or a drying device such as a foam drying pig. After the pipe is dry, the existing gas system would be temporarily taken out of service. The newly tested section(s) would be connected to the portions of the existing gas pipeline that are to remain. After all connections are made and the welds pass X-ray inspection, the gas transmission system would be put back into service and the new pipeline would be used.

2.3 Retirement and Removal

Once the new sections of L-123 pipeline were commissioned and placed into service, the existing 12-inch-diameter pipeline in Sections 2B2, 1C, and 2C2 would be retired in place following PG&E's standard procedures. Retired pipe would be physically disconnected from all gas sources, and pipe sections would be purged of natural gas in accordance with federal and state law. The pipeline would then be sectionalized at intervals of approximately 3,200 feet or less, as dictated by field conditions. Sectionalizing involves removing 2-foot sections of pipe, filling the remaining pipeline segment with inert gas, and sealing each end with a metal plate or cap. Bell holes measuring approximately 4 feet by 6 feet each would be excavated over the existing pipeline so that the pipeline could be sectionalized if the retirement sections are not located at tie-in points or within existing excavations.

No additional workspace would be required for retirement work; all bell holes and associated staging would occur within the permanent easement and temporary workspaces depicted on Figures 1-2a, 1-2b, 1-2c, and 1-2d. Bell holes and associated workspaces would be sited so they do not affect sensitive resources such as wetlands. Section 2C2 would be retired at the northern and southern tie-in points. Two retirement bell holes would be excavated in Section 2B2; the first bell hole would be excavated at the southern tie in point and the second bell hole would be excavated 2,000 feet north of the southern tie-in point in order to keep the excavation at least 250 feet from the nearest vernal pool.

The disposal method for the pipeline sections removed from the ground would be determined according to contamination test sample results. Decontaminated pipe and pipe with undetectable levels of contaminants might be recycled into scrap metal, disposed of as trash, or sold. Disposal of pipe deemed hazardous waste would be handled through the local environmental PG&E coordinator and in accordance with all applicable state and federal regulations. The local environmental specialist would collect and dispose of liquids.

The ends of the pipe left remaining in the ground would be sealed to avoid future ground settlement and water intrusion using one of the following PG&E-approved sealing methods:

- Crushing or flattening the pipe-end and seal-welding the opening
- Welding a plate or capping over the opening
- Sealing the pipe with concrete or mortar products
- Sealing with a tightly driven redwood plug (2 inches or smaller)
- Sealing with polyurethane foam cast in place
- Sealing with a tightly fitting, outside-diameter-seal plastic end cap
- Employing other methods approved by the responsible pipeline engineer

After the ends of the old pipe are sealed, bell hole excavations would be backfilled and compacted. The surface of the original ROW would be restored by removing any construction debris, grading to original grade and contour, and revegetating and repaving as necessary.

Because the new pipeline in Section 2C1 would be installed close to the existing pipeline, the existing 12-inch-diameter pipeline would be removed from the ground once the new pipeline is placed into service. The removed section would be properly disposed of after obtaining test sample results.

The existing underground vaults south of Athens Avenue would be retired in place. Its retirement would not require any excavation. The valves in the vaults would be closed and cleaned to retirement standards.

2.4 Site Restoration

All construction material and debris would be removed and disposed of at permitted landfills after project completion. All temporary work areas would be restored to pre-project conditions, and the areas would be restored as indicated in the SWPPP. Only native species (or a sterile non-native seed mix appropriate for the area) would be used in site restoration.

A site restoration plan has been developed and will be implemented upon agency approval. The site restoration plan is provided in Appendix A.

2.5 Schedule

Construction would start as soon as all required local, state, and federal authorizations were obtained, because the project must be completed by December 31, 2014. Construction is currently scheduled to begin in October 2014 and continue until December 31, 2014 but may start sooner if all necessary permits are received. The schedule may need to shift, depending on the timing of permits and local approvals.

Construction would typically occur Monday through Friday from 6 a.m. to 8:00 p.m., and 8:00 a.m. to 8:00 p.m., Saturday through Sunday, with 20 to 40 crew members working at each section. Multiple crews would be working on different sections of the project simultaneously. During the timeframes where the existing line is taken out of service and the new line is activated, construction operations must run 24-hours/day since the transmission line cannot be unattended as it is still connected to a live system and only blocked by valves. Each operation would take approximately 36-60 hours and would occur twice during the project: once for energizing Section 2B2 and once for energizing Sections 1C, 2C1, and 2C2.

Normal construction hours within Sections 2B2, 1C, and 2C1 may be extended to 24-hour construction days, depending on the timing of receipt of all applicable authorizations, in order to meet the CPUC compliance date of December 31, 2014. Construction would need to occur during the rainy season in order to complete construction by the end of 2014 and meet commitments made to the CPUC.

2.6 General Construction Applicant-Proposed Measures

To avoid or minimize potential impacts on environmental resources, PG&E would implement APMs before, during, and after project construction. APMs would also include PG&E BMPs and the requirements of

applicable agency work authorization permits. Proposed general construction (GC) APMs that would be incorporated into the project are listed below. Resource-specific APMs proposed to be incorporated into the project are listed in the initial study (IS) checklist in Section 3.

APM GC-1: Landscape Replacement. Some vegetation would be removed to provide sufficient working space for construction activities. Temporarily disturbed natural areas will be restored to pre-project conditions in accordance with the site restoration plan. PG&E will restore landscaped areas and replace plantings, consistent with pipeline safety and maintenance requirements.

APM GC-2: Exclusionary Fencing. To see that construction activities are limited to designated work areas, PG&E will install temporary exclusionary fencing around the temporary work areas with sensitive biological resources. No fencing will be placed within the bed, bank, or channel of any waterway without prior consultation with California Department of Fish and Wildlife (CDFW). Exclusionary fencing is not called out in the SWPPP specifically, but this fencing can be installed at the construction manager's request. The EFS will coordinate with the construction manager so this measure is appropriately addressed.

APM GC-3: Work Area Management. Trash dumping, firearms, open fires (such as barbecues) that are not required by the activity, hunting, and pets are prohibited at all work locations and access roads.

APM GC-4: Secondary Containment. Stationary equipment (e.g., pumps, generators, compressors, lights) will be positioned over secondary containment.

APM GC-5: Drip/Spill Protection. Water storage tanks and poly tanks will be positioned over drip or spill protection.

APM GC-6: Smoking. Appropriate cigarette disposal receptacles must be provided and used at all work locations.

APM GC-7: Litter and Trash Management. All food scraps, wrappers, food containers, cans, bottles, and other trash from the work area will be disposed in closed trash containers. Trash will be removed completely from the work area at the end of each working day.

APM GC-8: Work Area Stockpiles. At all locations, stockpiling of material will not be allowed outside of the established work area approved on "Issued for Construction" drawings.

APM GC-9: Refueling. Vehicular and equipment refueling is prohibited within 300 feet of a wetland, stream, drainage, or other waterway unless secondary containment is constructed (e.g., a berm and lined refueling area). Proper spill prevention and cleanup equipment will be maintained in all refueling areas.

APM GC-10: Fire Prevention. During fire season in designated State Responsibility Areas, all motorized equipment will have federal or state approved spark arrestors; a backpack pump filled with water and a shovel will be carried on all vehicles; and fire-resistant mats and/or windscreens will be used when welding. In addition, during fire "red flag" conditions as determined by California Department of Forestry, welding will be curtailed, each fuel truck will carry a large fire extinguisher with a minimum rating of 40 B:C, and all equipment parking and storage areas will be cleared of all flammable materials.

APM GC-11: Site Restoration Plan. A site restoration plan has been developed and submitted to RWQCB, USACE, and USFWS. Upon agency approval, the plan will be implemented to restore vegetated work areas to pre-project or better conditions.

Following completion of the project, all disturbed areas will be evaluated for restoration. The restoration efforts will focus on areas where conditions have been degraded due to excavation, erosion, and vegetation removal, and will include contour restoration, slope stabilization, drainage bank stabilization, control of invasive weeds, and reestablishment of appropriate vegetation. A habitat-appropriate, weed-free native seed mix, or sterile non-native mix appropriate for the project area, will be used to approximate pre-project conditions. To discourage the introduction and establishment of invasive plant species, seed mixtures/straw used within natural vegetation will be either rice straw or weed-free straw.

2.7 Required Agency Approvals

- USACE Section 404 permit
- RWQCB Section 401 water quality certification
- USFWS biological opinion

2.8 Relationship to Local Plans

PG&E's public utility maintenance projects are not subject to local planning ordinances because the location, design, and construction of these projects are under the exclusive jurisdiction of the CPUC. The Placer County General Plan, Sunset Area Industrial Plan (Placer County, 1997) land use designations for the project area allow infrastructure such as necessary public utility and safety facilities; therefore, the project is consistent with this plan. The City of Lincoln General Plan (City of Lincoln, 2008) public utility goal ensures that adequate and efficient public utilities are provided to meet the needs of residents of the city. The project is consistent with this goal as it would provide for improvement to the existing system's reliability and safety. The project would be an upgrade to and expansion of an existing utility, not a new use.

SECTION 3

Initial Study Checklist and Environmental Analysis

3.1 Aesthetics

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
(a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.1.1 Introduction

This section describes the regulatory setting and existing visual environment, including scenic resources, and analyzes the potential aesthetic impacts of the project. The evaluation concludes that the project would not result in substantial changes to the visual landscape.

3.1.2 Regulatory Setting

3.1.2.1 Federal

No federal regulations on aesthetics are applicable to the project.

3.1.2.2 State

The California Scenic Highway Mapping System (CalTrans, 2014) lists highways that are either designated as scenic or eligible for designation as scenic. A highway may be designated as scenic depending on how much of the natural landscape travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on the traveler's enjoyment of the view. There are no designated state scenic highways within the project vicinity.

3.1.2.3 Local

The CPUC has jurisdiction over the project's siting, design, and construction; therefore, the project is not subject to local discretionary regulations. There are no locally designated scenic resources in the project area.

3.1.3 Environmental Setting

Sections 2B2, 2C1, and 1C are located in the unincorporated limits of southwestern Placer County and Section 2C2 is located within the City of Lincoln. All sections are located on mostly flat terrain and open areas. Land uses in the project area include open space, agriculture, industrial, commercial, and residential.

Visual features in the project area include annual grassland and woodland, with some smaller wetland and riparian habitats, non-native urban landscaping, hardscaping such as roads, residential housing, and industrial and commercial buildings.

The project site would be visible from nearby roads including Athens Avenue, North Foothills Boulevard, and Industrial Avenue. The project site would be visible from the Thunder Valley Casino Resort, from an industrial area near the southern end of the project area, and from a residential development in Lincoln.

3.1.4 Applicant-Proposed Measures

The following measure would be implemented to reduce potential temporary impacts associated with construction lighting.

APM AES-1: Lighting. All lighting will be temporary and will only be used during construction. Temporary lighting fixtures will cast light downward and will only be used in the immediate workspace.

3.1.5 Impacts

The project's potential impacts on aesthetic resources were evaluated using CEQA guidelines, which ask the questions given (and answered) below.

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

No designated scenic vistas exist in the vicinity of the project; therefore, no impact would occur to designated scenic vistas.

As described in Section 2.1.1, site preparation would include clearing and grading each construction work area, removing vegetation and debris, and leveling the land. After construction, the permanent easement and temporary use areas would be restored to pre-project conditions per the site restoration plan, consistent with pipeline safety and maintenance requirements.

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

No designated state scenic highways are located in the vicinity of the project. There are no trees, rock outcroppings, historical buildings, or other unique features that would be adversely affected during implementation of the project; therefore, no impact would occur to scenic resources.

(c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

During construction, portions of the project site's visual character would change to those of a temporary construction work site. Once construction is completed, the project area would be restored to pre-project conditions, consistent with pipeline safety and maintenance requirements, through the implementation of APM GC-1 (see Section 2.6). With implementation of APM GC-1 this impact would be less than significant.

The pipeline portion of the project would be constructed completely underground. Upon completion of the project, the only new visual permanent feature would be approximately 0.07 acre (3,049 square feet) of graveled surface at the underground vaults and valve covers that would be flush with the ground. Though the gravel lot would be visible from Athens Avenue and the Thunder Valley Casino Resort, the area would be small in size, and when viewed in context with the surrounding area, would not decrease the overall visual quality. Therefore, no impacts on visual resources would result.

Where vegetation interfered with the required work space, construction activities would require removal of vegetation from PG&E's existing ROW. With implementation of APM GC-1, PG&E would restore and replace plantings, consistent with pipeline safety and maintenance requirements; therefore impacts would be less than significant.

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

The proposed project would not include new lighting; therefore no permanent adverse effects due to new light sources would occur to day or nighttime views in the area.

Construction is currently scheduled to begin in October 2014 and continue until December 31, 2014 but may start sooner if all necessary permits are received. However, the schedule may need to shift, depending on the timing of permits and local approvals. Construction would typically occur Monday through Friday from 6 a.m. to 8:00 p.m., and 8:00 a.m. to 8:00 p.m. Saturday through Sunday, with 20 to 40 crew members working at each section. Multiple crews would be working on different sections of the project simultaneously. Work within Sections 2B2, 1C, and 2C1 may be extended to 24-hour construction days, depending on the timing of receipt of all applicable authorizations, in order to meet the CPUC compliance date of December 31, 2014. During construction, the project could have temporary visual impacts related to the presence of construction equipment and potential sources of light and glare from construction equipment and nighttime construction. These impacts would be temporary and limited to the duration of construction.

Permanent above-ground structures associated with the project would include a gravel surface and valve covers associated with the underground vaults; no lighting would be installed. Therefore, no light or glare impacts would result.

3.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.2.1 Introduction

This section describes the regulatory setting and environmental setting for agricultural and forest lands, and identifies potential project impacts on these lands. The evaluation concludes that impacts on agriculture and forestry resources would be less than significant.

3.2.2 Regulatory Setting

3.2.2.1 Federal and State

Farmland Protection Policy Act

The Farmland Protection Policy Act (FPPA, 7 United States Code [U.S.C.] Section 4201 et seq.) is intended to protect farmland and requires federal agencies to coordinate with the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) if their activities may irreversibly convert farmland to nonagricultural use, either directly or indirectly. The stated purpose of the FPPA is to “minimize the extent to which federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses.” The FPPA requires federal agencies to examine potential direct and indirect effects to farmland of a proposed action and its alternatives before approving any activity that would convert farmland to nonagricultural use. USDA issues regulations to implement the FPPA (7 CFR, Chapter VI, Part 658).

California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965 (Government Code §51200 et seq.), commonly known as the Williamson Act, provides a tax incentive for voluntary enrollment of agricultural and open space lands in contracts between local government and landowners. The contract restricts the land to agricultural and open space uses and compatible uses defined in state law and local ordinances. Local government establishes an agricultural preserve defining the boundary within which a city or county will enter into

contracts with landowners. Local governments calculate the property tax assessment based on the actual land use instead of on the potential land value assuming full development.

Williamson Act contracts are for 10 years and longer. The contract renews automatically each year, maintaining a constant 10-year contract, unless the landowner or local government files to initiate nonrenewal. If that occurs, the Williamson Act terminates 9 years after a notice of nonrenewal is filed. A landowner can petition for a contract cancellation. Tentative contract cancellations can be approved only after the landowner pays the cancellation fee.

Since 1998, another option in the Williamson Act Program is a Farmland Security Zone (FSZ) contract. An FSZ is an area created within an agricultural preserve by a board of supervisors upon request of a landowner or group of landowners. FSZ contracts offer landowners greater property tax reductions and have a minimum initial term of 20 years. Like Williamson Act contracts, FSZ contracts renew annually unless an owner files a notice of nonrenewal.

Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program (FMMP) is the only statewide land use inventory conducted regularly. The California Department of Conservation (CDC) administers the FMMP, under which it maintains an automated map and database system to record changes in agricultural land use. “Important Farmland” under the FMMP is listed by category, as described below. The categories are defined according to USDA land inventory and monitoring criteria, as modified for California:

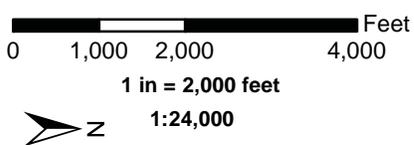
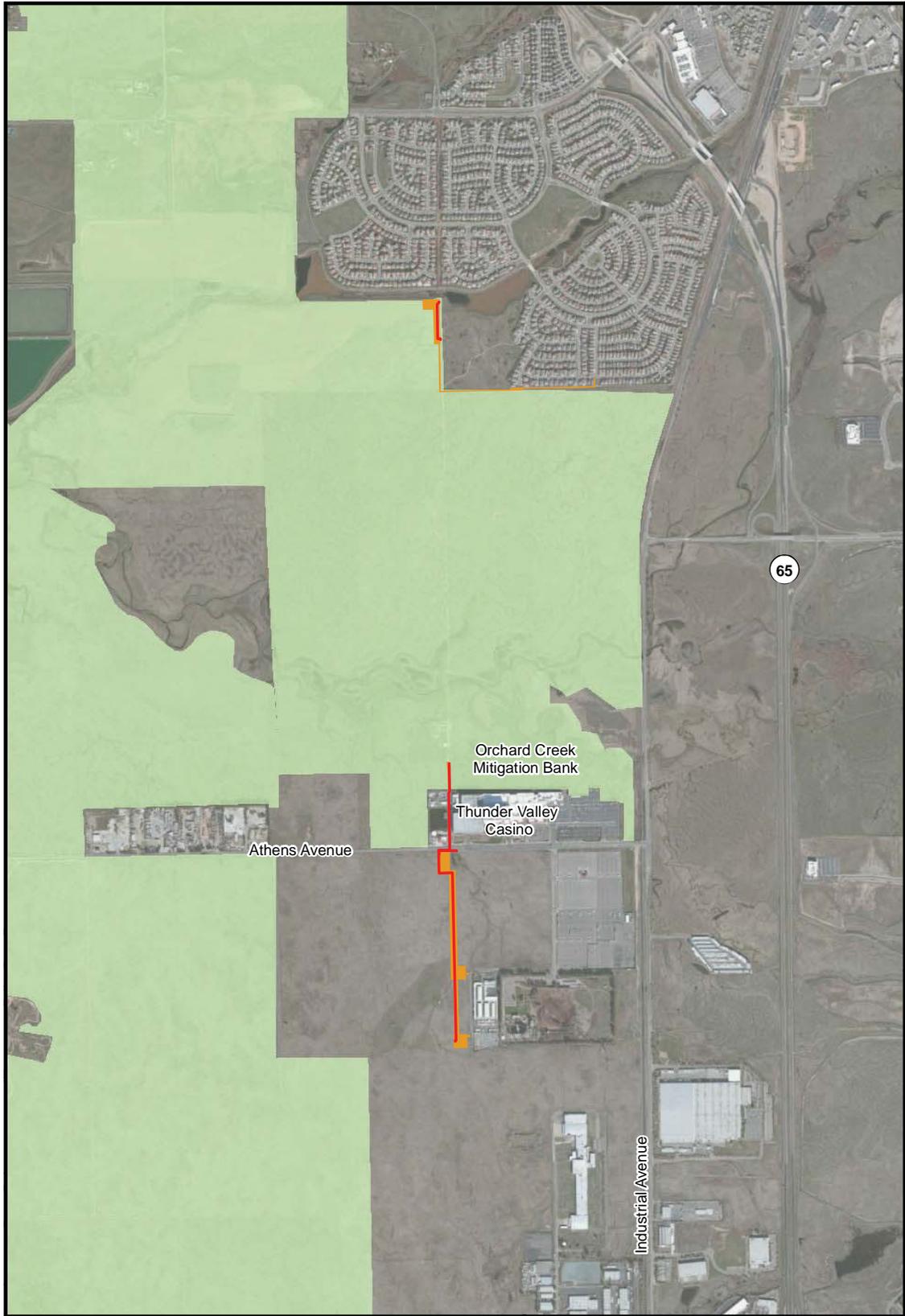
- **Prime Farmland** – Prime Farmland is land with the best combination of physical and chemical features to sustain long-term agricultural crop production. These lands have the soil quality, growing season, and moisture supply necessary to produce sustained high yields. Soil must meet NCRS physical and chemical criteria. Prime Farmland must have been used for production of irrigated crops at some time during the 4 years prior to the FMMP’s mapping date.
- **Farmland of Statewide Importance** – Farmland of Statewide Importance is similar to Prime Farmland but with minor differences, such as having greater slopes or soils with a lesser ability to store moisture. Farmland of Statewide Importance must have been used for production of irrigated crops at some time during the 4 years prior to the mapping date.
- **Unique Farmland** – Unique Farmland has lesser quality soils than Prime Farmland or Farmland of Statewide Importance. Unique Farmland is used for producing the state’s leading agricultural crops. These lands usually are irrigated but may include non-irrigated orchards or vineyards found in some climatic zones. Unique Farmland must have been used for crops at some time during the 4 years prior to the mapping date.
- **Farmland of Local Importance** – Farmland of Local Importance is farmland that is important to the local agricultural community as determined by each county’s board of supervisors and local advisory committees.

3.2.2.2 Local

The CPUC has jurisdiction over siting, design, and construction of the project; therefore, the project is not subject to local discretionary regulations. However, Farmland of Local Importance was identified by the CDC as being within Sections 2C1 and 2C2.

3.2.3 Environmental Setting

The project area does not include farmland that the CDC FMMP has designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The CDC FMMP identifies Sections 2C1 and 2C2 as being within as Farmland of Local Importance (see Figure 3.2-1; CDC, 2014).



- Proposed Pipeline Alignment
- Project Footprint
- Farmland of Local Importance

FIGURE 3.2-1
 Farmland Designations
PG&E Gas Transmission Line 123 Pipeline Replacement Project, Phase 2
Sections 2B2, 1C, 2C1, and 2C2

3.2.4 Impacts

The project's potential impacts on agriculture and forestry resources were evaluated using CEQA guidelines, which ask the questions given (and answered) below.

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

The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. Though portions of the alignment are designated as Farmland of Local Importance, use of these portions would be temporary, and these areas would be restored following construction. Therefore, no impacts on agricultural resources would result from implementation of the project.

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

The project is not under any Williamson Act contract and would not conflict with existing zoning; therefore, no impact would occur.

(c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No forest or timber land exists at the project site or in the project vicinity; therefore, no impact would occur.

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

No forest land is present at the project site or in the project vicinity; therefore, no impact would occur.

(e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use?

Approximately 0.07 acre of open space would be permanently disturbed by being graveled as part of the underground vaults. The parcel on which the new vaults will be located is zoned as industrial and would therefore not result in the conversion of farmland or forest land. In addition, the 0.07 acre disturbance area is a nominal portion of the surrounding open space area. Although Sections 2C1 and 2C2 are located on Farmland of Local Importance, all disturbance would be temporary and the workspace would be restored to pre-project conditions as specified in the restoration plan (see Section 2.4, and APM GC-1). Therefore, the impact would be less than significant.

3.3 Air Quality and Greenhouse Gases

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Air Quality				
(a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Greenhouse Gases				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.1 Introduction

3.3.1.1 Summary

This section describes existing conditions, potential project-related impacts, and APMs for air quality and greenhouse gases (GHGs) in the project area. The environmental setting is described in terms of existing air quality that could be affected by the proposed project. Federal, state, and regional air quality regulations are discussed, followed by discussions of APMs and evaluation of impacts. The analysis concludes that the project would result in less-than-significant air quality impacts and GHG emissions.

3.3.1.2 Methodology

The project is expected to cause only temporary construction emissions. Emissions during project operation following construction are not expected. Due to the relatively small size of the project area to be disturbed (11.14 acres for temporary construction disturbance) and approximately 4-month duration of construction, air quality impacts were evaluated using the construction emissions predicted by the California Emissions Estimator Model (CalEEMod) program (version 2013.2.2) and the emission control measures to be implemented during construction.

3.3.2 Regulatory Setting

3.3.2.1 Federal

Air Quality

Federal air quality policies are regulated through the federal Clean Air Act (CAA). The United States Environmental Protection Agency (EPA) adopted the CAA in 1970 and its amendments in 1977 and 1990. Pursuant to the CAA, EPA has established nationwide air quality standards to protect public health and welfare with an adequate margin of safety. These national ambient air quality standards (NAAQSs) indicate the maximum allowable atmospheric concentrations to maintain safe levels of each pollutant to avoid specific adverse effects to human health and the environment. NAAQSs were developed for seven “criteria” pollutants: ozone, nitrogen dioxide (NO₂), carbon monoxide (CO), particulate matter less than 10 microns in aerodynamic diameter (PM₁₀), particulate matter less than 2.5 microns in aerodynamic diameter (PM_{2.5}), sulfur dioxide (SO₂), and lead. Table 3.3-1 summarizes the NAAQS.

EPA has designated regions as in either “attainment” or “nonattainment” for each NAAQS. A region that is meeting the NAAQS for a given pollutant is in attainment for that pollutant. If it does not meet the NAAQS, the region is in nonattainment for that pollutant. A “maintenance area” is an area that was formerly nonattainment and is now consistently meeting the NAAQS, and that EPA has re-designated from nonattainment to “attainment with a maintenance plan.” The federal attainment status for the project area is listed in Table 3.3-2. The 1977 CAA amendment required each state to develop and maintain a state implementation plan (SIP) for each criteria pollutant that violates the applicable NAAQS. The SIP is a tool to avoid and minimize emissions of pollutants that exceed ambient threshold criteria and to achieve compliance with the NAAQS. In 1990, the CAA was amended to strengthen regulation of both stationary and mobile emission sources for criteria pollutants.

Greenhouse Gases

On October 30, 2009, the EPA published the Mandatory Reporting Rule (codified in 40 CFR 98), which requires mandatory reporting of GHG emissions from large sources and suppliers in the U.S. (EPA, 2013a). In general, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, facilities that inject carbon dioxide (CO₂) underground, and facilities that emit 25,000 metric tons or more per year of carbon dioxide equivalent (CO₂e) emissions are required to submit annual reports to the EPA.

On December 7, 2009, the Final Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the CAA was signed. The endangerment finding states that current and projected concentrations of the six key well-mixed GHGs in the atmosphere—CO₂, methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆)—threaten the public health and welfare of current and future generations. Furthermore, it states that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare (74 Federal Register 66496).

On June 3, 2010, the EPA promulgated the final GHG Tailoring Rule (75 Federal Register 31514). The GHG Tailoring Rule establishes clear applicability thresholds for stationary source emitters of GHGs under prevention of significant deterioration (PSD) and the Title V CAA operating permit program. In general, any new stationary source with GHG emissions of 100,000 tons CO₂e per year or greater is now subject to both PSD review and the Title V program. Because no stationary sources of GHG emissions are associated with the proposed project, neither PSD nor Title V regulations apply to the project.

TABLE 3.3-1
Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS ^a	NAAQS ^b	
			Primary ^c	Secondary ^d
Ozone	8 hours	0.070 ppm	0.075 ppm	0.075 ppm
	1 hour	0.09 ppm	—	—
PM ₁₀	Annual arithmetic mean	20 µg/m ³	—	—
	24 hours	50 µg/m ³	150 µg/m ³	150 µg/m ³
PM _{2.5}	Annual arithmetic mean	12 µg/m ³	12 µg/m ^{3e}	15 µg/m ^{3e}
	24 hours	—	35 µg/m ³	35 µg/m ³
CO	8 hours	9.0 ppm	9 ppm	—
	1 hour	20 ppm	35 ppm	—
NO ₂	Annual arithmetic mean	0.030 ppm	0.053 ppm	0.053 ppm
	1 hour	0.18 ppm	0.100 ppm ^f	—
SO ₂	Annual arithmetic mean	—	0.03 ppm	—
	24 hours	0.04 ppm	0.14 ppm	—
	3 hours	—	—	0.5 ppm
	1 hour	0.25 ppm	0.075 ppm ^g	—
Lead ^h	Calendar quarter	—	1.5 µg/m ³	1.5 µg/m ³
	3-month rolling average	—	0.15 µg/m ³	0.15 µg/m ³
	30-day rolling average	1.5 µg/m ³	—	—
VRPs	8 hours	—	—	—
SO ₄	24 hours	25 µg/m ³	—	—
H ₂ S	1 hour	0.03 ppm	—	—
Vinyl chloride ^h	24 hours	0.01 ppm	—	—

^a CAAQS for ozone, CO (except 8-hour Lake Tahoe), SO₂ (1- and 24-hour), NO₂, PM₁₀, PM_{2.5}, and VRP are values that are not to be exceeded. All others are not to be equaled or exceeded.

^b NAAQS (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth-highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than 1. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, is equal to or less than the standard.

^c Primary standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

^d Secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

^e EPA finalized an update to its annual NAAQS for PM_{2.5} on December 14, 2012.

^f To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 0.100 ppm.

^g To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 0.075 ppm.

^h CARB has identified lead and vinyl chloride as “toxic air contaminants” with no threshold level of exposure for adverse health effects determined. These actions allow for implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Notes:

— = No standard has been adopted for this averaging time

µg/m³ = micrograms per cubic meter

CAAQSs = California Ambient Air Quality Standards

NAAQSs = National Ambient Air Quality Standards

ppm = parts per million (by volume)

VRP = visibility-reducing particle

Source: CARB, 2013a

TABLE 3.3-2
Federal and California Air Quality Attainment Status for Placer County

Pollutant	Averaging Period	Federal Status	California Status
Ozone	8 hours	Nonattainment (severe)	Nonattainment
	1 hour	–	Nonattainment
CO	8 hours	Attainment	Attainment
	1 hour	Attainment	Attainment
NO ₂	1 hour	Unclassified/attainment	Attainment
	Annual arithmetic mean	Unclassified/attainment	Attainment
SO ₂	24 hours	Attainment	Attainment
	1 hour	Attainment	Attainment
	3 hours	–	–
	Annual arithmetic mean	Attainment	–
PM ₁₀	24 hours	Unclassified	Nonattainment
	Annual arithmetic mean	–	Nonattainment
PM _{2.5}	24 hours	Nonattainment	–
	Annual arithmetic mean	Nonattainment	Unclassified
Sulfates	24 hours	–	Attainment
Lead	30-day rolling average	Attainment/unclassified	Attainment
H ₂ S	1 hour	–	Unclassified
Vinyl chloride	24 hours	–	Unclassified
VRP	Less than 10 miles when relative humidity < 70%	–	Unclassified

Notes:

– = No standard has been adopted for this averaging time

VRP = visibility-reducing particle

Source: CARB, 2013b and EPA, 2013b

3.3.2.2 State

Air Quality

California Air Resources Board (CARB) oversees California air quality policies. California ambient air quality standards (CAAQS) were first established in 1969 pursuant to the Mulford-Carrell Act. These standards are generally more stringent than the NAAQS and include four additional pollutants: sulfates (SO₄), hydrogen sulfide (H₂S), vinyl chloride, and visibility-reducing particles (VRPs). Relevant CAAQS are listed in Table 3.3-1 (above). Similar to EPA, CARB designates counties in California as being in attainment or nonattainment for the CAAQS. The state attainment status for the county is listed in Table 3.3-2 (above).

The California CAA, which was approved in 1988 and amended in 1992, requires each local air district in the state to prepare an air quality management plan (AQMP; part of SIP) that complies with the CAAQS. The CARB has ultimate responsibility for the SIP for nonattainment pollutants but relies on each local air district to adopt mandatory statewide programs and provide tailored additional strategies for sources under their local jurisdiction. CARB consolidates statewide implementation plan requirements for mobile sources and consumer products with locally adopted district plans and submits the completed SIP to EPA. The SIP thus consists of the emissions standards for vehicular sources and consumer products set by CARB, as well as attainment plans adopted by the air districts and approved by CARB.

Greenhouse Gases

The California State Legislature signed the Global Warming Solutions Act of 2006 (AB 32), which provides the framework for regulating GHG emissions in the state. 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 1990 levels by 2020 (representing a 25 percent reduction). As required by AB 32, in December 2008, CARB approved the AB 32 Scoping Plan that contains the main strategies California will use to reduce GHG emissions that cause climate change. The scoping plan has a range of GHG reduction actions that include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 cost of implementation fee regulation to fund the program.

California State Senate Bill 97 was signed into law in August 2007. The bill required the Office of Planning and Research (OPR) to prepare, develop, and transmit to the resource agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions by July 1, 2009. As directed by Senate Bill 97, the OPR developed recommended amendments to the state CEQA guidelines for addressing GHG emissions. The amendments to the CEQA guidelines provide guidance to use in draft CEQA documents on analyzing GHG emissions and mitigating their effects.

In December 2007, CARB adopted a regulation requiring the largest industrial sources to report and verify their GHG emissions (CARB, 2007a). The reporting regulation serves as a solid foundation to determine GHG emissions and track future changes in emission levels. This regulation was later revised to better align with EPA's Mandatory Reporting Rule; the revised regulation became effective January 1, 2013.

On October 20, 2011, CARB adopted the California Cap-and-Trade Program, under which most covered entities are obliged to hold GHG allowances beginning in 2013. Fuel suppliers, including public utility gas corporations operating in California, are obliged to hold GHG allowances beginning in 2015 (CARB, 2013c).

3.3.2.3 Regional

Air Quality

The project is in Placer County, which is within the jurisdiction of the Placer County Air Pollution Control District (PCAPCD). The PCAPCD attains and maintains air quality conditions in Placer County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. PCAPCD's clean-air strategy includes preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations on sources of air pollution, and issuing permits for stationary sources of air pollution. PCAPCD also inspects stationary sources and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the CAA and California CAA.

The most recent SIP applicable to Placer County is *2009 Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan*. The plan sets out a strategy for attaining the 1997 federal 8-hour ozone standard in the Sacramento Nonattainment Area by 2018. PCAPCD proposed revisions to the 2009 plan in August 2011.

PCAPCD's *2012 Triennial Progress Report* was adopted in October 2013. California CAA requires this report to address the region's process toward attainment of the state ozone standard (PCAPCD, 2013). The progress report describes reduction measures, planning initiatives, and current and forecasted emissions inventories and evaluates ozone trends in the region. According to *2012 Triennial Progress Report*, between 1990 and 2010 the overall reactive organic gases (ROG) emissions declined from 39 tons per day to 25 tons per day (a 37 percent decrease), and nitrogen oxides (NO_x) emissions declined from 36 tons per day to 29 tons per day (a 21 percent decrease). From 2010 to 2020, overall Placer County ROG emissions are expected to continue to decrease another 1 percent, and NO_x emissions will decrease another 33 percent. Projected emission forecasts to 2020 show a more gradual declining trend.

PCAPCD's advisory *CEQA Air Quality Handbook* (CEQA Handbook) provides lead agencies, consultants, and project applicants with uniform procedures for addressing air quality in environmental documents. CEQA Handbook is PCAPCD's first guidelines to help evaluate air quality impacts within its jurisdiction (PCAPCD, 2012). The handbook recommends thresholds of significance for both construction-related and operational activities for ROG, NO_x, and PM₁₀.

GHG Emissions

This analysis was prepared consistent with the recommendations presented in the PCAPCD's CEQA Handbook's chapter on evaluating GHG emissions in CEQA analyses (PCAPCD, 2012). PCAPCD recommends that CEQA analyses fully disclose impacts related to GHG emissions by providing background information about the science, regulatory framework, and relevant inventories to which a proposed project would contribute. In addition, PCAPCD recommends that impact evaluations quantify and disclose GHG emissions for both construction-related and operational activities, then determine significance by using applicable thresholds and evaluating how the project would enhance or impede state GHG reduction goals. The CEQA Handbook provides mitigation measures to reduce GHG emissions but does not establish a quantitative GHG threshold to use to evaluate GHG emissions.

3.3.3 Environmental Setting

The project site is located in Rocklin and Lincoln in Placer County, California, which is part of the Sacramento Valley Air Basin (SVAB). The SVAB is relatively flat, bordered by mountains to the east, west, and north. Air flows into the SVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Sacramento–San Joaquin Delta, bringing pollutants from the heavily populated San Francisco Bay Area.

The climate in the SVAB is characterized by cool, rainy winters and hot, dry summers. Periods of dense, persistent low-level fog that are most prevalent between storms are characteristic of SVAB winter weather. Most precipitation in the area originates from air masses that move in from the Pacific Ocean during the winter. These storms usually move from the west or northwest. Approximately 80% of the annual precipitation (18.34 inches of the annual average 22.80 inches) falls during the winter rainy season, November–March (WRCC, 2013). Average temperatures range from a minimum of 37.2 degrees Fahrenheit (°F) to a maximum of 59.5°F (WRCC, 2013) in the winter months; in the summer months (June to September) average temperatures range from a minimum of 55.1°F to a maximum of 92.4°F (WRCC, 2013). During the summer, the region's inland location and surrounding mountains shelter the area from much of the ocean breezes that keep the coastal temperatures moderate.

Regional wind patterns affect air quality by moving pollutants downwind of their sources. Localized meteorological conditions such as moderate winds disperse pollutants, thus reducing pollutant concentrations. An inversion layer develops when a layer of warm air traps cooler air close to the ground. Such temperature inversions hamper dispersion of air pollutants by creating a ceiling over the area that traps pollutants near the ground. These inversions are present over the SVAB during summer mornings and afternoons. During the longer daylight hours and intense heat from May to October, plentiful sunshine provides the energy needed to fuel photochemical reactions between ROG and NO_x, resulting in high ozone concentrations. Summer inversions are strong and frequent, but are less troublesome than those occurring in the fall. Autumn inversions, which form as warm air subsides in a region of high pressure, have accompanying light winds that do not adequately disperse air pollutants. In the winter, temperature inversions dominate during the night and early morning hours, but frequently dissipate by afternoon.

Air Quality

PCAPCD operates several air quality monitoring stations located in Placer County. Table 3.3-3 summarizes the highest ambient air monitoring data of the county for the most recent 3-year period for which data are available. Monitored concentrations of ozone exceeded the CAAQS and NAAQS for all 3 years. NO_x concentrations are below the state and federal standards in all 3 years. Monitored concentrations of PM₁₀

exceeded the state 24 hour average standard in 2011 but not in 2010 or 2012. Monitored highest concentrations of PM_{2.5} exceeded the state and federal 24-hour standard in all three years. Nevertheless, monitoring data in Placer County shows decreased pollutant concentrations over the past three years.

TABLE 3.3-3

Summary of Ambient Air Monitoring Data in Placer County (Most Recent 3-Year Period of Available Data)

Pollutant	Averaging Time	2010	2011	2012
Ozone (ppm)	1 Hour	0.124	0.109	0.108
	8 Hours	0.105	0.094	0.093
NOx (ppm)	1 hour	0.071	0.066	0.055
	Annual	0.010	0.011	0.010
PM ₁₀ (µg/m ³)	24 hour	36	56	43
PM _{2.5} (µg/m ³)	24 Hour	60.1	50.4	83.3

Source: CARB, 2014: <http://www.arb.ca.gov/adam/>
EPA, 2014, http://www.epa.gov/airdata/ad_rep_mon.html

Greenhouse Gases

In the United States, the main source of GHG emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light duty trucks, other trucks, buses, and motorcycles) make up the largest source of GHG emitting sources (CARB, 2013d). The dominant GHG emitted is CO₂, primarily from fossil fuel combustion.

In 2011, the California statewide GHG emissions were 448.11 million metric tons CO₂-equivalent (CO₂e) (CARB, 2013d). The transportation sector accounts for about 38% of the statewide GHG emissions inventory. The electric power sector accounts for about 19% of the total statewide GHG emissions inventory. A summary of the 2010 statewide GHG emissions inventory is included in Table 3.3-4.

As a part of AB 32, CARB established an emissions inventory for 1990 and a projected limit for 2020. The statewide 2020 limit was approved on December 6, 2007, and is not sector-specific. The statewide 2020 limit is based on the total 1990 GHG emissions inventory and is 427 MMT CO₂e (CARB, 2007b).

TABLE 3.3-4

2011 California Statewide Greenhouse Gas Emissions Inventory

Emission Category	2011 (MMT CO ₂ e)
Transportation	168.42
Electric power	86.57
Commercial and residential	45.47
Industrial	93.24
Recycling and waste	7.00
High GWP	15.17
Agriculture	32.24
Total California Emissions (Gross Emissions)	448.11

Source: CARB, 2013d. <http://www.arb.ca.gov/cc/inventory/data/data.htm>

3.3.4 Applicant-Proposed Measures

The CEQA criteria require consideration of regional, state, and federal plans, policies, and regulations when evaluating potential project impacts and developing avoidance and minimization measures. APMs were identified to address state and regional plans, policies, and requirements. These APMs are considered part of the project as evaluated. PG&E has incorporated these APMs into the project to minimize air and GHG emissions.

The APMs below would be implemented.

APM AQ-1: Fugitive Dust. In addition to complying with the PCAPCD-required fugitive dust control measures defined in District Rule 228, PG&E will implement the following proposed measures at all construction sites:

- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard
- Apply water at least once daily, or apply non-toxic soil stabilizers on unpaved access roads, parking areas, and staging areas at construction sites during dry weather conditions to minimize fugitive dust
- Use water sweepers daily to sweep all paved access roads, parking areas, and staging areas at construction sites (track-out will be covered by a SWPPP and permit)
- Use water sweepers daily to sweep streets if visible soil material is carried onto adjacent public streets
- In addition to posting the PCAPCD's telephone number to comply with applicable regulations, post a publicly visible sign with the name and telephone number of the person to contact for dust complaints, and provide response and corrective action within 48 hours

APM AQ-2: Exhaust Emissions. The measures below will be implemented during construction to minimize construction vehicle exhaust emissions:

- Minimize construction equipment exhaust by using low-emissions or electric construction equipment where feasible.
- Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time depends on the sequence of construction activities and on when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, may be required for repetitive construction tasks. These vehicles have extended warm-up requirements that limit their availability for immediate use and may require more idling time. The project will apply a "common sense" approach to vehicle use, so that idling is reduced as far as possible below the maximum of the 5 consecutive minutes required by regulation (13 CCR 2485). If a vehicle is not required for use immediately or continuously for construction activities or safety-related reasons, its engine will be shut off.
- Minimize welding and cutting by using compression or mechanical applications where practical and within standards.

3.3.5 Impacts

The project's potential impacts on air quality and GHGs were evaluated using CEQA guidelines, which ask the questions given (and answered) below.

3.3.5.1 Air Quality Impacts

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

The project would not conflict with or obstruct implementation of any applicable air quality plan (i.e., the applicable SIP and *2012 Triennial Progress Report*). The project would cause temporary air pollutants emissions during construction phases. After project construction completion, maintenance and inspection activities similar to those for the existing pipeline would continue. Implementing the project is not anticipated to require more intense or frequent maintenance or inspection activities than the existing

conditions require. Therefore, the project would not result in a net increase in operational emissions relative to existing emissions.

Construction emissions would be short-term and temporary. Construction emissions of ozone precursors (NO_x and ROG), CO, SO₂, PM₁₀, and PM_{2.5} from off-road construction equipment and on-road vehicles were estimated using the CALEEMOD program (version 2013.2.2). Table 3.3-5 presents the project's expected daily construction emissions and compares them with PCAPCD's recommended project-level thresholds of significance.

TABLE 3.3-5

Proposed Project Construction Emissions

Construction Year	ROG (lb/day)	NO _x (lb/day)	CO (lb/day)	SO ₂ (lb/day)	PM ₁₀ (lb/day)	PM _{2.5} (lb/day)
2014	9.5	77.2	52.3	0.08	9.5	6.8
PCAPCD thresholds	82	82	NA	NA	82	NA

As shown in Table 3.3-5, the project's daily construction emissions would not exceed the PCAPCD's thresholds of significance. Projects that would emit air pollutants at levels less than PCAPCD's recommended construction and operational significance thresholds are considered to generate low enough emissions that the region could still attain and maintain the ambient air quality standards and comply with the applicable air quality plan. Therefore, the project's construction-related emissions would not conflict with or obstruct implementation of the applicable air quality plan and no impact would occur.

(b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

The area where the project is located is designated as nonattainment for O₃ and PM_{2.5} under NAAQS, and nonattainment for O₃, PM₁₀, and PM_{2.5} under CAAQS. Construction of the proposed project would cause temporary increases in ambient air pollutant concentrations. However, given that construction activities would be temporary, long-term impacts would not occur. As shown in Table 3.3-3, emissions during construction would not exceed the CEQA thresholds of significance set by PCAPCD. Therefore, emissions from project construction would not be expected to violate any air quality standards or contribute substantially to an existing or projected air quality violation, and therefore no impact would occur.

Operation emissions would not increase compared with existing conditions and would not cause or contribute to an air quality violation.

(c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Cumulative thresholds of significance for criteria pollutants emitted by land use projects operation recommended by PCAPCD's *CEQA Air Quality Handbook* are 10 pounds (lb)/day for ROG and NO_x. PCAPCD does not have a quantitative emission threshold for cumulative air quality impacts for construction emissions.

Emissions would not result from operation of the project following the conclusion of construction. As described above, project construction emissions would be lower than the PCAPCD significance thresholds. Additionally, the construction emissions would be temporary and the maximum daily emissions would occur for only a portion of the construction period. Implementation of APMs AQ-1 and AQ-2 will further reduce construction emissions. Because the project itself would have less-than-significant impacts on air quality, it would be unlikely to result in a cumulatively considerable emission increase of nonattainment pollutants

(PM₁₀, PM_{2.5}, and the ozone precursors NO_x and ROG), and the cumulative air quality impact on nonattainment criteria pollutants would be less than significant.

(d) Would the project expose sensitive receptors to substantial pollutant concentrations?

As discussed in previous sections, project construction emissions would be temporary and below the CEQA threshold, and therefore would not expose nearby receptors to a substantial amount of criteria pollutants.

Although construction sites would be near residential areas, and exhaust emissions from construction equipment contain toxic air contaminants (TACs), such as diesel particulate matter, that have potential cancer and non-cancer chronic health effects, construction activities would last approximately 4 months and would be limited to a relatively small area. In addition, not all construction equipment listed in Section 2.1.2 would operate at the same time. Exposures to the TAC emissions from the construction activities would be short-term, and long-term exposure to diesel particulate matter would not occur. Project construction would comply with state and local regulations, and APMs would be implemented to further reduce construction emissions and minimize the exposure of nearby sensitive receptors to the TACs. Operation of the project would not generate air emissions. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and impacts on sensitive receptors would be less than significant.

(e) Would the project create objectionable odors affecting a substantial number of people?

Diesel construction equipment may generate diesel exhaust emissions near the equipment during project construction. However, few equipment items would be used, and their emissions are not expected to cause odor noticeable to nearby workers and residents. Project operation will not emit odorous compounds. Therefore, the proposed project is unlikely to be a source of objectionable odors that would affect a substantial number of people, and odor impacts would be less than significant.

3.3.5.2 GHG Impacts

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

PCAPCD's CEQA Handbook does not provide GHG emission thresholds for construction activities. GHG impacts from the proposed project were predicted from expected GHG emissions from off-road construction equipment and on-road vehicles during the construction period. GHG emissions in CO₂e from construction activities were estimated using CALEMOD (version 2013.2.2). GHG emissions during project operation are not expected.

GHG emissions for project construction can be compared with the state GHG inventory and the AB 32 GHG reduction goal in Table 3.3-6.

TABLE 3.3-6

Project Construction GHG Emissions

	CO ₂ e (million metric tons/year)
Project Construction Emissions 2014	0.00029
2011 state inventory	448.1
State GHG goal of 2020 (AB 32)	427

GHG emissions from project construction would be temporary, occurring only for approximately 4 months. As Table 3.3-6 shows, compared with the local and state GHG inventory, they would be negligible. The low GHG emissions during construction are not expected to contribute substantially to the regional GHG emission inventory or to global climate change. GHG emissions would be further reduced with

implementation of APM AQ-2. Therefore, the project would result in a less-than-significant impact from GHG emissions.

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

The project would not conflict with an applicable plan, policy, or regulation adopted to reduce GHG emissions. The minimal short-term construction GHG emissions would not interfere with the long-term goal of AB 32 to reduce GHG emissions to 1990 levels by 2020. Maintenance and operation of the new underground vault and associated gas line network would not increase GHG emissions. Therefore, the project would not conflict with GHG plans, policies, or regulations and no impact would occur.

3.4 Biological Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.4.1 Introduction

3.4.1.1 Summary

This section describes biological resources in the project area and vicinity, and identifies potential impacts on habitats and species that could result from construction and operation of the proposed project. The analysis concludes that, with implementation of proposed APMs and MM BIO-1, impacts on biological resources would be less than significant.

3.4.1.2 Methodology

This section summarizes the methods used to identify resources and analyze potential impacts on biological resources, including waters and wetlands and special-status species. Based on the environmental checklist provided in Appendix G of the state CEQA Guidelines, special-status species were considered if they met one or more of the criteria listed below.

A plant species was considered to be of special status if it met one or more of the following criteria:

- Listed, proposed for listing, or candidate for listing as threatened or endangered under the federal Endangered Species Act (FESA; 50 CFR 17.11 for wildlife; 50 CFR 17.12 for plants; 67 Federal Register 40658 for candidates) and various notices in *Federal Register* for proposed species)
- Listed under the California Endangered Species Act (CESA) as threatened or endangered, or proposed or candidates for listing
- Designated as rare under the Native Plant Protection Act (NPPA)
- Was a species that otherwise meet the definition of rare, threatened, or endangered species under CEQA, including species listed by the California Native Plant Society (CNPS) in the online version of its *Inventory of Rare and Endangered Plants of California* (CNPS, 2014a) in list 1a, 1B, or 2

Special-status wildlife included 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
- Listed or candidate for listing as threatened or endangered under the CESA
- Designated as Species of Special Concern (fish and wildlife species that do not have state or federal threatened or endangered status but may still be threatened with extinction) or a Fully Protected Species by the CDFW
- Species that otherwise meet the definition of rare, threatened or endangered species under CEQA
- Species listed by BLM, USFS, NPS, or other land management agency as having special local consideration (e.g., management indicator species), only if the project crosses lands managed by the agency

Species meeting the above definition were evaluated for their potential to occur within the project area and vicinity, based on the following criteria:

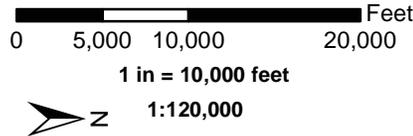
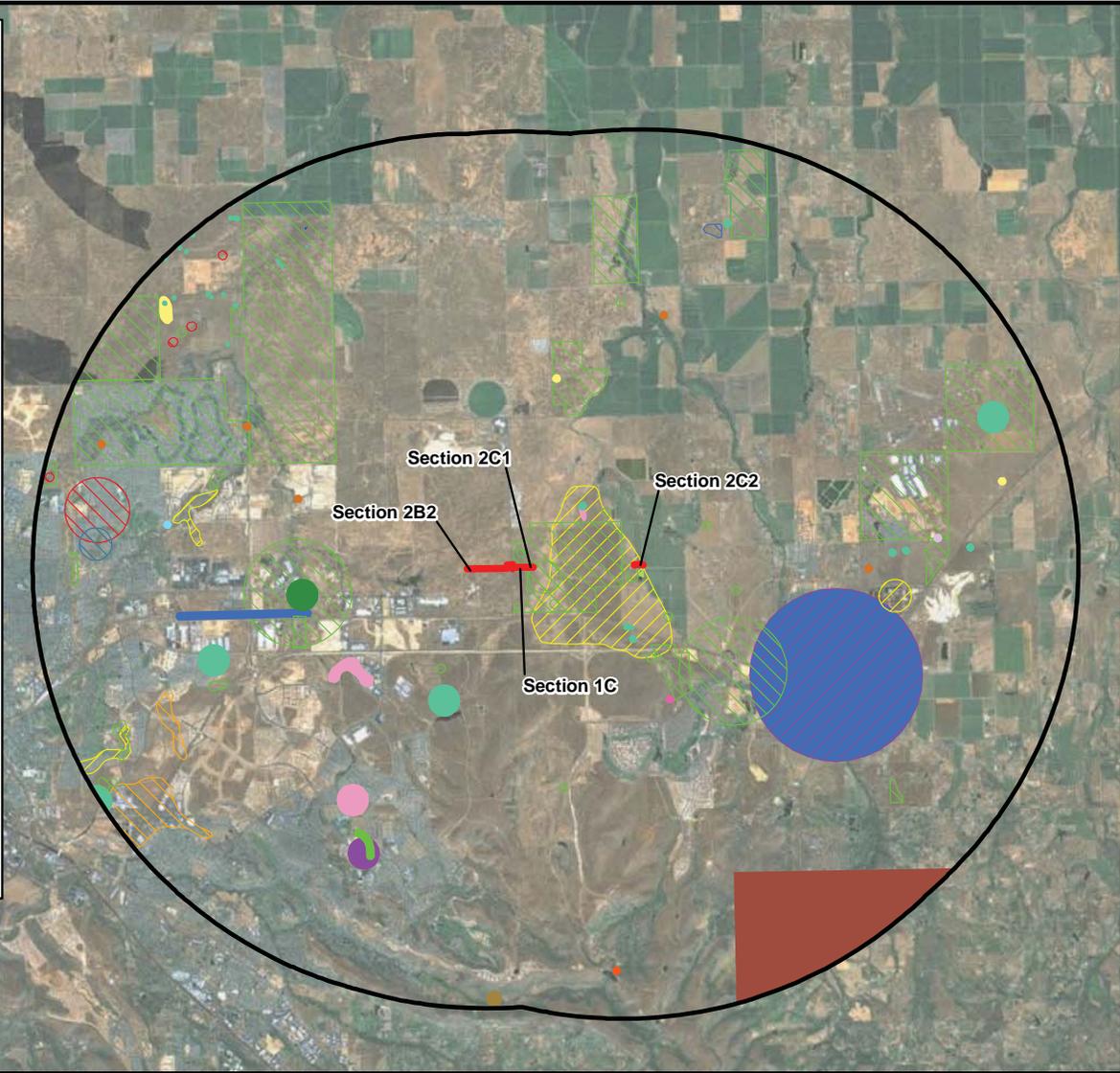
- Absent – The project area lacks essential habitat components necessary to support the species or is outside the species' current range
- Low – The project area contains low-quality or marginal habitat for the species, and no recent occurrences have been recorded in the surrounding area
- Moderate – Suitable habitat is present and the project area is within the species' current range; however, recent occurrences of the species have not been recorded in the project area
- High – Suitable habitat is present in the project area and known occurrences of the species have been recorded on site or in the immediate vicinity of the project footprint
- Present – The species has been observed within the project area

Also considered were sensitive natural communities and habitat types—those that are of special concern to CDFW, or that are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code (FGC), the Porter-Cologne Water Quality Control Act, and/or Section 404 of the CWA. In addition, vegetation communities listed in the California Natural Diversity Database (CNDDDB; CDFW, 2014) as having the highest inventory priorities were considered sensitive.

Data and Literature Review

Before surveys were conducted, special-status species records were evaluated and aerial photographs and existing literature sources were reviewed. The CNDDDB was queried for results within a 5-mile radius of the project (Figure 3.4-1), and the USFWS quad search and CNPS online inventory of rare and endangered plants (CNPS, 2014a) was used to identify special-status species and resources within and adjacent to the Roseville

- Ahart's dwarf rush
- Alkali Meadow
- Alkali Seep
- Boggs Lake hedge-hyssop
- big-scale balsamroot
- burrowing owl
- California black rail
- dwarf downingia
- grasshopper sparrow
- hispid bird's-beak
- legenera
- Northern Hardpan Vernal Pool
- Northern Volcanic Mud Flow Vernal Pool
- osprey
- pincushion navarretia
- Red Bluff dwarf rush
- Swainson's hawk
- tricolored blackbird
- vernal pool fairy shrimp
- vernal pool tadpole shrimp
- western pond turtle
- western spadefoot
- white-tailed kite



Proposed Pipeline Alignment
 5 Mile Buffer

FIGURE 3.4-1
 CNDDDB Occurrences
 PG&E Gas Transmission Line 123 Pipeline
 Replacement Project, Phase 2
 Sections 2B2, 1C, 2C1, and 2C2

Source: PG&E 2014, CDFW: CNDDDB, ArcGIS Online

7.5-minute series USGS topographic quadrangle. The potential for special-status species and resources to occur was first evaluated by reviewing the range and habitat requirements of the species and comparing those to the conditions on site. Aquatic habitats were identified using aerial photographs, National Wetlands Inventory maps, and the USGS National Hydrography Dataset. Hydroperiod, or the length of time aquatic habitats persist during an average rainfall year, was estimated using Google Earth historical imagery dated 2002 to 2013.

Survey Methods

Multiple field surveys were conducted in the vicinity of the project in 2012 and 2013, including a wetland delineation, protocol-level surveys for vernal pool branchiopods, protocol-level surveys for Swainson's hawk, rare plant surveys, and a general habitat assessment.

Wetlands and waters of the U.S. within the project area were delineated in 2013 (November 5 to 6 and December 11) and in 2014 (February 14 and March 7, 14, and 18 to 19). Habitat in the project area was also assessed in a reconnaissance-level survey on January 23, 2014 for the potential to support special-status wildlife, including Swainson's hawk and burrowing owl. A Swainson's hawk protocol survey was conducted in February, March, and April 2014. Rare plant surveys have been initiated and the spring survey was conducted in late April/early May 2014.

3.4.2 Regulatory Setting

3.4.2.1 Federal

Federal Endangered Species Act. The FESA protects plants and wildlife that are listed as endangered or threatened by USFWS and the National Marine Fisheries Service (NOAA Fisheries). Section 9 of the FESA prohibits the taking of endangered wildlife, where "take" is defined as "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 governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S.C. 1538). Under Section 7 of the FESA, federal agencies are required to consult with USFWS and/or NOAA Fisheries if their actions, including permit approvals or funding, may adversely affect a federally listed species or destroy and adversely modify designated critical habitat. Through formal consultation, USFWS and NOAA Fisheries may issue a biological opinion authorizing a limited amount of take of federally listed species that is incidental to an otherwise lawful activity, provided the action will not jeopardize the continued existence of the species or destroy or adversely modify designated critical habitat. Section 10 of the FESA provides for issuance of incidental take permits to non-federal entities in association with development of a habitat conservation plan. In 1996, the USFWS issued a programmatic formal consultation document to the USACE to streamline the consultation process for projects with minimal impacts to vernal pool branchiopods (USFWS, 1996) (Programmatic Consultation).

Migratory Bird Treaty Act. The Migratory Bird Treaty Act implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California FGC.

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

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(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 3.8, Hydrology and Water Quality.

3.4.2.2 State and Local

California Endangered Species Act. The CESA generally parallels the main provisions of the FESA, but unlike its federal counterpart, the CESA applies the take prohibitions to species proposed for listing (called “candidates” by the state). Section 2080 of the California FGC prohibits taking, possessing, purchasing, selling, and importing or exporting endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. “Take” is defined in Section 86 of the FGC as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The CESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with CDFW to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

Fully Protected Species. The State of California first began to designate species as “fully protected” prior to creation of the CESA and the FESA. Lists of fully protected species were initially developed to protect animals that were rare or faced possible extinction, and included fish, mammals, amphibians, reptiles, and birds. Most fully protected species have since been listed as threatened or endangered under the CESA and/or the FESA. The regulations that implement the Fully Protected Species Statute (California FGC, Section 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFW prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

California Fish and Game Code Sections 3503 and 3513 et seq. Section 3503 of the California FGC prohibits the take, possession, or needless destruction of the nest or eggs of any bird, except as otherwise provided by the California FGC or any subsequent regulation. Section 3513 prohibits the take, possession, or destruction of any bird of prey or its nest or eggs.

Native Plant Protection Act of 1977. The Native Plant Protection Act of 1977 (California FGC, Sections 1900 to 1913) was enacted to “preserve, protect, and enhance rare and endangered plants” in the state. A species is rare when, though not threatened with immediate extinction, it is present in such small numbers throughout its range that it may become endangered if its existing environment declines. The Native Plant Protection Act is administered by CDFW. Section 1913(b) includes a specific provision to allow for the incidental removal of endangered or rare plant species within a right-of-way to allow a public utility to fulfill its obligation to provide service to the public.

California Rare Plant Ranking System. The CNPS has established California Rare Plant Rank (CRPR) categories for vascular plants (CNPS, 2014b). (The CRPR system was formerly known as the California Native Plant Society List.)

California Code of Regulations Title 14, Sections 670.2 and 670.5. Title 14 California Code of Regulations (CCR) Sections 670.2 and 670.5, lists animals designated as threatened, endangered, or rare in California.

California Department of Fish and Wildlife Species of Special Concern. CDFW “species of special concern” are indicators of regional habitat changes or are considered potential future protected species. Species of special concern do not have any special legal status; however, CCR Section 15380 of the CEQA guidelines indicates that species of special concern should be included in an analysis of project impacts, if they can be shown to meet the criteria of sensitivity outlined in that section for rare species.

Porter-Cologne Water Quality Control Act. The State Water Resources Control Board (SWRCB) and the nine RWQCBs have jurisdiction over all surface water and groundwater in the state, including wetlands, headwaters, and riparian areas. The SWRCB or appropriate RWQCB (for the proposed project, the Central

Valley RWQCB) must issue waste discharge requirements for any activity discharging into waters of the state.

Placer County General Plan. The project area is in the Sunset Area Industrial Plan of the Placer County General Plan and contains the following goals for protection of natural habitats in the project area (Placer County, 2010):

- Goal 6.A: To protect and enhance the natural qualities of Placer County's rivers, streams, creeks and groundwater.
- Goal 6.B: To protect wetland communities and related riparian areas throughout Placer County as valuable resources.
- Goal 6.C: To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels.
- Goal 6.D: To preserve and protect the valuable vegetation resources of Placer County.
- Goal 6.E: To preserve and enhance open space lands to maintain the natural resources of the County.

3.4.3 Environmental Setting

This section discusses existing conditions within the project area.

The project is located in the unincorporated limits of southwestern Placer County and the City of Lincoln. The project area includes a mix of residential and undeveloped land on broad terraces and low hills associated with the Orchard Creek drainage to the north. Sections 2B2, 2C1, and 2C2 are located in natural open space areas while Segment 1C is located on Thunder Valley Casino. Section 2C2 is located within the City of Lincoln, south of a residential neighborhood.

Topography generally is flat, with elevations less than 100 feet above mean sea level. Vegetation types within the project area and vicinity comprise mostly annual grassland, fresh emergent wetland, and lacustrine habitats. Barren land cover and urban development are also found throughout the project area. Sensitive habitats identified within the project area include vernal pools, vernal swales, seasonal wetlands, fresh emergent wetland, and open water.

3.4.3.1 Vegetation Types

North State Resources, Inc. (NSR) recently classified vegetation communities in the project area and vicinity (NSR, 2014) using descriptions in *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer, 1988). The five vegetation communities in the project area and vicinity are annual grassland, barren, fresh emergent wetland, lacustrine, and urban.

Annual grassland. Annual grassland is the dominant vegetation community on the floodplain terraces and low hills in Sections 2B2, 2C1, and 2C2. Vernal pool/swale complexes occur within the annual grassland, and vegetation occurs in these features that is distinct from the vegetation of the surrounding uplands. The upland vegetation is characterized as a dense herbaceous layer dominated by introduced annual grass species, including wild oats (*Avena barbata*), soft brome (*Bromus hordeaceus*), ripgut brome (*B. diandrus*), and medusahead (*Elymus caput-medusae*). Common forbs include broadleaf filaree (*Erodium botrys*), black mustard (*Brassica nigra*), spikeweed (*Centromadia fitchii*), tarweed (*Holocarpha virgata*), and rose clover (*Trifolium hirtum*).

The vernal pools and swales support distinctive vegetation that is generally shorter and less dense than the surrounding upland vegetation. In the spring and early summer, the vernal pools support common spikerush (*Eleocharis macrostachya*), coyote thistle (*Eryngium vaseyi*), seaside barley (*Hordeum marinum*), Fremont's goldfields (*Lasthenia fremontii*), loosestrife hedge-hyssop (*Lythrum hyssopifolia*), stalked popcorn flower (*Plagiobothrys stipitatus*), and Carter's buttercup (*Ranunculus bonariensis*). Many of these vernal pool plants wither and degrade in the late summer and early fall, and some upland species such as medusahead and

spikeweed colonize portions of the vernal pools and swales. Rye grass (*Festuca perennis*) is a dominant component of the vernal swales and seasonal wetlands during the fall.

Fresh emergent wetland. The only fresh emergent wetland occurs north of Section 2C2. Fresh emergent wetland is characterized by perennial hydrophytic plants including broad-leaved cattail (*Typha latifolia*) and bulrush (*Schoenoplectus* sp). Fresh emergent wetland dominates the drainage ditch and the fringes of the drainage pond in Section 2C2.

Lacustrine. Lacustrine habitat occurs as the open water of the drainage pond north of Section 2C2. The open water is largely free of emergent aquatic vegetation but does support submergent and floating aquatic vegetation such as parrotfeather (*Myriophyllum* sp.) and duckweed (*Lemna* sp.).

Barren. Barren is a non-vegetated habitat land cover and is a minor component of Sections 2B2, 2C1, and 2C2. It is the primary habitat type in Section 1C and includes paved roads, parking lots, sidewalks, and graveled roads. Vegetation is usually not present, although sparse opportunistic grasses and forbs or weedy species may occur.

Urban. Urban vegetation occurs within or adjacent to each of the project sections. Urban vegetation is a minor component of the project's vegetative communities. Urban vegetation includes residential lawns,, and commercial and residential shrubs and other landscaping.

3.4.3.2 Wetlands and Waters

Potential jurisdictional features delineated within the project area occupy a total of 8.99 acres and include fresh emergent wetland, seasonal wetland, vernal pool, vernal swale, and open water (Figures 1-2a through 1-2d). Section 2C1 is located within the 632-acre Orchard Creek Conservation Bank, created in 1997. A total of 74.56 acres of credits were established at the bank, all of which were sold. Both USFWS and CDFW are bank signatories.

3.4.3.3 Special-status Species

Searching CNDDDB, USFWS, and CNPS records revealed 27 special-status species with at least some potential to occur in the project vicinity. Of these, 1 plant and 13 wildlife species were determined to have low, medium, or high potential to occur in the project area. One plant, legenere (*Legnere limosa*), and one invertebrate, vernal pool fairy shrimp (*Branchinecta lynchi*), are present in the project area along the alignment for Sections 2C1 and 2C2.

Special-status Plants

Eleven special-status plant species were identified as having potential to occur within the proposed project area. One of these, Hispid salty bird's beak (*Chloropyron molle* ssp. *hispidum*), is presumed absent from the project area due to lack of suitable habitat. The literature review identified one species (dwarf downingia) with moderate potential to be present within the study area and one species (legenere) that is present. Rare plant surveys conducted in April and May 2014 confirmed the presence of legenere within the project area and did not identify the remaining eight species. These species are considered absent from the project area (Table 3.4-1).

TABLE 3.4-1

Special-status Plant Species Known or with Potential to Occur in the Vicinity of the Project

Species	Listing Status			Habitat and Blooming Period	Potential for Occurrence
	Federal	State	CRPR		
Plants					
Big-scale balsamroot <i>Balsamorhiza macrolepis</i>	–	–	1B.2	On open grassy or rocky slopes in chaparral, cismontane woodland, and valley and foothill grassland; sometimes on serpentine soils. From 295 to 5,102 feet elevation. Blooms March–June.	Absent—No open slopes in blue oak woodland or nonnative grassland habitat are present, and the species generally occurs at slightly higher elevations. The species was not detected during rare plant surveys in 2014.
Hispid salty bird's beak <i>Chloropyron molle</i> ssp. <i>hispidum</i>	–	–	1B.1	Alkaline soils in meadows and seeps, playas, and valley and foothill grassland; from 3 to 508 feet elevation. Blooms June–September.	Absent—No suitable alkaline habitat is present.
Dwarf downingia <i>Downingia pusilla</i>	–	–	2B.2	Vernal pools and other mesic sites in valley and foothill grassland; from zero to 1,460 feet in elevation. Blooms March–May.	Moderate—Suitable habitat is present in the vernal pool grasslands in Sections 2B2 and 2C1. Species was documented east of L-123 Phase 1 work south of Pleasant Grove Boulevard in 2013 and again during rare plant surveys in 2014 – approximately 4.5 miles south of the project footprint (AECOM, 2013)
Bogg's lake hedge hyssop <i>Gratiola heterosepala</i>	–	E	1B.2	Lake margins in marshes and swamps, and vernal pools; often in clay soils in areas of low competition. From 33 to 7,792 feet elevation. Blooms April–August.	Absent—Suitable habitat is present in the vernal pool grasslands in Sections 2B2, 2C1, and 2C2. Species was not observed during plant surveys conducted during appropriate blooming period in Spring 2014.
Ahart's dwarf rush <i>Juncus leiospermus</i> var. <i>ahartii</i>	–	–	1B.2	Mesic areas in valley and foothill grassland; in areas of low competition and minor disturbance. Commonly found on prior year's gopher and ground squirrel mounds and along the margins of vernal pools. From 98 to 751 feet elevation. Blooms March–May.	Absent—Suitable habitat is present in the vernal pool grasslands in Sections 2B2, 2C1, and 2C2, but this species was not observed during plant surveys conducted during appropriate blooming period in Spring 2014.
Red bluff dwarf rush <i>Juncus leiospermus</i> var. <i>leiospermus</i>	–	–	1B.1	Vernally mesic areas in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools; from 115 to 3,346 feet elevation. Blooms March–May.	Absent—Suitable habitat is present in the vernal pool grasslands in Sections 2B2, 2C1, and 2C2, but this species was not observed during plant surveys conducted during appropriate blooming period in Spring 2014.
Legenere <i>Legenere limosa</i>	–	–	1B.1	Relatively deep and wet vernal pools, vernal marshes, and floodplains of intermittent streams; from zero to 2,887 feet in elevation. Blooms April–June.	Present—Suitable habitat is present in the vernal pool grasslands in Sections 2B2 and 2C1 and has been documented in Section 2C2 during plant surveys in Spring 2014.
Pincushion navarretia <i>Navarretia myersii</i> ssp. <i>myersii</i>	–	–	1B.1	Vernal pools; often in acidic soils. From 66 to 1,083 feet elevation. Blooms April–May.	Absent—This species was not observed during seasonally appropriate surveys conducted during appropriate blooming period in 2013 and Spring 2014.

TABLE 3.4-1

Special-status Plant Species Known or with Potential to Occur in the Vicinity of the Project

Species	Listing Status			Habitat and Blooming Period	Potential for Occurrence
	Federal	State	CRPR		
Slender orcutt grass <i>Orcuttia tenuis</i>	T	E	1B.1	Vernal pools; often in gravelly soils; from 115 to 1,076 feet elevation. Blooms May – September.	Absent – This species was not observed during plant surveys conducted during appropriate blooming period in 2013 and Spring 2014.
Sacramento orcutt grass <i>Orcuttia viscida</i>	E	E	1B.1	Vernal pools; often in gravelly soils; from 115 to 1,076 feet elevation. Blooms May – September.	Absent – This species was not observed during plant surveys conducted during appropriate blooming period in 2013 and Spring 2014.
Sanford's arrowhead <i>Sagittaria sanfordii</i>	–	–	1B.2	Shallow freshwater marshes and swamps, ponds, and ditches; from zero to 2,132 feet in elevation. Blooms May–October.	Absent—Although suitable habitat is present north of Section 2C2, closest documented occurrence is over 5 miles southeast in Antelope. Most populations found southwest, toward Sacramento. This species was not detected during rare plant surveys in Spring 2014

Notes:

– = No status

CRPR = California Rare Plant Rank

California Department of Fish and Wildlife

E = Endangered

CRPR

1B = Plants rare, threatened, or endangered in California and elsewhere

2B = Plants rare, threatened, or endangered in California, but more common elsewhere

CRPR Extensions

0.1 = Seriously endangered in California (>80% of occurrences are threatened and/or high degree and immediacy of threat)

0.2 = Fairly endangered in California (20–80% of occurrences are threatened)

Sources: CNDDDB, 2014; CNPS, 2014a; USFWS, 2014

Special-status Wildlife

Based on records searches and habitat in the project area, 18 special-status wildlife species were initially identified as having potential to occur in the project area. Suitable habitat for only 10 of these species was identified in the project area; three are present in the project area. Three of the 10 species have low potential for occurrence in the project area, and four species have a moderate potential for occurrence. Vernal pool fairy shrimp are present in the project area (Table 3.4-2).

TABLE 3.4-2

Special-status Wildlife Species Known or With Potential to Occur in the Vicinity of the Project Footprint

Common Name	Scientific Name	Status	Habitat	Potential for Occurrence
Invertebrates				
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	FE	Vernal pools in valley and foothill grasslands.	Low—Suitable habitat is present in vernal pools within the project area. The nearest known occurrence is more than 10 miles to the west of the project area.

TABLE 3.4-2

Special-status Wildlife Species Known or With Potential to Occur in the Vicinity of the Project Footprint

Common Name	Scientific Name	Status	Habitat	Potential for Occurrence
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT	Vernal pools in valley and foothill grasslands.	Present— The species has been documented in Sections 2C1 (Orchard Creek Conservation Bank) and 2C2; suitable habitat is also present in Section 2B2.
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT	Closely associated with elderberry shrubs in the Central Valley and adjacent foothills.	Absent—The species' host plant is not present.
Vernal pool tadpole shrimp	<i>Lepidurus packardi</i>	FE	Vernal pools in valley and foothill grasslands.	Moderate—Suitable habitat is present in vernal pools within the project area. Nearest known occurrence is more than 4 miles northwest of 2C2.
Fish				
Central Valley steelhead	<i>Oncorhynchus mykiss</i>	FT	Perennial streams with clear, cool to cold, fast-flowing water with a high dissolved oxygen content and abundant gravels and riffles.	Absent—Suitable habitat is not present.
Chinook salmon, Central Valley spring-run ESU	<i>Oncorhynchus tshawytscha</i>	FT, CT	Perennial streams with clear, cool to cold, fast-flowing water with a high dissolved oxygen content and abundant gravels and riffles.	Absent—Suitable habitat is not present.
Chinook salmon, Sacramento River winter-run ESU	<i>Oncorhynchus tshawytscha</i>	FT, CT	Perennial streams with clear, cool to cold, fast-flowing water with a high dissolved oxygen content and abundant gravels and riffles.	Absent—Suitable habitat is not present.
Amphibians				
California tiger salamander	<i>Ambystoma californiense</i>	FT, CT	Vernal pools and seasonal wetlands with a minimum 10-week inundation period and surrounding uplands, primarily grasslands, with burrows and other below-ground refugia (e.g., rock or soil crevices).	Absent—Although suitable habitat appears to be present in seasonal wetlands, vernal pools, and adjacent uplands this species has not been detected in Placer County and the project appears to be outside the species' known range (Bolster, 2010). There are no occurrences within 5 miles of the project area and known populations are beyond the distance typically traveled by this species to occupy new pools.
California red-legged frog	<i>Rana draytonii</i>	FT, CSC	Matrix of riparian and upland dispersal areas. Pools and backwaters within streams/creeks, ponds, marshes, springs, ponds, and lagoons are used for breeding.	Absent—Suitable habitat is not present within the project area. Few records of this species in Placer County have been documented; the nearest CNDDDB records for this species are over 10 miles northeast of the project.

TABLE 3.4-2

Special-status Wildlife Species Known or With Potential to Occur in the Vicinity of the Project Footprint

Common Name	Scientific Name	Status	Habitat	Potential for Occurrence
Western spadefoot toad	<i>Spea hammondi</i>	CSC	Vernal pool grasslands in the valleys and foothills.	Moderate—Suitable habitat is present in the vernal pool grasslands in Sections 2B2, 2C1, and 2C2.
Reptiles				
Western pond turtle	<i>Actinemys marmorata</i>	CSC	Permanent freshwater habitats with vegetation and basking sites.	Moderate—Suitable habitat is present in the freshwater emergent wetland and open water approximately 50 feet north of Section 2C2.
Giant garter snake	<i>Thamnophis gigas</i>	FT, CT	Vegetated freshwater habitats with slow or still water.	Absent— Although marginal aquatic habitat is present in the freshwater emergent wetland/open water approximately 50 feet north of Section 2C2, the action area is more than 11 miles from any known populations.
Birds				
Tricolored blackbird	<i>Agelaius tricolor</i>	CSC	Nests colonially in dense stands of cattails and bulrushes, or in upland sites with blackberries, nettles, thistles, and some crops.	Low—Limited nesting substrate within the freshwater emergent wetland habitat to the north of Section 2C2.
California black rail	<i>Laterallus jamaicensis coturniculus</i>	CT	Nests in dense vegetation of freshwater marsh, wet meadows, and shallow margins of saltwater marsh	Absent—Suitable habitat is not present.
Burrowing owl	<i>Athene cunicularia</i>	CSC	Nests in grasslands and agricultural fields with low-growing vegetation and small rodent burrows.	Low—Suitable burrows and grassland are present in the project area; however, this species was not observed during initial biological surveys conducted in 2014.
Swainson's hawk	<i>Buteo swainsoni</i>	CT	Nests on edges of riparian forest and in scattered trees; forages in grasslands and agricultural fields.	Present—Suitable nesting and foraging habitat is present in Central Valley oaks and mature trees throughout the project area. Swainson's hawks have been observed in the project area during bird surveys conducted in March and April 2014
White-tailed kite	<i>Elanus leucurus</i>	CFP	Nests in isolated trees or small woodland patches.	Present—Suitable nesting and foraging habitat is present within the project area. White-tailed kite were observed during bird surveys conducted in April 2014.
Purple martin	<i>Progne subis</i>	CSC	Nests in both urban and woodland habitats. Urban nest sites include weep holes in freeway overpasses. In woodland habitats, nests in tall, old trees or snags that extend above the main canopy.	Absent—the project is outside of the current known range of the species (Shuford and Gardali, 2008).

TABLE 3.4-2

Special-status Wildlife Species Known or With Potential to Occur in the Vicinity of the Project Footprint

Common Name	Scientific Name	Status	Habitat	Potential for Occurrence
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Notes:

ESU = Evolutionarily Significant Unit

Status Definitions:**Federal**

FE = Listed as endangered under the federal Endangered Species Act

FT = Listed as threatened under the federal Endangered Species Act

State

CE = Listed as endangered under the California Endangered Species Act

CT = Listed as threatened under the California Endangered Species Act

CSC = California Species of Special Concern

CFP = Fully protected species

Sources: CNDDDB, 2014; CNPS, 2014a; USFWS, 2014

3.4.4 Applicant-Proposed Measures

The APMs below would be implemented to reduce potential impacts on biological resources.

APM BIO-1: Avoidance and Minimization of Impacts on Nesting and Special-status Birds.

- Avoid and minimize impacts on Swainson's hawk:
 - If construction is planned between February 15 and August 31 (the breeding season), a qualified biologist retained by PG&E will conduct preconstruction surveys to identify and subsequently avoid nesting areas for Swainson's hawks to the extent feasible and consistent with PG&E's Avian Conservation Strategy: Guidelines for Bird Protection and Mitigation, December 2012 (ACS). If buffer areas are needed, a 0.25 mile activity-free buffer will be implemented consistent with PG&E's ACS. Surveys will be conducted no more than 30 days before the anticipated start of construction. Surveys will be designed and be of sufficient intensity to document nesting within 0.25 mile of planned work activities. Surveys will be limited to areas that are public or otherwise legally accessible to PG&E.
 - PG&E will not initiate new construction (e.g., land grading, seismic testing, equipment traffic, vegetation clearing) within 0.25 mile of an active Swainson's hawk nest, without previously consulting with the CDFW. An active nest is defined as a site (e.g., a tree) at which nest building or refurbishment, egg-laying, incubation, or feeding of young is occurring. Construction can begin when nesting is considered complete. Nesting will be considered complete once the young have fledged and are capable of flight or the adults have abandoned the nest for 7 days. Nest trees, with the exception of those constructed by a state or federal threatened, endangered, or fully protected species, may be removed between September 1 and February 1, when nests are unoccupied.
 - If a nest site buffer radius must be reduced, a qualified PG&E biologist will, consistent with PG&E's ACS, recommend the most effective nest monitoring approach. This approach will likely include weekly monitoring of each nest through the entire nesting cycle, until the young have fledged and are independent of adults.
 - If construction activities are required within an exclusionary buffer zone, the nest will be monitored for disturbance by a qualified biologist until the young have fledged and are independent of the adults or work is completed. All potential sources of nest disturbance, including non-construction activities, will be assessed and documented. If no nest disturbance is observed, work may continue. If the biologist determines that activities are causing nest disturbance, work will not be allowed to continue within the buffer zone until the young have fledged.

- If potential signs of nest disturbance are identified, construction activities will cease immediately. Nest disturbance will be assessed by observing behavioral cues such as time off the nest, hesitation approaching the nest, and incessant chattering and bill swiping, among other indications. Construction will not resume until CDFW has been consulted to determine whether construction may continue under modified restrictions or will be suspended until nesting activity is complete.
- Avoid and minimize impacts on nesting birds and burrowing owl:
 - If tree or shrub removal or trimming occurs during the bird nesting season (February 15 to August 31), a qualified biologist will conduct a preconstruction survey for nesting birds before the activities occur. The survey will be conducted no more than 1 week before the start of tree or shrub removal and will include those trees and shrubs to be removed and suitable nesting habitats within a minimum 300-foot buffer. Surveys will be limited to areas that are public or otherwise legally accessible to PG&E. If project activities have ceased for more than 2 weeks during the nesting season, breeding bird surveys will be performed again before tree or shrub removal resumes.
 - Prior to the commencement of construction in annual grassland habitats, a preconstruction survey for burrowing owl will be conducted within the project footprint and accessible annual grassland areas within 500 feet of the project footprint. Surveys will be conducted no more than 30 days before the anticipated start of construction. Surveys will be limited to areas that are public or otherwise legally accessible to PG&E.
 - If burrowing owl, nesting raptors, or nesting passerines are detected in the project footprint, the species of bird will be determined and consistent with the ACS, a temporary disturbance buffer based on the species' tolerance of disturbance will be established around the nest or burrow location to prevent project activities from resulting in direct harm to the nest or burrow, or in nest failure or abandonment. Appropriate buffer distances for the species of birds that could be encountered in the project area are available in the PG&E ACS. If project activities cannot be avoided within the established buffer, a qualified biologist will monitor the nest closely for signs of nest disturbance. Nest disturbance will be assessed considering behavioral cues such as time off the nest, hesitation approaching the nest, and incessant chattering and bill swiping, among other indications. Work may be allowed to proceed within the temporary nest disturbance buffer if no signs of nest disturbance are observed. If the biologist determines that activities are causing nest disturbance, work will not be allowed to continue within the buffer zone until the young have fledged or the nest is abandoned.

APM BIO-2: Preconstruction Rare Plant Surveys. Surveys for special-status plants with some potential to occur in the project area will be conducted before construction starts. A total of three surveys are scheduled prior to construction, during the appropriate blooming seasons. Each survey report will compare site conditions within the project area to appropriate reference sites with previously documented occurrences of special-status plant species that may occur within the project area. If special-status plants are discovered at any time, they will be flagged for avoidance. If avoidance is not possible, rare plants without state listing status, will be evaluated by a qualified biologist, who will make site and species-specific minimization measures. The PG&E biologist will determine final minimization actions for these plant occurrences, which may include, but are not limited to translocating the occurrence(s) or stockpiling the top 12 inches of topsoil and redistributing the topsoil during restoration in an effort to preserve the seed bank. If a state-listed plant is detected during preconstruction surveys, and avoidance with a 15-foot buffer is not feasible, CDFW will be notified and given the opportunity to salvage. Federally listed plants are not anticipated to occur on site (see Table 3.4-1).

APM BIO-3: Environmental Education. Employees and contractors performing construction activities will receive environmental education before beginning work on the project. Crew members who start work after the initial commencement of construction will also be required to receive environmental training. Training will include review of environmental laws and guidelines that must be followed by all personnel to avoid or

reduce effects on covered resources and species during construction activities. The program will include a presentation by the designated biologists covering CDFW and USACE jurisdictional issues; species biology and general behavior; distribution and habitat needs; sensitivity of the species to human activity; and their status pursuant to the FESA and CESA including legal protection, recovery efforts, penalties for violation, and project-specific measures and conditions in the applicable federal and state regulatory permits. Upon completion of training, employees will sign a training form indicating they attended the program and understood the measures. PG&E will conduct follow-up tailboard trainings as needed in the field. The tailboard trainings will include a brief review of the biology of special-status species and guidelines that must be followed by all personnel to reduce or avoid negative effects to these species during construction activities.

APM BIO-4: Monitoring. A qualified biological monitor will remain on site during all construction activities in or adjacent to suitable habitat for listed species. A qualified biologist is an individual who has the experience, education, and training necessary identify special-status species. The monitor will observe construction activities and make sure all appropriate protections are in place and permit conditions are followed. The monitor will survey for any species that might enter the construction area after the area is cleared. Excavations will be safely inspected at the end of each day and the beginning of each morning for the presence of species before work resumes or backfilling occurs. The biological monitor(s) will have the authority to stop any work that may result in the unauthorized take of listed species. If the biological monitor(s) exercises this authority, they will immediately coordinate with PG&E biologist assigned to the project to determine next steps. The PG&E biologist will coordinate with USFWS and/or CDFW, as appropriate. The biological monitor will immediately contact the PG&E biologist in the event of mortality or injury of a listed species. The PG&E biologist will also notify USFWS and/or CDFW by telephone and electronic mail within 1 working day if a listed species is injured or killed.

APM BIO-5: Nighttime Work. Construction would typically occur Monday through Friday from 6 a.m. to 8:00 p.m., and 8:00 a.m. to 8:00 p.m., Saturday through Sunday. Every effort will be made to maintain these work hours however, work within Sections 2B2, 1C, and 2C1 may be extended to 24-hour construction days, depending on the timing of receipt of all applicable authorizations, in order to meet the CPUC mandatory completion date of December 31, 2014. If nighttime work is required, it will be limited in extent, duration, and brightness to the maximum extent possible. Lighting will be faced downward and will only be used in the immediate workspace.

APM BIO-6: Vehicle Use. Off-road vehicle travel will be minimized. Vehicle traffic will be restricted to established roads and construction areas. Vehicles will not exceed a speed limit of 15 mph on unpaved roads or during off-road travel. Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas to the extent practicable. Vehicles will be washed at offsite locations only.

APM BIO-7: Size of Work Areas. Ground disturbance and any vegetation trimming will be limited to the minimum amount necessary to facilitate project activities and visibility of the ground to inspect for special-status species. Heavy equipment, vehicles, and construction activities will be confined to existing access roads, defined access routes, and designated work areas. All equipment and spoils will be staged within the defined work area.

APM BIO-8: Sedimentation and Erosion Control. Sedimentation and erosion control measures will be implemented to reduce sedimentation in wetland habitat occupied by sensitive animal and plant species when activities are the source of potential erosion problems. Plastic mono-filament netting (erosion control matting) or similar material containing netting will not be used in the project area. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds. Sedimentation and Erosion Control measures will be specified in the project SWPPP as discussed in Section 3.8.4.

APM BIO-9: Open Excavations and Grading. To prevent accidental entrapment of listed species during construction, all excavated holes or trenches deeper than 6 inches will be covered at the end of each work day with plywood or similar material. If the excavations cannot easily be covered, they will be ramped at

the end of the work day to allow any animals that may inadvertently fall into the trench to escape. Escape ramps will be installed every 200-feet and will be sloped at a 2 to 1 ratio. Before excavations are filled, a qualified biologist will thoroughly inspect these areas for listed species. If a trapped animal is observed, construction will cease until the individual escapes or is relocated according to the guidance of the appropriate agencies.

APM BIO-10: Protection of Aquatic Habitats. Project activities will be conducted in accordance with the measures specified in the SWPPP. No chemicals (e.g., fuel, hydraulic fluid) will be stored where they may enter wetlands or waterways. Vehicular and equipment refueling may only take place in designated areas with spill protection present. Proper spill prevention and cleanup equipment must be maintained in refueling areas. Vehicles or equipment will not be refueled within 300 feet of a wetland, stream, or other waterway unless a bermed and lined refueling area is constructed.

APM BIO-11: Fire Protection. All construction vehicles and large construction equipment must have a fire extinguisher on board. Due to welding safety requirements, dry grass immediately around the project area may need to be cleared so sparks from pipe welding do not cause a fire. Grass will likely be trimmed within the impact area, but trimming will be limited to the minimum necessary for crew safety.

APM BIO-12: Firearms and Pets. Firearms, open fires (such as barbecues), hunting, and pets will be prohibited in the project area.

APM BIO-13: Dust Suppression. When appropriate, a water truck will be used to control dust from disturbed soils, stockpiles, and unpaved access roads. Watering will be done in such a manner that no puddles are formed.

APM BIO-14: Wetland Plating and Exclusion Zones. To minimize direct impacts to vernal pools, vernal swales, and seasonal wetlands located along the access route to Section 2C2 (section with the longest off-road access), wetland features directly in the off-road access path in Section 2C2 would be completely covered with 24-foot metal plating under the supervision of a qualified biologist. In addition, prior to construction, a qualified biologist will stake and flag exclusion zones to minimize impacts on vernal pools, vernal swales, and seasonal wetlands that will not be directly impacted by the project but are located within 250 feet of the project workspace. Orange construction fencing and erosion control fencing will be installed to minimize indirect effects associated with potential run off. According to the Programmatic Consultation, (USFWS, 1996), the USFWS considers all areas within 250 feet of suitable vernal pool crustacean habitat to be indirectly affected by project construction. Therefore, ideally the exclusion zone would encompass the maximum practicable distance from the worksite and at least 250 feet from the aquatic feature wet or dry. However, the presence of vernal pools, vernal swales, and seasonal wetlands throughout the project area makes it difficult to meet the 250-foot exclusion zone requirement. The vernal pools, vernal swales, and seasonal wetlands adjacent to active work areas will be marked with orange construction and erosion control fencing and will be avoided during construction.

3.4.5 Mitigation Measure

The mitigation measure described below would be implemented in addition to the APMs described above to reduce potential impacts to less-than-significant levels.

MM BIO-1: Offsite Species Habitat Compensation. To mitigate the indirect and direct effects to vernal pool fairy shrimp and vernal pool tadpole shrimp, PG&E will purchase credits at a USFWS-approved conservation bank at a ratio of 1:1 preservation for indirect effects and 2:1 preservation for direct effects, for a total of 4.2 acres. These ratios are consistent with the Programmatic Consultation (USFWS, 1996), as modified for this project pursuant to informal consultation with USFWS to date. The number of credits to be purchased will be finalized upon conclusion of consultation with USFWS.

PG&E is currently investigating conservation bank options and will purchase credits within 4 months of the start of construction. Credits will be purchased at a USFWS-approved and/or USACE-approved conservation bank with available vernal pool fairy shrimp and vernal pool tadpole shrimp credits. The selected bank's

service area must include the project area. Toad Hill, Gill Ranch, and Van Vleck conservation banks are approved by the USFWS and have available credits for this project. Other mitigation strategies may be employed, upon the approval by USFWS.

Compensatory mitigation is not required for other special status species discussed in this section because of the low potential for these species to be adversely affected by the proposed action with the implementation of APMs.

3.4.6 Impacts

The methodology used for determining standards of significance for biological resources was derived from Appendix G of the CEQA guidelines. The impact analysis is limited to temporary and short-term construction impacts associated with installing the new gas pipeline and underground vaults south of Athens Avenue.

(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?

3.4.6.1 Special-status Species Impacts

A summary of project-related impacts on special-status species known to occur within the project area or that have a potential to occur in the project area is provided below. USACE will initiate formal consultation with USFWS for potential effects on vernal pool fairy shrimp and vernal pool tadpole shrimp. The proposed APMs and mitigation measures will be incorporated into the consultation process, as appropriate.

Plants

Approximately 0.279 acre of vernal pools and ephemeral stream will be temporarily filled by the project. These aquatic features are potential habitat for all but one of the special-status plant species that may occur in the project area. Big-scale balsamroot, a CNPS Rare Plant Rank 1B species, is the only special-status plant that has the potential to occur outside of aquatic features in the project area. The species is known to inhabit open grassy or rocky slopes in chaparral, cismontane woodland, and valley and foothill grassland - sometimes on serpentine soils. Approximately, 8.4 acres of potential habitat for this species may be temporarily impacted as a result of the project. All project-related impacts on special-status plants would be temporary and the site would be restored to pre-project conditions upon completion of construction (APM GC-11). Incorporation of biological APMs—in particular, preconstruction surveys, environmental education, monitoring, and off-road vehicle use minimization would minimize impacts on all special-status plants with the potential to occur within the project area. Biological APMs that would implement the use of protective plating and water quality protection measures will greatly minimize potential impacts on rare plant species that have the potential to occur in the temporarily impacted aquatic features in the project area.

APM BIO-2 would be implemented in the unlikely event rare plants are discovered on site. Implementation of this measure would result in complete avoidance or minimize impacts to less than significant levels. In summary, with implementation of APMs, impacts to special-status plants would be less than significant.

Birds

Migratory and resident birds have the potential to forage and nest in the project vicinity. Ground nesting birds may be affected if construction activities occur nearby. Direct impacts may include destruction or removal of rodent burrows occupied by nesting or resident western burrowing owls. Although no tree trimming or removal is required for the project, several trees are located within 0.25 mile of the pipeline alignment. These trees could provide nesting opportunities for Swainson's hawks and other nesting birds. Increased noise and vibration may temporarily affect both ground-nesting and tree-nesting bird species not adapted to human-related disturbance. Other direct impacts could include nest failure or abandonment. Indirect impacts on birds are not anticipated, as the site would be restored to pre-project conditions, with the exception of the underground vaults south of Athens Avenue. Preconstruction bird surveys will be

conducted and impacts to nesting birds would be minimized with the implementation of APM BIO-1. With implementation of APM BIO-1, impacts would be less than significant.

Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

The project could indirectly affect ¹ approximately 4.0 acres and directly affect approximately 0.10 acre² of suitable vernal pool fairy shrimp and vernal pool tadpole shrimp habitat. Impacts on individuals could occur as a result of construction (e.g., relocation, removal, and/or damage cysts and adults). With the exception of the underground vaults south of Athens Avenue, all impacts to suitable habitat will be temporary and the area will be restored to pre-project conditions per the site restoration plan. The underground vaults would not directly affect any potential habitat and the new underground facility will have no impacts on the hydrology of the surrounding area after construction is complete because of its small footprint and because it will be graveled (it will not affect sheet flow by increasing hardscape).

With the exception of the new vaults, all project-related impacts on vernal pool species would be temporary and the site would be restored to pre-project conditions upon completion of construction (APM GC-11). Incorporation of biological APMs—in particular, environmental education, monitoring, and off-road vehicle use minimization would minimize impacts on listed vernal pool species. Biological APMs that would implement the use of protective plating and water quality protection measures would further minimize potential impacts on these species.

PG&E has submitted an application to USACE for a Nationwide Permit 12 and anticipates that the project effects on vernal pool branchiopods will be appended to the *Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California* (USFWS, 1996), as amended for the project. PG&E will mitigate unavoidable direct and indirect impacts on federally-listed species in accordance with MM BIO-1. Therefore, the project would not have a substantial adverse effect on special-status species with implementation of the proposed APMs and MM BIO-1.

(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?

The project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. Riparian vegetation does not occur within the project area and would thus not be affected. The majority of impacts would occur on nonnative annual grasslands, which is not a sensitive community. Relative to the expansive area of annual grassland in the project vicinity, the estimated 0.07 acre of permanent impact would be less than significant. Direct impacts on vernal pools and ephemeral stream would be limited to approximately 0.279 acre and would be temporary. All temporarily disturbed natural vegetation would be restored to pre-project or better conditions in accordance with the agency-approved site restoration plan (APM GC-11). Unavoidable direct and indirect effects to vernal pools, vernal swales, and seasonal wetlands would be mitigated with the implementation of MM BIO-1. Therefore, impacts would be less than significant with mitigation incorporated.

(c) Would the Project 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?

¹ Potential habitat located within 250 feet of the project footprint were considered indirectly affected, per the Programmatic Consultation (USFWS, 1996), with the exception to some habitat in Section 2C2. Habitat within 250 feet of the section of paved access road for Section 2C2 were not considered indirectly affected. Equipment will be restricted to the paved road, minimizing disturbance to adjacent habitat

² Potential habitat intersected by the project footprint was considered directly affected, except for potential habitat that will be plated along the off-road access in Section 2C2.

Project construction would temporarily disturb jurisdictional wetlands (vernal pools) under the jurisdiction of the USACE. As shown in Table 3.4-3 below, impacts would be limited to the temporary disturbance of approximately 0.278 acre. All temporarily impacts areas will be restored to pre-project conditions per the restoration plan (APM GC-11). Ground disturbance would be limited to trenching and backfilling associated with pipeline replacement. Jurisdictional wetlands within 250 feet of the construction footprint (but not located within the workspace) would be marked with orange construction fencing and erosion control fencing, and would be avoided during construction (APM BIO-15). Implementation of other biological APMs such as environmental education, monitoring, protective plating, and water quality measures will further minimize potential impacts on federally protected wetlands. Purchase of conservation bank credits to mitigate impacts to federally listed vernal pools species (MM BIO-1) will incidentally minimize temporal impacts to federally protected wetlands because potential habitat for federally listed vernal pools species is also waters of the U.S. Therefore, the project would not result in a substantial adverse effect on federally protected wetlands with the implementation of APMs and MM BIO-1.

TABLE 3.4-3

Federally Protected Wetlands Temporarily Impacted by the Project

Wetland Type	Acreage
Vernal Pool	0.278
Total	0.278

(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?

Fish do not occur in the project area; therefore, no movement corridor for native resident or migratory fish will be impacted. The project will result in the installation of an underground gas transmission line and underground vaults, neither of which will interfere with the movement of any native resident of migratory wildlife species or wildlife corridors. With the exception of the graveled underground vaults south of Athens Avenue, all project related activities will be temporary and highly localized. All temporarily disturbed areas will be restored to pre-project conditions per the site restoration plan. Therefore, impacts on native resident or migratory wildlife corridors or native wildlife nursery sites are not anticipated.

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

There are no trees within the project area that would be impacted by the project. APM BIO-1 through APM BIO-14 and MM BIO-1 would be implemented as part of the project in accordance with agency permit conditions. With implementation of these measures, the project would be consistent with the goals and policies of the Placer County General Plan regarding protection of biological resources. With implementation of APM BIO-1 through APM BIO-14 and MM BIO-1, impacts would be less than significant.

(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 area is not addressed by any adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan, therefore there no impact is anticipated.

3.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
(a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.5.1 Introduction

3.5.1.1 Summary

This section describes potential impacts on existing cultural and paleontological resources in the project area. Cultural resources include prehistoric archaeological sites, historic-era archaeological sites, traditional cultural properties, and historic buildings, structures, landscapes, districts, and objects. Prehistoric archaeological sites are places where Native Americans lived or carried out activities during the prehistoric period (as late as AD 1769). Prehistoric sites contain artifacts, cultural features, subsistence remains, and human burials. Historic-era resources can occur as archaeological deposits or standing elements of the built environment and may manifest themselves in a number of ways. What distinguishes historical-period sites from those referred to as "prehistoric" is the presence of written records dating to the time the site was in use. These sites include cities, villages, ranches, isolated homesteads, farms, plantations, and campsites; native and ethnic settlements; churches, missions, and meeting houses, and cemeteries; logging, mining, and railroad camps; trading posts; submerged sites and shipwrecks; military forts, encampments, and battlefields; and trash deposits. Paleontological resources are fossils—the remains or traces of prehistoric animals and plants possessing scientific and educational value. The purpose of this section is to describe the regulatory setting associated with cultural and paleontological resources, provide a context for the potential to encounter these resources, describe the methods and the findings of cultural and paleontological studies conducted for this project, and discuss potential impacts on cultural and paleontological resources.

This IS/MND summarizes information provided in *Cultural Resources Study of the Pacific Gas and Electric Company's Line 123 Replacement Project, Placer County, California* (Far Western, 2014). Information in the survey indicates that the project would have no impact on known cultural resources or historical resources. The potential to encounter previously unidentified buried archaeological deposits during construction or related activities is moderate to very low (Far Western, 2014).

3.5.1.2 Methodology

Cultural resources identification efforts for the proposed project included a records search at the Northwest Information Center of the California Historical Resource Information System, Native American outreach, an archival records search, a buried site sensitivity analysis, and a pedestrian survey designed to satisfy both CEQA and Section 106 reporting standards. Paleontological resources identification efforts consisted of background research, a search of the records of the University of California Museum of Paleontology (UCMP) and a field survey.

3.5.2 Regulatory Setting

3.5.2.1 Cultural and Historical Resources

This project will require discretionary permits from the RWQCB and the CDFW, thus necessitating CEQA compliance.

CEQA and the California Register of Historical Resources

Under Section 15064.5. of the CEQA Guidelines, a resource is considered significant that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource. A historical resource can be any object, building, structure, site, area, place, record, or manuscript that is listed on, or eligible for listing on, the California Register of Historical Resources (CRHR). A resource is eligible if it can be clearly shown that it:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
2. Is associated with the lives of persons important in the past of California's people
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value
4. Has yielded, or may be likely to yield, information important in prehistory or history (PRC, 5024.1)

Automatic listings include properties that are listed on the National Register of Historic Places. In addition, Points of Historical Interest nominated from January 1998 onward are to be jointly listed as Points of Historical Interest and in the CRHR.

In addition, resources listed in a local historic register or deemed significant in a historic resources survey, as provided under Public Resources Code (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 on the CRHR, not included in a local register of historic resources, or not deemed significant in a historic 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 protecting Native American cultural resources are contained in the California Health and Safety Code, Division 7, Part 2, Chapter 5 (Sections 8010 through 8030).

Several provisions of the PRC also govern archaeological finds of human remains and associated objects. PRC Section 5097.98 through 5097.99 details procedures 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, or with malice or wantonness, has committed a public offense that is punishable by imprisonment.

3.5.2.2 Paleontological Resources

CEQA includes in its definition of historic resources "any object [or] site ... that has yielded or may be likely to yield information important in prehistory" (14 CCR 15064.5[3]), which is typically interpreted as including fossil materials and other paleontological resources. More specifically, destruction of a "unique paleontological resource or site or unique geologic feature" constitutes a significant impact under CEQA according to Appendix G of the CEQA guidelines.

Treatment of paleontological resources under CEQA is generally similar to treatment of cultural resources, requiring evaluation of resources in the project area, assessment of potential impacts on significant or unique resources, and development of mitigation measures for potentially significant impacts, which may include monitoring, data recovery, excavation, and/or avoidance.

As defined by PRC 21083.2.(g), a "unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

3.5.3 Environmental Setting

3.5.3.1 Cultural Resources

The Nisenan once held a territory that stretched from the South Fork Feather River south to the Middle Fork Cosumnes River, and from the Sacramento River east to the Sierran crest. The Nisenan did not reside in the mountains above about 3,000 feet, but used those areas for summer hunting and gathering. Nisenan villages ranged from 25 to 1,000 residents. The largest villages were in the Sacramento Valley, along the river and its tributaries (Far Western, 2014).

Before 1848, most non-native people in the Placer County area were Spanish explorers and missionaries, Russian trappers, Mexican ranchers, and a few European or Euro-American settlers such as Johann Sutter and John Marsh (Far Western, 2014). The non-native history of the county and the surrounding region began in 1848 with the discovery of gold at Coloma, on the South Fork of the American River.

Miners and others realized that there was money to be had in providing meat, produce, and dairy products to the mining camp, and ranching and farming became the dominant industries in Placer County. Local farmers built up large land holdings in the region along the various creeks that flow west into the American River Basin. Early prospectors had bypassed the southwestern portion of Placer County on their way to the goldfields. In western Placer County, the study area runs through the Pleasant Grove District northwest of Roseville. Early ranchers in this district, such as Stephen A. Boutwell and William Dunlap, acquired large tracts of land, on which they raised livestock and cultivated grain (Far Western, 2014).

3.5.3.2 Results

Records Search Results

The Far Western (2014) archival research identified no previously recorded cultural resources within the project's footprint and two previously recorded resources were identified within the ¼-mile records search radius: P-31-000018 (Two possible groundstone tools) and P-31-000017 (Road with stone alignments).

Field Survey Results

The Far Western (2014) pedestrian survey identified one isolated feature within the project footprint: a well /metal standpipe that may be from the historic period. The well location appears on a 1953 USGS topographic map, but it is not clear whether the current metal well head was there at the time, thus it cannot be conclusively dated. This feature will be avoided during construction, as it will be cordoned off from construction and construction related activities through implementation of an exclusionary zone which will eliminate the potential for adverse impacts on it.

Buried Site Sensitivity Analysis

A buried site sensitivity analysis was conducted to determine the possibility of encountering archaeological materials. Based on the soils present in the project area, the assessment concluded that there is a moderate to very low potential for buried cultural resources within the project area (Far Western, 2014).

Traditional Cultural Properties/Areas of Native American Concern

The Native American Heritage Commission's (NAHC's) search of the sacred land file confirmed no records of resources located in the project area. Far Western coordinated with Native American contacts to request any input they may have on the proposed project. In March 2014, follow-up coordination letters were sent to an updated list of contacts provided by the NAHC. A summary of Native American coordination is included in Appendix B.

3.5.3.3 Paleontological Resources

Geologic Setting

The project area is in the Sacramento Valley, which forms the northern portion of the Great Valley geomorphic province of California. The project area is underlain primarily by the Pleistocene-age Turlock Lake Formation, with small areas of the younger Pleistocene-age Riverbank formation that outcrop along Pleasant Grove Creek, South Branch (Wagner et al., 1987). A brief description of each formation is provided below.

Riverbank Formation

Sediments in the Riverbank Formation consist of weathered reddish gravel, sand, and silt that form higher alluvial terraces and fans of rivers and streams. In the Sacramento Valley, this formation contains more mafic rock fragments than it does in the San Joaquin Valley, and thus tends toward stronger soil-profile developments that are more easily distinguishable from the older Modesto Formation. Estimates place the age of the Riverbank Formation between 130,000 and 450,000 years before present (BP; Helley and Harwood, 1985).

Turlock Lake Formation

Sediments of the Turlock Lake Formation consist of weathered arkosic gravels with small amounts of metamorphic rock fragments and quartz pebbles. Sand and silt are also present in the project vicinity. Estimates place the age of the Turlock Lake Formation between 450,000 and 600,000 years BP. This formation represents eroded alluvial fans derived primarily from the plutonic rocks of the Sierra Nevada to the east (Helley and Harwood, 1985).

Paleontological Resources Inventory

Background research and a field survey were conducted to develop a baseline paleontological resource inventory of the study area, and to establish the paleontological sensitivity of each geologic unit present there. After completion of these tasks, each geologic formation exposed within the study area was assigned a paleontological sensitivity based on the number of previously recorded fossil sites from that unit and the scientific importance of the fossil remains recorded. These methods are consistent with Society of Vertebrate Paleontology (SVP) guidelines (1995) for assessing the importance of paleontological resources.

Geologic maps and available published and unpublished geological and paleontological literature covering the bedrock and surficial geology of the study area were reviewed to determine the exposed and subsurface rock units, to assess the potential paleontological productivity of each rock unit, and to delineate their respective areal distribution in the study area. The number and location of previously recorded fossil sites from rock units exposed within the study area and the types of fossil remains produced by each rock unit were evaluated based on published and unpublished geological and paleontological literature. The literature review was supplemented by a search of the records of the University of California Museum of Paleontology (UCMP) on July 18, 2013.

A reconnaissance-level pedestrian survey was conducted by AECOM on July 19, 2013, to determine the extent of geologic formations, document the presence of sediments suitable for containing fossil remains, and document the presence of any previously unrecorded fossil sites in the project area. No subsurface exploration was conducted for this study.

The ground surface at all surveyed locations was flat, and the banks of Pleasant Grove Creek, South Branch, were covered with rock revetment. No surface cuts that would reveal the underlying rock strata were visible in the areas surveyed. No evidence of fossil resources was encountered.

Paleontological Resources Assessment by Rock Unit

The Pleistocene epoch, known as the “great ice age,” began approximately 1.8 million years ago. Vertebrate mammalian fossils have proved helpful in determining the relative age of alluvial fan sedimentary deposits such as those in the project area. Mammalian inhabitants of the Pleistocene alluvial fan and floodplain included mammoths, horses, mastodons, camels, ground sloths, and pronghorn antelope.

Riverbank Formation

A records search of the UCMP paleontology collections database (2013) yielded information about several vertebrate fossil localities referable to the Riverbank Formation. UCMP localities V-6846, V-68141, V-74086, V-69129, V-6747, V-69129, and V-75126, all in Sacramento (approximately 12 to 15 miles south of the project area), yielded specimens of bison, camel, coyote, horse, Harlan’s ground sloth, mammoth, packrat or woodrat, Sacramento blackfish, mole, garter snake, and gopher from sediments of the Riverbank Formation. In addition, fossil specimens recovered from excavation activities at Arco Arena north of Sacramento in the Riverbank Formation (approximately 10 miles southwest of the project area) included specimens of Harlan’s ground sloth, bison, coyote, horse, camel, squirrel, antelope or deer, mammoth, and several types of plants (Hilton et al., 2000). A Pleistocene-age mammoth specimen was recovered from the Riverbank Formation during excavation for a natural gas line in Elk Grove (approximately 25 miles south of the project area; Kolber, 2004).

Marchand and Allwardt (1981) discuss fossil specimens from the Riverbank Formation in several locations in the San Joaquin Valley. Other Pleistocene-age vertebrate fossils have been recovered from the Riverbank Formation in Merced, Fresno, and Stanislaus Counties (UCMP, 2013).

Because of the large number of vertebrate fossils that have been recovered from the Riverbank Formation throughout the Central Valley, it is considered paleontologically sensitive.

Turlock Lake Formation

UCMP locality V-6952 yielded one specimen of mammoth from sediments of the Turlock Lake Formation in Rocklin (approximately 6 miles northeast of the project area). During excavation activities for the site of the proposed Madera County Fairmead Landfill in 1993, a diverse assemblage of vertebrate Pleistocene-age fossils was discovered (Dundas et al., 1996). A working paleontological museum that is open to the public, the “Fossil Discovery Center,” recently opened at this site. To date, more than 15,000 fossil specimens of Pleistocene-age land mammals have been recovered at this locality, which is an active paleontological dig site with new fossils continually being recovered (San Joaquin Valley Paleontology Foundation, 2010). The Fairmead Landfill site is composed primarily of Turlock Lake deposits. Because of the large number of vertebrate fossils recovered from the Turlock Lake Formation in the Central Valley, it is considered paleontologically sensitive.

3.5.4 Applicant-Proposed Measures

The APMs listed below would be implemented.

CR-1: Establishment of Exclusionary Area. The establishment of an exclusionary area that cordons the isolated cultural feature will eliminate the potential for impacts to known cultural resources.

CR-2: Unanticipated Discovery Procedures. Work will stop and the PG&E cultural resources specialist will be notified if signs of an archeological site are discovered during construction of the project. The PG&E cultural resource specialist will determine whether additional protective measures may be required.

CR-3: Treatment of Human Remains. Work will stop construction and the PG&E cultural resources specialist will be notified if signs of human remains are discovered during construction of the project. If remains of Native American origin are discovered during project construction, it will be necessary to comply with state laws concerning the disposition of Native American burials, which fall within the NAHC's jurisdiction (PRC Section 5097). If any human remains are discovered or recognized in any location other than a dedicated cemetery, there will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the following steps occur:

- The Placer County coroner has been contacted by the PG&E Cultural Resources Specialist and has been informed of the discovery and has determined that no investigation of the cause of death is required
- If the remains are of Native American origin one of the following:
 - The descendant(s) of the deceased Native American(s) has/have made a recommendation to the landowner or person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98
 - The NAHC has been unable to identify a descendant, or the descendant failed to make a recommendation within 24 hours after being notified

CR-4: Worker Education Program. PG&E will design and implement a worker education program. Worker education will be provided to all project personnel who will be involved with earth-moving activities, or who may encounter and/or alter paleontological or historic resources or unique archaeological properties, including construction supervisors and field personnel.

CR-5: Treatment of Paleontological Resources. If fossil remains are uncovered during project construction, all work within 50 feet of the discovery will be halted, and the construction crew will immediately notify the onsite environmental inspector and PG&E. The onsite environmental inspector will contact a paleontologist who will evaluate the resource and, if the discovery is considered significant, will prepare a treatment plan in accordance with SVP guidelines (1995). Components of the treatment plan related to "unique" fossil specimens that are encountered during construction may include a field survey, additional construction monitoring, specific sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings.

3.5.4.1 Significance Criteria

Under Section 21083.2 of CEQA, a "unique" archaeological resource is an object, artifact, or site that can be clearly shown to meet any of the following criteria:

- Contains information needed to answer important scientific research questions, and a demonstrable public interest in that information exists
- Has a special and particular quality such as being the oldest of its type, or the best available example of its type
- Is directly associated with a scientifically recognized important prehistoric or historic event or person

California regulations require that effects to cultural resources must be considered only for resources meeting the criteria for eligibility to the CRHR, outlined in Section 5024.1 of the California PRC. Under this section, an important historic property is one that meets any of the following criteria:

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

- It is associated with the lives of persons important in California's past
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value
- It has yielded, or may be likely to yield, information important in prehistory or history

3.5.4.2 Cultural Impacts

The evaluation of potential environmental impacts of the project on cultural and paleontological resources was based on the CEQA guidelines listed below.

(a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

One possibly historic-era feature, a metal well or standpipe, that could not be conclusively dated is located within the project area. No other cultural resources (i.e., built environment or archaeological) were identified in the footprint. This feature does not appear to be significant; however, it will be avoided during construction, as it will be cordoned off from construction and construction-related activities through implementation of APM CR-1, which establishes an exclusionary zone which will eliminate the potential for adverse impacts on the well/standpipe. In addition, no adjacent buildings or structures would be impacted by the project, either directly or indirectly. No impact on historical resources would occur as a result of construction or operation of the project.

(b) Would the project cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?

Archival research and field inventories identified one isolated feature within the project footprint: a well/standpipe that may be from the historic period but which could not be conclusively dated. No associated artifacts or archaeological deposits were found adjacent to this feature.

Project earth-moving activities have the potential to inadvertently damage or destroy previously unknown subsurface cultural resources. PG&E would implement APMs CR-2 and CR-4, which include procedures for the inadvertent discovery of archaeological resources during construction, and implementation of a worker education program for all project personnel. With implementation of these APMs, project impacts on archaeological resources would be less than significant.

(c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Earth-moving activities would take place in the Riverbank and Turlock Lake formations. As discussed above in Section 3.5.3, "Environmental Setting," a large number of vertebrate fossils have been recovered from both of these formations throughout the Central Valley. Therefore, these geologic formations are considered paleontologically sensitive, and project-related earth-moving activities in these formations could result in damage to or destruction of unique paleontological resources. Implementation of APMs CR-4 and CR-5 would reduce the impact to a less-than-significant level.

(d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

No new or previously recorded prehistoric or historic archaeological deposits containing the signatures of Native American populations were identified during the pedestrian cultural survey or in the course of background research and records search efforts; however, the project area has been subject to centuries of prehistoric and historic-era occupation and use. Consequently, project earth-moving activities have the potential to inadvertently damage or destroy human remains, including those interred outside of formal cemeteries. PG&E would implement APM CR-3, which includes procedures for the inadvertent discovery of human remains, including compliance with state laws on the disposition of Native American burials. PG&E would implement worker training included in APM CR-4, requiring that construction personnel be instructed

on proper procedures to follow if human remains are identified during construction. With implementation of these APMs, project impacts on human remains would be less than significant.

3.6 Geology and Soils

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
(a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.6.1 Introduction

This section describes the existing geologic, soils, and seismic conditions in the proposed project area, and discusses potential impacts from the proposed project. The project would result in less-than-significant impacts with respect to geology and soils.

3.6.2 Regulatory Setting

3.6.2.1 Federal

Federal Earthquake Hazards Reduction Act

In 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act “to reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program.” In creating the act, Congress recognized that losses from earthquake related hazards could be reduced through improvement in design and construction methods, land use controls and redevelopment, prediction techniques, early warning systems, coordinated emergency preparedness plans, and public education and involvement programs. The National Earthquake Hazards Reduction Program (NEHRP) is administered by the Federal Emergency Management Agency (FEMA), the National Institute of Standards and Technology (NIST), the National Science Foundation (NSF), and the United States Geological Survey (USGS).

3.6.2.2 State

Alquist-Priolo Earthquake Fault Zoning Act (PRC Section 2621 et seq.)

This act provides policies and criteria to assist cities, counties, and state agencies in the exercise of their responsibility to prevent the location of developments and structures for human occupancy across the trace of active faults.

Seismic Hazards Mapping Act (PRC Sections 2690 to 2699.6)

This act requires conducting site-specific geotechnical investigations within the zones of required investigation to identify and evaluate seismic hazards and formulate mitigation measures before permitting most developments designed for human occupancy.

California Public Utilities Commission General Order 112-E

The State of California is certified under 49 USC Subtitle VIII, Chapter 601, Section 60105, to assist with enforcement of the federal pipeline regulations. The CPUC has the authority to regulate intrastate natural and other gas pipeline facilities, including those proposed by PG&E. The CPUC has adopted General Order 112-E governing design construction, testing, operation, and maintenance of gas gathering, transmission, and distribution piping systems. General Order 112-E incorporates and supplements the federal standards in 49 CFR 190–199.

3.6.2.3 Local

The CPUC has jurisdiction over the project's siting, design, and construction; therefore, the project is not subject to local discretionary regulations.

3.6.3 Environmental Setting

3.6.3.1 Geology

The project is in the Central Valley of California, which is in the Great Valley Geomorphic and Physiographic Province (California Geological Survey [CGS], 2002). The Central Valley is a large, nearly flat valley bound by the Klamath and Trinity mountains to the north, the southern Cascade Range and Sierra Nevadas to the east, the San Emigdio and Tehachapi mountains to the south, and the Coast Ranges and San Francisco Bay to the west. The Central Valley consists of the Sacramento Valley in the north and the San Joaquin Valley in the south.

3.6.3.2 Soils

Five soil units are mapped in the study area: Fiddymment-Kaseberg loams (2 to 9 percent slopes) along Sections 2B2, 1C, and 2C1, and Fiddymment loam (1 to 8 percent slopes), Kilaga loam, San Joaquin sandy loam (1 to 5 percent slopes), and Alamo-Fiddymment complex (0 to 5 percent slopes) along Section 2C2 (USDA, 2014).

Fiddymment series soils are moderately deep well-drained soils formed in material from consolidated sediments. Fiddymment soils occur on undulating rolling hills to terraces and are well drained, with slow permeability, slow to medium surface runoff, and a slight to moderate chance of erosion.

Kaseberg series soils consist of shallow well-drained soils formed in material weathered from consolidated sediments of mixed rock sources. They are located on level to rolling, sloping, low-lying terraces and hill slopes of dissected terraces and are well drained with moderate permeability, slow to medium surface runoff, and a slight to moderate hazard of erosion.

Kilaga series soils consists of deep and very deep well-drained soils formed in alluvium from mixed rock sources and located on nearly level to gently rolling terraces. Kilaga soils have slow to medium runoff with slow permeability.

San Joaquin soils are derived primarily from granitic rocks. These soils have a clay layer that typically starts at approximately 6 inches below the surface. They have a duripan between 20 and 40 inches below the

ground surface that restricts the percolation of water. San Joaquin soils tend to become inundated in swales and depressions during the rainy season.

Alamo-Fiddymont complex soils (0 to 5 percent slopes) contain partially hydric soils in depressions. These soils are located on hill terraces and are moderately deep and somewhat poorly drained, with a water table at 1 foot or less from the surface.

3.6.3.3 Seismic Setting

The Great Valley is bounded on the west by the Great Valley fault zone and the Coast Ranges, and on the east by the Sierra Nevada and the Foothills fault zone. Relatively few faults in the Great Valley have been active during the last 11,700 years. The closest faults to the project area with evidence of displacement during Holocene time are the Dunnigan Hills Fault (approximately 35 miles to the northwest) and the Cleveland Hills Fault (approximately 55 miles to the northeast). In general, active faults are located along the western margin of the Central Valley within the Coast Ranges (at an approximate distance of 55 miles or more) (Jennings, 2002).

3.6.4 Applicant-Proposed Measures

GEO-1: Mitigation of Expansive or Unstable Soils. Where expansive or unstable soils are encountered during construction, PG&E will implement appropriate measures to avoid, improve, replace, or overcome such soils. These measures may include:

- Locating construction operations away from areas of unstable or expansive soil
- Removing expansive or unstable soils and replacing them with engineered backfill material
- Implementing in-situ ground improvement techniques³.

GEO-2: Erosion Control and Sediment Transport Plan. PG&E will prepare and implement an erosion control and sediment transport plan (ECSTP) describing BMPs to be used during construction as an element of the SWPPP (see APM HYDRO-1, Stormwater Pollution Prevention Plan). The plan will be based on specific criteria from recognized BMP design guidance manuals. Prior to conducting clearing activities during the wet season and before the onset of winter rains or any anticipated storm events, PG&E will install erosion control measures identified in the ECSTP. Temporary measures such as silt fences or wattles, which are intended to minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have stabilized. The ECSTP is outlined in the SWPPP prepared for this project.

3.6.5 Impacts

The project's potential impacts on geology and soils were evaluated using CEQA guidelines, which ask the questions given (and answered) below.

(a) Would the project expose people or structures to 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?

The project area is not located within a State of California designated Alquist-Priolo Earthquake Fault Zone (CGS, 2014); therefore, the potential for fault-induced ground rupture across the project area is considered low and the impact would be less than significant.

³ Techniques to improve unstable soils. Examples of in-situ techniques include compaction and soil mixing.

(ii) Strong seismic ground shaking?

Active seismic sources are generally located along the Coast Ranges or along the western edge of the Sacramento Valley. An earthquake on either the Dunnigan Hills Fault (approximately 35 miles to the northwest) or Cleveland Hills Fault (approximately 55 miles to the northeast) or along the western margin of the Central Valley within the Coast Ranges (approximately 55 miles or more) would be felt in the project area. However, given the distance of these faults from the project area, it is unlikely that strong seismic ground shaking would occur. Therefore, this impact would be less than significant.

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

The project area has not been identified by the State of California Division of Mines and Geology as being in a state seismic hazard zone (Division of Mines and Geology, 1999); therefore, seismic impacts are considered less than significant. The soil units at the project site are not known for liquefaction; therefore, impacts that could occur from liquefaction are considered less than significant.

(iv) Landslides?

The proposed facilities would be located on relatively flat terrain, and no areas of steep topography are located in the project area; therefore, no impact would occur.

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

Construction activities would involve excavating, moving, filling, and temporary stockpiling of soil within the project site. Construction activities would remove vegetative cover in some areas and expose site soils to erosion from wind and surface water runoff. The top 12 inches of soil from the areas to be trenched would be removed and segregated for reuse during restoration. Excavated subsoil would be maintained in a separate pile to be used as trench backfill following pipe installation. In addition, PG&E would implement APM GEO-2, requiring preparation and implementation of an erosion control and sediment transport plan, which contains BMPs to be used during construction as an element of the SWPPP. Therefore, this impact would be less than significant. Ground disturbed from the construction process would be returned as close as feasible to pre-project conditions upon completion of construction.

(c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?

Ground subsidence usually occurs in valleys and basins when underground fluids are extracted in large volumes. Because groundwater would not be removed from the site, the potential for ground subsidence is low. The proposed facilities would be located on relatively flat terrain, and no areas of steep topography are located in the project area; therefore, the potential for landslides would be very low.

PG&E would design and construct the project in compliance with the requirements of federal and state standards, and would implement APM GEO-1, which would require appropriately treating any site-specific areas of unstable soils that are encountered. Therefore, this impact would be less than significant.

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

Natural Resource Conservation Service data indicate that soils within the proposed project alignment have a moderate to low shrink-swell potential, and therefore expansive soils could be encountered during project construction. However, the pipeline and underground vaults would be constructed in compliance with federal and state standards, and PG&E would implement APM GEO-1, which requires appropriately treating any pockets of expansive soil that could be present along the alignment. Therefore, potential impacts from expansive soils would be less than significant. In addition, the project area is rural and sparsely occupied by people or building structures; the resulting risk to life and property is low.

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

No septic tanks or alternative wastewater disposal systems would be used for this project; therefore, no impact would occur.

3.7 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
(a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.7.1 Introduction

This section describes the regulatory and environmental settings associated with hazards, including hazardous materials and wastes, and the potential project impacts that could occur. For this analysis, the term “hazards” refers to risk associated with such issues as fires, explosions, and interference with emergency response plans, as well as exposure to hazardous materials or wastes (as defined below).

The California Health and Safety Code, Section 25501 defines “hazardous materials” as those that “because of their quantity, concentration, or physical or chemical characteristics, pose a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.” The California Health and Safety Code, Section 25517, and 22 CCR 66261.2 define “hazardous wastes” as wastes that “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.”

Implementation of the project would not result in potentially significant adverse impacts from hazards, including hazards from hazardous materials or wastes.

3.7.2 Environmental Setting

The project area is located on relatively level terrain, in a relatively sparsely populated portion of unincorporated Placer County and the City of Lincoln. The nearest school to the proposed project is Lincoln Crossing Elementary School, located in Lincoln approximately 1.3 miles from the project area. William Jessup University and Maria Montessori Charter Academy in Rocklin are each approximately 1.5 miles from the project area. The nearest medical care facility is Mercy Medical Group, approximately 1 mile east of the project site, in Rocklin. A single-family home neighborhood is adjacent to the north end of the project area.

3.7.2.1 Hazardous Materials

The project area is not identified on a list of hazardous materials sites pursuant to Government Code Section 65962.5 (California Environmental Protection Agency [CalEPA], 2014; Department of Toxic Control Substances [DTSC], 2014). The closest hazardous material sites to the project area are approximately 0.6 mile southwest of the southern end of Section 2B2. Both facilities are listed as closed (SWRCB, 2014).

3.7.2.2 Fire Hazards

Fire protection in the project area is provided by Placer County Fire Department and the City of Lincoln Fire and Rescue Department. The closest fire station to the project site (CAL FIRE Nevada-Yuba-Placer unit (NEU) Sunset) is located adjacent to the 2C1 alignment, off Athens Avenue. The California Department of Forestry and Fire Protection (CAL FIRE) has developed a Fire Hazard Severity Scale, which uses criteria to evaluate and designate potential fire hazards in wildland areas. The proposed project is not located in a fire hazard severity zone (CAL FIRE, 2014).

3.7.3 Applicant-Proposed Measures

The APMs listed below would be implemented.

APM HAZ-1: Equipment Maintenance and Refueling. PG&E will require all equipment to be maintained so that spills of automotive fluids such as fuels, solvents, or oils will not occur. All refueling and maintenance of vehicles and other construction equipment will be restricted to designated staging areas at least 300 feet from any down-gradient aquatic habitat unless already otherwise isolated from such habitat.

APM HAZ-2: Spill Prevention Control and Countermeasures. If more than 1,320 gallons of oil are stored on site, PG&E will prepare a spill prevention, control, and countermeasure (SPCC) plan, which will include engineered and operational methods for preventing, containing, and controlling potential releases (e.g., construction of retention pond, moats, or berms), and provisions for quick and safe cleanup. The plan will be submitted to the appropriate agency for review and approval. All project work areas will be operated in compliance with all applicable federal and state regulations related to spill prevention.

APM HAZ-3: Site Specific Safety Plan. A site-specific safety plan (SSSP) has been prepared to minimize potential safety hazards. The SSSP establishes worker training protocols and emergency response procedures relevant to project activities. The plan will be kept on site throughout construction and is kept on record by PG&E Safety and Construction Management for recordkeeping purposes.

APM HAZ-4: Soil Sampling/Waste Characterization. If hazardous substances are unexpectedly encountered during trenching, grading, or excavation, work will be halted until the material is properly characterized and appropriate measures are taken to protect human health and the environment (e.g., soil sampling, testing, excavation, and replacement with clean fill dirt). If hazardous materials must be excavated, they will be handled, transported, and disposed of in accordance with federal, state, regional, and local regulations. All

hazardous waste will be removed and handled in accordance with the project's SSSP (see APM HAZ-3, Site Specific Safety Plan).

3.7.4 Impacts

The project's potential impacts related to hazards were evaluated using CEQA guidelines, which ask the questions given (and answered) below.

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

Construction of the project would involve storage, use, and transport of minor amounts of hazardous materials (e.g., fuels, oils, and lubricants). PG&E would need to obtain permits and comply with appropriate regulatory agency standards designed to avoid releases of hazardous waste before using any new or additional hazardous materials. Use, storage, and transportation of hazardous materials would comply with federal and state regulations during project construction. Impacts would be less than significant.

Implementing PG&E's APMs, which require maintaining equipment properly and preparing and implementing an SSSP and an SPCC plan (if required), would further reduce the small risk of minor exposures of the environment, the public, or project workers to potentially hazardous materials during project construction. The APMs that would be implemented include preparing and implementing an SWPPP and implementing BMPs to contain any accidental spills (see APM HYDRO-1, Storm Water Pollution Prevention Plan, and APM GEO-2, Erosion Control and Sediment Transport Plan). Operation of the project would not require the transport, use, or disposal of hazardous materials.

(b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction of the project would involve transporting, using, and disposing of construction-related hazardous materials and wastes. Construction could result in accidents or upsets related to hazardous materials.

PG&E would comply with existing federal and state hazardous materials regulations; therefore, the impact would be less than significant. In addition, PG&E would implement APMs that would maintain equipment maintained properly and implement the an SSSP and an SPCC plan (if required) for use during project construction to further reduce potential impact. The APMs would include preparing and implementing an SWPPP and implementing BMPs to contain any accidental spills.

If hazardous substances were unexpectedly encountered during trenching, grading, or excavating, work would be stopped until the material was properly characterized and appropriate measures were taken to protect human health and the environment. If excavation of hazardous materials were required, the materials would be handled, transported, and disposed of in accordance with all applicable federal, state, and local regulations. Therefore, the project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving release of hazardous materials into the environment.

The project would be designed, constructed, and maintained in accordance with all applicable federal and state regulations. Furthermore, modern and high-quality materials, construction techniques, and inspection procedures would be used to install and operate a safer pipeline. As a result, the new pipeline would have greater reliability than the existing pipeline. Construction of the project would result in a safer pipeline than existing baseline conditions. The impact of constructing the pipeline would be less than significant.

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

The project is not within 0.25 mile of an existing or proposed school; therefore, no impact on schools within 0.25 mile of the project would occur.

(d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The project would not be located on a site included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. In addition, if any stained or odiferous soils were encountered during project-related excavation activities, PG&E would implement APM HAZ-4, Soil Sampling/Waste Characterization, which includes halting work until the material is properly characterized and appropriate measures are taken to protect human health and the environment. Therefore, the project's contribution to hazards to the public or the environment would be less than significant.

(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?

The project is not located within an airport land use plan or within 2 miles of a public airport or public use airport. Therefore, no safety hazard impacts on people associated with the airport residing or working in the project area would occur.

(f) Would the project occur within the vicinity of a private airstrip, or would the project result in a safety hazard for people residing or working in the project area?

The project is not within the vicinity of a private airstrip; therefore, no safety hazard impact on people associated with the airstrip residing or working in the project area would occur.

(g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The project would not impair implementation of, or physically interfere with, an emergency response plan or emergency evacuation plan. During construction, access to Sections 2C1, 1C, and 2B2 would be from Athens Avenue. Additional access to the southern end of Section 2B2 would be provided through the industrial lot located to the east Section 2B2. Section 2C2 would be accessed from the southern point of Woodford Lane or Redcliff Court in Lincoln, along an existing utility corridor. No public road closures are anticipated during project construction, so the project would not interfere with emergency plans or access. As a routine construction measure, emergency access and evacuation procedures would be developed and implemented as part of the onsite SSSP. No impacts on or interference with emergency plans or access would result from project implementation.

(h) Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Construction of the project would occur in an area that is surrounded by annual grassland that is susceptible to wildland fires. Heat or sparks from vehicles or equipment could ignite dry vegetation and cause a fire. Spark arrestors would be used on all internal combustion engines. Work that involves flame, arcing, or sparking equipment (such as welding) in the project area during construction could result in combustion of native materials located close to the site, if insufficient controls are implemented. Open fires will not be allowed at or near worksites (APM BIO-13).

With implementation of APM GC-6, GC-10, BIO-12, and Bio-13 the potential for fire would be less than significant.

3.8 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
(a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.8.2 Introduction

This section describes the regulatory and environmental setting for hydrology and water resources and the project's potential impacts on these resources.

3.8.3 Regulatory Setting

3.8.3.1 Federal

Clean Water Act (33 U.S.C. 1251 et seq.)

The CWA is the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. The primary principle is that any pollutant discharge into the nation's waters is prohibited unless specifically authorized by a permit; permit review is the CWA's primary regulatory tool. The applicable sections of the CWA are discussed further below.

Clean Water Quality Certification (Section 401)

CWA Section 401 requires an applicant for a federal license or permit to allow activities that would result in a discharge to waters of the U.S. to obtain a state certification that the discharge complies with other provisions of the CWA. The RWQCBs administer the certification program in California.

National Pollutant Discharge Elimination System Program (Section 402)

CWA Section 402 establishes a permitting system for discharge of any pollutant (except dredge or fill material) into waters of the U.S. It requires a National Pollutant Discharge Elimination System (NPDES) permit for discharges. The RWQCBs administer the NPDES program in California.

Permit for Fill Material in Waters and Wetlands (Section 404)

CWA Section 404 establishes a permit program administered by USACE. Section 404 regulates the discharge of dredged or fill material into waters of the U.S. (including wetlands).

National Flood Insurance Act (42 U.S.C. 4001 et seq.)

The purpose of the National Flood Insurance Act is to identify flood-prone areas and provide insurance. The act requires purchase of insurance for buildings in special flood-hazard areas. The act is applicable to any federally assisted acquisition or construction project in an area identified as having special flood hazards. Projects should avoid construction in, or develop a design to be consistent with, FEMA-identified flood-hazard areas.

Water Quality Impairments (Section 303[d])

Section 303(d) requires each state to provide a list of impaired waters that do not meet or are expected not to meet state water quality standards as defined by that section. It also requires the state to develop total maximum daily loads (TMDLs) from the pollution sources for such impaired water bodies.

3.8.3.2 State

Porter-Cologne Water Quality Act (Water Code Section 13000 et seq.)

The Porter-Cologne Water Quality Act requires projects that are discharging, or proposing to discharge, wastes that could affect the quality of the state's water to file a report of waste discharge with the appropriate RWQCB. The RWQCBs are responsible for implementing CWA Sections 401, 402, and 303(d). The act also provides for the development and periodic review of basin plans that designate beneficial uses of California's major rivers and groundwater basins and establish water quality objectives for those waters. Projects primarily implement basin plans using the NPDES permitting system to regulate waste discharges so that water quality objectives are met.

Basin Plans and Water Quality Objectives

The RWQCB adopts water quality control plans, or basin plans, that establish water quality objectives to provide reasonable protection of beneficial uses and a program of implementation for achieving water quality objectives within the basin plans. Section 303(d) of the CWA requires that the states list waters that are not attaining water quality standards. For these, the RWQCB establishes TMDLs and a program of implementation to meet them. A TMDL must account for the pollution sources causing the water to be listed.

3.8.3.3 Local

The CPUC has jurisdiction over the project's siting, design, and construction; therefore, the project is not subject to local discretionary regulations.

3.8.4 Environmental Setting

3.8.4.1 Surface Water Resources

Surface water resources in the project area include the Orchard Creek drainage to the north of Athens Avenue, fresh emergent wetlands, intermittent stream/emergent wetlands, seasonal wetlands, vernal pools, vernal swales, ephemeral streams, intermittent streams, open water, and perennial streams (see Section 3.4.3 and Figures 1-2a through 1-2d).

3.8.4.2 Groundwater Resources

Placer County is situated in the North American subbasin of the Sacramento Valley groundwater basin. The subbasin is defined by the Bear River to the north, the Feather River to the west, and the Sacramento River to the south, and by a north-south line extending from the Bear River south to Folsom Lake. The subbasin encompasses approximately 351,000 acres (approximately 548 square miles). Precipitation in the North American subbasin ranges from approximately 18 to 24 inches per year (California Department of Water Resources [DWR], 2006).

The edge of the alluvial basin is approximately 5 miles east of the project area, where little to no groundwater flows into or out of the groundwater basin from the rock of the Sierra Nevadas. The western portion of the subbasin consists of a nearly flat flood basin for the Bear, Feather, Sacramento, and American rivers, and several small east-side tributaries. The general direction of drainage is west-southwest at an average grade of about 5 percent. The eastern portion of the subbasin is characterized by low rolling dissected uplands.

3.8.5 Applicant-Proposed Measures

APM HYDRO-1: Storm Water Pollution Prevention Plan. PG&E will file a notice of intent with the SWRCB for coverage under the general construction storm water permit and will prepare and implement a SWPPP in accordance with General Order No. 2009-0009-DWQ. Implementation of the SWPPP will help stabilize disturbed areas and reduce erosion and sedimentation. The following measures are drawn from that permit and PG&E's standard practices, and are examples of what will be included in the SWPPP prepared for construction of the project:

- BMPs will be installed at staging locations during the first day of construction mobilization. Additional BMPs will be installed incrementally according to the SWPPP (before construction) and in conjunction with construction phasing.
- BMPs will be developed to prevent the acceleration of natural erosion and sedimentation rates. A monitoring program will be established so that the prescribed BMPs are followed throughout project construction. Examples of BMPs include but are not limited to the following measures:
 - Containment methods placed around and/or downslope of work areas before earth-disturbing activities and before the onset of winter rains or any anticipated storm events

- Mulching, seeding, or other suitable measures to protect exposed areas during construction activities as necessary
 - Installation of additional silt fencing before construction to address unforeseen runoff into nearby wetlands and drainages
 - Use of brooms and shovels (rather than water) when possible to maintain a clean site
 - Construction of a stabilized construction entrance/exit to prevent tracking dirt onto public roadways;
 - Establishment of a vehicle storage, maintenance, and refueling area, if needed, to minimize the spread of oil, gas, and engine fluids
 - Prohibition of overnight parking of mobile equipment within 100 feet of wetlands, culverts, or drainages
 - Positioning of stationary equipment (e.g., pumps, generators) within a secondary containment vessel when being used or stored within 300 feet of wetlands, culverts, or drainages
- Depending on the risk level, BMPs will be inspected before and after each storm event. BMPs will be maintained regularly and replaced as necessary throughout the course of construction.
 - A qualified SWPPP developer (QSD) will prepare the SWPPP and prescribe BMPs.

APM HYDRO-2: Groundwater Dewatering Plan. PG&E has not obtained a dewatering plan because it is anticipated that groundwater will occur at depths from 38 to 125 feet below grade. If groundwater dewatering is required, the PG&E Water Specialist will file a dewatering plan with the RWQCB before commencing dewatering activities, if deemed necessary. Dewatering will comply with applicable waste discharge requirements issued by the Central Valley RWQCB. The following general guidance for groundwater management and discharge will be followed, upon approval of the Central Valley RWQCB:

- Water encountered in project excavations shall be dewatered by pumping into onsite poly/baker tanks and inspected by the Environmental Inspector using visual and olfactory evaluation to determine whether the groundwater requires characterization, special management or alternate disposal.
- PG&E shall dewater the excavation using in-pit sediment screening to prevent large particles of sediment, mud, or solids from entering the suction port of drainage pumps during dewatering.
- Uncontaminated groundwater dewatered from excavations may be used for dust control within the project work areas (i.e., SWPPP permitted areas and/or within PG&E's pipeline and temporary construction easement) in accordance with best management practices.
- Visually contaminated groundwater shall be containerized until a sample is collected for laboratory analysis, the analytical is reviewed, and authorization to discharge is provided by the Water Specialist.
- If storage capacity of the poly/tank on site is reached, the Water Specialist shall be notified before transporting the water via PG&E-Authorized waste hauling trucks to the permitted discharge location (if required).
- Groundwater meeting local discharge limits will be either discharged to sanitary sewer near the excavation site where dewatered; or will be transported to a centralized discharge location following authorization for transport by the PG&E Environmental Field Specialist and/or Water Specialist. This information will be confirmed in the Discharge Permit and will be provided by the Water Specialist.
- Groundwater not meeting discharge limits will be transported offsite by PG&E's authorized waste hauler for disposal at a permitted offsite wastewater treatment and disposal facility.

APM HYDRO-3: Surface Water Dewatering Plan. It is expected that waterbodies that will be trenched are dry during construction in the dry season. However, if any water is present in these waterbodies or if the work area will contain surface water because construction will extend into the rainy season, PG&E will conduct dewatering in accordance with Water Quality Certification requirements issued by the Central Valley RWQCB. The following general guidance for surface water management and discharge will be followed, upon approval of the Central Valley RWQCB:

- A SWPPP Amendment has been prepared for the Project. This SWPPP Amendment complies with the run on and runoff provisions of the Construction General Permit, Waste Discharge Identification Number 5S07C369391.
- During rainfall events, the potential for surface water run on and runoff will be assessed, and if identified, the Qualified SWPPP Practitioner will specify appropriate BMPs which will be installed immediately.
- Surface water accumulation within excavations will be managed similar to groundwater (see APM HYDRO-2 Groundwater Dewatering Plan).

3.8.6 Impacts

The project's potential impacts on hydrology and water quality were evaluated using CEQA guidelines, which ask the questions given (and answered) below.

(a) Would the project violate any water quality standards or waste discharge requirements?

PG&E has submitted an application for water quality certification pursuant to CWA Sections 401 and 404 for work in waters of the U.S. 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 cause soil erosion and release of excess sediment into nearby waterbodies. PG&E would implement APM HAZ-1, Equipment Maintenance and Refueling and APM HAZ-2, Spill Prevention Control and Countermeasures, to reduce the potential for any inadvertent spills during construction to less-than-significant levels.

A portion of construction is expected to be conducted prior to the onset of the rainy season, when wetlands are not expected to contain any water. However, work will extend into the rainy season. If dewatering is required, PG&E would implement APM HYDRO-3 and comply with certification requirements.

Water used for hydrostatic testing would be purchased from a local water district. Water filtration (using portable water tanks) may be required to remove particulates from the spent hydrostatic test water before discharge. Water would be discharged to land for dust suppression, if needed. Test water will not be discharged into waters of the U.S. or state. Test water may also be discharged to a sanitary sewer with a discharge permit or hauled off site to an approved facility. Discharge requirements for dust suppression reuse and/or discharge to the sanitary sewer collection system would be provided at a later date, once permits have been obtained. For these reasons and because PG&E would implement APMs HYDRO-3, HAZ-1, and HAZ-2, the project is unlikely to violate water quality standards or waste discharge requirements and impacts would be less than significant.

(b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

No groundwater is anticipated to be encountered since the average trench depth is 9 feet and groundwater is at 35 to 135 feet below grade. The project would replace an underground gas transmission pipeline and

construct new underground vaults and would not have an effect on groundwater supplies or groundwater recharge; therefore, no impact on groundwater supplies or recharge would occur.

(c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or offsite?

Construction-related activities would include vegetation removal, soil excavation, stockpiling, trenching, and backfilling of trenches. These activities would temporarily expose soil to wind and water erosion, which could transport sediment into local waterways. PG&E would implement APM HYDRO-1, which requires preparation of a SWPPP and implementation of BMPs specifically designed to reduce erosion and associated sediment transport. Temporarily disturbed work areas would be restored to pre-project conditions in accordance with the restoration plan. Therefore, impact from erosion or siltation as a result of the project would be less than significant.

(d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

The proposed project would replace an underground gas transmission pipeline and construct new underground vaults, and would not alter the existing drainage pattern of the site. All temporally disturbed areas would be restored to pre-project conditions in accordance with the site restoration plan (APM GC-11). Therefore, surface runoff would not increase and no impact from flooding would occur as a result of the project.

(e) Would the project 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?

The underground vaults are the only permanent facility associated with the project. The approximately 0.07-acre vault area is small and would not be paved; therefore, any runoff to the surrounding area during storm events would be negligible.

Project-related construction activities have the potential to result in polluted runoff from accidental spills of fuels, oils, and lubricants, or sediment transport. PG&E would implement APMs HAZ-1, HAZ-2, and HYDRO-1, which would reduce the potential for accidental spills and sediment transport to a less-than-significant level.

(f) Would the project otherwise substantially degrade water quality?

During construction, dewatering could be necessary, depending on the groundwater conditions encountered during excavation. PG&E would filter hydrotest water, as indicated above, and would implement APM HYDRO-2, Groundwater Dewatering Plan and APM HYDRO-3 Surface Water Dewatering Plan, in consultation with the RWQCB. These plans would reduce the potential for degradation of water quality. Therefore, degradation of water quality would be less than significant.

(g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The proposed project would replace an underground gas transmission pipeline and construct new underground vaults, and would not place housing within a 100-year flood hazard area; therefore no impact related to flooding of housing would occur.

(h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

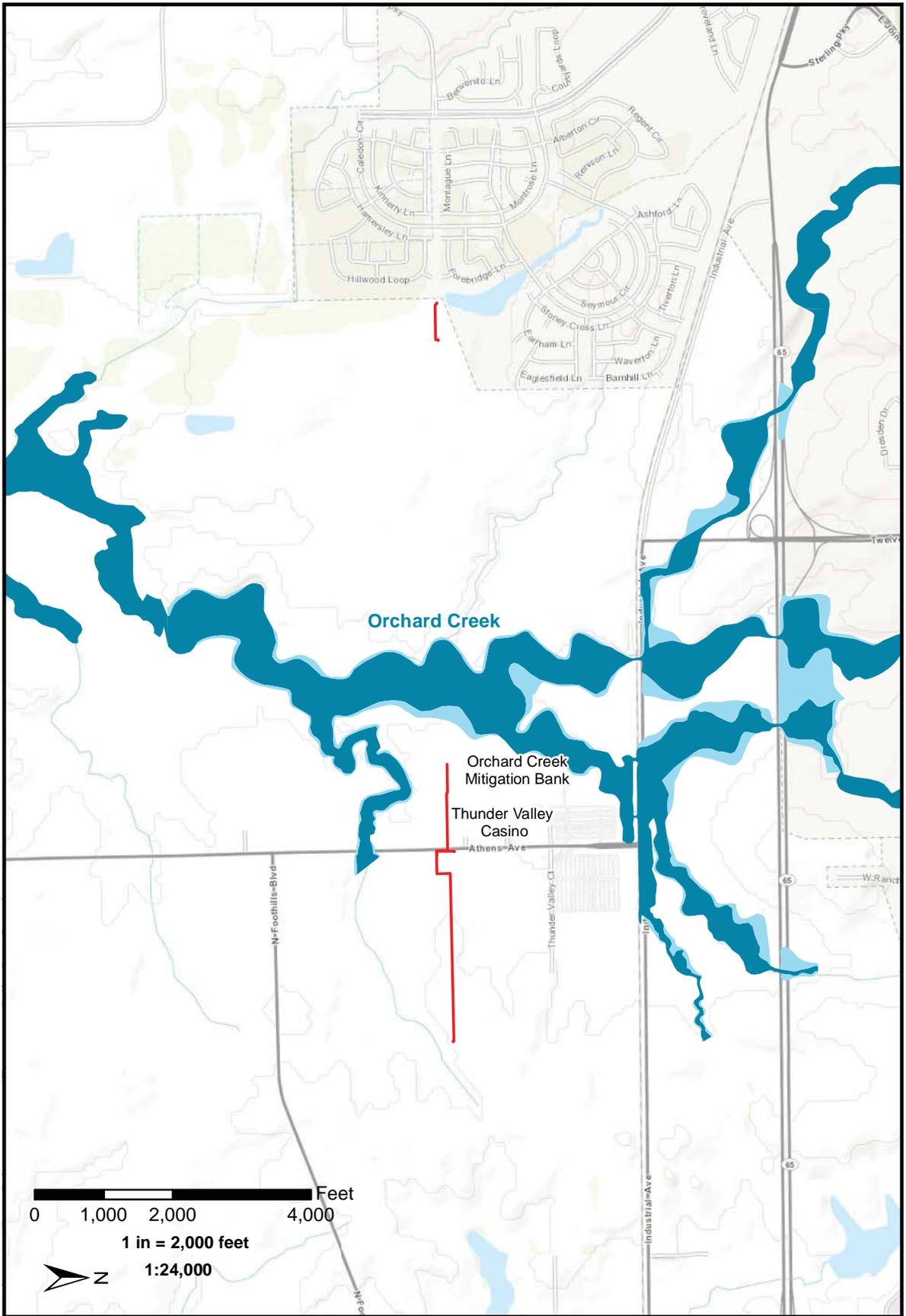
The project alignment would not cross either a FEMA 100-year floodplain or a FEMA 500-year floodplain (see Figure 3.8-1); therefore, no impact on flood flows from project structures would occur.

(i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

The project area does not involve construction or work near levees or dams; therefore, the project would not expose people or structures to risk involving failure of a levee or dam. Therefore, no impacts from exposing people or structures to flooding would result.

(j) Would the project be exposed to inundation by seiche, tsunami, or mudflow?

The project area is inland and not in an area subject to seiche or tsunami. The project is primarily on flat terrain and would not be subject to mudflows. No impacts from exposure of the project to inundation would result.



- Proposed Pipeline Alignment
- █ 100-yr Floodplain
- █ 500-yr Floodplain

FIGURE 3.8-1
 FEMA Floodplain Map
*PG&E Gas Transmission Line 123 Pipeline
 Replacement Project, Phase 2
 Sections 2B2, 1C, 2C1, and 2C2*

3.9 Land Use and Planning

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
(a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.9.1 Introduction

This section includes information on the regulatory and environmental setting and includes analysis of land use or planning impacts potentially resulting from the project. The analysis concludes that no impacts on land use or planning would occur.

3.9.2 Regulatory Setting

3.9.2.1 Federal

No federal regulations related to land use and planning are applicable to the project.

3.9.2.2 State

The CPUC has exclusive jurisdiction over the design, siting, installation, operation, maintenance, and repair of electric transmission facilities, pursuant to Article XII, Section 8 of the California Constitution.

3.9.2.3 Local

Because the CPUC has jurisdiction over the design, construction, and operation of gas pipelines and associated facilities, the project is not subject to local discretionary regulations. However, to assist CEQA review, this section describes local land uses in the project area.

Placer County General Plan, Sunset Area Industrial Plan

Sections 2B2, 1C, and 2C1 are located in Placer County within the Sunset Area Industrial Plan of the Placer County General Plan. Land use descriptions related agricultural and industrial land use in the project area include (Placer County, 2010):

- **Agriculture (20 acres minimum)** – Land uses allowed include crop production, orchards and vineyards, grazing, pasture and rangeland, hobby farms, other resource extraction activities, facilities that directly support agricultural operation such as agricultural products procession, open space, wetland mitigation banking, and necessary public utility and safety facilities.
- **Industrial** – Land uses allowed include all types of manufacturing and processing uses, business support services, retail and service commercial uses, necessary public utility and safety facilities, and similar compatible uses.

The Sunset Area Industrial Plan further identifies individual planning areas distinguished from each other by geographic features, roadways, and commonalities in development standards and land uses. Individual planning area descriptions in the project area include (Placer County, 2010):

- Orchard Creek Area – This area is dominated by Orchard Creek and numerous seasonal wetlands including vernal pools. The area is used for dry land grazing and as a wetland mitigation bank.
- Industrial Core Area – This area contains a significant portion of industrially designated land. Land uses in this area include distribution/warehouse uses and light and heavy manufacturing uses.

City of Lincoln General Plan

Section 2C2 is located in the City of Lincoln. Land use designations in the project area include open space and low density residential (City of Lincoln, 2008).

- Open Space - This designation is to conserve lands that should remain as open space for passive and active recreation uses, resource management, flood control management and public safety. Uses that would typically be appropriate in this land use designation include but are not limited to public parks, playgrounds, and parkways; vista areas, wetlands, wildlife habitats and outdoor nature laboratories; stormwater management facilities; and buffer zones separating urban development and ecologically-sensitive resources.
- Low Density Residential - The purpose of this designation is to provide areas for single family detached residential uses and activities normally associated with single family neighborhoods.

3.9.3 Environmental Setting

The project area contains various land uses, such as industrial, agriculture, open space, and preserve. The project would run along the western portion of the Thunder Valley Casino Resort and through the Orchard Creek Conservation Bank north of Athens Avenue. Industrial buildings are located near the southern portion of the project, east of the alignment near Industrial Avenue. Residential housing is in Lincoln, north of the project site.

3.9.4 Impacts

The project's potential impacts on land use and planning were evaluated using CEQA guidelines, which ask the questions given (and answered) below.

(a) Would the project physically divide an established community?

The project involves installing portions of a gas transmission line and new underground vaults, and retirement of existing gas pipeline infrastructure. Project components would be developed primarily underground, except for the gravel pad (approximately 0.07 acre) and valve covers associated with the underground vault. The project area would be restored to preconstruction conditions. Since the project would not physically divide an established community, impacts from such a division would not occur.

(b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?

The project involves replacement of portions of an existing gas transmission line and construction of new underground vaults. The project is not subject to local regulations, as CPUC has jurisdiction over its siting, design, and construction. Nonetheless, Placer County's Sunset Area Industrial Plan allows for necessary public utility and safety facilities; therefore, the project is consistent with land uses Placer County allows within the project area. The project would not change existing land uses, so impacts from changed land use would not occur.

(c) Would the project conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?

The project does not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan; therefore, no impact from such conflicts would occur.

3.10 Minerals

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
(a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.10.1 Introduction

This section discusses the potential for presence of or effect on mineral resources in the project area. No impact on mineral resources would occur, because mineral resources are not present in the project area.

3.10.2 Regulatory Setting

3.10.2.1 Federal

No specific federal regulations relevant to this project are applicable to mineral resources.

3.10.2.2 State

Surface Mining and Reclamation Act

This act was created to minimize and prevent surface mining impacts on public health, property, or the environment.

3.10.2.3 Local

The CPUC has jurisdiction over the project's siting, design, and construction; therefore, the project is not subject to local discretionary regulations.

3.10.3 Environmental Setting

The project area is within unincorporated Placer County and the City of Lincoln. According to the Placer County General Plan, the project is not within any area designated as having mineral resources (Placer County, 2013). The City of Lincoln General Plan does not identify areas where mineral resources occur or could potentially occur, though does state that the City will protect mineral resources from urban development and land uses that are incompatible with areas of existing or potential mineral extraction activities (City of Lincoln, 2008). There are no existing mineral extraction activities located within the project area.

3.10.4 Impacts

The project's potential impacts on minerals were evaluated using CEQA guidelines, which ask the questions given (and answered) below.

(a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The project area is not within an area designated as having mineral resources; therefore, no impact from loss of availability of a known mineral resource would occur.

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

The project would not result in loss of availability of a mineral resource; therefore no impact associated with loss of availability of a mineral resource would occur.

3.11 Noise

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
(a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.11.1 Introduction

This section analyzes potential noise from the project's construction (including noise from equipment), and concludes that noise impacts from construction of the project would be less than significant. The analysis concludes that there would be no noise from operation following the conclusion of construction; therefore no impact from noise as a result of operation would occur.

3.11.2 Regulatory Setting

3.11.2.1 Federal

No federal regulations limit noise levels for this type of project.

3.11.2.2 State

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. General types of impacts that must be considered when analyzing a project's potential to result in temporary and permanent impacts on sensitive receptors as a result of noise are identified in the CEQA checklist.

3.11.2.3 Local

Although this project is not subject to local discretionary regulations, land use plans and ordinances in the area related to noise are discussed to assist in the CEQA evaluation.

Placer County Noise Ordinance. Noise limits are established in Placer County General Plan, Section 9, Noise. Table 3.11-1 shows the noise levels (outside of construction) that are allowable within zones located within the project area.

TABLE 3.11-1

Placer County Allowable Noise Levels by Land Use within the Project Area

	Property Line of Receiving Use (Ldn)	Interior Spaces (Ldn)
Industrial	Not specified	45
Industrial Park	75	45
Open Space and Agriculture	Not specified	Not specified

Construction noise between 6 a.m. and 8 p.m. on weekdays and 8 a.m. and 8 p.m. on weekends, is exempt from the Placer County noise ordinance provided that all construction equipment is fitted with factory-installed muffling devices and is maintained in good working order (Placer County, 2014).

City of Lincoln Health and Safety Element, Noise Policy. The City of Lincoln regulates noise through its General Plan, Chapter 8, Health and Safety Element (City of Lincoln, 2008). Residential noise limits are set specifically for residential areas as stated in the following policy:

- Policy HS-8.2, Protect Residential Areas – The City will strive to achieve exterior noise levels for existing and future dwellings in residential areas that do not exceed exterior noise levels of 60 A-weighted decibel scale (dBA) community noise equivalent level (CNEL) and interior noise levels of 45 dBA CNEL.

Although there is no noise ordinance for construction noise limits, the following policies are included:

- Policy HS-8.8, Construction Noise – The City will provide guidelines to developers for reducing potential construction noise impacts on surrounding land uses.
- Policy HS-8.15, Limiting Construction Activities – The City shall establish restrictions regarding the hours and days of construction activities throughout the City.

3.11.3 Environmental Setting

The project is in a relatively undeveloped area of Placer County. Noise-sensitive receptors are facilities or areas (e.g., residences, hospitals, schools, churches, or public libraries) where excessive noise may cause annoyance. A residential neighborhood (and the nearest residence) is approximately 300 feet north of Section 2C2. The nearest school to the proposed project is Lincoln Crossing Elementary School, in Lincoln approximately 1.3 miles from the project area. William Jessup University and Maria Montessori Charter Academy in Rocklin are each approximately 1.5 miles from the project area. The nearest medical care facility is Mercy Medical Group, approximately 1 mile east of the project site, in Rocklin.

Existing ambient noise levels in the project vicinity have not been measured for this project. The project is within industrial, agricultural, and open space areas. Nearby industrial activities, the Thunder Valley Casino Resort, and nearby roads are the primary sources of existing noise in the project area.

3.11.4 Applicant-Proposed Measures

PG&E would implement the APMs below as part of project design.

APM Noise-1: Preconstruction Coordination. PG&E will coordinate with the City of Lincoln before construction activities begin on Section 2C2.

APM Noise-2: Noise Minimization. During construction, PG&E will use quiet equipment (which incorporates noise control into the design, including some models of jackhammers and compressors).

APM Noise-3: Night-time Construction. Although night-time construction could occur, it would be temporary and limited in duration. Night-time construction would be avoided in proximity to sensitive receptors located north of Section 2C2.

3.11.5 Impacts

The project's potential impacts from noise were evaluated using CEQA guidelines, which ask the questions given (and answered) below.

(a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

According to the Placer County Noise Ordinance, construction-related noise from the project would be exempt from performance standards between 6 a.m. and 8 p.m. Monday through Friday, and between 8 a.m. and 8 p.m. Saturday and Sunday, provided that all equipment is fitted with factory muffling devices and maintained in good working order. Every effort would be made to limit construction activities to these exempt hours. However extended work hours, up to 24-hours may be required in Sections 2B2, 1C, and 2C1 to accommodate specific construction activities (described below) and to ensure construction is completed by December 2014 to meet CPUC requirements to enhance public safety.

Hydrotesting of the new pipeline would take approximately 12-18 hours, and would be performed twice. One hydrotest would include Sections 2B2, 1C, and 2C1 (where all of the equipment would be staged at the southern end of Section 2B2), the other hydrotest would include Section 2C2 (where all of the equipment will be staged at the southern end of Section 2C2). The major equipment used during a hydrotest includes an air compressor and a water pump, which average approximately 78 dBA and 81 dBA, respectively, 50 feet from the source (FHWA, 2011). The nearest sensitive noise receptor to the project is located approximately 300 feet north of Section 2C2. Since hydrostatic testing would be staged at the southern end of Section 2C2, construction equipment would operate approximately 750 feet south of nearest sensitive receptor. There are no sensitive receptors located near Sections 2B2, 1C, and 2C1. Although hydrostatic testing would exceed exempt hours, testing would be limited to one occurrence in proximity to a sensitive receptor, and the duration of the hydrostatic test would not exceed 18 hours in duration and would not occur at night; therefore, it anticipated that the noise impact from hydrostatic testing would be less than significant.

Taking the existing line out of service and activating the new line involves construction of tie-ins at either end of the new pipelines. These activities would take approximately 30-60 consecutive hours to complete; therefore 24 hour construction days (night-time construction) would be required. Two tie-ins would be required for the project sections. One tie-in would include Section 2B2 at the north and south end. Equipment used for this tie-in would include an air compressor, air mover and a welding truck at both ends of Section 2B2. The other tie-in would include Sections 1C, 2C1 and 2C2. Equipment used for this tie-in would include an air compressor and an air mover at the south end of Section 1C, and at the north end of section 2C2. A welding truck would be used at the south end of Section 1C which will move to the north end of Section 2C1 and a welding truck that will move from one end of Section 2C2 to the other. Average noise levels for an air compressor at 50 feet from the source is approximately 78 dBA. The average noise level for an air mover is approximately 65 dBA, and the average noise level for welding equipment is approximately 95 dBA. The two tie-ins would not be constructed concurrently. There would be approximately 1-2 days or more in between tie-ins. Although constructing the tie-ins would require night-time construction, this activity would be temporary and limited in duration. In addition, nighttime construction would be avoided in proximity to sensitive receptors located north of Section 2C2; therefore, it anticipated that the noise impact from construction of the tie-ins would be less than significant.

Work within Sections 2B2, 1C, and 2C1 may be extended to 24-hour construction days, depending on the timing of receipt of all applicable authorizations, in order to meet the CPUC compliance date of December 31, 2014. Construction would need to occur during the rainy season in order to complete construction by the end of 2014 and meet commitments made to the CPUC. Although night-time construction could occur, the noise impact from night-time construction would be less than significant with implementation of APM Noise-3.

Coordination with the City of Lincoln would occur prior to beginning construction activities on Section 2C2 (see APM Noise-1). All equipment used would be in good working order and would include factory muffling devices; therefore, construction-related noise would not be in excess of the local noise standards, and noise impact would be less than significant. No noise would be generated from operation of the project.

(b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

The proposed construction activities are not expected to result in groundborne vibration to the residences located near the project area. No pile driving or similar activities that would result in groundborne vibration or groundborne noise would occur, so no corresponding impact would result.

(c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Ambient noise levels will increase temporarily and will be limited to construction. Facility operation following construction would not increase current ambient noise levels. Therefore, no corresponding impact would occur.

(d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Construction activities associated with the proposed project would require earth-moving equipment, trucks, and other equipment that would result in temporary increases in noise levels that exceed normal background levels. PG&E will use quiet equipment (which incorporates noise control into the design), minimizing construction noise to the extent possible (see APM Noise-2). Though project construction noise may be audible to people in nearby residences it would be located in different areas along the project route and temporary, so noise impacts would be less than significant. See also response to question (a) above.

(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 expose people residing or working in the project area to excessive noise levels?

The project is not located within an airport land use plan or within 2 miles of a public airport or public use airport, so no corresponding impacts would occur.

(f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The project is not located within the vicinity of a private airstrip, so no corresponding impacts would occur.

3.12 Population and Housing

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
(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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.12.1 Introduction

This section describes the existing population and housing conditions and analyzes the potential impacts on population and housing that could occur as a result of the project. The analysis concludes that the project would not impact either the regional or local population or displace existing housing.

3.12.2 Environmental Setting

The project area is located within Placer County and the City of Lincoln. Project Sections 2B2, 2C1, and 2C2 are located in open space. Section 1C is located on Thunder Valley Casino Resort property. Given the ample supply of construction labor in the region, most construction workers would likely commute to the work site and would not require temporary housing, although limited personnel in key specialties may need temporary housing for the duration of project construction. Operation of the project would not require additional workers.

3.12.3 Impacts

The project's potential impacts on population and housing were evaluated using CEQA guidelines, which ask the questions given (and answered) below.

(a) Would the project induce substantial population growth in an area, either directly or indirectly?

The project would replace 4 sections of existing 12-inch-diameter natural gas transmission line with 16-inch-diameter natural gas transmission line to eventually enable PG&E to inspect the integrity of these new sections with an automated inspection device called a "smart pig." Smart pigs collect data about the state of the pipeline and their use will enhance public safety. The proposed pipeline diameter increase will also incidentally address existing capacity demand issues in the project area. These existing capacity issues will be addressed by this project to maximize efficiencies and minimize future environmental impacts. The increased pipe diameter will not induce construction of new housing or businesses, nor would it extend roads or create infrastructure that would directly or indirectly induce population growth; therefore no impact would occur.

(b) Would the project displace substantial existing numbers of existing housing units, necessitating the construction of replacement housing elsewhere?

The proposed project would not displace existing housing; therefore, no impacts would occur.

(c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing?

A few key construction personnel may be required to find temporary housing/lodging during construction. However, a substantial number of people would not be displaced by the project and replacement housing would not be required. Therefore, no impact would occur.

3.13 Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
(a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
(i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.13.1 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. Impacts on public services would be less than significant.

3.13.2 Environmental Setting

3.13.2.1 Fire Response and Protection

Fire protection in the project area is provided by Placer County Fire Department and the City of Lincoln Fire and Rescue Department. The closest fire station to the project site (CAL FIRE NEU Sunset) is adjacent to the 2C1 alignment, off Athens Avenue.

3.13.2.2 Schools and Medical Care

The project site is within the Western Placer Unified School District. The nearest school to the proposed project is Lincoln Crossing Elementary School, located in Lincoln approximately 1.3 miles from the project area. William Jessup University and Maria Montessori Charter Academy in Rocklin are each approximately 1.5 miles from the project area.

The nearest medical facilities are the UC Davis Medical Group, approximately 1 mile east of the project site, in Rocklin, and the Sutter Medical Plaza, approximately 1.7 miles from the project, in Lincoln.

3.13.2.3 Parks

The Placer County Parks and Grounds Division and the City of Lincoln Parks and Recreation Department operate public parks and recreational facilities in the project vicinity. Nearby recreational uses include Peter Singer Park, which is approximately 1.3 miles to the northeast, and Wilson Park, approximately 1.4 miles west, in Lincoln.

3.13.3 Impacts

The project's potential impacts on public services were evaluated using CEQA guidelines, which ask the questions given (and answered) below.

(a) Would the project result in substantial adverse physical impacts associated with the provision of 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:

(i) Fire protection?

and

(ii) Police protection?

Construction and operation of the project is not expected to increase the demand for fire or police protection services in the project area. During construction of the project, emergencies could occur at the project site; however, appropriate notification to local emergency service providers before construction would address impacts that could affect emergency response times. A traffic control plan (TCP) has been prepared to submit to Placer County. The road crossing construction will not commence until the TCP has been approved by Placer County and an encroachment permit is issued for the work (see discussion below under Section 3.15, Traffic and Transportation) that would reduce effects on Athens Avenue traffic to less than significant. Therefore, impacts on fire and police protection would be less than significant.

(iii) Schools?

The nearest school is approximately 1.3 from the project area, and two others are 1.5 miles away; the distance is sufficient so that no impacts on schools would occur.

(iv) Parks?

The proposed project would not increase or affect the use of existing neighborhood and regional parks or other recreational facilities; therefore, no impact on parks would occur.

(v) Other public facilities?

No impacts on other public facilities, including medical facilities, would occur as a result of the project.

3.14 Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
(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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.14.1 Introduction

This section evaluates existing recreational opportunities in the project area and the project's potential to cause increases in use or cause the expansion of recreational facilities. The proposed project would have less than significant effects on recreational opportunities.

3.14.2 Environmental Setting

The Placer County Parks and Grounds Division and the City of Lincoln Parks and Recreation Department operate public parks and recreational facilities in the project vicinity. Nearby recreational uses include Peter Singer Park, which is approximately 1.3 miles to the northeast of the project, and Wilson Park, approximately 1.4 miles west, in Lincoln.

The only recreational facility in the project vicinity is the Thunder Valley Casino Resort. Section 1C runs through the western portion of the resort, adjacent to a parking lot. The project would not restrict access to the resort for recreational purposes, nor interfere with facility operations, other than temporary restriction to a linear paved area along the alignment during construction.

3.14.3 Applicant-Proposed Measures

APM REC-1: Preconstruction Coordination. PG&E will coordinate with the Thunder Valley Casino Resort at least 30 days before construction activities that could affect resort operations. Measures to minimize disruption to the resort may include, but are not limited to:

- Providing notification of scheduled construction activities at least 15 days before initiation of the work
- During construction, meet with the Thunder Valley Casino Resort manager daily before work begins to minimize disruptions to resort operations

3.14.4 Impacts

The project's potential impacts on recreation were evaluated using CEQA guidelines, which ask the questions given (and answered) below.

(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?

The project would not result in long-term or permanent increases in population or housing needs and would not create a new or substantial increased demand for existing public parks or recreational facilities; therefore, a less than significant impact is anticipated.

Project construction activities could temporarily affect Thunder Valley Casino Resort by requiring temporary disruption of affected areas along the project alignment. Disruption would be temporary and access to the casino parking structure and lot would be maintained, however, PG&E would implement APM REC-1, which would minimize disruptions to resort operations. Therefore, this impact would be less than significant.

(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?

The project does not include recreational facilities or involve construction or expansion of existing recreational facilities; therefore no corresponding impact would occur.

3.15 Traffic and Transportation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
(a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.15.1 Introduction

This section describes existing traffic and transportation conditions in the project area. The project would result in less-than-significant impacts on traffic and transportation.

3.15.2 Environmental Setting

Athens Avenue is an arterial road that bisects the project site. Other arterial roads in the project vicinity include Industrial Avenue to the east and North Foothill Boulevard to the west, each approximately 0.5 mile from the project site. Highway 65 is approximately 1 mile east of the project site. All other nearby roads are minor local roads.

3.15.2.1 Regulatory Setting

California Department of Transportation has established weight and load limitations in the California Vehicle Code Sections 35550 to 35559 for all California state and local roadways, including all roadways in this project.

3.15.3 Applicant-Proposed Measures

The following APMs would be implemented:

APM TRA-1: Roadway Capacity Maintenance. PG&E will maintain the maximum possible amount of travel lane capacity on roads outside of construction hours.

APM TRA-2: Work Zone Minimization. During construction, PG&E will limit the work zone to a width that, at a minimum, maintains alternate one-way traffic flow past the construction zone. If complete temporary street closures are required, PG&E will post detour signs on alternate access streets, where available, and will submit detour plans to Placer County.

APM-TRA3: Traffic Control Plan. PG&E will develop a project-specific TCP, which will be submitted to Placer County at least 30 days before construction. The TCP will conform to the California Joint Utility Traffic Control Committee's *Work Area Protection and Traffic Control Manual*. The TCP will address the following issues to the extent they are applicable:

- Standard safety practices, including installation of appropriate barriers between work zones and transportation facilities, placement of appropriate signage, and use of traffic control devices.
- Flaggers and/or signage that will be used to guide vehicles through or around construction zones using proper construction techniques.
- The provision that all equipment and materials are to be stored in designated staging areas on or adjacent to the work sites in a manner that minimizes traffic obstructions and maximizes sign visibility.
- Acceptable vehicle speeds on project roadways; vehicle speeds must be limited to safe levels as appropriate for all roads, including access roads and overland routes without existing posted speed limits.
- Identification of all access restrictions expected to occur during construction. PG&E will develop a plan for notifying the affected businesses, homes, and other facilities and prepare a plan to ensure adequate access at all times. This plan may involve alternate access, detours, or other temporary mitigation.
- Development of a notification process for temporary parking impacts on residential areas and appropriate sign postings. PG&E will minimize the length of any temporary parking restrictions, develop appropriate sign postings, and specify the process for communicating with affected residents.

APM TRA-4: Coordination with Emergency Service Providers. PG&E will notify emergency service providers of the timing, location, and duration of construction activities requiring any temporary lane and/or street closures that may temporarily impede emergency access routes.

3.15.4 Impacts

The project's potential impacts on traffic and transportation were evaluated using CEQA guidelines, which ask the questions given (and answered) below.

(a) Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

All project-related traffic and transportation impacts will be temporary in nature and limited to construction. During project construction, materials, equipment, and workers would be transported to construction sites along regional roadways from various locations. Initial delivery of materials to the project site would require the highest volume of vehicle trips to the project area, but project construction activities are not expected to contribute a substantial amount of vehicle traffic to existing roadways. An estimated 20-40 workers per day would be driving to each project section for the duration of construction, and approximately five round-trip vehicle trips per day to the landfill would occur during construction. Although construction of the project would temporarily disrupt traffic along Athens Avenue, impacts would be reduced through the implementation of APM-TRA3, Traffic Control Plan. The project would not require any other road crossings. Because of the low number of truck trips and because construction activities would be temporary, construction-related traffic would not conflict with any plan, ordinance, or policy related to the effectiveness

of the existing circulation system. Although construction activities might decrease access for pedestrians and increase traffic to some extent on local roads, the impacts would be temporary and less than significant. Implementing APMs TRA-1 through TRA-4 would further reduce impacts. Periodic vehicular trips required for maintenance and operations following the conclusion of construction would not differ from existing maintenance and operations activities; therefore, there would be no impact on traffic and transportation from operation of the project. Construction and operation of the project does not conflict with any applicable plans or policies regarding traffic or transportation.

(b) Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Construction activities would temporarily increase traffic on local roads; however, increases would be minor and temporary. This impact would be less than significant. Implementing APMs TRA-1 through TRA-4 would further reduce impacts.

(c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The project would not change air traffic patterns; therefore, no air traffic impact would occur.

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

The project does not include design features that would increase road hazards or incompatible uses of local roadways; therefore, no such hazards or impacts would occur.

(e) Result in inadequate emergency access?

Routes for emergency vehicles would be maintained throughout project construction, and impacts would be less than significant with implementation of APM TRA-4.

(f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No public transit, bicycle, or pedestrian facilities would be affected by the project; therefore no corresponding impact would occur.

3.16 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
(a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.16.1 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 result in less-than-significant impacts on utilities or service systems.

3.16.2 Regulatory Setting

3.16.2.1 Federal

No federal regulations regarding utilities are applicable to the project.

3.16.2.2 State

Protection of Underground Infrastructure [California Government Code, Section 4216]

Requires that an excavator must contact a regional notification center at least 2 days prior to excavation of any subsurface installation. The notification center will notify the utilities that may have buried lines within 1,000 feet of the excavation. Representatives of the utilities are required to mark the specific location of their facilities within the work area prior to the start of excavation. The construction contractor is required to probe and expose the underground facilities by hand prior to using power equipment.

Integrated Waste Management Act [Assembly Bill (AB) 939]

Mandates a reduction of waste being disposed and establishes an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance. The California Integrated Waste Management Board (CIWMB) oversees a disposal reporting system and facility and program planning. On January 1, 2010, all CIWMB duties and responsibilities, along with the Division of Recycling of the Department of Conservation, transferred to the new California Department of Resources Recycling and Recovery (CalRecycle), which is within the Natural Resources Agency.

Central Valley Regional Water Quality Control Board Resolution R5-2013-0145 - Wavier of Reports of Waste Discharge and Waste Discharge Requirements for Specific Types of Discharge Within the Central Valley Region

The resolution states that each person who discharges a waste type identified within the resolution that is of very low complexity and very low threat to water quality and who meets the conditions specified within the resolution for that type of discharge need not obtain waste discharge requirements (WDRs) and may commence discharge forthwith of that waste type. The resolution includes, but is not limited to, the below types of discharges for which the following conditions apply:

Construction Dewatering Discharges

- Limited volume and duration of no more than a few weeks
- The impoundment of use area must pose low risk of nuisance and the water must infiltrate/evaporate within 72 hours

Hydrostatic Testing

- Limited volume and duration of no more than a few weeks
- Provide data to demonstrate that all residual pollutants have been removed or are below water quality objectives
- The impoundment or use area must pose low risk of nuisance and the water must infiltrate/evaporate within 72 hours
- Testing on existing lines or tanks used for potable water only or new lines or tanks that have only ever contained potable water

Water Recycling for Construction Projects and Road Dust Control

- Recycled water must be treated to Title 22 standards by permitted recycled water producer
- User must certify that the discharge will conform with Title 22 restrictions and Department of Public Health Guidelines and that the use has been approved by local and State health departments

3.16.2.3 Local

The CPUC has jurisdiction over the project's siting, design, and construction; therefore, the project is not subject to local discretionary regulations.

3.16.3 Environmental Setting

3.16.3.1 Water

After installation, each new L-123 pipeline section would be hydrostatically tested. Hydrostatic testing is a safe method of verifying that the pipeline will handle the maximum operating pressure and ensuring the pipeline's integrity. Water is used as the test medium during the hydrotest. Water quality and drainage control measures are discussed in Section 3.8, Hydrology and Water Quality. Water would be pumped from a nearby hydrant or brought to the project area by truck for hydrostatic testing of the pipeline as well as

dust control during construction. The project is located within the Placer County Water Agency, District 2 jurisdiction.

3.16.3.2 Wastewater

The South Placer Wastewater Authority (SPWA) is comprised of three separate agencies: the City of Roseville, the South Placer Municipal Utility District (SPMUD), and Placer County. Placer County owns and operates gravity sewers, pump stations, and force mains in unincorporated areas of Placer County, to include the project area. The City of Lincoln Public Services Department, Wastewater Division operates the Lincoln Wastewater Treatment and Reclamation Facility.

Portable toilets would be used in the project area and the service provider would dispose of waste at a local wastewater treatment plant.

3.16.3.3 Landfills

General types of solid nonhazardous waste produced during construction would include food, glass, paper, plastic, and materials that would be recycled and/or disposed of appropriately. Nonhazardous waste would also include scrap pipe (which would be recycled through PG&E's Investment Recovery program), pipe wrap, pipeline liquids, and general construction debris. General types of hazardous waste would include contaminated soil and debris, containing incidental spills of fuel, oil, or hydraulic fluids. Operation of the project would not generate waste. PG&E would coordinate with PSC Environmental and Industrial Services to manage and dispose of hazardous waste. All hazardous waste would be disposed of off-site at a licensed PG&E-approved disposal facility. All construction material and debris would be removed and disposed of at appropriately permitted landfills.

3.16.4 Applicant-Proposed Measure

APM UTL-1: Recycling. PG&E will recycle construction waste material, where practicable, and dispose of excess waste material at a landfill with sufficient permitted capacity.

3.16.5 Impacts

The project's potential impacts on utilities and service systems were evaluated using CEQA guidelines, which ask the questions given (and answered) below.

(a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

After testing, spent water used for hydrostatic testing would be re-used for dust suppression, discharged to a sanitary sewer with a discharge permit, or hauled off site to an approved facility. PG&E would dispose of water used as dust suppression in accordance with California Water Quality Control Board Central Valley Region Resolution R5-2013-0145. Water would be temporarily stored in portable water tanks before being reused for dust control. Wastewater generated from hydrostatic tests of new gas pipelines (that have not previously been in gas transmission service) are considered to be a very low threat to water quality. Waste generated from hydrostatic testing would not exceed Central Valley RWQCB wastewater treatment requirements; therefore, the project's wastewater treatment impact would be less than significant.

Construction vehicles would carry a backpack pump filled with water and a shovel during fire season. Only a limited amount of water would be required for these activities, and any water used would be absorbed into the ground; therefore, wastewater would not be generated.

Workers would generate a minimal amount of effluent (waste from portable toilets) temporarily during project construction. The effluent would be disposed of at a septic tank or at a wastewater treatment plant in accordance with the requirements of the Central Valley RWQCB; therefore, the project would not exceed wastewater treatment requirements of the Central Valley RWQCB and no impact from wastewater or to wastewater treatment facilities would occur.

(b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The project would not require or result in the construction of new or expansion of existing wastewater treatment facilities. Therefore, no corresponding impact would occur.

(c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The project would not require or result in construction of new stormwater drainage facilities or expansion of existing facilities. Therefore, no corresponding impact would occur.

(d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Water would be brought to the project area by truck for dust control and hydrostatic testing during construction. It is estimated that approximately 40,000 to 104,000 gallons of test water would be trucked to the work areas from a municipal water source. The amount of test water used would depend on if water were to be reused, or not, at each project section. The project would not require the construction of new or expansion of existing water facilities; existing supplies are sufficient to provide water for dust control and hydrotesting. No water would be needed during operation of the project. Therefore, no impact would occur.

(e) 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?

Portable toilets would be used at construction sites, and waste would be disposed of at a local wastewater treatment plant by the service provider. There would be no need for wastewater disposal during project operation. Therefore, no corresponding impact is anticipated.

(f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Project construction would result in a small amount of construction waste and debris. The existing pipeline in Sections 2B2, 2C2 and most of 1C, would be taken out of service, cleaned, and retired in place, while the existing pipeline in Section 2C1 and approximately 189 feet of the existing line within Section 1C would be removed. Materials designated for disposal or recycling would be sampled for contamination and disposed of in accordance with all applicable federal, state, and local regulations. Disposal will only occur at PG&E-approved facilities. In accordance with APM UTL-1, PG&E would, where practicable, recycle and dispose of other typical waste material at a landfill with sufficient permitted capacity. Through project design and a project recycling program, waste could be accommodated by a landfill, and the temporary and short-term generation of solid waste would have a less-than-significant impact.

(g) Comply with federal, state, and local statutes and regulations related to solid waste?

PG&E would comply with all applicable federal, state, regional, and local statutes and regulations related to solid waste. Therefore, no impact from solid waste would occur.

3.17 Mandatory Findings of Significance

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

(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 an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

PG&E submitted applications for a Section 404 Permit with USACE and a Section 401 water quality certification with the RWQCB. Impacts have been minimized to the maximum extent practicable. Unavoidable direct and indirect impacts to federally listed species will be mitigated through the purchase of credits at USFWS approved conservation bank. Purchase of these credits is anticipated to fully mitigate effects to federally listed species, waters of the U.S., and waters of the State because all of the federally listed species impacted by the project inhabit wetlands.

Section 3.4, Biological Resources, discusses the existing resources in the project area and concludes that the project would result in less-than-significant impacts on all biological resources with implementation of APMs and mitigation measures. Section 3.5, Cultural Resources, discusses the existing resources in the project area and concludes that the project would result in less-than-significant impacts on all cultural resources with implementation of APMs. Based on the discussion in Sections 3.4 and 3.5, the project does not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

(b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

The PG&E Gas Transmission Line-123 Pipeline Replacement Project was split into two phases so that PG&E could proceed with replacement activities that did not require environmental permitting (Phase 1) while concurrently working with the appropriate agencies on portions of the line that would require environmental permits (Phase 2). Phase 1 was evaluated in a separate CEQA initial study/mitigated negative declaration (IS/MND; City of Roseville, 2013). The City of Roseville is the lead agency for Phase 1 and the draft IS/MND dated September 2013 was adopted on May 7, 2014. This initial study addresses portions of Phase 2 under the jurisdiction of the RWQCB, as the RWQCB is the only state or local agency with discretionary authority over Phase 2. Construction of Phase 1 proceeded in April 2014. Phase 2 construction will proceed as soon as all applicable federal, state, and local authorizations are obtained. As discussed in the Phase 1 IS/MND, the project would result in less-than-significant or no impacts on all environmental topics analyzed and would not contribute to cumulatively considerable adverse impacts on environmental resources (City of Roseville, 2013).

According to Placer County’s Community Development Department CEQA Active Projects List, no current or proposed new development exists in the vicinity of the project (Placer County, 2014a). The existing Rio Bravo Wood Waste and Chip Grind Plant, located approximately 300 feet east of Section 2B2, has requested approval of a conditional use permit from Placer County to implement a mobile wood grinder at their plant. In April 2014, this project received a categorical exemption which concluded that implementation of this project would not result in environmental impacts (Placer County, 2014b). According to the City of Lincoln general listing of development projects, no development projects are under construction or proposed in the project area (City of Lincoln, 2014).

The proposed project would result in less-than-significant impacts on all resource areas with implementation of mitigation measures and APMs. The project was designed to minimize permanent impacts to all environmental resources to the maximum extent practicable. APMs developed specifically for this project would help ensure that impacts would be less than significant. Unavoidable impacts to biological resources will be fully mitigated with the implementation of MM BIO-1, offsite species habitat compensation. Replacement of the existing gas transmission pipeline and vault facilities would result in no changes to existing operation and maintenance activities. Impacts on resources such as air quality, GHG emissions, and traffic would contribute to regional impacts when combined with other past, present, and reasonably foreseeable projects in the project area; however, impacts would not be cumulatively considerable because of the small size and temporary nature of these project impacts. Given that no significant environmental impacts would occur as a result of project implementation, and that no projects are currently proposed within the project area in either Placer County or the City of Lincoln, it is not anticipated that the project would result in cumulative environmental impacts.

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

As indicated throughout this initial study, impacts on all environmental resources were deemed to result in either no impact, a less-than-significant impact, or a less than significant impact with incorporation of mitigation. In addition, PG&E would implement the APMs presented in Chapter 2 and in specific resource discussions of this draft IS/MND to further reduce construction-related environmental effects. As a result, the project, with proposed mitigation measures and APMs, would not create environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

SECTION 4

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Appendix A
Site Restoration Plan

Site Restoration Plan for the L-123 Pipeline Replacement Project Phase 2, Sections 2B2, 1C, 2C1, and 2C2

INTRODUCTION

This document describes the re-vegetation and monitoring plan for the Pacific Gas and Electric (PG&E) Gas Transmission Line 123 (L-123) Pipeline Replacement Project for Phase 2 Sections 2B2, 1C, 2C1, and 2C2 (Project) in Placer County, California.

In May 2014, PG&E applied for the following permits for project-related effects:

- Section 404 Nationwide Permit 12 from the U.S. Army Corps of Engineers, including a Biological Assessment addressing effects on vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardii*). This project was designed and the Biological Assessment was written so that it can be appended to the *Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans within the Jurisdiction of the Sacramento Field Office, California* (U.S. Fish and Wildlife Service [USFWS], 1996)
- Section 401 Water Quality Certification from the Sacramento Office of the Central Valley Region Water Quality Control Board

Naturally vegetated work areas subject to temporary disturbance will be restored to pre-project conditions using an appropriate native seed mix or non-native sterile seed mix appropriate for the area. All project related impacts on naturally vegetated areas will be temporary, with the exception of the new underground vaults constructed at the northern terminus of Section 2B2.

The total area of temporary and permanent ground disturbance in vegetated areas for the proposed project is shown in Table 1 below.

TABLE 1
Temporary and Permanent Disturbance Areas

	Temporary Disturbance (Acres)	Permanent Disturbance (Acres)
Section 2B2	6.40	0
Section 2C1	0.30	0
Section 1C*	0.94	0
Section 2C2	2.67	0
Athens Avenue underground vaults	0.83	0.07
TOTAL	11.14	0.07

* Section 1C is located entirely within paved areas and will not require vegetative restoration. Therefore, a total of 10.20 acres of naturally vegetated areas will be restored under this plan.

EXISTING VEGETATION

The majority of ground disturbance for this project will occur in approximately 8.4 acres of annual grassland. Vegetation in these areas is primarily composed of non-native annual grasses and forbs, such as including wild oats (*Avena barbata*), soft brome (*Bromus hordeaceus*), ripgut brome (*B. diandrus*), and medusahead (*Elymus caput-medusae*). Common forbs include broadleaf filaree (*Erodium botrys*), black mustard (*Brassica nigra*), spikeweed (*Centromadia fitchii*), tarweed (*Holocarpha virgata*), and rose clover (*Trifolium hirtum*).

Within this annual grassland are vernal pools and swales that support distinctive vegetation that is generally shorter and less dense than the surrounding upland vegetation. Approximately 0.10 acre of vernal pools will be directly impacted by project construction. In the spring and early summer, the vernal pools support common spikerush (*Eleocharis macrostachya*), coyote thistle (*Eryngium vaseyi*), seaside barley (*Hordeum marinum*), Fremont's goldfields (*Lasthenia fremontii*), loosestrife hedgehyssop (*Lythrum hyssopifolia*), stalked popcorn flower (*Plagiobothrys stipitatus*), and Carter's buttercup (*Ranunculus bonariensis*). Many of these vernal pool plants wither and degrade in the late summer and early fall, and some upland species such as medusahead and spikeweed colonize portions of the vernal pools and swales. Rye grass (*Festuca perennis*) is a dominant component of the vernal swales and seasonal wetlands during the fall.

STABILIZATION AND SEEDING

Following the completion of project activities, all construction material and debris will be removed from the work areas and disposed of in an appropriate landfill. The top 12 inches of native topsoil will be salvaged from excavation areas and used for backfill; topsoil from vernal pools will be segregated from the upland topsoil and stored separately. All topsoil stockpiles will remain uncovered to prevent solar sterilization of the seed bank.

Upon completion of the project, the extent and precise limits of disturbance at the work locations will be evaluated for restoration. The evaluation will focus on areas where post-construction conditions are degraded due to staging, erosion, and vegetation removal and will identify the need for any contour restoration, slope stabilization, control of high-priority (most invasive and damaging) state-listed noxious weeds*, and reestablishment of appropriate vegetation. The disturbed areas will be reseeded with a native seed mix or non-native sterile seed mix appropriate for the area provided by a nursery specializing in locally adapted native plants. Grassland areas will be seeded with species such as California brome (*Bromus carinatus*), meadow barley (*Hordeum brachyantherum*), three weeks fescue (*Vulpia microstachys*), and tomcat clover (*Trifolium willdenovii*). These species may be modified based on seed availability.

Vernal pools and swales will be revegetated by redistributing the topsoil that was segregated during construction and allowed to recolonize with the local seed bank and no seeding is proposed for restoration of these features.

Broadcast seeding or hydroseeding will take place within the non-native grassland habitat, and a layer of tackifier will be spread over the seeds. If on a slope, jute or coir mats, roles, and/or netting that are free

* Species found on the Natural Resources Conservation Service State Listed Noxious Weeds, List A and B plants

of monofilament will be used to assist with stabilization. Because more than 95% of the vegetation in the work areas is non-native, it is unlikely that a significant amount of native vegetation will persist long-term in the restoration sites. Therefore, persistence of native vegetation will not be an accurate measure of vegetation restoration success for the project.

MONITORING

A qualified biologist will conduct five monitoring surveys over a two year period at the project's restored work areas—twice a year (once in spring, once in summer) for the first year, and once in spring in the second year. The sites will be evaluated against the restoration success criteria and adjacent habitat. The biologist will collect and record the following information during each monitoring survey:

- absolute percent plant cover
- percent cover of native plant species
- percent cover of non-native plant species
- percent cover of invasive plant species identified in the Natural Resources Conservation Service list of California State-listed Noxious Weeds[†]
- species composition of each plant category

Site visits will be conducted in the spring as new vegetation is emerging and during the summer prior to seed set. During these site visits, weeds will either be hand pulled and removed from the work area or treated with an herbicide in accordance with label instructions and in compliance with all State, Federal, and local laws. No herbicide will be applied within the vernal pools or swales. If all success criteria are met prior to the end of the two-year period, no further site visits will be conducted.

SUCCESS CRITERIA

Each restored work area shall meet the success criteria listed below. Percentages of vegetation cover are relative to adjacent reference sites. The current composition of plant species within the project footprint and surrounding area is comprised of more than 95% non-native species. Based on the lack of native species, success will be measured by vegetation cover, with restoration of the same pre-project percentage of cover of native species.

- Year 1: Minimum 30% vegetation cover, and 5% or more cover of native species
- Year 2: Minimum 50% vegetation cover, and 5% or more cover of native species.

REFERENCE SITES

Adjacent undisturbed areas will be used as reference sites as they have a similar species composition, percent cover, slope, aspect, and hydrological condition. A subset will be sampled to represent the non-native grassland and vernal pool habitat in the area. The reference sites will allow for comparisons to be made against the work areas to determine if success criteria have been met.

[†] <http://plants.usda.gov/java/noxious?rptType=State&statefips=06>

ADAPTIVE MANAGEMENT

If the success criteria are not met, additional remedial actions may be required and will be coordinated with the Regional Water Quality Control Board (RWQCB) and the U.S. Army Corps of Engineers (USACE). These measures may include additional seeding or watering of the site; the vernal pools and swales will not be watered. If there is evidence of scour or erosion within the restored area, additional site stabilization measures will be implemented. These measures may include installation of jute or coir fabric over eroded areas and installation of monofilament-free erosion control wattles. Any major repairs will be coordinated with the RWQCB and USACE.

In the case of fire or alteration by the landowner, restoration monitoring will be discontinued and the area will be considered restored.

REPORTING

An annual monitoring report will document restoration success and will be submitted to the permitting agencies by September 1 of two successive years following project completion, or until all success criteria have been met. Although two surveys will be conducted annually for the first year following construction, only one report will be submitted for that year. Each report will contain photos of the survey sites and corresponding reference sites. Annual site photos will be taken from the same location and orientation each year. Visual references will be included in each photo so that they can be easily compared between years. The first report will provide a species list of the seed mix used at each restoration area. Each successive report will build upon the previous year's report. If annual success criteria are not met, recommendations for remedial actions will be made and PG&E will coordinate with the RWQCB and USACE. Any remedial measures required through the adaptive management process will be documented in the annual reports. A final report will be submitted to the permitting agencies no later than 30 days after the final monitoring survey is complete.

Appendix B
Summary of Native American Coordination

Native American Coordination, PG&E Pipeline Project

Native American Contact	Phase 1 Coordination Letter Mailed	Response Received	In-Person Meetings	Follow Up Calls (June 14, 2013, unless otherwise noted)	Phase 2 Update (2014)
Shingle Springs Band of Miwok Indians Sam Daniels, Vice Chairperson P.O. Box 1340 Shingle Springs CA 95682 Maidu (530) 676-8010 (530) 676-8033 Fax	April 2, 2013	Refer to letter response by Daniel Fonseca, Cultural Resources Director.		PG&E Cultural Resource Specialist Kyle Brown was referred to Nicholas or Daniel Fonseca.	Left message with Kathy Ferrington and on main number on March 23, 2014.
T'Si-akim Maidu Grayson Coney, Cultural Director P.O. Box 1316 Colfax CA 95713 akimmaidu@att.net (530) 383-7234	April 2, 2013	Kyle Brown spoke with Mr. Coney by phone on April 20, 2013. Mr. Coney expressed concern about two recorded cultural resources within the project area. Mr. Coney and Mr. Brown agreed to set up a time to discuss in more detail.		Kyle Brown received a phone message from Mr. Coney. Mr. Brown returned call and left a message that day, and spoke with Mr. Coney on July 9, 2013. Mr. Coney recommended that an archaeological and Native American monitor be present during work around all water courses. He also expressed an interest in speaking with ACOE archaeologist Erin Hess.	Kyle Brown spoke with Mr. Coney by phone on March 28, 2014. Mr. Coney said he was comfortable with the plan for monitoring HP property. He also noted that artifacts were most likely to be found near former vernal pools and on top of buried sand dune features. Mr. Coney would like copies of all cultural reports at completion of the project. He also asked to have the opportunity to provide a monitor for future projects in the area.
Rose Enos 15310 Bancroft Road Auburn CA 95603 (530) 878-2378	April 2, 2013	No response.		Kyle Brown spoke with Rose Enos. She did not have specific concerns but recommended tribal monitoring around known resource locations. Her main concern was that any human remains encountered be appropriately identified and respectfully treated.	Kyle Brown called on March 28, 2014. No one answered and there was no answering machine.
United Auburn Indian Community of the Auburn Rancheria Marcos Guerrero, Tribal Preservation Committee 10720 Indian Hill Road Auburn CA 95603 (530) 883-2364 mguerrero@auburnrancheria.com	April 2, 2013	Refer to letter response by UAIC Chairperson Gene Whitehouse.	Kyle Brown met with Marcos Guerrero, Danny Rey, and Thunder Valley Casino construction management at Thunder Valley Casino on Tuesday, April 23, 2013, from 1 to 2 p.m. Mr. Guerrero and Mr. Rey requested copies of all surveys and reports produced for the project. They expressed their desire to consult with project permitting agencies to discuss the APE and confidential known sensitive locations in the project vicinity.	Kyle Brown left a message. Mr. Guerrero returned the call on June 20, 2013. Mr. Brown and Mr. Guerrero discussed 2013 pipeline projects in the vicinity of Roseville. Mr. Brown agreed to send the most recent maps. Mr. Guerrero expressed concern about the potential for undocumented cultural resources at the casino location.	Kyle Brown visited UAIC office on March 20, 2014, and provided a project update to Mr. Guerrero and THPO Jason Camp in person. Kyle Brown left a phone message on March 28, 2014.
United Auburn Indian Community of the Auburn Rancheria David Keyser, Chairperson 10720 Indian Hill Road Auburn CA 95603 (530) 883-2390 (530) 883-2380 Fax	April 2, 2013	A letter was received from Chairperson Gene Whitehouse requesting that the UAIC THPO (Danny Rey) and Cultural Resource Manager Marcos Guerrero be contacted about the project.	Kyle Brown met with Marcos Guerrero, Danny Rey, and Thunder Valley Casino construction management at Thunder Valley Casino on Tuesday, April 23, from 1 to 2 p.m. Mr. Guerrero and Mr. Rey requested copies of all surveys and reports produced for the project. They expressed their desire to consult with project permitting agencies to discuss the APE and confidential known sensitive locations in the project vicinity.	The personal assistant to Gene Whitehouse instructed Kyle Brown to direct cultural resources communications to Marcos Guerrero.	As instructed, Kyle Brown is working through Marcos Guerrero and Jason Camp.
Tsi-Akirn Maidu Eileen Moon, Vice Chairperson 1239 East Main Street Grass Valley CA 95945 (530) 274-7497	April 2, 2013	No response.		Left message.	Left message on March 23, 2014.

Native American Coordination, PG&E Pipeline Project

Native American Contact	Phase 1 Coordination Letter Mailed	Response Received	In-Person Meetings	Follow Up Calls (June 14, 2013, unless otherwise noted)	Phase 2 Update (2014)
Shingle Springs Band of Miwok Indians Nicholas Fonseca, Chairperson P.O. Box 1340 Shingle Springs, CA 95682 nfonseca@ssband.org (530) 676-8010 (530) 387-8011 Kathy Ferrington, admin (530) 676-8033 Fax 10720 Indian Hill Road Auburn CA 95603	April 2, 2013	Refer to letter response by Chairperson Daniel Fonseca.		Kyle Brown left a message with Kathy Ferrington for Mr. Fonseca.	Kyle Brown left a message with Kathy Ferrington and a message on main phone number on March 23, 2014.
April Wallace Moore 19630 Placer Hills Road Colfax CA 95713 (530) 637-4279	April 2, 2013	No response.		Message left.	Message left on March 28, 2014.
Shingle Springs Band of Miwok Indians Daniel Fonseca, Cultural Resource Director P.O. Box 1340 Shingle Springs, CA 95682 (530) 676-8010 or (530) 698-1460 (530) 676-8033 Fax	April 2, 2013	On April 10, 2013, Mr. Fonseca responded by letter and noted that the Shingle Springs Band of Miwok Indians are not aware of any sites in the area. The letter requests project updates, record searches, and results of surveys.		Message left with Andrew Godsey, Assistant Cultural Resource Director, on February 21, 2014 requesting an in-person meeting.	KB left message with Kathy Ferrington on March 23, 2014; and left message on main number on March 23, 2014.
Colfax-Todds Valley Consolidated Tribe Judith Marks 1068 Silverton Circle Lincoln, CA 95648 (916) 580-4078	April 2, 2013	No response.		Message left on June 14, 2013.	Message left on March 28, 2014.
United Auburn Indian Community of the Auburn Rancheria Danny Rey, THPO 10720 Indian Hill Road Auburn CA 95603 dannyr@auburnrancheria.com (916) 368-9742 Cell, or (530) 883-2390 (530) 888-5476 Fax	April 2, 2013	Refer to letter response by UAIC Chairperson Gene Whitehouse.	Kyle Brown met with Marcos Guerrero, Danny Rey, and Thunder Valley Casino construction management at Thunder Valley Casino on Tuesday, April 23, from 1 to 2 p.m. Mr. Guerrero and Mr. Rey requested copies of all surveys and reports produced for the project. They expressed their desire to consult with project permitting agencies to discuss the APE and confidential known sensitive locations in the project vicinity.	The UAIC Administration informed Kyle Brown that Danny Rey was still the THPO but is taking on a different role.	Jason Camp is now the UAIC THPO. A message was left for Mr. Camp on March 28, 2014, as a follow-up to an in-person meeting on March 20, 2014, in Auburn. Kyle Brown had a phone conversation with Mr. Camp and Melodi McAdams of UAIC on April 10, 2014. UAIC asked to consult with any state and/or federal leads for the Phase 2 portion of the replacement project. They expressed concern over the Pleasant Grove Creek Crossing and asked to monitor bore pit excavation at this location. They also pledged to provide some additional information on resources in the vicinity of the bore pits. Mr. Brown agreed to provide a Native American and cultural monitor at the Pleasant Grove bore pits.

USACE = U.S. Army Corps of Engineers

APE = area of potential effect(s)

THPO = Tribal Historic Preservation Officer

UAIC = United Auburn Indian Community [of the Auburn Rancheria]