



California Public Utilities Commission
S-238 Hinkley Compressor Station Electrical
Upgrades Project
Draft Initial Study/Mitigated Negative Declaration

October 2025

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California Public Utilities Commission

S-238 Hinkley Compressor Station Electrical Upgrades Project

Draft Initial Study/Mitigated Negative Declaration

October 2025

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ACRONYMS AND ABBREVIATIONS

AADT	Annual Average Daily Traffic
AB	Assembly Bill
ACEC	Area of Critical Environmental Concern
ACI	American Concrete Institute
ANSI	American National Standards Institute
APE	Area Of Potential Effects
API	Area Of Potential Impacts
APM	Applicant Proposed Measure
APN	Assessor Parcel Number
ASCE/SEI	American Society of Civil Engineers/Structural Engineering Institute
AT&SF	Atchison, Topeka and Santa Fe Railway
ATP	Active Transportation Plan
AVE	Area of Visual Effects
Barstow WWTP	Barstow Wastewater Treatment Plant
BCE	Before Current Era
BFPD	Barstow Fire Protection District
BGEPA	Bald and Golden Eagle Protection Act
bgs	Below Ground Surface
BIOL	Inland Saline Habitat
BLM	Bureau of Land Management
BMP	best management practice
BUSD	Barstow Unified School District
CAAQS	California Ambient Air Quality Standards
Cal/OSHA	California Occupational Safety and Health Administration
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
CALFIRE	California Department of Forestry and Fire Protection
CALGem	California Geologic Energy Management Division
CALGreen Code	California Green Building Standards Code
CALTrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code

ACRONYMS AND ABBREVIATIONS

CBSC	California Building Standards Commission
CCR	California Code of Regulations
CCRD	Confidential Cultural Resources Database
CDFTA	California Department of Tax and Fee Administration
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CE	Current Era
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFR	Code of Federal Regulations
CGS	California Geological Survey
CNDDB	California Natural Diversity Database
CNPS	California National Plant Society
CO	Carbon Monoxide
COLD	Cold Freshwater Habitat
COLE	Coefficient Of Linear Extensibility
CPCN	Certificate of Public Convenience and Necessity
CPHR	California Register of Historical Resources
CPNC	Certificate of Public Convenience and Necessity
CPUC	California Public Utilities Commission
CPUC	California Public Utilities Commission
Cr(III)	Trivalent Chromium
Cr(VI)	Hexavalent Chromium
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CRS	Cultural Resource Specialist
CRWQCB	Central Valley Regional Water Quality Control Board
CUPA	Certified Unified Program Agency
CUPA	Certified Unified Program Agency
dBA	A-weighted sound level
DOE	U.S. Department of Energy
DPM	Diesel Particulate Matter
DRECP	Desert Renewable Energy Conservation Plan
DTSC	California Department of Toxic Substances Control

ACRONYMS AND ABBREVIATIONS

DWR	California Department of Water Resources
EFZ	Earthquake Fault Zones
EIA	U.S. Energy Information Administration
EMFAC	Emission Factor
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
EQ Zapp	California Earthquake Hazards Zones Application
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
Flood District	San Bernardino County Flood Control District
FMMP	Farmland Mapping and Monitoring Program
FPA	Free Production Allowance
FPA	Free Production Allowance
FRA	Federal Responsibility Areas
FTA	Federal Transit Administration
General Permit	General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities
GHG	Greenhouse Gas
GO	General Order
GSA	Groundwater Sustainability Agencies
GSP	Groundwater Sustainability Plan
GSWC	Golden State Water Company
GSWC	Golden State Water Company
GWh	Gigawatt Hours
HCP	Habitat Conservation Plan
HFC	Hydrofluorocarbons
HI	Hazard Index
HMBP	Hazardous Materials Business Plan
HMTA	Hazardous Materials Transportation Act
hp	Horsepower
HRI	California Historical Resources Inventory
IEEE	Institute of Electrical and Electronics Engineers
IEPRF	Integrated Energy Policy Report
IPCC	Intergovernmental Panel on Climate Change
IRZ	In Situ Reactive Zone

ACRONYMS AND ABBREVIATIONS

IS/MND	Initial Study/Mitigated Negative Declaration
ISA	International Society of Automation
LOS	Level of Service
LRA	Local Responsibility Areas
LRWQCB	Lahontan Regional Water Quality Control Board
LSA	Lake and Streambed Alteration
LUST	leaking underground storage tank
MBTA	Migratory Bird Treaty Act
MCC	Motor Control Center
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
mgd	Million Gallons Per Day
MLC	Mineral Land Classification
MLD	Most Likely Descendant
MMRP	Mitigation Monitoring and Reporting Program
MRZ	Mineral Resource Zones
NAAQS	National Ambient Air Quality Standards
NAHC	California Native American Heritage Commission
NAHC	Native American Heritage Commission
NECPA	National Energy Conservation Policy Act
NEMA	National Electrical Manufacturers Association
NEPA	National Environmental Policy Act
NERHP	National Earthquake Hazards Reduction Program
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NO _x	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O	Ozone
OHP	California Office of Historic Preservation
OHV	Off-highway Vehicle
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PERP	Portable Equipment Registration Program
PFC	Perfluorocarbons

ACRONYMS AND ABBREVIATIONS

PG&E	Pacific Gas and Electric Company
PM	Particulate Matter
PPE	Personal Protective Equipment
PPV	Peak Particle Velocity
PRC	California Public Resources Code
Project	S-238 Hinkley Compressor Station Electrical Upgrades Project
Proposition 65	California Safe Drinking Water and Toxic Enforcement Act
PSPS	Public Safety Power Shutoff
PUC	California Public Utilities Code
QSD	Qualified SWPPP Developer
RARE	Rare, Threatened, or Endangered Species
RCRA	Resource Conservation and Recovery Act
RMA	Recreation Management Area
ROG	Reactive Organic Gases
ROS	Resource Conservation Open Space
RPS	Renewable Portfolio Standards
RWQCB	Regional Water Quality Control Board
SBCFPD	San Bernardino County Fire Protection District
SBCRPD	San Bernardino County Regional Parks District
SBSD	San Bernardino County Sheriff's Department
SCADA	Supervisory Control and Data Acquisition
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SF6	Sulfur Hexafluoride
SGMA	Sustainable Groundwater Management Act
SJVUAP	San Joaquin Valley Unified Air Pollution Control District
SMARA	Surface Mining and Reclamation Act
SO	Sulfur Dioxide
SR	State Route
SRA	State Responsibility Areas
SVP	Society of Vertebrate Paleontology
SWMD	Solid Waste Management Division
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
UCMP	University of California Museum of Paleontology
UL	Underwriters Laboratories

ACRONYMS AND ABBREVIATIONS

Unified Program	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program
USA	Underground Service Alert
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDOT	United States Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VMT	Vehicle Miles Traveled
VVTA	Victor Valley Transit Authority
WEAP	Worker Environmental Awareness Program
WOTUS	Waters of the United States
WRCC	Western Regional Climate Center
WUI	Wildland Urban Interface
Vdb	Vibration Decibels
ZEV	Zero-Emission Vehicles

PUBLIC UTILITIES COMMISSION

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DRAFT

Mitigated Negative Declaration

PACIFIC GAS AND ELECTRIC

S-238 HINKLEY COMPRESSOR STATION ELECTRICAL UPGRADES PROJECT

APPLICATION NO. A.25-04-004

Project Information

Title: S-238 Hinkley Compressor Station Electrical Upgrades Project

Location: San Bernardino County, California

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Introduction

Pursuant to California Public Utilities Commission (CPUC) General Order 131-E, Pacific Gas & Electric (PG&E) filed an application (A.25-04-004) with the CPUC on April 9, 2025, for a Permit to Construct the S-238 Hinkley Compressor Station Electrical Upgrade Project (Proposed Project).

Pursuant to CEQA (California Public Resources Code § 21000 et seq.) the CPUC must prepare determine if any significant adverse effects on the environment would result from the Proposed Project implementation. An Initial Study (IS) was prepared by the CPUC using the significance criteria outlined in Appendix G of the State CEQA Guidelines (14 CCR § 15000 et seq.). According to CEQA Guidelines Article 6 (Negative Declaration Process) and section 15070 (Decision to Prepare a Negative Declaration or Mitigated Negative Declaration), a public agency shall prepare, or have prepared a proposed negative declaration or mitigated negative declaration (MND) for a project subject to CEQA when:

- (a) *The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment; or*
- (b) *The Initial Study identifies potentially significant effects, but:*
 - (1) *Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review, would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and*
 - (2) *There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.*

Based on the analysis in the IS, it has been determined that all project-related environmental impacts could be reduced to a less-than-significant level with the incorporation of minor revisions to the Proposed Project and feasible mitigation measures (MMs), which PG&E has agreed to implement should CPUC approve the project. Therefore, adoption of an MND will satisfy the requirements of CEQA. Applicant proposed measures (APMs) identified in PG&E's PEA, as revised in coordination with CPUC, and MMs included in this MND are designed to reduce or eliminate the potentially significant environmental impacts described in the IS. The analysis in the IS explains when a measure described in this document has been incorporated into the project, as a specific project design feature, APM, or MM. MMs are structured in accordance with the criteria in CEQA Guidelines section 15370.

Project Description

The Proposed Project would be in San Bernadino County at PG&E's Hinkley Compressor Station and would involve replacing and upgrading existing electrical distribution equipment by removing and replacing the station's switchgear, motor control (MCC), and a load center

would be replaced or modified and connecting conduit and new or replacement cable would be installed between the switchgear and MCC locations. No new sub transmission lines or substations would be constructed as part of the Proposed Project. PG&E's stated objectives of the Proposed Project are to ensure compliance with CPUC G.O. 95 standards and address reliability concerns related to the condition of the compressor station. Construction of the Proposed Project is preliminarily scheduled to begin in 2026. The construction start date would depend on CPUC approval and construction would last approximately 23 months.

Environmental Determination

The CPUC prepared this IS to determine if the Proposed Project would result in any significant adverse effects on the environment. The analysis presented in the IS is based on the significance criteria in Appendix G of the CEQA Guidelines. The IS relies on information in PG&E's Application filed on April 9, 2025; PG&E's responses to deficiency reports and data requests; the CPUC's independent analysis; and other environmental analyses.

PG&E's PEA identified APMs to address potentially significant impacts, and these APMs are considered to be part of the Proposed Project. Based on the IS analysis, additional MMs are identified for adoption to ensure that impacts of the Proposed Project would be less than significant. The additional MMs supplement the APMs. PG&E has agreed to implement all the MMs as part of the Proposed Project. Implementation of the MMs below would either avoid potentially significant impacts identified in the IS or reduce them to less-than-significant levels.

A Mitigation Monitoring and Reporting Program (MMRP), included in Section 4 of the IS/MND, has been prepared to ensure that the APMs and MMs are properly implemented. The plan describes specific actions required to implement each measure, including information on the timing of implementation and performance standards. Following project approval, CPUC would prepare and implement a Mitigation Monitoring, Compliance, and Reporting Program to ensure compliance with MMs and that the Proposed Project is implemented as stated in the CPUC-approved Project Description and the adopted MMRP.

Mitigation Measures

Biological Resources

Mitigation Measure Bio-1: Desert Tortoise and Mohave Ground Squirrel

Preconstruction clearance surveys for any burrows potentially containing desert tortoise or Mohave ground squirrel burrows shall be completed by a qualified biologist within 500 meters (approximately 1,600 feet) of the project footprint prior to the onset of construction activities. If the burrow has any sign of recent use by a desert tortoise or Mohave ground squirrel, the burrow shall be monitored by a qualified biologist for signs of activity. No construction activity shall be allowed within 200 meters (approximately 656 feet) of a burrow containing desert

tortoise or Mohave ground squirrel without obtaining approval from CDFW. All activities within 500 meters (approximately 1,600 feet) of an occupied desert tortoise or Mohave ground squirrel burrow shall be monitored by a qualified biologist to ensure avoidance of the species. Reduced monitoring may be authorized by CPUC in the event of existing barriers to species entry to a work area (e.g., existing fence with no breaks or potential for species entrance would preclude the individuals from entering a work area). No relocation of desert tortoise or Mohave ground squirrel may occur without first obtaining the necessary incidental take permit(s) from USFWS and CDFW, as applicable.

Mitigation Measure Bio-2: Desert Kit Fox

Preconstruction clearance surveys for burrows within the project footprint that could be used as desert kit fox dens shall be completed by a qualified biologist prior to the onset of construction activities. If an active, non-natal den is detected within the project footprint, then a 50 meters (approximately 165 feet) construction exclusion zone will be established, and passive relocation techniques may be used as determined by the qualified biologist. The buffer area will be maintained until passive relocation is successfully completed. If an active natal den is detected within the project footprint a 200 meters (approximately 656 feet) construction exclusion zone will be established, and passive relocation will not be implemented until monitoring confirms that the den is no longer in active use as a natal den. If the qualified biologist proposes a reduced buffer due to site specific circumstances (existing barriers to entry to a work area) the reduced buffer must be approved by CPUC.

Mitigation Measure Bio-3: Burrowing Owl

Preconstruction clearance surveys for active burrowing owl burrows shall be completed by a qualified biologist prior to the onset of construction activities to minimize impacts from construction. Surveys shall be conducted according to CDFW guidelines ((California Department of Fish and Game (CDFG) 2012) or updated guidelines should they become available). If burrows are located, avoidance buffers shall be determined in coordination with CDFW and based on the recommendations below:

1. From April 1-August 15, buffers shall be 200 meters (approximately 656 feet) for low levels of disturbance (i.e., vehicles, worker presence), and 500 meters (approximately 1,600 feet) for moderate to high levels of disturbance (i.e., trenching, demolition, etc.)
2. From August 16-October 15, buffers shall be 200 meters (approximately 656 feet) for low and moderate levels of disturbance and 500 meters (approximately 1,600 feet) for high levels of disturbance.
3. From October 16-March 31, buffers shall be 50 meters (approximately 165 feet) for low levels of disturbance; be 200 meters (approximately 656 feet) for moderate levels of disturbance, and 500 meters (approximately 1,600 feet) for high levels of disturbance.
4. Binocular surveys may be substituted for protocol field surveys on private lands adjacent to the project site only when PG&E has made reasonable attempts to

obtain permission to enter the property for survey work but was unable to obtain such permission.

Reduced buffers may be requested by the qualified biologist due to existing noise and disturbance levels at the compressor station. Buffer reductions would require CDFW approval. No burrowing owl may be relocated without first obtaining a CDFW incidental take permit.

Mitigation Measure Bio-4: Invasive Species

Any ground- or vegetation-disturbing equipment and tools will be cleaned free of mud, soil, and plant material before entering the project site, and any time after driving off pavement outside the project site. Cleaning can be through car washes, compressed air, pressure washes, brushes, or similar equipment.

Cultural Resources

Mitigation Measure Cultural-1: Archaeological Monitoring

During trenching and excavation activities in soil or sediment that is not imported or not previously disturbed, a tribal monitor from one tribe to be identified by the lead agency, shall be invited to be retained by PG&E to inspect for potential archaeological deposits or Tribal cultural resources. In the event of the discovery of archaeological deposits or Tribal cultural resources a tribal representative shall have the authority to halt work within 100 feet of the discovery, and CPUC shall be notified within 48 hours of the discovery. All procedures in APM CUL-2 shall be implemented during investigation of the resource.

Findings

The IS was prepared to identify the potential impacts on the environment from construction and operation of the PG&E S-238 Hinkley Compressor Station Electrical Upgrades Project and to evaluate the significance of these impacts. Based on the IS and the Findings listed below, the Lead Agency (CPUC) has determined that the Proposed Project would not have a significant effect on the environment.

- With the implementation of the incorporated APMs and MMs, the Proposed Project would not significantly degrade the quality of the environment.
- With the implementation of the above MMs, both short-term and long-term environmental impacts associated with the Proposed Project would be less than significant.
- When potential impacts associated with implementing the proposed project are considered cumulatively, the incremental contribution of the project-related impacts is insignificant.
- Based on the IS, there is no evidence that implementing the Proposed Project would have significant impacts on people.

Signature pending final document

John Edward Forsythe
Energy Division
California Public Utilities Commission

Date

ENVIRONMENTAL DETERMINATION

Environmental Determination

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the proposed project, involving at least one impact that is potentially significant but that can be reduced to "less than significant with implementation of mitigation" as indicated by the checklist on the following pages:		
☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☐ Geology, Soils, and Paleontological Resources	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☐ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation	☒ Tribal Resources
☐ Utilities and Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

ENVIRONMENTAL DETERMINATION

Environmental Determination

On the basis of this initial evaluation: I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	☐
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.	☒
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.	☐
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant impact unless mitigated" on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An EIR is required, but it must analyze only the effects that remain to be addressed.	☐
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	☐
Signature pending final document _____ John Edward Forsythe Energy Division California Public Utilities Commission _____ Date	

1 Introduction

1.1 Project Overview

Pacific Gas and Electric Company (PG&E) filed an application with the California Public Utilities Commission (CPUC) on April 29, 2025, for a Certificate of Public Convenience and Necessity (CPCN) to construct the S-238 Hinkley Compressor Station Electrical Upgrades Project (Project) in San Bernardino County, California. The Project would replace and upgrade aging electrical distribution equipment within the Hinkley Compressor Station, a key facility in PG&E's natural gas transmission system. The upgrades are needed for the continued safe, reliable, and efficient operation of the station. CPUC is the lead agency for the Project under the California Environmental Quality Act (CEQA) and has prepared this Initial Study (IS)/Mitigated Negative Declaration (MND) in accordance with the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.).

1.2 Purpose of the Initial Study/ Mitigated Negative Declaration

CPUC has jurisdiction over investor-owned utilities in California and is responsible for evaluating infrastructure projects that are proposed by PG&E. The Project requires a CPCN pursuant to CPUC General Order (GO) 177, which governs gas infrastructure permitting. This IS/MND has been prepared by CPUC as the Lead Agency under CEQA to inform the Commission in its decision determining whether to approve the CPCN. The IS/MND also will inform the local, State, and federal agencies that must consider whether to issue a permit for or approval of the Project. CPUC has prepared this IS/MND to examine the potential direct and indirect environmental impacts related Project implementation and feasible mitigation that would reduce or avoid the Project's potentially significant impacts before making a discretionary decision on the CPCN application. This IS/MND does not make a recommendation regarding the approval or denial of the Project.

1.3 CEQA Review Process

Pursuant to the requirements of CEQA, the CEQA Guidelines, and CPUC GO 177, CPUC has prepared this IS/MND to evaluate the potential environmental impacts of the Project, and to identify mitigation measures to reduce potentially significant impacts.

An MND may be prepared when "the initial study (IS) has identified potentially significant effects on the environment, but: (1) revisions in the project plans or proposals made by, or agreed to by, the applicant would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no substantial

1 INTRODUCTION

evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment” (Public Resources Code Section 21064.5). CPUC has determined, based on the results of the IS, that an MND is the appropriate form of CEQA documentation for the Project.

1.4 Public Review Process

This Draft IS/MND is being circulated to local, State, and federal agencies, and to interested individuals who wish to review and comment on the document. Written comments may be submitted to CPUC during the 30-day public review period. Written comments on the Draft IS/MND will be accepted via regular mail, fax, and e-mail. All comments will be addressed in the Final IS/MND. Written comments need to be submitted by U.S. mail, fax, or email to:

California Public Utilities Commission
Attn: S-238 Hinkley Compressor Station Electrical Upgrades Project
c/o Panorama Environnemental, Inc.
717 Market Street, Suite 400, San Francisco, CA 94103
hinkleyelectrical@panoramaenv.com

1.5 Document Organization

This IS/MND is divided into the following chapters:

- Chapter 1: Introduction. Chapter 1 presents an introduction and overview describing the Project and a summary of the CEQA review process.
- Chapter 2: Project Description. Chapter 2 describes the Project, including its objectives, location, and components.
- Chapter 3: Environmental Analysis. Chapter 3 analyzes the potential environmental impacts of Project implementation. Each topic/resource subsection includes a description of the environmental setting, methodology, significance criteria, potential impacts, mitigation measures, and significance after mitigation.
- Chapter 4: List of Prepares. Chapter 4 lists the authors who assisted with preparation of the IS/MND, by name and company or agency affiliation.
- Chapter 5: MMRP. Chapter 5 presents the Mitigation Monitoring and Reporting Program (MMRP) for the Project, including the mitigation measures, implementation timing, and responsible parties for compliance with CEQA during Project implementation.
- Chapter 6: References. Chapter 6 lists all the sources that are cited in the IS/MND.

2 Project Description

2.1 Introduction

PG&E has filed an application (Application No. A2504004) with CPUC for the Project. The Project would replace the compressor station's electrical distribution equipment, which has reached the end of its useful life and requires upgrades for safety, reliability, and maintainability. As part of the Project, the station's existing electrical power switchgear, motor control center (MCC), and load center would be replaced or modified, and connecting conduit and new or replacement cable would be installed between the switchgear and MCC locations. PG&E's gas transmission system, including pipes, valves, and other gas measurement assets, would not be modified beyond upgrading the station's electrical distribution equipment.

2.2 Project Objectives

The Project objectives are to:

- Modernize the compressor station's electrical distribution system by replacing obsolete equipment in alignment with current PG&E and industry standards¹.
- Enable the use of efficient, standardized training and operational and safety procedures without de-energizing the equipment or requiring higher rated arc flash personal protective equipment (PPE).
- Reduce the risk of unplanned compressor station failure or shut down by 2028, or as soon as feasible.
- Maintain existing compressor station operations during Project construction.

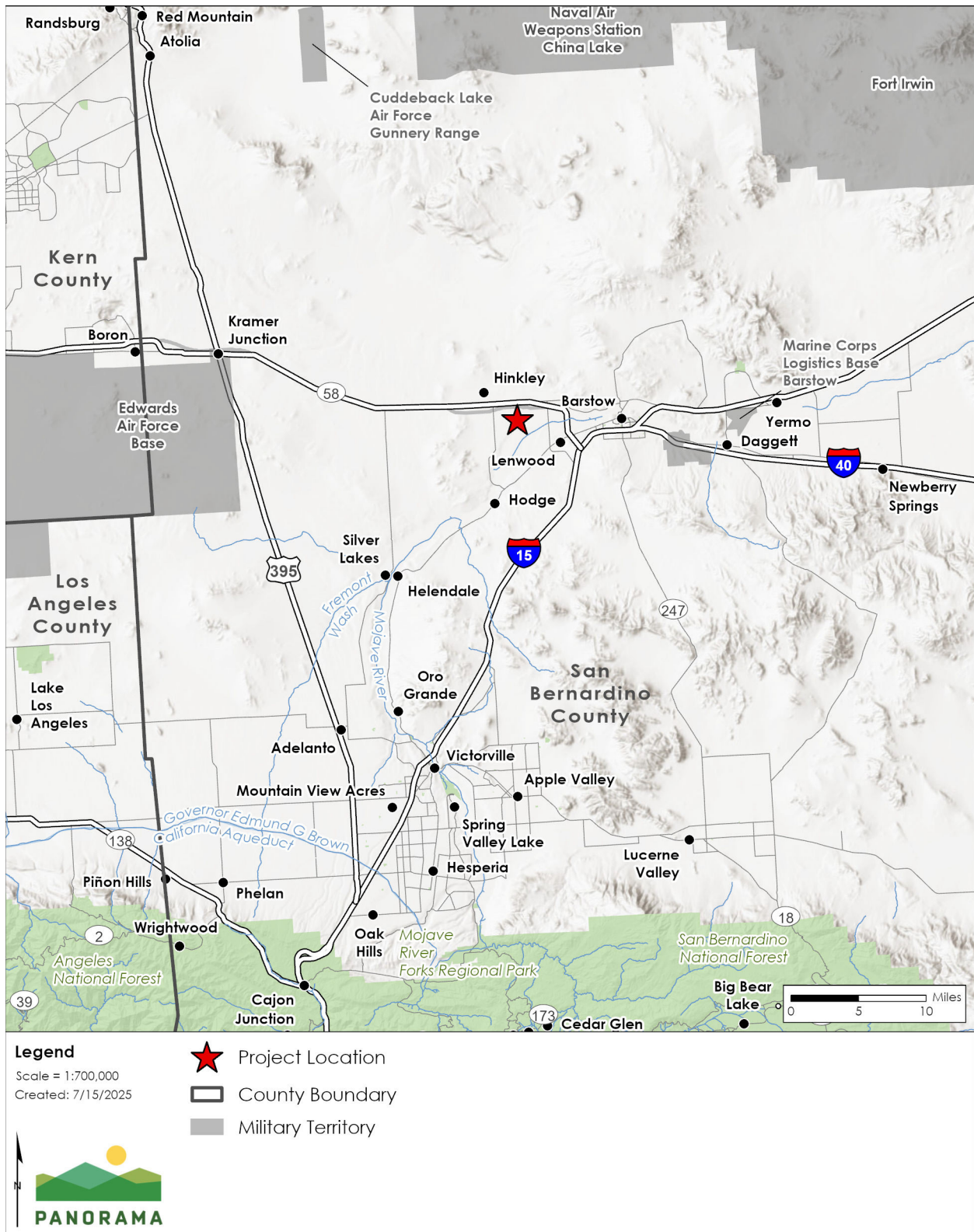
2.3 Project Location

The Hinkley Compressor Station is at 35863 Fairview Road in the community of Hinkley in San Bernardino County, California (Figure 2-1). The main compressor station entrance on Fairview Road is approximately 1 mile south of State Route (SR) 58. The compressor station is approximately 1 mile west of the city limits of the city of Barstow. The Project area is on an approximate 160-acre parcel adjacent to Community Boulevard and Fairview Road. The Project site consists of the 64-acre fenced compressor station, within which the Project would include would be implemented in a 15.8-acre work area and a 9.7-acre staging area (Figure 2-2 and Figure 2-3).

¹ Other standards include National Fire Protection Association (NFPA) 70, 49 Code of Federal Regulations (CFR) Part 192, National Electrical Manufacturers Association (NEMA) standards, 2019 California Building Code (CBC), Institute of Electrical and Electronics Engineers (IEEE) standards, California Fire Code (CFC), American National Standards Institute (ANSI) standards, Underwriters Laboratories (UL) standards, International Society of Automation (ISA) S20, and Occupational Safety and Health Administration (OSHA) 1910.95

2 PROJECT DESCRIPTION

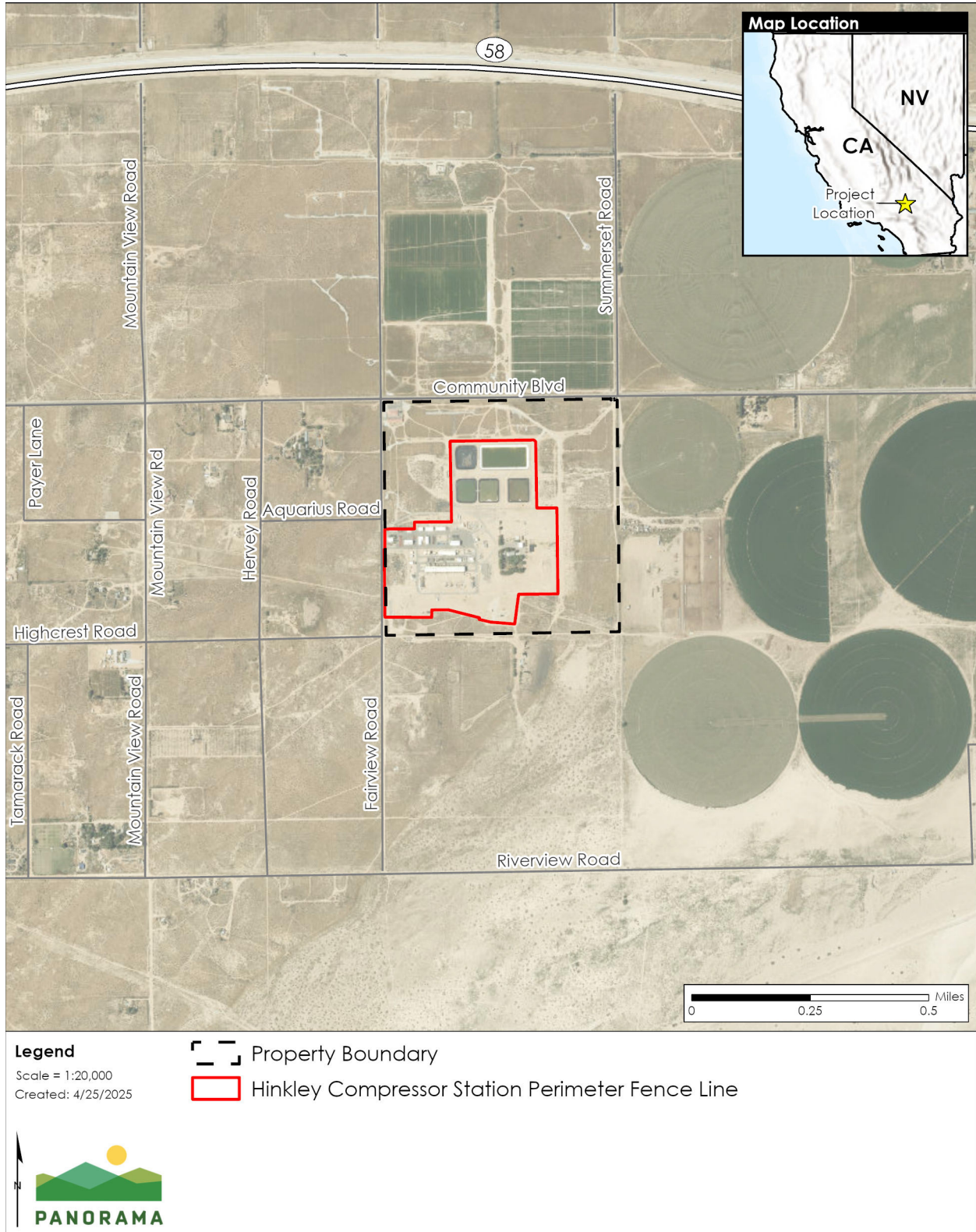
Figure 2-1 General Vicinity Map



Source: (PG&E, 2025)

2 PROJECT DESCRIPTION

Figure 2-2 Project Location



Source: (PG&E, 2025)

2.4 Existing System

The Hinkley Compressor Station is a key facility on PG&E's gas transmission "backbone," operating continuously since 1951. It receives natural gas from the Topock Compressor Station near the California–Arizona border and compresses it for transport through the Tehachapi Mountains to the Kettleman Compression Station. The Hinkley Compressor Station uses multiple compressor units, controlled via a supervisory control and data acquisition (SCADA) system to maintain pressure and flow, and it generates electrical power on site with four natural gas generators to operate various electrical systems that monitor and control such equipment as motors, pumps, and fans.

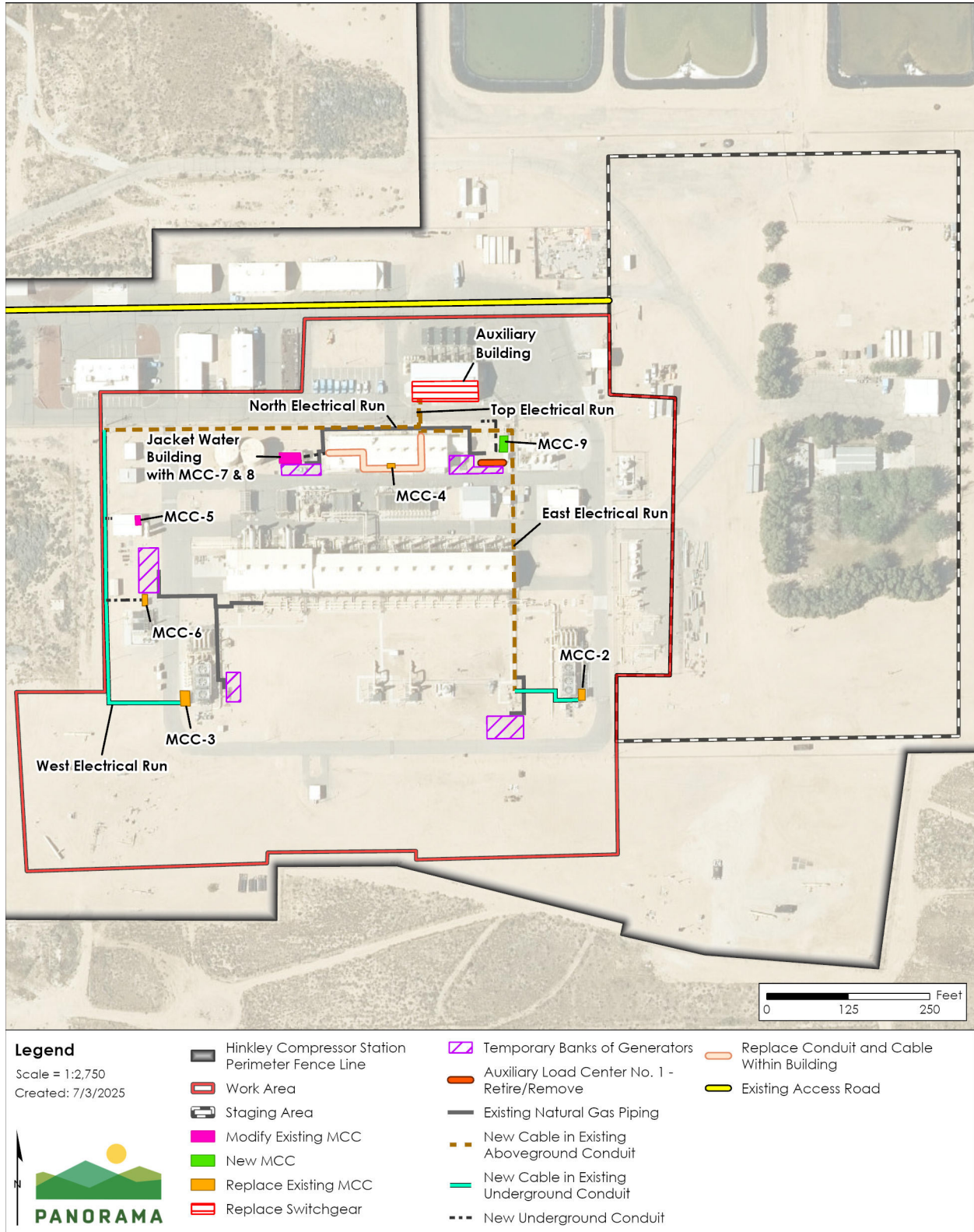
The switchgear in the compressor station controls and protects the flow of electricity throughout the station. This switchgear includes devices such as circuit breakers and fuses that protect equipment and personnel by interrupting power during faults, overloads, or surges. Circuit breakers automatically trip to stop power flow during electrical faults, preventing damage, and can be reset after issues are resolved. Fuses provide similar protection, by melting and breaking the circuit when voltage or amperage limits are exceeded. The electrical switchgear connects to the MCCs and load centers through cables that are housed in conduits, which can be aboveground or underground. The MCCs regulate and protect the operation of downstream motor controlling equipment, such as fans, pumps, and cooling systems, often including programmable motor controllers and communication controls. The MCCs, like MCC-2, or load centers, like Auxiliary Load Center No. 1, combine multiple motor controllers, circuit breakers, and transformers to distribute power to equipment, such as lube oil pumps and cranes, stepping down voltage as needed for local loads within the station.

2.5 Project Elements

The Project would upgrade or replace existing electrical equipment, as summarized in Table 2.5-1 and shown on Figure 2-3. Replacement switchgear would be installed in a new climate-controlled room in the Auxiliary Building. The existing switch gear and related components would be removed, and new electrical cable would be installed between the Auxiliary Building and the Old Auxiliary Building. Outdated electrical conduit and cable connecting through the Old Auxiliary Building walls would be removed or retired in place. MCC-4 would be replaced with an equivalent MCC, while MCC-5, MCC-7, and MCC-8 (in the Jacket Water Building) would be modified in their current buildings. Outdoor MCCs (MCC-2, MCC-3, and MCC-6) are housed in metal cabinets that range from 8 to 8.5 feet high. These outdoor MCCs (MCC-2, MCC-3, and MCC-6) would be removed, along with their foundations, and replaced with 10.5-foot-high, temperature-controlled MCC cabinets on new concrete foundations in the same location as the existing MCCs. MCC-9 would be a new MCC, replacing Auxiliary Load Center No. 1 equipment. Auxiliary Load Center No. 1 no longer would serve a purpose after it is replaced and may be removed completely. The replacement MCCs would have a similar appearance to the existing outdoor units. The upgraded electrical equipment would continue using the compressor station's existing electrical conduit runs where possible, supplemented with new underground conduits where needed.

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Figure 2-3 Project Elements and Staging Areas



Source: (PG&E, 2025)

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Table 2.5-1 Compressor Station Equipment to be Modified, Replaced, or Installed

Equipment	Location	Project Activity
Switchgear	Auxiliary Building	Replace the switchgear in the new climate-controlled switchgear room in the building.
Top Run Electrical	Between Auxiliary Building and Old Auxiliary Building	Pull the new cable through the existing conduit.
North Run Electrical	Northern Station area	Pull the new cable through the existing conduit.
Old Auxiliary Electrical	Old Auxiliary Building	Remove the existing conduit and obsolete electrical system equipment. Install the new cable and conduit in the building and through the existing or new wall penetrations.
East Run Electrical	Eastern Station area	Pull the new cable through the existing conduit.
MCC-2	Cooling Tower A	Replace the MCC and its foundation.
MCC-2 Cable	Existing Conduit	Pull the replacement cable through the existing conduit.
West Run Electrical	Western Station area	Pull the new cable through the existing conduit.
MCC-3	Cooling Tower B	Replace the MCC and its foundation.
MCC-3 Cable	Existing Conduit	Pull the replacement cable through the existing conduit.
MCC-4	Old Auxiliary Building	Replace the MCC.
MCC-4 Conduit and Cable	Old Auxiliary Building	Replace the conduit and cable in the building.
MCC-5	Air Compressor/Pump Building	Modify the MCC.
MCC-5 Conduit and Cable	Connecting Air Compressor/Pump Building with MCC-5	Install the new underground conduit. Pull the new cable through the new conduit.
MCC-6	Cooling Tower D	Replace the MCC and its foundation.
MCC-6 Conduit and Cable	Connecting to MCC-6	Install the new underground conduit. Pull the new cable through the new conduit.
MCC-7	Water Jacket MCC Building	Modify the MCC.
MCC-8	Water Jacket MCC Building	Modify the MCC.
MCC-7 and MCC-8 Conduit and Cable	Connecting Water Jacket MCC with MCC-7 and MCC-8	Install the new underground conduit. Pull the new cable through the new conduit.
MCC-9	North of Auxiliary Load Center No. 1	Install the new MCC and its foundation.
MCC-9 Conduit and Cable	Connecting to MCC-9	Install the new underground conduit. Pull the new cable through the new conduit.
Auxiliary Load Center No.1	Auxiliary Load Center No. 1	Retire the load center in place or remove it.

Source: (PG&E, 2025)

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The approximately 400,000-foot replacement electrical cable would be pulled through the underground conduit banks, which house multiple conduits. The old electrical cable would either be removed where feasible or retired and abandoned in place.

2.6 Project Construction

Project construction would include the following activities, which are described in the sections that follow:

- Site preparation
- Temporary construction staging
- Temporary power setup
- Excavation/trenching
- Access roads
- Temporary work areas
- Foundations and MCC installation
- Replacement cable installation
- Dust, erosion, and runoff controls
- Traffic control
- Water supply and use
- Hazardous materials and management
- Waste generation and management
- Fire prevention and response

2.6.1 Site Preparation

Surveying and Staking

The Project site would be surveyed to locate and identify new underground conduit locations and the MCC-9 location, using paint on the ground or installing horizontal and vertical stakes. Typical surveying and staking techniques and hand equipment would be used. PG&E also would clearly mark any sensitive biological, cultural, paleontological, or hydrological resources, where appropriate, to prevent construction activities and equipment from entering those areas per the requirements of applicant proposed measures (APMs) and any required mitigation measures.

Utilities

Before any ground-disturbing work begins, PG&E would contact Underground Service Alert (USA) to identify and mark the underground utilities. Most trenching and excavation would be performed with hand tools or vacuum trucks, although powered equipment may be used as needed, following safety procedures to locate and protect the utilities. Current utility records would be reviewed and updated during final design. If utility conflicts arise, the underground conduits would be realigned as needed, and all new equipment would be connected to the grounding grid.

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2.6.2 Temporary Construction Staging

The Project would use an approximately 9.7-acre staging area within the compressor station (Figure 2-3). The staging area currently is used regularly for compressor station staging and laydown activities. The staging area would use berms or other methods to contain excess water from concrete wash water. The soil in the staging area would be compacted. Soil stockpiles may be in the staging area.

Project staging activities would avoid landscaping trees in the staging area. Staging would occur in the open areas and would not occur in the existing structure or areas under the landscaping trees. No tree or other landscaping or structure removal would be required in the area. Staging may occur in the work area as well.

2.6.3 Temporary Power Setup

Temporary construction power would be provided by two small and two large diesel generators, each less than 50 horsepower (hp). The generators would be in the staging area or within a temporary work area. During Project construction, when the compressor station's permanent generators would be de-energized, temporary compressor station power would be provided by temporary generators, connected to the existing fuel lines tapped into the natural gas pipelines within the compressor station.

Up to 22 generators would be operated 24 hours per day, 7 days per week for approximately 6 to 8 months, to support ongoing operation of the compressor station when the permanent station generators are de-energized during Project construction. The temporary generators would be operated during the switchgear replacement portion of the electrical equipment replacement and modification construction activity². A HiPower HRNG 230 T6 unit with a 302 hp engine is a representative generator that would be used during construction. Each temporary generator would be on an approximately 6.5-foot-wide wheeled trailer, including wheels, which would be 19 feet long, including the trailer tongue. Approximately five generator bank locations in the Project work area would house approximately four to five generators each. (Figure 2-3).

Transitioning between permanent and temporary power, as well as disconnecting equipment for replacement, would follow strict safety protocols, including lockout and tagout procedures and operational clearances. Replacement activities would involve carefully planned outages, removal of old equipment, installation of new components, and coordinated re-energizing.

2.6.4 Excavation/Trenching

Table 2.6-1 shows the approximate volume of excavation in the Project work area. Replacing MCC foundations would require concrete removal, using saws or jackhammers. Excavation and

² The continuous operation of 22 generators for 8 months presents a worst-case scenario for evaluation of environmental impacts. The actual duration and number of generators that would be operating on a given day likely would be less than the worst-case scenario. The MCC modifications and replacements are expected to occur using permanent station power, being operated through the replaced switchgear.

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trenching would be done primarily using hand tools and would generate approximately 295 cubic yards of concrete and soil. The area of excavation would have temporary shoring for safety. The removed concrete and soil debris would be transported off-site, unless suitable for re-use as backfill. The work area would be restored to its original contours after construction is completed.

Table 2.6-1 Expected Excavation in the Project Work Area

Equipment Foundation	Foundation Construction Activity	Approximate Excavation Area
MCC-2	Remove existing and install replacement	5 feet deep, 11 feet wide, 29 feet long
MCC-3	Remove existing and install replacement	5 feet deep, 11 feet wide, 29 feet long
MCC-6	Remove existing and install replacement	5 feet deep, 11 feet wide, 29 feet long
MCC-9	Install new	5 feet deep, 11 feet wide, 29 feet long
Auxiliary Load Center No.1	Remove existing	5 feet deep, 11 feet wide, 29 feet long

Source: (PG&E, 2025)

Table 2.6-2 shows the approximate volume of soil that is expected to be removed for conduit trenching. Underground conduit trenching would be up to approximately 5 feet deep by 4 feet wide by 200 feet in length, or approximately 148 cubic yards. Soil would be removed and disposed off-site unless the soil is acceptable for re-use as backfill. The backfill would be compacted as appropriate, and the ground surface would be restored to preconstruction condition contours.

Table 2.6-2 Expected Trenching in the Project Work Area

Equipment	Trenching Construction Activity	Approximate Trenching Area
MCC-5 Conduit	Trench for conduit installation	5 feet deep, 4 feet wide, 12 feet long
MCC-6 Conduit	Trench for conduit installation	5 feet deep, 4 feet wide, 63 feet long
MCC-7 and MCC-8 Conduit	Trench for conduit installation	5 feet deep, 4 feet wide, 42 feet long
MCC-9 Conduit	Trench for conduit installation	5 feet deep, 4 feet wide, 83 feet long

Source: (PG&E, 2025)

2.6.5 Access Roads

Access to the Project site would be via an existing paved driveway from Fairview Road. If road damage is caused by Project construction, the road would be repaired in coordination with San Bernardino County. Construction access within the compressor station would use an existing paved access road to travel to the main work areas and staging areas within the compressor station.

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2.6.6 Temporary Work Areas

Temporary work areas would be in buildings or at outdoor equipment locations, where switching gear equipment would be replaced. MCCs would be modified or replaced, and the outdoor load control would be replaced (if not retired and abandoned in place). Construction vehicles and equipment would operate within the defined temporary work areas in the compressor station, to replace the electrical equipment. Vehicles and equipment would be parked in the temporary work areas or staging area.

Temporary excavation or other earthwork is expected to occur in approximately 0.06 acre in total and be limited to the activities summarized in Table 2.6-3. This work would take place within a 15.8-acre area (roughly 800 by 900 feet), with about half of the space consisting of paved surfaces, buildings, or enclosures.

Table 2.6-3 Expected Temporary Disturbance in the Project Work Area

Equipment	Temporary Disturbance Activity	Approximate Area
MCC-2	Excavate existing equipment foundation and replace	319 square feet
MCC-3	Excavate existing equipment foundation and replace	319 square feet
MCC-6	Excavate existing equipment foundation and replace	319 square feet
MCC-9	Excavate for new equipment foundation	319 square feet
Auxiliary Load Center No.1	Remove equipment foundation, if not retired in place	319 square feet
MCC-5 Conduit	Trench for conduit installation	48 square feet
MCC-6 Conduit	Trench for conduit installation	252 square feet
MCC-7 and MCC-8 Conduit	Trench for conduit installation	168 square feet
MCC-9 Conduit	Trench for conduit installation	332 square feet

Source: (PG&E, 2025)

2.6.7 Foundations and MCC Installation

Each foundation would be approximately 29 feet long, 11 feet wide, and excavated to a depth of 5 feet. A plate compactor would be used to level the foundation area before a form is installed. A concrete truck would pour concrete into the form. The concrete would be leveled and allowed to harden. After the form is removed, the replacement equipment would be installed. The MCCs, supported by the new foundations, would be housed in temperature-controlled, metal-enclosed structures, approximately 10.5 feet in height, and would be finished with an off-white exterior to integrate visually with the existing facility.

2.6.8 Replacement Cable Installation

Replacement conduit and cable would be installed in new or existing conduit locations. The new cable would be routed through conduit bridges, concrete trenches, or underground conduits via pull boxes or equipment connections. If new wall penetrations are required, they would be created using saws. After being installed, the cables would be connected, tested, and

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re-energized in coordination with station operations. Existing conduits between the switchgear and MCCs would be retired in place, while old cables would be removed manually through pull boxes or equipment connections. The removed cables would be collected and transported to the staging area for sorting and disposal.

2.6.9 Dust, Erosion, and Runoff Controls

PG&E would develop an erosion and sedimentation control plan that would identify best management practices (BMPs) to control erosion, sedimentation, and runoff.

Dust Control

Measures would be taken to minimize fugitive dust, generated during construction. Control methods would include applying water to unpaved work areas and the staging area, as well as covering or stabilizing stockpiled materials. Care would be taken to avoid excess water application that could lead to runoff, for effective dust suppression while protecting surrounding areas.

Erosion and Runoff Controls

Temporary soil stockpiles would be managed using standard techniques to prevent erosion, and any surplus soil would be disposed appropriately. Erosion-control BMPs would be used and maintained throughout construction, to prevent sediment discharge and manage stormwater runoff.

2.6.10 Traffic Control

No special traffic control procedures are expected to be implemented. Public access to sidewalks, lanes, roads, trails, paths, or driveways will not be impacted and temporary detour routes are not needed.

2.6.11 Water Supply and Use

A water truck with a capacity of up to 3,000 gallons would support Project construction activities, including dust suppression and potential construction fire suppression as needed. Water required for construction is expected to come from two sources: nearby off-site wells or fire hydrants within the compressor station.

2.6.12 Hazardous Materials and Management

Hazardous materials, such as fuels, lubricants, cleaning solvents, and other chemicals would not be stored on site, and all fueling and storage would occur off-site. Fuel, grease, and fluids that would be needed for construction equipment operations would be on site periodically; these would be handled in keeping with the Project's APMs and BMPs that address their proper use, storage, and cleanup, if warranted.

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2.6.13 Waste Generation and Management

Solid Waste

Construction is expected to generate about 35 tons of solid waste, roughly 75 percent of which would be metal. Waste materials would be re-used, recycled, or salvaged where feasible. Removed electrical equipment would be handled as e-waste, with metals sorted for recycling or disposal. Before removing the concrete foundations, an asbestos survey and notification to the Mojave Desert Air Quality Management District (MDAQMD) would be completed; if asbestos is present, the material would be disposed at a licensed facility. Otherwise, the concrete would be recycled. Debris would be collected regularly, sorted into approved containers on site, and transported for recycling or disposal. Salvageable materials (e.g., copper wire, metal housings, cable reels, pallets) would be recycled or sold. Waste would be taken to materials handling facilities, such as Emery Materials, Vulcan Materials, or SA Recycling. In addition, small amounts of typical worker-generated waste (e.g., food, glass, paper, plastics) also would be produced during peak construction periods, with up to 18 workers on site daily.

Liquid Waste

Water used for dust control would produce minor on-site water waste, which either would evaporate or be absorbed into the soil. The staging area would have berms or similar containment for excess water from concrete washouts and liquid construction waste. Portable restrooms would generate small amounts of contained liquid waste, managed through regular vendor servicing. A concrete washout station also would be set up, with hardened concrete waste handled as solid waste. Any additional liquid waste would be transported to approved disposal facilities, such as the Kettleman Hills Industrial Waste Disposal Facility (at 35251 Old Skyline Road in Kettleman City) or the Clean Harbors Buttonwillow LLC facility (at 2500 Lokern Road in Buttonwillow).

Hazardous Waste

Project construction is not expected to generate large volumes of hazardous waste, although small amounts may result from such materials as fuels, lubricants, solvents, lead-based paint, incidental spills, and concrete washout. If hazardous substances are encountered unexpectedly during trenching, work would stop until proper characterization and safety measures are implemented. Stockpiled soil would be tested and managed as needed, and any hazardous materials would be disposed of per regulations. Equipment with lead-based paint would be handled and disposed of at licensed facilities. Contaminated soil or hazardous materials would be taken to the Kettleman Hills Industrial Waste Disposal Facility or Clean Harbors Buttonwillow LLC facility.

2.6.14 Fire Prevention and Response

Fire prevention and response procedures during construction are expected to follow standard utility practices. PG&E would implement its Utility Standard for Preventing and Mitigating Fires, in compliance with California fire regulations, which provide fire prevention and response procedures for construction activities. All on-site workers would complete annual fire safety training, and daily assessments of site-specific fire risks would be conducted and

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reviewed during tailgate meetings. Fire prevention measures would include identifying environmental conditions, complying with local fire restrictions, using proper equipment (e.g., extinguishers, water systems, spark arrestors), and enforcing safety protocols (e.g., parking requirements, smoking restrictions). Fire suppression tools would be readily accessible and assigned personnel would monitor potential fire risks, verify preparedness, and coordinate with emergency responders if needed. Supervisors would monitor weather conditions continuously and adjust the fire prevention measures accordingly.

2.6.15 Construction Workforce, Equipment, Traffic, and Schedule

Construction Workforce

The workforce would vary, depending on the activities in progress and the specific phase of construction. Over the course of construction, the peak number of workers on site at any given time would be up to 18 workers.

Construction Equipment

Table 2.6-4, Table 2.6-5, Table 2.6-6, and Table 2.6-7 list the potential equipment to be used by activity type. The estimated duration for each activity is as follows:

- Site mobilization/site preparation – 40 days
- Ground-disturbing activities – 60 days
- Electrical equipment replacement and modification – 360 days
- Demobilization – 40 days

Table 2.6-4 Construction Equipment for Site Mobilization/Site Preparation

Construction Activity	Fuel Type	Horsepower	Quantity (daily)	Daily Use (hours)	Miles/Day (each)	Total Days
Skid Steer Loaders	Diesel	71	1	10	NA	37
Tractors/Loaders/Backhoes	Diesel	84	1	10	NA	37
Generator (large)	Diesel	50	2	10	NA	37
Generator (small)	Diesel	7	2	5	NA	18
Rough Terrain Forklifts	Diesel	96	1	10	NA	37
Water Truck	Diesel	NA	1	NA	2	37
Air Compressors	Diesel	37	2	10	NA	37
Dump Truck	Diesel	NA	1	NA	2	9
Worker Commutes (light duty autos, trucks)	Gasoline	NA	18	NA	20	37
Vendor/Delivery Trucks	Diesel	NA	1	NA	20	12

Source: (PG&E, 2025)

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Table 2.6-5 Construction Equipment for Ground-Disturbing Activities

Construction Activities	Fuel Type	Horsepower	Quantity (daily)	Daily Use (hours)	Miles/ Day (each)	Total Days
Skid Steer Loaders	Diesel	71	1	10	NA	56
Tractors/Loaders/Backhoes	Diesel	84	1	10	NA	56
Generator Large	Diesel	50	2	10	NA	56
Generator Small	Diesel	7	2	5	NA	28
Rough Terrain Forklifts	Diesel	96	1	10	NA	56
Water Truck	Diesel	NA	1	NA	2	56
Air Compressors	Diesel	37	2	10	NA	56
Vacuum Truck On Site	Diesel	NA	1	4	2	56
Dump Truck	Diesel	NA	1	NA	2	13
Concrete/Industrial Saws	Diesel	33	1	5	NA	2
Worker Commutes (light-duty autos, trucks)	Gasoline	NA	18	NA	20	56
Vendor/Delivery Trucks	Diesel	NA	1	NA	20	19

Source: (PG&E, 2025)

Table 2.6-6 Construction Equipment for Electrical Equipment Replacement and Modification

Construction Activities	Fuel Type	Horsepower	Quantity (daily)	Daily Use (hours)	Miles/Day (each)	Total Days
Temporary Generator	Natural	302	22	24	NA	160
Skid Steer Loaders	Diesel	71	1	10	NA	333
Tractors/Loaders/Backhoes	Diesel	84	1	10	NA	333
Generator Large	Diesel	50	2	10	NA	333
Generator Small	Diesel	7	2	5	NA	166
Aerial Lifts	Diesel	46	1	5	NA	52
Welders	Diesel	46	2	10	NA	69
Rough Terrain Forklifts	Diesel	96	1	10	NA	333
1/2-Ton Boom Truck	Diesel	NA	1	NA	1	171
Water Truck	Diesel	NA	1	NA	2	333
Air Compressors	Diesel	37	2	10	NA	333
Vacuum Truck Off-Site	Diesel	NA	1	NA	20	24

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Construction Activities	Fuel Type	Horsepower	Quantity (daily)	Daily Use (hours)	Miles/Day (each)	Total Days
Vacuum Truck On Site	Diesel	NA	2	NA	2	24
Dump Truck	Diesel	NA	1	NA	2	80
Concrete Pump Truck	Diesel	NA	1	NA	20	12
Concrete Truck	Diesel	NA	1	NA	20	12
Plate Compactors	Diesel	8	1	5	NA	151
Concrete/Industrial Saws	Diesel	33	1	5	NA	14
Other General Industrial	Diesel	35	1	5	NA	16
Plate Compactors	Diesel	8	1	5	NA	151
Worker Commutes (light-	Gasoline	NA	18	NA	20	333
Vendor/Delivery Trucks	Diesel	NA	2	NA	20	112

Source: (PG&E, 2025)

Table 2.6-7 Demobilization

Construction Activities	Fuel Type	Horsepower	Quantity (daily)	Daily Use (hours)	Miles/Day (each)	Total Days
Skid Steer Loaders	Diesel	71	1	10	NA	37
Tractors/Loaders/Backhoes	Diesel	84	1	10	NA	37
Generator Large	Diesel	50	2	10	NA	37
Generator Small	Diesel	7	2	5	NA	18
Rough Terrain Forklifts	Diesel	96	1	10	NA	37
Water Truck	Diesel	NA	1	NA	2	37
Air Compressors	Diesel	37	2	10	NA	37
Dump Truck	Diesel	NA	1	NA	2	9
Worker Commutes (light-	Gasoline	NA	18	NA	20	37
Vendor/Delivery Trucks	Diesel	NA	1	NA	20	12

Source: (PG&E, 2025)

Construction Traffic

Construction crews (worker commutes) would travel to and from the Project site via personal vehicles and light-duty trucks. Worker daily commute trips and vendor or delivery truck trips would total approximately 20 miles roundtrip. Equipment would be staged on site in a work area within the station or be brought to the work area daily on work trucks or trucks with trailers.

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Construction Schedule

The preliminary construction schedule is shown in Table 2.6-8. Construction is expected to begin around October 2026 and be completed by July 2028, with demobilization completed by August 2028. The schedule may shift, depending on equipment procurement or station operations. Electrical equipment work would take about 18 of the 23 construction months, although work may pause at times because of logistics or power needs. Bird nesting surveys and protective buffers would be incorporated into ongoing planning, pursuant to PG&E's Nesting Bird Management Plan.

Table 2.6-8 Anticipated Duration of Construction Phases

Activity	Start	End	Approximate Duration
Site Mobilization/Site Preparation	October 2026	November 2026	40 workdays, 2 months
Ground-Disturbing Activities	November 2026	January 2027	60 workdays, 3 months
Electrical Equipment Replacement and Modification	January 2027	June 2028	360 workdays, 18 months
Demobilization	July 2028	August 2028	40 workdays, 2 months

Source: (PG&E 2025)

Construction activities generally would be scheduled to occur during daylight hours, 10 hours per day, 5 days per week, Monday through Friday, with an occasional weekend workday. Night work is not anticipated but may be necessary on occasion, to avoid or reduce schedule delays, complete construction activities, or accommodate system outages.

2.6.16 Post-Construction

Configuring and Testing

Following completion of the compressor station upgrade, all existing and new equipment would be tested for compatibility with and stability in the new system. De-energizing and re-energizing the electrical equipment and lines may occur during periods when gas demand is low. The configuration and testing crew would include approximately 18 workers.

Demobilization

Demobilization activities would include removal of all mobile equipment, all construction-related materials, and all construction-related temporary BMPs. PG&E would conduct a final review, to confirm that cleanup activities have been successfully completed.

Site Restoration

Workers would keep sites clean, removing debris throughout construction, and fully clearing and properly disposing waste during demobilization. All temporary work areas would be restored to preconstruction conditions.

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2.6.17 Operation and Maintenance

System Controls and Operation Staff

Project operation would continue to be managed by PG&E personnel, using established procedures. The compressor station is operated on site in coordination with PG&E's gas system control center in San Ramon. PG&E staff who are responsible for gas pipeline operations and maintenance would continue to conduct daily station operations. No new full-time staff positions would be required because of the Project.

Inspection Programs

Regular Project inspection would continue, in accordance with PG&E protocols and regulatory standards. These inspections would include evaluations of equipment conditions, support systems, and control instrumentation. Although the scope of the inspections would remain consistent with existing practices, the installation of modern equipment is expected to reduce the overall frequency of maintenance because of improved reliability and updated safety features. No additional personnel would be required for these inspection activities.

Operation and Maintenance Programs

Routine maintenance of the compressor station would continue on a preventive schedule, designed to avoid interruptions in service. Maintenance activities typically would include equipment cleaning, condition assessments, testing and calibration, oil and fluid checks, and infrared scanning to detect electrical anomalies, such as faulty connections or overload conditions. Emergency maintenance and repair work may be required in response to storms, vandalism, or equipment failure, in which case PG&E crews would be mobilized for immediate repairs. The upgraded equipment would allow safer, compartmentalized maintenance, improve worker safety, and reduce the need for station shutdowns.

Security

Compressor station security measures would remain consistent with PG&E policies. The Hinkley Compressor Station is a fenced and gated facility with restricted access. All security protocols would continue to be followed during and after completion of the electrical upgrades.

2.6.18 Applicant Proposed Measures

PG&E is proposing the measures shown in Table 2.6-9.

Table 2.6-9 Summary Table of Applicant-Proposed Measures

Applicant Proposed Measures
APM AIR-1: Dust Control during Construction
PG&E will control fugitive dust by using the following BMPs:
• Water or cover all exposed surfaces with the potential to generate dust with coarse rock, to reduce the potential for airborne dust to leave the Project site. • Limit the simultaneous occurrence of more than two ground-disturbing construction phases on the same area at any one time. Phase activities to reduce the amount of disturbed surfaces at any one time. • Cover all haul trucks entering/leaving the site and trim their loads, as necessary.

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- Use wet power vacuum street sweepers to sweep all paved access roads, parking areas, staging areas, and public roads adjacent to the Project site daily (at minimum) during construction. Do not use dry power sweeping.
- Wash off all trucks and equipment, including their tires, before they leave the Project site.
- Apply gravel or non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas on the Project site.
- Water and/or cover soil stockpiles daily.
- Plant vegetative ground cover in disturbed areas as soon as possible, and water it appropriately until the vegetation is established.
- Limit all vehicle speeds to 15 miles per hour (mph) or less on unpaved areas.
- Implement dust monitoring in compliance with the standards of the MDAQMD.
- Halt construction during any periods when wind speeds exceed 50 mph.

APM AIR-2: Minimize Construction Equipment Exhaust

In accordance with APM GHG-1, PG&E will minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible and by minimizing idling time. In particular, cranes, off-highway trucks, and tractors/loaders/backhoes used during Project construction will comply with Tier 4 emissions standards.

APM BIO-1: Protect Nesting Birds

For any construction scheduled during the typical migratory bird or raptor nesting season (March 1 through August 15), preconstruction migratory bird and raptor nesting surveys would be performed by a qualified biologist. Surveys would occur in publicly accessible areas and/or where PG&E has existing access. Private property would not be used for access. If active nests containing eggs or young are found, an appropriate nest exclusion zone would be established to prevent disturbance to the nest. Migratory bird and raptor nesting preconstruction surveys and avoidance measures would be performed in accordance with PG&E's Nesting Bird Management Plan.

APM BIO-2: Protect Wildlife Trapped in Trenches or Steep-walled holes

All excavated holes/trenches that are not filled at the end of a workday would be covered, or a wildlife escape ramp would be installed to prevent the inadvertent entrapment of wildlife species. Excavated holes/trenches left overnight would be inspected prior to the onset of work. If wildlife is found, work would pause until the PG&E biologist is able to remove and relocate the animal.

APM BIO-3: Preconstruction Surveys

Preconstruction biological clearance surveys would be completed by a qualified biologist prior to the onset of construction activities to minimize impacts on wildlife.

APM BIO-4. Worker Environmental Awareness Program – Biological Resources Portion

A Worker Environmental Awareness Program (WEAP) would be prepared for the project and implemented to educate construction and O&M workers on site-specific biological and non-biological resources and proper work practices to avoid harming wildlife during construction or O&M. The WEAP would include training which addresses the requirements for protecting wildlife from entrapment in open trenches or steep-walled holes and nesting birds. A copy of the training sign-in sheets would be provided to the CPUC.

APM CUL-1: Worker Environmental Awareness Training Program, Cultural Resources Portion

A worker environmental awareness training program (WEAP) will be prepared to communicate environmental issues and appropriate work practices specific to the Project to all construction field personnel before they begin work on the Project performing excavation or trenching activities. This training will be administered by a qualified cultural resource professional, either as a standalone training or as part of the overall environmental awareness

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training that will be required for the Project. This training may be recorded for use in subsequent training sessions. The WEAP will be provided separately to CPUC staff before the start of construction. The WEAP will address the following topics at a minimum:

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

APM CUL-2: Inadvertent Cultural Resource Discoveries

If unanticipated cultural resources are identified during Project construction, the following procedures will be initiated:

- All ground-disturbing construction activities within 100 feet of the discovery will halt immediately.
- The construction crew will protect the discovery from further disturbance until a qualified archaeologist has assessed it.
- The Construction Supervisor will contact the Project Environmental Inspector and the PG&E Cultural Resource Specialist immediately.

The PG&E Cultural Resources Specialist will coordinate with the CPUC and NAHC, as appropriate. If the discovery can be avoided or protected and no further impacts will occur, then the resource will be documented on DPR 523 forms, and no further effort will be required. If the resource cannot be avoided and may be subjected to further impacts, qualified personnel will evaluate the significance of the discovery, in accordance with the State laws outlined previously; personnel will implement data recovery or other appropriate treatment measures, if warranted. A qualified historical archaeologist will complete an evaluation of historic period resources, while evaluation of precontact resources will be completed by a qualified archaeologist specializing in California prehistoric archaeology.

Evaluations may include archival research, oral interviews, and/or field excavations to determine the full depth, extent, nature, and integrity of the deposit.

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APM CUL-3: Unanticipated Discovery of Human Remains

If human remains or suspected human remains are discovered during Project construction, work within 100 feet of the find will stop immediately and the construction supervisor will contact the PG&E cultural resources specialist who meets the Secretary of Interior's Standards for archaeology. On discovery, the Specialized Investigations Division of the San Bernardino County Sheriff's Department will be contacted for identification of human remains. The Coroner will have 2 working days to examine the remains after being notified.

If the remains are Native American, the Coroner will notify the NAHC about the discovery within 24 hours. The NAHC then will identify and contact a Most Likely Descendant (MLD). The MLD may make recommendations to the landowner or representative for treatment or disposition, with proper dignity, of the remains and grave goods. When proper consultation has occurred, a procedure that may include the preservation, excavation, analysis, and curation of artifacts and/or reburial of those remains and associated artifacts will be formulated and implemented.

If the remains are not Native American, the Coroner will consult with the archaeological research team and the lead agency to develop a procedure for the proper study, documentation, and ultimate disposition of the remains. If a determination can be made as to the likely identity—either as an individual or as a member of a group—of the remains, an attempt will be made to identify and contact any living descendants or representatives of the descendant community. As interested parties, these descendants may make recommendations to the owner or representative for the treatment or disposition, with proper dignity, of the remains and grave goods. Final disposition of any human remains or associated funerary objects will be determined in consultation between the landowner and the MLD.

APM PAL-1: Retain a Qualified Paleontological Principal Investigator

A Paleontological Principal Investigator who meets the standards set forth by the Society of Vertebrate Paleontology will be retained to ensure that all APMs related to paleontological resources are properly implemented during construction. The Paleontological Principal Investigator will have a master's degree or Ph.D. in geology or paleontology, have knowledge of the local paleontology, and be familiar with paleontological procedures and techniques.

APM PAL-2: Worker Environmental Awareness Training Program – Paleontological Portion

A Worker Environmental Awareness Program (WEAP) will be prepared to communicate environmental issues and appropriate work practices specific to the Project to all construction field personnel before they begin work on the Project performing excavation or trenching activities. The WEAP will address, among other topics, paleontological resources protection. Training may be provided by PG&E as a stand-alone training, or it may be included as part of the overall environmental awareness training as required by the Project. The WEAP will be provided separately to CPUC staff prior to construction.

The paleontological training portion will include the following:

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

APM PAL-3: Paleontological Resource Monitoring for Project Excavation or Trenching Activities

A paleontological monitor will be present to monitor paleontological resources where excavation or trenching occurs. Monitoring is not required if this work occurs in soil or sediment that is imported or previously disturbed. The paleontological monitor will be able to: (1) recognize fossils and paleontological deposits and deposits that may be paleontologically sensitive; (2) take accurate and detailed field notes, photographs, and locality coordinates; and (3) document Project-related ground-disturbing activities, their locations, and other relevant information, including a photographic record. The qualified paleontologist will be responsible for a weekly

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reassessment of paleontological sensitivity after reviewing monitoring reports, which may result in reducing or increasing the amount of monitoring required.

APM PAL-4: Unanticipated Paleontological Discovery

If significant paleontological resources are discovered during PG&E's excavation and trenching activities, the following procedures will be followed:

- Stop work immediately within 100 feet of the fossil find.
- Contact the designated Project inspector and PG&E Cultural Resource Specialist (CRS) immediately.
- Protect the site from further impacts, including looting, erosion, or other human or natural damage.
 - Arrange for a qualified paleontologist to evaluate the discovery. If the discovery is determined to be significant, PG&E will implement measures to protect and document the paleontological resource. Work may not resume within 100 feet of the find until approved by the paleontologist and CRS.
 - Collect and curate fossils only when it is safe for the qualified paleontologist to be in the Project work area. Collect fossils only when the collection activity will not damage the resource further than not collecting it, as determined by the qualified paleontologist. Curate all fossils discovered in an appropriate repository.

APM GHG-1: PG&E Minimize GHG Emissions

PG&E will implement the following measures to minimize GHG emissions, consistent with the recommendations provided in the CPUC's Draft Environmental Measures:

- Encourage construction workers to carpool to the job site if suitable park-and-ride facilities are available in the Project vicinity.
- Develop a carpool program to the job site.
- Maintain on-road and off-road vehicle tire pressures to manufacturer specifications. Check and reinflate tires at regular intervals.
- Recycle demolition debris for re-use to the greatest extent feasible.
- Maintain construction equipment per manufacturer's specifications.
- Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time will depend on the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following startup that limit their availability for use following startup. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles 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 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction supervisors will include briefings to crews on vehicle use as part of preconstruction briefings. These briefings will include discussion of a "common sense" approach to vehicle use.
- Register portable diesel-fueled construction equipment with engines 50 horsepower or larger and manufactured in 2000 or later under the CARB's statewide Portable Equipment Registration Program.

APM HAZ-1: Development and Implementation of Hazardous Material and Emergency Response Procedures

PG&E will implement construction controls, training, and communication to minimize the potential exposure of the public and site workers to potential hazardous materials during all phases of Project construction. Construction procedures that will be implemented include worker training appropriate to the worker's role, and PG&E containment and spill control practices.

APM HAZ-2: Emergency Spill Supplies and Equipment

Materials will be available on the Project site during construction to contain, collect, and dispose of any minor spill. Oil-absorbent material, tarps, and storage drums will be available on the Project site during construction

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and will be used to contain and control any minor releases of oil. If excess water and liquid concrete escape during pouring, they will be directed to lined and berm areas within the staging area, where the concrete will dry and then be transported for disposal per applicable regulations.

APM HAZ-3: Shock Hazard Safety Measures

All authorized personnel working on site during either construction or O&M will be trained according to PG&E shock hazard safety standards.

APM HAZ-4: Worker Environmental Awareness Training Program – Hazards Portion

A WEAP will be prepared to communicate environmental issues and appropriate work practices specific to the Project to all construction field personnel before they begin work on the Project. The WEAP will address, among other topics, hazards and hazardous materials. The training program will emphasize site-specific physical conditions to improve hazards prevention and will include a review of spill response and proper best-management practices (BMPs) implementation. The WEAP program will be provided separately to CPUC staff before the start of construction.

APM HAZ-5: Potentially Contaminated Soil

Where existing data are not available and a known potential of contaminated soil exists in the trenching or excavation area, crews will be before the start of earth-moving activities in that area. Excavation or trenching areas either within or directly adjacent to locations of known or suspected contaminated soil will be evaluated by PG&E's Remediation and Industrial Hygiene departments before soil disturbance, so that soil-disturbing activities will be supervised and conducted by appropriately trained and qualified individuals. In accordance with standard protocol for any soil-disturbing activities at PG&E facilities, soil showing visual, olfactory, or other evidence of contamination will be stockpiled and managed separately.

Soil that is known or suspected of being contaminated (based on existing analytical data or visual, olfactory, or other evidence) and is removed during trenching or excavation activities will be segregated and stockpiled on top of one layer of 20-mil polyethylene sheeting (or equivalent). When the stockpiled material is not being handled, top sheeting will be secured adequately, or equivalent soil stabilization methods will be employed so that all surface areas are covered or equivalently prevented from dispersion or mixing with nearby soils. The stockpiled soil will have a temporary berm placed around the stockpile to prevent runoff from leaving the area, and it will not be positioned near storm drains.

Soil sampling and testing will be conducted for each stockpile, the purpose of which will be to characterize the chemical quality of the soil for potential re-use, disposal, and assess worker health and safety risks. The location, distribution, and frequency of the sampling locations where a known or suspected contaminated soil exists in a trenching or excavation area will be determined by a qualified environmental scientist, based on the quantity of excavated material, so that the analytical data adequately characterize the material with the intent to provide adequate representation of the conditions in the construction area.

All soil intended for disposal will be tested in accordance with landfill requirements, regardless of known or suspected contamination being present. Appropriate handling, transportation, and disposal locations for soil will be determined based on results of the analyses. If the soil is contaminated at concentrations greater than State or federal hazardous waste levels, it will be contained and disposed off-site at a licensed hazardous waste facility. In addition, the results will be provided to contractors and construction crews, to inform them about soil conditions and potential hazards.

APM HYD-1. Worker Environmental Awareness Program – Water Quality Portion

A WEAP will be prepared to communicate environmental issues and appropriate work practices specific to the Project in a training to be given to all construction field personnel before they begin work on the Project. The WEAP will include spill prevention and response measures and proper BMP implementation. A copy of the

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training materials and training sign-in sheets documenting participation in the training will be provided to the CPUC.

APM NOI-1: General Construction Noise Management

PG&E will employ standard noise-reducing construction practices such as the following:

- Comply with manufacturer's muffler requirements on all construction equipment engines and ensure exhaust mufflers are in good condition.
- Turn off construction equipment when not in use, where applicable.
- Include noise control requirements for construction equipment and tools in specifications provided to construction contractors to the maximum extent practicable, including performing all work in a manner that minimizes noise.

APM NOI-2: Noise Minimization with Portable Barriers

Portable air compressors and other small stationary equipment used during construction of PG&E Project components will be shielded with portable barriers if appropriate and in response to a noise complaint.

APM NOI-3: Noise Minimization with Quiet Equipment

Quiet equipment will be used during construction of PG&E Project components whenever possible (for example, equipment that incorporates noise-control elements into the design, such as quiet model compressors or generators [75 dBA at 20 feet], can be specified).

APM NOI-4: Noise Minimization through Direction of Exhaust

When in proximity to noise-sensitive uses, equipment exhaust stacks and vents will be directed away from those noise-sensitive uses where feasible.

APM NOI-5: Nighttime Noise Disruption Minimization through Sensitive Receptor Notification

In the event that nighttime construction is necessary – for instance, if certain activities need to continue to completion and the noise of the construction equipment expected to be in use is audible at the station fence line over the ambient noise of the station operation – sensitive receptors within 0.5 mile of the work area will be notified in advance by mail, personal visit, phone call, or door hanger and will be informed of the expected work schedule.

APM NOI-6: Noise Minimization Equipment Specification

PG&E will specify general construction noise reduction measures that require the contractor to ensure that all equipment is in good working order, adequately muffled, and maintained in accordance with the manufacturers' recommendations and that stationary equipment such as the temporary generators be in sound-reducing acoustic enclosures that limit noise, for example, to 75 dBA at 20 feet.

APM TCR-1: Undiscovered Potential Tribal Cultural Resources

After stopping work and following the procedure for determining eligibility in APM CUL-2, if a prehistoric or protohistoric site is identified and cannot be avoided, PG&E will contact the CPUC and NAHC to identify an appropriate tribe with whom to consult on treatment.

If no agreement can be reached for mitigation after discussions with the California Native American Tribe(s) or after determining that a tribe's preferred mitigation is not feasible, PG&E will implement one of the example mitigation measures listed in Section 21084.3(b) of the PRC or other feasible mitigation.

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2.6.19 Required Approvals

CPUC is the lead agency for Project review under CEQA because a CPCN is required in accordance with CPUC GO 177. GO 177 contains the CPUC's permitting requirements for gas infrastructure in California. Any new or modified natural gas project meeting certain requirements, or costing over \$75 million must apply for a CPCN with the CPUC prior to construction. Other than the CPCN, the Project would not require permits from any federal, State, or local regulatory agencies.

2.6.20 References

Pacific Gas and Electric Company (PG&E). 2025a. *PG&E Hinkley GIS Data*.

— — —. 2025b. *Proponent's Environmental Assessment for Pacific Gas and Electric Company's S-238 Hinkley Compressor Station Electrical Upgrades Project*.

3 Environmental Checklist and Discussion

3.1 Aesthetics

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
1. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	☒	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

3.1.1 Visual Concepts and Terminology

Key definitions and concepts applicable to aesthetics from the Guidelines for the Visual Impact Assessment of Highway Projects (US Department of Transportation 2015) include the following:

- **Affected Environment:** As defined by the National Environmental Policy Act (NEPA), this is the “environment of the area(s) to be affected or created by the alternatives under consideration” (40 CFR 1502.15).
- **Area of Visual Effect (AVE):** The area in which views of the Project would be visible as influenced by the presence or absence of intervening topography, vegetation, and structures.
- **Background:** The zone that extends from 3 to 5 miles to infinity from the viewer.
- **Baseline Conditions:** The existing conditions of the affected environment, affected population, and existing visual quality.

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- **Color:** The light reflecting off an object at a particular wavelength that creates hue (e.g., green, indigo, purple, red) and value (light to dark hues) (U.S. Bureau of Land Management 1980:15; Federal Highway Administration 1988:40).
- **Cumulative Impacts:** Impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period. (Section 1508.7)
- **Direct Impacts:** Impacts caused by the action that occur at the same time and place. (Section 1508.8a)
- **Impact: Change.** Change can be made to the physical environment (measured by the compatibility of the impact) or to viewers (measured by sensitivity to the impacts). Together, the compatibility of the impact and the sensitivity of the impact yield the value of the impact on visual quality.
 - **Compatibility of the Impact:** Defined as the ability of environment to visually absorb a project because the project and the environment have compatible visual characters. A project can be considered compatible or incompatible. By itself, compatibility of the impact should not be confused or conflated with the value of the impact.
 - **Sensitivity to the Impact:** Defined by the ability of viewers to see and care about a project's impacts. The sensitivity to impact is based on viewer sensitivity to changes in the visual character of visual resources. Viewers are either sensitive or insensitive to impacts. By itself, the sensitivity of the impact should not be confused or conflated with the value of the impact.
 - **Value of the Impact:** Defined as either a beneficial, adverse, or neutral change to visual quality. A project may benefit visual quality by either enhancing visual resources or by creating better views of those resources and improving the experience of visual quality by viewers. Similarly, it may adversely affect visual quality by degrading visual resources or obstructing or altering desired views.
- **Indirect Impacts:** Impacts caused by the action and are later in time or farther removed in distance but still are reasonably foreseeable. Indirect impacts may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems. (Section 1508.8b)
- **Permanent Impacts:** Impacts resulting from construction activities lasting for 2 or more years, the built project, or the operation and maintenance associated with the built project.
- **Temporary Impacts:** Impacts resulting from construction or short-term activities that fall within a period of 2 years or fewer.
- **Threshold of Impact:** The limits or bounds used to assess impacts. Impacts can be adverse or beneficial.
- **Viewers:** Neighbors who can see the project and travelers who would use the Project area.

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- **Neighbors:** Viewers who occupy or will occupy land adjacent or visible to the project. For a complex or controversial project, neighbors can be defined by land-use, including residential, retail, commercial, industrial, agricultural, recreational, and civic neighbors.
- **Travelers:** Viewers who use the existing or would use the transportation project. For complex or controversial projects, travelers can be defined by the purpose of travel, including commuting, hauling, touring, exercising, or by their mode of travel as motorists, bicyclists, or pedestrians.
- **Viewer Sensitivity:** The degree to which viewers are sensitive to changes in the visual character of visual resources as the consequence of two factors, viewer exposure and viewer awareness.
- **Viewshed:** All of the surface area visible from a particular location (e.g., an overlook) or sequence of locations (e.g., a roadway or trail) (Federal Highway Administration 1988: pp. 26–27)
- **Visual Character:** The description of the visible attributes of a scene or object typically using artistic terms, such as form, line, color, and texture.
- **Visual Impacts:** Changes to visual resources, viewers, or visual quality.
- **Visual Quality:** What viewers like and dislike about visual resources that compose the visual character of a particular scene. Different viewers may evaluate specific visual resources differently, based on their interests in natural harmony, cultural order, and project coherence. Neighbors and travelers may, in particular, have different opinions on what they like and dislike about a scene.
- **Visual Resources:** Components of the natural, cultural, or project environments that are capable of being seen.

3.1.2 Environmental Setting

The study area for the evaluation of potential impacts on aesthetics is a 5-mile radius around the Project site. The description of Project’s visual features is based on photographs taken as part of the architectural history analysis of the station in July 2024, as well as online maps and existing documentation.

Existing Visual Quality of the Project Site and Region

The Project site is in the northwestern portion of unincorporated San Bernardino County, in the western Mojave Desert and the Mojave River watershed. The Mojave River is approximately 1.2 miles south of the Project site. The city of Barstow is approximately 1 mile east and the unincorporated community of Hinkley is approximately 2.5 miles northwest of the Project site. The topography of the Project site and the surrounding area generally is flat, with a slope of zero to 10 percent (USGS 2025c). The areas surrounding the Project site are shrub/scrub land and consist of agricultural fields to the north and east, as well as developed open space to the north and west (County of San Bernardino 2024) (PG&E 2025). Land uses surrounding the Project site primarily are undeveloped open space and rural residential, with some agricultural activity and crop production. More intensive uses of land in the Project area include the Hinkley Compressor Station, where the Project would be constructed, and the Desert View Dairy,

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approximately 2 miles north of the Project site near the intersection of Mountain View Road and Alcudia Road (PG&E 2025).

Scenic Vistas

Scenic vistas within the Project viewshed include high points of elevation and mountain ranges that are within Hinkley Valley. Mount General is the closest mountain to the Project site, approximately 3 miles to the northeast, and offers a scenic vista of the station looking west. The Project viewshed includes distant views of hills and mountains and their related ridgelines, rare occasional views of mature Joshua trees and yucca trees, and foreground views of old tree rows, agricultural fields, and undeveloped land with undisturbed native vegetation. The closest park to the Project site is Jasper Park, approximately 3 miles from the Project site (City of Barstow Parks & Recreation, n.d.). U.S. Bureau of Land Management (BLM) administered lands near the community of Hinkley can be used for hiking, but no federally designated recreational areas are within 5 miles of the Project site. However, the Stoddard/Johnson Special Recreation Management Area (RMA) is approximately 5.5 miles southeast of the Project site and provides opportunities for off-road highway vehicle (OHV) use and recreation (BLM 2025c; 2025d; 2025b). The Superior–Cronese Area of Critical Environmental Concern (ACEC) is less than 5 miles west, north, and northeast of the Project site. Although the Superior–Cronese ACEC provides recreational opportunities such as camping and hiking, it primarily is managed for desert tortoise habitat (BLM 2025b; 2025a; 2015). Recreational facilities within 0.5 mile of the Project site include the Barstow Gun Club, approximately 800 feet to the south, and the Hinkley Community Center, approximately 0.5 mile to the northwest. The nearest public roadways to the Project site that would provide the primary public views of the Project would be from Community Boulevard, approximately 0.3 mile to the north, perpendicular to Fairway Road, which is east and directly adjacent to the Project site.

Scenic Highways

The nearest State-designated scenic highway, SR-2, is approximately 48 miles southwest of the Project site. A portion of it is officially designated as a State Scenic Highway, and the remaining portion is eligible for State designation (Caltrans, n.d.-a).

SR-58 runs east to west approximately 0.79 mile north of the Project site and has been designated as eligible for the State Scenic Highway system between U.S. Highway (US) 395 and Interstate (I) 15 by the California Department of Transportation (Caltrans) (Caltrans, n.d.-a). SR-58 also is a San Bernardino County scenic route (PlaceWorks 2020). The Project site would be visible from SR-58 for approximately 5 miles (Caltrans 2025; USGS 2025d; 2025b; 2025a).

Historic Route 66 is a San Bernardino County-designated scenic route, with the designated portion approximately 4.96 miles southeast of the Project site at its closest stretch of roadway, where it runs southwest to northeast (County of San Bernardino 2025). Historic Route 66 also is a federally designated National Scenic Byway in portions of California, Arizona, New Mexico, Oklahoma, Missouri, and Illinois.

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Federal Byways

Route 15, approximately 2.93 miles southeast of the Project site, is designated as a federal byway (Caltrans, n.d.-a).

Viewer Types and Exposures

Workers would access the Project site via SR-58 and Fairview Road. Fairview Road and Community Boulevard are immediately adjacent to the Project site. Fairview Road is east of the site and Community Boulevard is to the north. Both would offer close-up public views of the Project. Public viewers would include motorists, pedestrians, and cyclists.

The Project would be visible along Route 15 approximately 2.93 miles south of the Project site, and more closely on SR-58 approximately 0.79 mile north of the Project site. The Project would be visible along SR-58 for approximately 5 miles, for approximately 4.59 minutes, assuming that drivers are driving at the posted speed limit of 65 miles per hour (mph) (Caltrans 2025; USGS 2025d; 2025b; 2025a). The County-designated portion of Route 66 would not be within the Project viewshed, and therefore travelers on designated portions of Route 66 would not be able to view the Project.

3.1.3 Regulatory Setting

Federal

The National Scenic Byways Program

The National Scenic Byways Program, a part of the U.S. Department of Transportation (USDOT), Federal Highway Administration (FHWA), is a grassroots collaborative effort that was established to help recognize, preserve, and enhance selected roads throughout the country. The U.S. Secretary of Transportation solicits nominations for certain roads as All-American Roads or National Scenic Byways, based on their archaeological, cultural, historical, natural, recreational, or scenic qualities (FHWA 2025).

State

California Scenic Highway Program

The California Scenic Highway Program, a provision of the Streets and Highways Code, was established by the State Legislature in 1963 to preserve and enhance the natural beauty of California. The program includes highways that either are eligible for designation as scenic highways or already have been designated as such. The status of a State Scenic Highway changes from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway approval, and receives the designation from Caltrans. A city or county may propose to add routes with outstanding scenic elements to the list of eligible highways; however, State legislation is required for a highway to be officially designated (Caltrans, n.d.-b).

Local

The Natural Resources Element of the San Bernardino Countywide Plan includes policies to preserve and enhance the scenic resources in the county (County of San Bernardino 2020). The

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plan includes Goal NR-4 for scenic resources, which highlights the natural environment and reinforces the identity of local communities and the county. Policies that support this goal include the following:

Policy NR-4.1. Preservation of scenic resources, to “consider the location and scale of development to preserve regionally significant scenic vistas and natural features, including prominent hillsides, ridgelines, dominant landforms, and reservoirs.”

Policy NR-4.3. Off-site signage, to “prohibit new off-site signage and encourage the removal of existing off-site signage along or within view of County Scenic Routes and State Scenic Highways.”

3.1.4 Applicant Proposed Measures

PG&E has proposed APMs for reducing environmental effects. The APMs are listed in Table 2-10 of the Project Description and are considered part of the Project for the analysis. PG&E has not proposed any APMs as applicable to aesthetics.

3.1.5 Environmental Impacts

Visual Impact Assessment Methodology and Assumptions

The analysis of impacts on aesthetics considered the Project’s potential to result in changes to scenic resources of visual conditions within a scenic vista, scenic highway, and public viewpoints, or to introduce new sources of light and glare. The analysis of visual change was qualitative and reflected the portions of the Project site that would be visible during Project construction and operation and maintenance (O&M).

3.1.6 Direct and Indirect Effects

a) **Would the proposed Project have a substantial adverse effect on a scenic vista?**

Scenic vistas nearest to the Project site would include high points of elevation, such as nearby Iron Mountain, Lynx Cat Mountain, the Calico Mountains, and Mount General (ESRI 2025). Project construction temporarily would introduce heavy equipment to the Project site. This equipment would not be visible from a scenic vista because of the distance to the Project site. The 8 to 8.5--all MCCs would be replaced with MCCs that would be 10.5 feet tall, in conjunction with installation of one new MCC outdoors and the potential removal of the outdoor Auxiliary Load Center No. 1. All other Project components (e.g., electrical lines) would be buried underground or be within existing buildings and would not be visible during Project O&M. The replacement of infrastructure within the Hinkley Compressor Station with slightly taller infrastructure would not be perceptible at a distance. Because of the distance from the nearest scenic vista, limited view of the Project site from a scenic vista, and limited changes to the operational facilities at the Hinkley Compressor Station, no impact would occur.

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b) Would the Project substantially damage scenic resources, including trees, rock outcroppings, and historical buildings within a State scenic highway?

SR 58, approximately 1 mile north of the Project site, is an eligible State Scenic Highway and is a San Bernardino County scenic route. Historic Route 66, approximately 4.96 miles to the southeast, is a County-designated scenic route, as well as a federally designated National Scenic Byway; however, the designated portion is outside the Project viewshed. Project construction temporarily would introduce heavy equipment to the Project site. As discussed above, this equipment would be visible from SR-58 for approximately 5 miles; however, the equipment would be hardly perceptible because it would be within the footprint of the compressor station, with a minimum height difference. The Project would remove the existing 8 to 8.5-foot-tall outdoor MCCs (MCC-2, MCC-3 and MCC-6) and install new MCCs that would be 10.5 feet tall, install one new MCC outdoors, and potentially remove the outdoor Auxiliary Load Center No. 1. All other Project components (e.g., electrical lines) would be buried underground or be within existing buildings and would not be visible during Project O&M. The Project would not remove any trees. The replacement of MCCs within the Hinkley Compressor Station with MCCs that would be 2 feet taller than existing ones would not significantly alter the overall appearance of equipment within the station when viewed from designated SR 58, because of the distance from the highway and limited change in conditions at the station. The MCCs that would be removed are not scenic buildings. The Project would not damage scenic resources within a State Scenic Highway or affect views from the SR-58 corridor or the Historic Route 66 corridor. The impact would be less than significant. No mitigation is required.

c) In non-urbanized areas, would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points). If the Project is in an urbanized area, would it conflict with applicable zoning and other regulations governing scenic quality?

Construction

During construction, visual impacts would include the presence of workers, temporary generators, construction equipment, and vehicles associated with the station upgrades. Although the west side of the station is adjacent to a public roadway, the large station buildings and outdoor equipment either blocks or generally reduces the view of construction equipment from roadway users. Project construction is expected to take approximately 23 months, but most of the Project work, which would be performed by approximately 18 workers, would occur within buildings or enclosures. Because of the temporary nature of the construction activities and shielding of the construction area from public vantage points by existing infrastructure at the Hinkley Compressor Station, the impact would be less than significant.

Operation and Maintenance

The station's existing appearance is likely familiar to the two nearby residents. Visible permanent changes proposed at the station would be limited to three MCCs replaced outdoors, one new MCC outdoors, and potential removal of the outdoor Auxiliary Load Center No. 1. These locations are approximately 0.34 miles from each of the residences and are screened from residential views by trees or larger station equipment. Even if visible, the changes (an

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approximately 2-foot height increase and soft yellow to off-white exterior color change) would be indistinguishable at the distance from either residence to the locations where changes would occur. Therefore, no significant visual changes would occur from the perspective of these residents.

Existing station operations typically use equipment and vehicles similar to the Project's construction equipment. Like the existing conditions of the compressor station, Project O&M would not block views of the distant hills and mountains or otherwise substantially alter the character or quality of the existing landscape views experienced by the public because of the minimal change in compressor station conditions. The Project would be visible from nearby roads, highways, and areas of higher elevation within 25 miles (USGS 2025d; 2025b; 2025a). However, the limited change in existing conditions at the compressor station because of the minimal visual changes would be barely perceptible from a far visual range.

The Project would be visible along SR-58 for approximately 5 miles, for approximately 4.59 minutes, assuming drivers are driving at the speed of the posted speed limit of 65 mph (Caltrans 2025; USGS 2025d; 2025b; 2025a). As the outdoor Project components would result in an approximately 2-foot height change and potential removal of an auxiliary load center to accommodate installation of an MCC, no significant alteration of the existing scenic landscape would occur. Although an increase in the height of certain compressor equipment would occur, the Project would be consistent with the scenic landscape of the existing compressor station. Therefore, the Project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings in its nonurbanized area. The impact would be less than significant. No mitigation is required.

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

Lighting

During construction, the Project would not install new sources of lighting, and no nighttime construction work requiring temporary lighting is planned. Therefore, no impact would occur.

Glare

Where the electrical upgrades would occur outside the station buildings or enclosures, the new electrical lines would be installed underground, within existing conduit, or within replacement MCC structures. The outdoor MCC structures would have a dull, off-white exterior finish that would not create a new source of glare. The Project would not install equipment that would create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. No impact would occur.

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3.2 Agriculture and Forestry Resources

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
2. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project, and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in 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])?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Environmental Setting

Agriculture Resources

The Hinkley Valley was dominated by agricultural uses from the 1930s to the early 1990s. The agricultural types in the valley varied but consisted primarily of dairy farming and fodder crops (LRWQCB 2012). Crop cultivation has declined for the past two decades; land south and west of the Project site no longer is used for agriculture, and now the land use is undeveloped open space and rural residential. Crop production and other agriculture uses, including a dairy, are north and east of the Project site.

3.2 AGRICULTURE AND FORESTRY RESOURCES

The Project site is identified as Urban and Built-Up Land by the Farmland Mapping and Monitoring Program (FMMP)(California Department of Conservation 2020). No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance occurs in the Project site. No California Land Conservation Act (commonly referred to as Williamson Act) contracts are related to the Project site (California Department of Conservation 2024). Agricultural areas north and east of the Project site are designated as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland by the FMMP, with designated Farmland areas as close as 550 feet north of the Project site. The nearest Williamson Act parcels are approximately 0.8 mile northeast of the Project site.

The Project site and surrounding parcels are zoned by San Bernardino County as RL-5 (Rural Living – 5 acres minimum) (County of San Bernardino 2025).

Forestry Resources

No tree cover, forest land, timberland, or timberland-zoned production is on or near the Project site, as defined under Section 12220(g) or Section 4526 of the California Public Resources Code, or under Section 51104(g) of the California Government Code (Los Angeles City Planning 2019). Section 3.4, Biological Resources, presents more information on the existing vegetation in the Project area.

3.2.2 Regulatory Setting

This section identifies applicable federal, State, and local laws, policies, and standards regarding agriculture and forestry resources. No forestry resources regulations would apply to the Project because of the absence of forestry resources on the Project site and vicinity.

Federal

Farmland Protection Policy Act

The Agriculture and Food Act of 1981 is contained the Farmland Protection Policy Act, which is intended to minimize the impact that federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. The act assures that federal programs are administered to be compatible with states, local units of government, and private programs and policies, to protect farmland to the extent possible. Federal agencies are required to develop and review their policies and procedures to implement the Farmland Protection Policy Act every 2 years (NRCS n.d.).

State

Farmland Mapping and Monitoring Program

The California Department of Conservation (CDOC) established the FMMP to help assess the location, quantity, and quality of agricultural lands and the conversion of these lands to nonagricultural uses (CDOC n.d.). The FMMP uses U.S. Department of Agriculture (USDA) Natural Resources Conservation Service soil classifications, land inventories, and monitoring criteria to prepare digitized maps of farmland in California. These maps and associated

3.2 AGRICULTURE AND FORESTRY RESOURCES

statistics are updated every 2 years and are used in developing general plans, making regional studies of agricultural land conversion, and assessing a project's potential impacts on farmland.

California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965 (or Williamson Act) was enacted to encourage preservation of agricultural and open space lands. The act facilitates voluntary agreements through which private landowners enter 10-year contracts with counties and cities to restrict their land to agricultural and compatible open space uses. In return, restricted parcels are taxed at a lower rate. The contracts are renewed automatically unless the landowner files for nonrenewal or petitions for cancellation. Under Section 51238 of the Williamson Act, unless local organizations declare otherwise, the erection, construction, alteration, and maintenance of gas, electric, water, or communication facilities should be compatible with Williamson Act contracts. San Bernardino County participates in the Williamson Act program.

Local

No policies or goals associated with agriculture and forestry resources were identified in any local plans.

3.2.3 Applicant Proposed Measures

Applicant Proposed Measures

PG&E has proposed APMs for reducing environmental effects. The APMs are listed in Table 2.6-9 of the Project Description and are considered part of the Project for the analysis. PG&E has not proposed any APMs applicable to agriculture and forestry resources.

3.2.4 Environmental Impacts

Methodology and Assumption

Several sources were consulted to complete the analysis for agriculture and forestry resources, including the following:

- CDOC FMMP data and maps
- California Land Conservation Act of 1965 (Williamson Act) contract maps
- Aerial imagery
- San Bernardino Countywide Plan, county zoning, and associated maps
- Environmental impact reports for other projects in the area

The mapped agricultural and forestry designations and Williamson Act contracted lands were compared with the Project area to determine potential impacts.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Direct and Indirect Effects

- 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 site, including all temporary work areas and staging areas, would be implemented on urban and built-up land, and not on land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance according to the CDOC FMMP (California Department of Conservation 2020). Agricultural lands in proximity to the Project site would not be affected by Project construction or O&M, and would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural land. No impact would occur.

- b) **Would the Project conflict with existing zoning for agricultural use or a Williamson Act contract?**

The Project site and vicinity are zoned as RL-5 (County of San Bernardino 2025), which allows rural residential uses, agricultural uses, and similar compatible uses (American Legal Publishing 2025). Although R-5 allows agricultural uses, it is not a specific agricultural zoning, and no agricultural use of the Project site exists. No Williamson Act contracts exist on land in the Project site. The nearby Williamson Act contract lands, approximately 0.8 mile from the Project site, would not be affected by Project construction because its construction would be contained within the Hinkley Compressor Station and would not conflict with existing zoning for agricultural use or a Williamson Act contract. 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 in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104[g])?**

Neither the Project site or vicinity is zoned as forest land or timberland. No areas of protected timberland and no commercial timberland are on the Project site or in the Project vicinity. The Project would not conflict with the zoning of forest lands or timberland. 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 exists on the Project site or in the Project vicinity. The Project would not result in the loss of forest land or the conversion of forest land to non-forest uses. No impact would occur.

- e) **Would the Project involve other changes in the existing environment which, because of their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?**

The Project would upgrade the electrical component of an existing compressor station within the Hinkley Compressor Station facility limits. All work would be contained within the Project site, and nearby agricultural lands would not be disturbed. Project implementation would not result in the conversion of Farmland to non-agricultural use. No impact would occur.

3.2 AGRICULTURE AND FORESTRY RESOURCES

3.2.5 References

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3.3 Air Quality

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

3.3.1 Environmental Setting

Regional Topography Meteorology, and Climate

The Project site is in the northwestern portion of unincorporated San Bernardino County, in the western Mojave Desert and the Mojave River watershed. It lies within the Mojave Desert Air Basin (MDAB), which features mountain ranges that are separated by long, broad valleys, many of which contain dry lakebeds. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are caused by the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada to the north.

The climate in the MDAB in the summer is dominated by a Pacific subtropical high cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The MDAB rarely is influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time they reach the desert. Most desert moisture arrives from infrequent warm, moist, and unstable air masses from the south. The MDAB averages between 3 and 7 inches of precipitation per year (from 16 to 30 days with at least 0.01 inch of precipitation). The MDAB is classified as a dry-hot desert climate, with portions classified as dry-very hot desert, to indicate that at least 3 months have maximum average temperatures exceeding 100.4 degrees Fahrenheit (°F) (MDAQMD 2020).

3.3 AIR QUALITY

Criteria Air Pollutants

The California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA) focus on the following air pollutants as regional indicators of ambient air quality:

- ozone
- coarse particulate matter (PM₁₀)
- fine particulate matter (PM_{2.5})
- nitrogen dioxide
- carbon monoxide (CO)
- sulfur dioxide (SO₂)
- lead

These six commonly found air pollutants are referred to as “criteria air pollutants.” They can harm your health and the environment, and cause property damage (EPA 2025b). The criteria air pollutants and their associated health risks are discussed next in more detail.

Ozone

Ozone can be harmful to the human respiratory system as well as to sensitive species of plants when it reaches elevated concentrations in the lower atmosphere. Ozone is not emitted directly into the environment but is formed in the atmosphere by chemical reactions between reactive organic gases (ROG) and nitrogen oxides (NO_x) in the presence of sunlight. Ozone formation is greatest during periods of little or no wind, bright sunshine, and high temperatures. Therefore, levels of ozone usually build up during the day and peak in the afternoon.

Sources of ROG and NO_x are vehicle tailpipe emissions; evaporation of solvents, paints, and fuels; and biogenic emissions. Short-term ozone exposure can reduce lung function in children, facilitate respiratory infections, and produce symptoms of respiratory distress. Long-term exposure can impair lung defense mechanisms and lead to emphysema and chronic bronchitis. Ozone also can damage plants and trees and materials such as rubber and fabrics.

Nitrogen Dioxide

Nitrogen dioxide is a reddish-brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of nitrogen dioxide. Aside from its contribution to ozone formation, nitrogen dioxide can increase the risk of acute and chronic respiratory disease and reduce visibility. Nitrogen dioxide may be visible as a coloring component of the air on high-pollution days, especially in conjunction with high ozone levels.

Carbon Monoxide

CO is an odorless and colorless gas formed by the incomplete combustion of fuels. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia, as well as fetuses. Even healthy people who are exposed to high CO concentrations can experience headaches, dizziness, fatigue, unconsciousness, and even death.

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Particulate Matter

PM₁₀ and PM_{2.5} consist of extremely small, suspended particles or droplets that are 10 microns and 2.5 microns or smaller in diameter, respectively. Some sources of particulate matter are naturally occurring, such as pollen, forest fires, and windblown dust. In populated areas, however, most particulate matter is caused by road dust, combustion by-products, abrasion of tires and brakes, and construction activities. Particulate matter can also be formed in the atmosphere by condensation of sulfur dioxide and ROG.

Exposure to particulate matter can affect breathing, aggravate existing respiratory and cardiovascular disease, alter the body's defense systems against foreign materials, and damage lung tissue, contributing to cancer and premature death. Individuals with chronic obstructive pulmonary or cardiovascular disease, asthmatics, the elderly, and children are most sensitive to the effects of particulate matter.

Sulfur Dioxide

Sulfur dioxide is a colorless, acidic gas with a strong odor. It is produced by the combustion of sulfur-containing fuels, such as oil, coal, and diesel. Sulfur dioxide has the potential to damage materials and can cause health effects at high concentrations. It can irritate lung tissue and increase the risk of acute and chronic respiratory disease.

Lead

Leaded gasoline, lead-based paint, metal refineries, and the manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere. Lead has a range of adverse neurotoxic health effects, which put children at special risk. Some lead-containing chemicals cause cancer in animals. Lead levels in the air have decreased substantially since the use of leaded gasoline in automobiles was phased out in the U.S. in the 1970s.

Ambient Air Quality Standards

An ambient air quality standard defines the maximum amount of a pollutant, averaged over a specified period that it can be present in outdoor air without harming public health, and thus it defines clean air. The federal Clean Air Act requires EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare, based on the latest science. EPA has set primary NAAQS for criteria air pollutants to protect public health, and secondary NAAQS to protect plants, forests, crops, and materials from damage from exposure to criteria air pollutants.

In 1959, California enacted legislation requiring the California Department of Public Health to establish air quality standards and necessary controls for motor vehicle emissions. California law continues to mandate California Ambient Air Quality Standards (CAAQS), which often are more stringent than the NAAQS. California also has ambient air quality standards for sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride.

Attainment Status

In accordance with the federal Clean Air Act and California Clean Air Act, areas in California are classified as either in attainment, maintenance (i.e., former nonattainment), or

3.3 AIR QUALITY

nonattainment of the NAAQS and CAAQS for each criteria air pollutant. The attainment status for the Project area is summarized in Table 3.3-1. Under the NAAQS, the Project site currently is designated as nonattainment for the ozone and PM₁₀ standards, and as attainment or unclassified for all other pollutant standards. Under the CAAQS, the Project area currently is designated as nonattainment for the ozone, PM₁₀, and PM_{2.5} standards, and as attainment or unclassified for all other pollutant standards.

Table 3.3-1 Attainment Status for the Project Site

Pollutant	NAAQS	CAAQS
O ₃	Nonattainment (Severe)	Nonattainment
PM ₁₀	Nonattainment (Moderate)	Nonattainment
PM _{2.5}	Attainment/Unclassified	Nonattainment
CO	Attainment/Unclassifiable	Attainment/Unclassifiable
NO ₂	Attainment/Unclassifiable	Attainment/Unclassifiable
SO ₂	Attainment/Unclassified	Attainment/Unclassified
Lead (particulate)	Attainment/Unclassifiable	Attainment/Unclassifiable
Hydrogen Sulfide	No Standard	Unclassified
Sulfates	No Standard	Attainment
Visibility-Reducing Particles	No Standard	Unclassified
Vinyl Chloride	No Standard	No Information Available

Sources: (EPA 2025a; CARB 2024)

Toxic Air Contaminants

In addition to criteria air pollutants, individual projects may emit toxic air contaminants (TACs). TACs include a diverse group of air pollutants that can adversely affect human health, such as diesel particulate matter (DPM). TACs are not subject to ambient air quality standards but are regulated through State and local risk management programs.

Unlike criteria air pollutants, which generally affect regional air quality, TAC emissions are evaluated based on estimations of local concentrations and risk assessments. The adverse health effects that a person may experience following exposure to any chemical depend on several factors, including the amount (dose), duration, chemical form, and any simultaneous exposure to other chemicals.

For risk assessment, both cancer and noncancer health effects from exposure to TACs are evaluated. Cancer health effects (i.e., cancer risk) are expressed as excess cancer cases per 1 million exposed individuals over a lifetime of exposure. Noncancer health effects are expressed as a hazard index (HI) relative to acute and/or chronic exposure.

Emissions of DPM that is generated from the exhaust of diesel-powered engines are a complex mixture of soot, ash particulates, metallic abrasion particles, volatile organic compounds, and

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other components that can penetrate deeply into the lungs and contribute to a range of health problems. In 1998, the CARB identified DPM from diesel-powered engines as a TAC, based on its potential to cause cancer and other adverse health effects (CARB, 1998). Although diesel exhaust is a complex mixture that includes hundreds of individual constituents, DPM is used as a surrogate measure of exposure, under California regulatory guidelines, for the mixture of chemicals that make up diesel exhaust. More than 90 percent of DPM is less than 1 micron in diameter, and thus is a subset of PM₁₀ (CARB, 2016). The estimated cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other TAC that is measured routinely in the region.

Sensitive Receptors

Sensitive receptors are areas where individuals are more susceptible to the adverse effects of poor air quality. Sensitive receptors include residences, schools, daycare facilities, playgrounds, and medical facilities. Land uses surrounding the Project site primarily consists of industrial and agricultural (open space). No sensitive receptors are within 1,000 feet of the Project site. Sensitive receptors are shown on Figure 3.13-1 in Section 3.13: Noise and Vibration. The nearest sensitive receptor is a residence about 1,455 feet northwest of the Project site.

3.3.2 Regulatory Setting

Federal

Clean Air Act

The foundational framework of the federal Clean Air Act was laid out by Congress in 1970, and major revisions were made in 1977 and again in 1990. EPA is responsible for implementing programs that are established under the Clean Air Act, such as establishing and reviewing the NAAQS and judging the adequacy of State Implementation Plans to attain the NAAQS. A State Implementation Plan must integrate federal, state, and local plan components and regulations, to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs.

State

California Clean Air Act

In 1988, California passed the California Clean Air Act, which requires the designation of areas as attainment or non-attainment for the CAAQS. These California standards generally are more stringent than the NAAQS. The CARB is responsible for establishing and reviewing the CAAQS, developing and managing the State Implementation Plan, identifying TACs, and overseeing the activities of the regional air quality management districts. To achieve the CAAQS, criteria air pollutant emissions are managed through control measures that are described in regional air quality plans as well as by emission limitations placed on permitted stationary sources. In California, mobile emissions sources (e.g., construction equipment, trucks, automobiles) are regulated by the CARB, and stationary emissions sources (e.g., industrial facilities) are regulated by the regional air quality management districts.

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Regional

Mojave Desert Air Quality Management District Regulations

The Project site is under the jurisdiction of the MDAQMD. The MDAQMD is the regional agency that is charged with preparing, adopting, and implementing emission control measures and standards for stationary sources of air pollution, pursuant to delegated State and federal authority.

The MDAQMD has adopted rules and regulations that apply for various types of projects. Specific rules applicable to the Project include the following:

Regulation IV, Rule 403: This rule limits the quantity of particulate matter in the atmosphere from anthropogenic fugitive dust sources by generically requiring actions to prevent, reduce, or mitigate fugitive dust.

Rule 1000: This rule aims to control emissions of asbestos during demolition and establish appropriate waste disposal procedures for asbestos-containing materials.

Air Quality Plans

Under the California Clean Air Act, the MDAQMD is required to develop an air quality plan to achieve and maintain compliance with federal and State nonattainment criteria pollutants within the air district. In response, the MDAQMD has developed the Federal 70 parts per billion (ppb) Ozone Attainment Plan for the Western Mojave Desert Nonattainment Area (Ozone Attainment Plan) and the Mojave Desert Planning Area Federal Particulate Matter Attainment Plan (PM₁₀ Attainment Plan), to achieve and maintain compliance with the State and federal ozone and particulate matter standards, respectively.

The Ozone Attainment Plan demonstrates that the MDAQMD will meet the primary required federal ozone planning milestone, attainment of the 70 ppb 8-hour ozone NAAQS, by August 2033; presents the progress that the MDAQMD will make toward meeting all required ozone planning milestones; and discusses the 2015 70-ppb 8-hour ozone NAAQS, preparatory to an expected non-attainment designation for the new NAAQS (MDAQMD 2023). The Ozone Attainment Plan also identifies regional strategies to help achieve California's many air quality, climate, and community risk reduction goals. The PM₁₀ Attainment Plan identifies local control strategies to reduce fugitive dust emissions from unpaved road travel, construction/demolition activities, disturbed areas, and Lucerne Valley industrial activities (MDAQMD 1995).

MDAQMD CEQA and Federal Conformity Guidelines

The MDAQMD's CEQA and Federal Conformity Guidelines (MDAQMD CEQA Guidelines) provide guidance to assist local jurisdictions and lead agencies in determining whether a project will: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emissions reductions or other milestones of any federal attainment plan (MDAQMD 2020). MDAQMD has adopted project-level significant emissions thresholds, which can be used to evaluate quantitatively whether air

3.3 AIR QUALITY

quality impacts from a project would be considered significant and require mitigation. The MDAQMD's recommended thresholds of significance are summarized in Table 3.3-2.

Table 3.3-2 MDAQMD Air Quality Thresholds of Significance

Pollutant	Significant Emissions Thresholds	
	Annual Emissions (tons)	Daily Emissions (pounds)
ROG	25	137
NO _x	25	137
SO ₂	25	137
Hydrogen sulfide	10	54
Lead	0.6	3
PM ₁₀	15	82
PM _{2.5}	12	65
CO	100	548

Source: MDAQMD 2020

Local

Because the CPUC has exclusive jurisdiction over Project siting, design, and construction, the Project would not be subject to local (City or County) discretionary regulations, except for air district and Certified Unified Program agencies with respect to air quality and hazardous waste regulations, respectively.

3.3.3 Applicant Proposed Measures

PG&E has proposed the APMs that are shown in Table 3.3-3, to minimize the air quality impacts.

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Table 3.3-3 Proposed APMs for Air Quality

Proposed APMs
APM AIR-1: Dust Control during Construction PG&E will control fugitive dust by using the following BMPs: • Water or cover all exposed surfaces with the potential to generate dust with coarse rock, to reduce the potential for airborne dust to leave the Project site. • Limit the simultaneous occurrence of more than two ground-disturbing construction phases on the same area at any one time. Phase activities to reduce the amount of disturbed surfaces at any one time. • Cover all haul trucks entering/leaving the site and trim their loads, as necessary. • Use wet power vacuum street sweepers to sweep all paved access roads, parking areas, staging areas, and public roads adjacent to the Project site daily (at minimum) during construction. Do not use dry power sweeping. • Wash off all trucks and equipment, including their tires, before they leave the Project site. • Apply gravel or non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas on the Project site. • Water and/or cover soil stockpiles daily. • Plant vegetative ground cover in disturbed areas as soon as possible, and water it appropriately until the vegetation is established. • Limit all vehicle speeds to 15 miles per hour (mph) or less on unpaved areas. • Implement dust monitoring in compliance with the standards of the MDAQMD. • Halt construction during any periods when wind speeds exceed 50 mph.
APM AIR-2: Minimize Construction Equipment Exhaust In accordance with APM GHG-1, PG&E will minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible, and by minimizing idling time. In particular, cranes, off-highway trucks, and tractors/loaders/backhoes that are used during Project construction will comply with Tier 4 emissions standards.

3.3.4 Environmental Impacts

Methodology

The analysis of impacts on air quality was prepared based on the air quality analysis documented in the Proponent's Environmental Assessment for the Project on April 9, 2025. A copy of the air quality analysis and associated calculations are provided in Appendix A.

Air districts use regional air dispersion models to evaluate regional criteria air pollutants. However, these dispersion models have limited sensitivity to the relatively small (or negligible) changes in criteria air pollutant concentrations that are associated with an individual project. Therefore, providing reliable estimates of specific health risks that are associated with regional air pollutant emissions from an individual project is not feasible and would generate speculative results (SJVUAP 2018; SCAQMD 2018). The methodology used in this analysis for regional criteria air pollutants is consistent with the California Supreme Court's ruling regarding *Sierra Club v. County of Fresno* (California Supreme Court 2018).

3.3 AIR QUALITY

Direct and Indirect Effects

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

As discussed above, the MDAQMD has adopted an Ozone Attainment Plan and PM₁₀ Attainment Plan to achieve and maintain compliance with the State and federal ozone and particulate matter standards, respectively. These two plans are the applicable air quality plans for the Project.

According to the MDAQMD CEQA Guidelines, if a project is consistent with the existing land use plan, the project is deemed to conform with the applicable attainment or maintenance plans. The Project would upgrade and replace the existing Hinkley Compressor Station electrical distribution equipment, which would not change the existing land use or increase vehicle trips or vehicle miles traveled. Therefore, the Project would conform with the applicable air quality plans. The Project also would implement APM AIR-1 Dust Control during Construction, which is consistent with the control strategies identified in the MDAQMD's PM₁₀ Attainment Plan.

Furthermore, the MDAQMD has adopted emission-based significance thresholds for CEQA evaluation, so that Project-level emissions would not conflict with or hinder implementation of the air quality plans. If a project's emissions are below the applicable emission-based significance thresholds, then that project would be consistent with the air quality plans and standards. As discussed under criterion b, the Project's emissions of criteria air pollutants and precursors would be below the applicable thresholds of significance. Therefore, the Project would not conflict with or obstruct implementation of applicable air quality plans. The impact would be less than significant. No mitigation is required.

b) Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard?

Project construction is expected to start in October 2026, and to take approximately 23 months to complete. Project construction activities would generate criteria air pollutant emissions that would affect regional air quality. During construction, the primary pollutant emissions of concern would be criteria air pollutants and precursors from the exhaust of off-road construction equipment, temporary Portable Equipment Registration Program (PERP) natural gas generators, and on-road construction vehicles related to worker vehicles, vendor trucks, and haul trucks. In addition, fugitive dust emissions would result from ground-disturbing activities, such as grading and material hauling.

Project construction emissions of criteria air pollutants and precursors were estimated using California Emissions Estimator Model (CalEEMod) version 2022.1 methodologies. CalEEMod emission factors, the CARB's EMFAC2021 database emission factors, and the MDAQMD's default emission factors for internal combustion engines were used to estimate emissions from off-road construction equipment, on-road vehicles, and the temporary generators, respectively. Although most of the Project construction activities would occur in 2026, construction emissions estimates were developed using equipment and vehicle emissions factors for model year 2025,

3.3 AIR QUALITY

the year in which Project construction is expected to begin. This is considered conservative because statewide emission standards are required to improve over time.

The primary input data that was used to estimate criteria air pollutant emissions associated with Project construction were provided by the applicant and included information about the Project's off-road construction equipment inventory and usage, temporary generator size and usage, off-site worker commute and haul truck trips, on-site trucks trips, and travel distances for each type of trip category. The APMs listed in Section 3.3.3 would be implemented as part of the Project; however, the construction emissions are shown with and without APMs for informational purposes. Input information and detailed emissions calculations are provided in Appendix A.

The estimated maximum daily and annual average emissions of criteria air pollutants and precursors during Project construction are shown in Table 3.3-4 and Table 3.3-5, respectively. As shown in Table 3.3-4 and Table 3.3-5, the Project's estimated ROG, CO, NO_x, SO₂, PM₁₀, and PM_{2.5} emissions without implementation of APM AIR-1 and APM AIR-2 during construction would be below the MDAQMD's threshold of significance. In addition, implementation of the APMs would reduce the Project's NO_x, PM₁₀, and PM_{2.5} emissions further. Therefore, Project construction would not result in a cumulatively considerable net increase in criteria air pollutants for which the region is in nonattainment. The impact would be less than significant. No mitigation is required.

Table 3.3-4 Summary of Daily Estimated Construction Emissions for Criteria Air Pollutants

Scenario	Daily Emissions (pounds)					
	ROG	CO	NO _x	SO ₂	PM ₁₀ ¹	PM _{2.5} ¹
Construction without the APMs	12.9	348	25.4	0.46	14.8	14.6
Construction with the APMs ²	12.9	348	21.5	0.46	14.5	14.3
Thresholds of Significance	137	548	137	137	82	65
Exceeds Threshold?	No	No	No	No	No	No

Notes:

1. PM₁₀ and PM_{2.5} emissions represent both exhaust and fugitive dust emissions.
2. The emission estimates account for reductions achieved through implementation of APM AIR-1 and APM AIR-2, which would result in the reduction of PM₁₀, PM_{2.5}, and NO_x emissions.

3.3 AIR QUALITY

Table 3.3-5 Summary of Annual Estimated Construction Emissions for Criteria Air Pollutants

Scenario	Annual Emissions (tons)					
	ROG	CO	NO _x	SO ₂	PM ₁₀ ¹	PM _{2.5} ¹
Construction without the APMs	1.55	41.7	3.05	0.06	1.78	1.75
Construction with the APMs ²	1.55	41.7	2.58	0.06	1.74	1.72
Thresholds of Significance	25	100	25	25	15	12
Exceeds Threshold?	No	No	No	No	No	No

Notes:

1. PM₁₀ and PM_{2.5} emissions represent both exhaust and fugitive dust emissions.
2. The emission estimates account for reductions achieved through implementation of APM AIR-1 and APM AIR-2, which would result in the reduction of PM₁₀, PM_{2.5}, and NO_x emissions.

The Project would include rebuilding existing electrical infrastructure, and no change would occur to current operations. After being constructed, the Project would not result in new criteria air pollutant emissions during O&M. Therefore, no impact from criteria air pollutant emissions would occur, related to Project O&M. In summary, the Project would not result in a cumulatively considerable net increase in criteria air pollutants for which the region is in nonattainment. The impact would be less than significant. No mitigation is required.

c) Would the Project expose sensitive receptors to substantial pollutant concentrations?

Project construction would generate DPM emissions from the exhaust of on-road heavy-duty diesel trucks, and on-site off-road diesel construction equipment. The MDAQMD CEQA Guidelines would require evaluation of any existing or planned (zoned) sensitive receptor land use within 1,000 feet of the Project site. As stated in Section 3.3-1, no sensitive receptors are within 1,000 feet of the Project site. The nearest sensitive receptor is a residence about 1,455 feet northwest of the Project site. In addition, implementation of APM AIR-2, Minimize Construction Equipment Exhaust, would reduce the emissions of DPM during construction. Therefore, the Project would not expose sensitive receptors to substantial pollutant concentrations. The impact would be less than significant. No mitigation is required.

d) Would the Project result in other emissions (e.g., those leading to odors) adversely affecting a substantial number of people?

Facilities that may generate objectionable odors affecting a substantial number of people include wastewater treatment facilities, sanitary landfills, composting facilities, petroleum refineries, chemical manufacturing plants, and food processing facilities. Project construction would not be expected to generate significant odors or other emissions for a substantial duration. Project construction would require use of diesel-based equipment that would result in emissions of diesel fumes. Exhaust odors from diesel engines may be considered offensive by some individuals. Odors from diesel fumes would be temporary and would disperse rapidly with distance from the source. Therefore, construction-generated odors, such as diesel fumes, would not result in frequent exposure of sensitive receptors to objectionable odor emissions. The impact would be less than significant. No mitigation is required.

3.3 AIR QUALITY

3.3.5 Reference

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3.4 BIOLOGICAL RESOURCES

3.4 Biological Resources

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

3.4 BIOLOGICAL RESOURCES

3.4.1 Approach to Data Collection

A Biological Resources Technical Report (Jacobs 2025) was prepared for the Project to document federal and state database desktop analysis and biological field surveys documenting vegetation, botanical, and biological resources that may occur within or adjacent to the area within the Project area. Appendix B presents the Biological Resources Technical Report and its supporting documents.

Study Areas

The study area for vegetation communities for the Project encompasses the Project site plus a 1,000-foot radius (vegetation study area). The study area for flora includes a 100-foot radius from the Project (botanical study area). The study area for wildlife encompasses the area within the Hinkley Compressor Station fence line plus a 600-foot radius (biological study area, see Figure 3.4-1). The study areas are sufficient to evaluate both direct and indirect effects of the Project (e.g., noise, dust, etc.) based on the Project activities

Vegetation Community Surveys

Vegetation communities for the project were assessed through desktop analysis and information on species documented during floristic surveys. Prior to field surveys, the California Department of Wildlife (CDFW) Veg CAMP database for the California Deserts and Biographic Information and Observation System as part of the California Natural Diversity Database (CNDDB) was reviewed to determine potential habitat in the biological study area. These data were refined during field surveys to better characterize vegetation communities and evaluate available habitat for special status species (Jacobs 2025).

Botanical Surveys

Meandering transect floristic surveys were conducted on April 15 and 16, 2024, to map any special status plant species present within or adjacent to the proposed work or staging areas. The objective of the surveys was to generate a comprehensive list of all plant species that occur in the botanical study area and to map, photograph, and record data for any special status plant species found. Prior to surveys, pre-survey research and literature review were conducted to determine special status plants that may occur within the botanical study area.

Wildlife Surveys

Wildlife surveys conducted for the project included focused surveys for Agassiz's desert tortoise, habitat and breeding season surveys for burrowing owl, and protocol-level surveys and trapping for Mohave ground squirrels. Observations of common plant and animal species were recorded concurrently with these surveys. The study area for wildlife (biological study area encompasses the area within the Hinkley Compressor Station fence line plus a 600-foot radius.

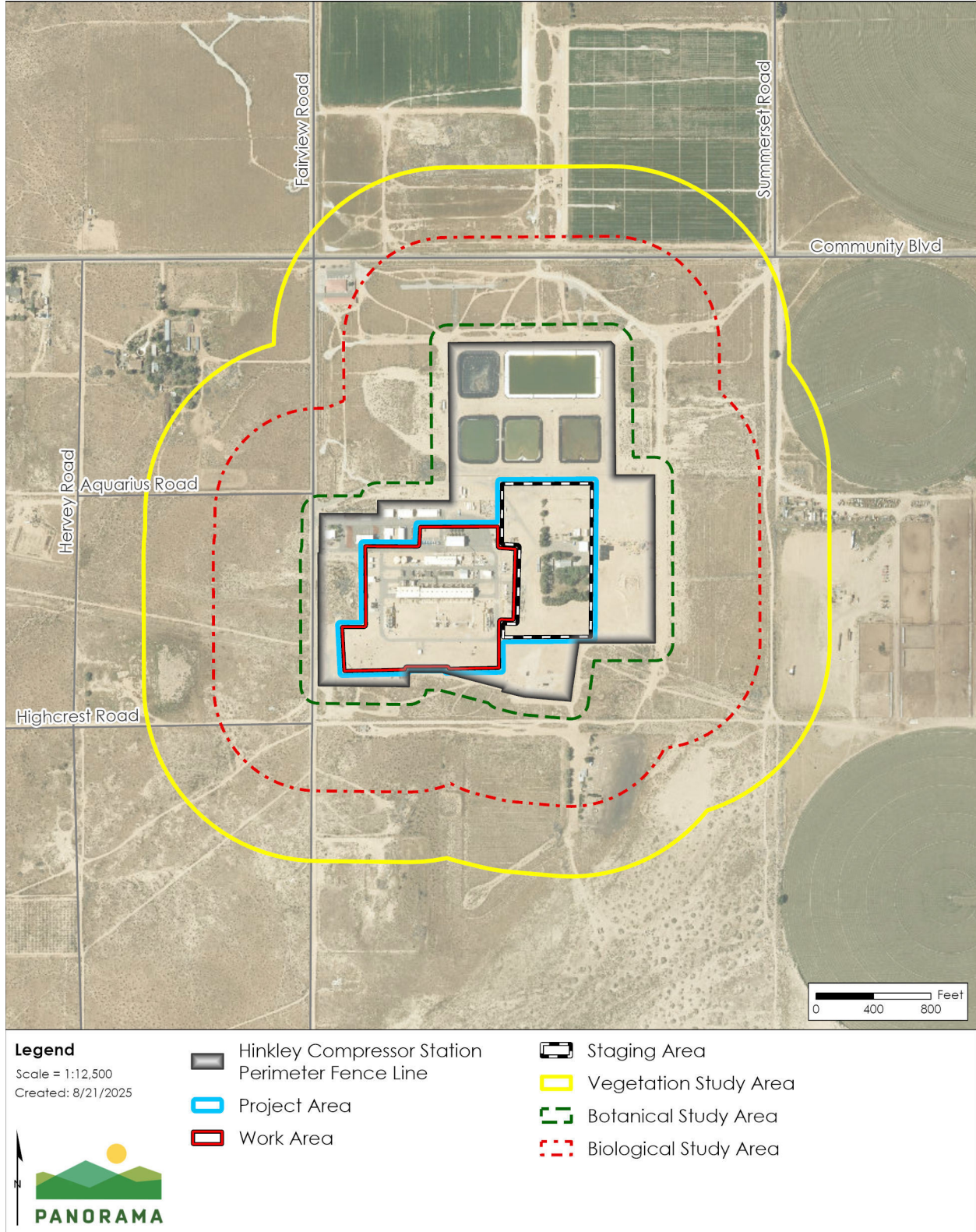
Focused presence-absence surveys for Agassiz's desert tortoise were conducted on April 12, 2024. Focused surveys included transects spaced at 10-meter (approximately 33 feet) intervals in all areas with unpaved surfaces inside the Hinkley Compressor Station fence line.

3.4 BIOLOGICAL RESOURCES

Burrowing owl surveys were initially conducted on April 12, 2024, to assess habitat. Breeding surveys were conducted during four events between May 15 and July 15, 2024. Breeding surveys included transects spaced at 30-meter (approximately 98 feet) intervals out to 180 meters (approximately 591 feet) on PG&E and private properties outside of the Hinkley Compressor Station fence line. Permission was not granted on one private property within the biological study area and therefore was not included in surveys. Burrowing owl transects were also surveyed for evidence of desert tortoise.

3.4 BIOLOGICAL RESOURCES

Figure 3.4-1 Vegetation, Botanical, and Biological Resources Study Areas



3.4 BIOLOGICAL RESOURCES

Mohave ground squirrel surveys were initially conducted on April 12, 2024, concurrent with focused desert tortoise surveys and the burrowing owl habitat assessment. Trapping was conducted between April 16 and June 7, 2024, using Sherman live traps and camera grids within the best available habitat surrounding the Project area.

3.4.2 Environmental Setting

Vegetation Communities and Land Cover Types

The landscape within vegetation study area consists of a mix of agricultural areas, developed residential areas, and small private property holdings. The surrounding area primarily consists of hardscaped or developed/landscaped agricultural land and ruderal or non-native species with some undeveloped desert scrub (Jacobs 2025; PG&E 2025). Much of the Project site has been developed and is unvegetated due to the existing Hinkley Compressor Station facilities. Vegetation in the Project site primarily consists of ornamental landscape plantings, trees, and shrubs. There is a 2-acre area of native vegetation along the western fence line within the Project site, outside of the proposed work area (PG&E 2025). Table 3.4-1 provides a summary of vegetation communities and land cover types within the vegetation study area. Representative vegetation alliances from the *Manual of California Vegetation* second edition (Sawyer et al. 2009) are referenced and described below.

Table 3.4-1 Vegetation Communities and Land Cover Types in the Vegetation Study Area

Vegetation Community/Land Cover Type	Acres in Vegetation Study Area	Percent of Vegetation Study Area
Allscale scrub	140	46
Developed	72	24
Agriculture	37	12
Creosote bush scrub	34	11
Disturbed	15	5
Desert Dunes	7	2
Total	305	100

Source: (PG&E 2025)

Allscale Scrub

Allscale scrub is common in low-lying alluvial fans, edges of playas, and along washes in sandy soil areas of the Mojave Desert. Allscale (*Atriplex polycarpa*) is the dominant species and composes at least 2 percent of the absolute cover. Other shrub species may be present, and annual plants may be growing in the spaces between shrubs.

In the allscale scrub communities within the vegetation study area, allscale was the dominant species with almost no other shrub species present. Some annual species, including gilies (*Gilia* spp.), buckwheat (*Eriogonum* spp.), comb seed (*Pectocarya* spp.), fiddleneck (*Amsinckia* spp.), annual bursage (*Ambrosia acanthicarpa*), and snakehead (*Atriplex coulteri*) were documented.

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Weeds including London rocket (*Sisymbrium irio*), brome grasses (*Bromus* spp.), and prickly lettuce (*Lactuca serriola*) were common to the north and northeast portions of the vegetation study area where disturbance was more recent. The 2-acre area of native vegetation within the Hinkley Compressor Station is associated with the allscale scrub vegetation community. This area does not overlap with the Project work area or staging area (Jacobs 2025).

Developed

Developed land cover types are physically altered due to construction or other activities and no longer support native vegetation. In general, developed areas contain semi-permanent structures, homes, parking lots, pavement or hardscape, or landscaped areas which may require maintenance or irrigation and contain ornamental plants. In addition to facilities within the Hinkley Compressor Station, developed areas within the vegetation study area includes portions of two residential properties (Jacobs 2025).

Agriculture

Agriculture land cover types consist of agricultural fields and orchards currently or recently in operation. Within the vegetation study area agricultural lands support alfalfa, Bermuda grass, and Sudan grass (Jacobs 2025).

Creosote Bush Scrub

The creosote bush scrub vegetation community is most accurately keyed to the creosote bush-white bursage-allscale scrub association of the creosote bush-white bursage alliance. Creosote bush-white bursage alliance is common throughout a variety of upland habitats but also may be common in minor washes and rills. It contains at least one percent absolute cover of creosote bush and one percent absolute cover of white bursage (*Ambrosia dumosa*). These two species typically exceed twice the cover of other shrub species.

In the creosote bush scrub communities within the vegetation study area, allscale was a common species. Other common native species found included evening primrose (*Eremothera/Oenothera* spp.), blue dick (*Dichelostemma capitatum* ssp. *pauciflorus*), tickseed (*Coreopsis* spp.), rigid spiny herb (*Chorizanthe rigida*), and desert plantain (*Plantago ovata*). Adjacent to the Project area, this scrub association is disturbed, with non-native species including red-stemmed filaree (*Erodium cicutarium*) and Mediterranean schismus (*Schimus barbatus*), although native species are also present in high quantities and diversity (Jacobs 2025).

Disturbed

Disturbed land cover types include mostly bare, disturbed soils dominated by low-growing ruderal (weedy) vegetation and few native species. In the vegetation study area, disturbed areas were associated with anthropogenic disturbances, including agricultural practices, residential clearing and grubbing, refuse dumping, dirt roads, and powerline easements (Jacobs 2025).

Desert Dunes

Desert dunes vegetation communities occur where aeolian (wind-blown) sands have accumulated. Dominant plant species typically include four-wing saltbush (*Atriplex canescens*), allscale, white bursage, California jointfir (*Ephedra californica*), Mormon tea (*Ephedra viridis*), and

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desert dandelion (*Malacothrix glabrata*). Vegetative cover within the desert dunes community varies substantially from year to year and generally reflects disturbances from major flood and wind events. Soils are variable, but generally include sands, loamy sands, and loams. In the vegetation study area, aeolian sand formations range from sparsely to moderately vegetated (Jacobs 2025). Based on review of aerial photography, this community in the vegetation study area can vary depending on the amount of vegetation supported annually from major flood and wind events (PG&E 2025).

Wetland Communities and Aquatic Habitats

There are no wetlands, aquatic resources, or riparian habitats within the biological study area; however, there are lined, man-made evaporation ponds associated with the Hinkley Compressor Station. There are no perennial, intermittent, or ephemeral streams within the Project site and there are no United States Geological Survey (USGS) designated blue line streams onsite (USGS 2023).

Sensitive Natural Communities

Sensitive natural communities are those identified by the CDFW Rarity Ranking (CDFW 2025), which follows NatureServe's Heritage Methodology (Faber-Langendoen et al. 2016). Each community is given a *global* (G) and *state* (S) imperilment rank. Natural communities with S ranks of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable) are considered sensitive by CDFW. Natural communities with S ranks of S4 (apparently secure) and S5 (secure) are not considered sensitive by CDFW. Allscale scrub (S4) and creosote bush scrub (S5) are not considered sensitive natural communities. The desert dune vegetation alliance is ranked as S3.2. The desert dune community does not occur within the Hinkley Compressor Station.

Wildlife Movement and Corridors and Biological Resource Management Areas

Critical habitat for desert tortoise is mapped approximately 2.6 miles northeast of the Project site. A portion of the Project site overlaps with the *Desert Renewable Energy Conservation Plan* Fremont-Kramer to Ord-Rodman Linkage for desert tortoise; however, the habitat value is described as "non-habitat" and "lost or severely disturbed habitat" (Conservation Biology Institute 2014). The Project site does not overlap with any designated Bureau of Land Management (BLM) Areas of Critical Environmental Concern (ACECs) or Desert Wildlife Management Areas. The Superior-Cronese ACEC is less than 5 miles west, north, and northeast of the Project, outside of the biological study area (BLM 2025). The biological study area does not overlap with any other native wildlife corridors or nursery sites (Jacobs 2025).

Special Status Species

The initial desktop review of CNDDDB, California National Plant Society (CNPS), National Oceanic and Atmospheric Administration (NOAA) Fisheries, and US Fish and Wildlife Service (USFWS) databases identified 22 special-status plant species and 22 special status wildlife species with potential to occur within approximately 5 miles of the Project site (Jacobs 2025). Habitat requirements for each special status species were evaluated to determine whether they may occur within the botanical and biological study areas and are summarized in Table 3.4-2. Species with the possibility of occurring in the Project area are discussed below.

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Table 3.4-2 Special Status Plant and Wildlife Species with Potential to Occur within the Botanical Study Area

Common/Scientific Name	Status	Habitat	Potential for Occurrence in Study Area
Plants			
Chaparral sand verben <i>Abronia villosavar. aurita</i>	Federal: None State: None CRPR: 1B.1 BLM: S	Annual herb. Coastal scrub and mostly broad alluvial fans and benches. Sandy soils. Elevations from 260 to 5,250 feet. Blooms January to August.	Absent. No suitable habitat within the biological survey area or botanical survey areas due to lack of coastal plains or low desert areas. One likely misidentified CNDDDB occurrence recorded within 5 miles of the biological study area. None encountered during field surveys.
Lane Mountain milk-vetch <i>Astragalus jaegerianus</i>	Federal: Endangered State: None CRPR: 1B.1 BLM: None	Perennial herb. Joshua tree woodland and Mojave Desert scrub. Shallow sandy soils within areas of exposed or partially exposed granitic bedrock. Elevations from 2,952 to 3,936 feet. Blooms April to June.	Unlikely. Suitable habitat is present within the botanical study area. No CNDDDB occurrences recorded within 5 miles of the biological or botanical study areas. None encountered during field surveys.
Desert cymopterus <i>Cymopterus deserticola</i>	Federal: None State: None CRPR: 1B.2 BLM: S	Perennial herb. Joshua tree woodland and Mojave Desert scrub with sandy substrates. Elevations from 2,066 to 4,920 feet. Blooms March to May.	Unlikely. Suitable habitat is present within the botanical study area. No CNDDDB occurrences recorded within 5 miles of the biological or botanical study areas. None encountered during field surveys.
Mojave monkeyflower <i>Diplacus mohavensis</i>	Federal: None State: None CRPR: 1B.2 BLM: S	Annual herb. Joshua tree woodland, Mojave Desert scrub and sandy or gravelly places such as washes. Elevations from 1,968 to 3,936 feet. Blooms April to June.	Unlikely. Suitable habitat is present within the botanical study area. One CNDDDB occurrence recorded within 5 miles of the botanical study area reported in 1941. None encountered during field surveys.
Barstow woolly sunflower <i>Eriophyllum mohavense</i>	Federal: None State: None CRPR: 1B.2 BLM: S	Annual herb. Saltbush scrub, Mojave Desert scrub and playas. Elevations from 1,650 to 3,148 feet. Blooms March to May.	Unlikely. Suitable habitat is present within the botanical study area west of Fairview Road. No CNDDDB occurrences recorded within 5 miles of the botanical study area. None

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Common/Scientific Name	Status	Habitat	Potential for Occurrence in Study Area
			encountered during field surveys.
Mojave menodora <i>Menodora spinescens</i> var. <i>mohavensis</i>	Federal: None State: None CRPR: 1B.2 BLM: S	Perennial deciduous shrub. Mojave Desert scrub, and in areas with Andesite gravel on rocky hillsides and in canyons. Elevations from 2,263 to 6,560 feet. Blooms April to May.	Unlikely. Suitable habitat is present within the botanical study area. No CNDDDB occurrences recorded within 5 miles of the biological or botanical study areas. None encountered during field surveys.
Spiny-hair blazing star <i>Mentzelia tricuspis</i>	Federal: None State: None CRPR: 2B.1 BLM: None	Annual herb. Sandy and or gravelly Mojave Desert scrub and desert washes. Elevations from 490 to 4,200 feet. Blooms March to May.	Unlikely. Minimal marginal to low quality suitable habitat is present in the botanical study area. No CNDDDB occurrences recorded within 5 miles of the biological or botanical study areas. None encountered during field surveys.
Creamy blazing star <i>Mentzelia tridentata</i>	Federal: None State: None CRPR: 1B.3 BLM: None	Annual herb. Mojave Desert scrub in association with gravelly, rocky or sandy substrates. Elevations from 2,296 to 3,805 feet. Blooms March to May.	Unlikely. Suitable habitat is present within the botanical study area. No CNDDDB occurrences recorded within 5 miles of the biological or botanical study areas. None encountered during field surveys.
Beaver dam breadroot <i>Pediomelum castoreum</i>	Federal: None State: None CRPR: 1B.2 BLM: S	Perennial herb. Joshua tree woodland and Mojave Desert scrub within sandy washes and road cuts. Elevations from 2,000 to 5,002 feet. Blooms April to May.	Unlikely. Suitable habitat is present in the botanical study area. Two CNDDDB occurrences within 5 miles of the biological study area recorded prior to 1937. None encountered during field surveys.
Parish's phacelia <i>Phacelia parishii</i>	Federal: None State: None CRPR: 1B.1 BLM: S	Annual herb. Mojave Desert scrub and clay or alkaline playas. Elevations from 1,771 to 3,936 feet. Blooms April to May.	Unlikely. Suitable habitat is present within the botanical study area. No CNDDDB occurrences recorded within 5 miles of the biological or botanical study areas. None encountered during field surveys.
California alkali grass <i>Puccinellia simplex</i>	Federal: None State: None CRPR: 1B.2	Chenopod scrub, meadows and seeps, Valley and foothill	Unlikely. No suitable habitat is present in the botanical study area. No CNDDDB

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Common/Scientific Name	Status	Habitat	Potential for Occurrence in Study Area
	BLM: S	grassland, vernal pools. Elevations from 5 to 3050 feet. Blooms March to May.	occurrences recorded within 5 miles of the biological or botanical study areas. None encountered during field surveys.
Western Joshua tree <i>Yucca brevifolia</i>	Federal: None State: SC CRPR: None BLM: None	Perennial tree. Native to the southwestern United States (Arizona, California, Nevada, and Utah) and northwestern Mexico, confined mostly to the Mojave Desert between 1,300 and 5,900 ft elevation. Blooms March to June.	Unlikely. Suitable habitat is present within the botanical study area. No CNDDDB occurrences recorded within 5 miles of the botanical study area. None encountered during field surveys.
Colorado Desert larkspur <i>Delphinium parishii</i> <i>ssp. subglobosum</i>	Federal: None State: None CRPR: 4.3	Chaparral, cismontane woodland, pinyon and juniper woodland, Sonoran Desert scrub. Blooms March to June.	Unlikely. Suitable habitat is present within the botanical study area. No CNDDDB occurrences recorded within 5 miles of the botanical study area. None encountered during field surveys.
Crowned muilla <i>Muilla coronata</i>	Federal: None State: None CRPR: 4.2	Chenopod scrub, Joshua tree "woodland", Mojavean desert scrub, pinyon and juniper woodland. Blooms March to April.	Unlikely. Suitable habitat is present within the botanical study area. No CNDDDB occurrences recorded within 5 miles of the botanical study area. None encountered during field surveys.
Joshua Tree poppy <i>Eschscholzia</i> <i>androuxii</i>	Federal: None State: None CRPR: 4.3	Washes in Joshua tree "woodland" and Mojavean desert scrub. Blooms February to May.	Unlikely. Suitable habitat is not present within the botanical study area. No CNDDDB occurrences recorded within 5 miles of the botanical study area. None encountered during field surveys.
White pygmy-poppy <i>Canbya candida</i>	Federal: None State: None CRPR: 4.2	Joshua tree "woodland", Mojavean desert scrub, pinyon and juniper woodland. Sandy/granitic/gravelly soils. Blooms March to June.	Unlikely. Suitable habitat is present within the botanical study area. No CNDDDB occurrences recorded within 5 miles of the botanical study area. None encountered during field surveys.

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Common/Scientific Name	Status	Habitat	Potential for Occurrence in Study Area
Mojave spineflower <i>Chorizanthe spinosa</i>	Federal: None State: None CRPR: 4.2	Chenopod scrub, Joshua tree "woodland", Mojavean desert scrub, playas. Often alkaline soils. Blooms March to July.	Unlikely. Suitable habitat is present within the botanical study area. No CNDDDB occurrences recorded within 5 miles of the botanical study area. None encountered during field surveys.
Slender cottonheads <i>Nemacaulis denudata</i> var. <i>gracilis</i>	Federal: None State: None CRPR: 2B.2	Creosote bush scrub; sandy soils on stabilized dunes and sand ramps. Blooms March to May.	Absent. No suitable habitat is present within the botanical study area due to the lack of stabilized dunes or ramps. No CNDDDB occurrences recorded within 5 miles of the botanical study area. None encountered during field surveys.
Mojave fishhook cactus <i>Sclerocactus poluyancistrus</i>	Federal: None State: None CRPR: 4.3	Great Basin scrub, Joshua tree "woodland"; Mojavean desert scrub, usually carbonate soils. Blooms April to July.	Unlikely. Suitable habitat is present within the botanical study area. No CNDDDB occurrences recorded within 5 miles of the botanical study area. None encountered during field surveys.
Mojave indigo-bush <i>Psoralea argophylla</i> var. <i>argophylla</i>	Federal: None State: None CRPR: 4.3	Mojavean desert scrub, riparian scrub. Blooms April to May.	Unlikely. Suitable habitat is present within the botanical study area. No CNDDDB occurrences recorded within 5 miles of the botanical study area. None encountered during field surveys.
Mojave menodora <i>Menodora spinescens</i> var. <i>mohavensis</i>	Federal: None State: None CRPR: 1B.2	Mojavean desert scrub. Slopes, canyons, gravelly, rocky soils. Andesite gravel. Blooms April to May.	Unlikely. Suitable habitat is present within the botanical study area. No CNDDDB occurrences recorded within 5 miles of the botanical study area. None encountered during field surveys.
Torrey's box-thorn <i>Lycium torreyi</i>	Federal: None State: None CRPR: 4.2	Sandy, rocky, washes, streambanks, desert valleys in Mojavean and Sonoran Desert scrub. January to November.	Unlikely. Suitable habitat is present within the botanical study area. No CNDDDB occurrences recorded within 5 miles of the botanical study area. None encountered during field surveys.
Invertebrates			

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Common/Scientific Name	Status	Habitat	Potential for Occurrence in Study Area
Monarch butterfly <i>Danaus plexippus</i>	Federal: Proposed T State: None CDFW: None BLM: None	In spring and summer, habitats are open fields and meadows with milkweed. In winter, found on the coast of southern California and at high altitudes in central Mexico. Whether it is a field, roadside area, open areas, wet area, or urban garden, milkweed and flowering plants are needed for monarch habitat. Adult monarchs feed on the nectar of many flowers, but they breed only where milkweeds are found.	Unlikely. The biological study area is within range of the monarch butterfly. No CNDDDB occurrences recorded within 5 miles of the biological study area. One milkweed species, climbing milkweed (<i>Funastrum cynanchoides</i> var. <i>hartwegii</i>), was observed in the biological study area. Monarch could migrate through the botanical study area, but individuals were not observed in the biological study area during field surveys.
Amphibians			
Arroyo toad <i>Anaxyrus californicus</i>	Federal: E State: None CDFW: SSC BLM: None	Headwaters of large streams with persistent water from March to mid-June. Shallow, gravelly pools less than 18 inches deep adjacent to sandy terraces.	Absent. No suitable habitat is present in the biological study area; the man-made evaporation ponds in the project site do not support viable habitat. Although the Mojave River could provide suitable habitat, no CNDDDB occurrences recorded within 5 miles of the biological or botanical study areas. None were identified in the biological study area during field surveys.
Reptiles			
Southwestern pond turtle <i>Actinemys pallida</i>	Federal: PT State: None CDFW: SSC BLM: S	Ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, and either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, pond turtle prefer pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May	Absent. No suitable habitat is present within the biological study area. While the agricultural fields may provide marginally suitable upland habitat, there are no irrigation canals present within biological study area. Man-made evaporation ponds within the Project site do not support viable habitat. No CNDDDB occurrences reported

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Common/Scientific Name	Status	Habitat	Potential for Occurrence in Study Area
		enter brackish water and even seawater.	within 5-miles of the biological study area. None were identified in the biological study area during field surveys.
Desert tortoise <i>Gopherus agassizii</i>	Federal: T State: T CDFW: T BLM: None	Mojave and Sonoran deserts in southwestern Utah, southern Nevada, southeastern California, and western Arizona in the United States. Habitat includes creosote/cactus/shadscale scrub from sandy flats to rocky foothills, including alluvial fans, washes, and canyons where suitable soils for den construction might be found. Found from near sea level to around 3,500 feet in elevation.	Unlikely. Undeveloped portions of the biological study area may provide low-quality habitat. Eight CNDDDB occurrences were recorded within 5 miles of the biological study area. The Project site is fenced and precludes desert tortoise from entering the site. None were identified in the biological study area during field surveys.
Mojave fringe-toed lizard <i>Uma scoparia</i>	Federal: None State: None CDFW: SSC BLM: S	Restricted to areas with fine, loose, windblown areas including dunes, dry lakebeds, desert washes, riverbanks, sparse desert scrub habitats, and isolated pockets against hillsides.	Absent. No suitable habitat in the biological study area due to lack of aeolian sand deposits. Suitable habitat is present in the Mojave River, approximately 1.3 miles southeast of the biological study area. Two reported CNDDDB occurrences recorded within 5 miles of the biological study area. None were identified in the biological study area during field surveys.
Fish			
Mohave tui chub <i>Siphateles bicolor mohavensis</i>	Federal: E State: E CDFW: FP BLM: None	Endemic to the Mojave River basin. Prefers lake habitats, always associated with deep pools and slough-like areas, and do poorly in fast-flowing streams. Adapted for harsh water qualities including alkaline	Absent. No suitable aquatic habitat is present within the biological study area. The CNDDDB indicates the species have been extirpated from the area since 1992. None were identified in the biological study area during field surveys.

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Common/Scientific Name	Status	Habitat	Potential for Occurrence in Study Area
		waters and extreme temperatures.	
Birds			
Golden eagle <i>Aquila chrysaetos</i>	Federal: None State: None CDFW: FP BLM: S	Golden eagle can be found from the tundra, through grasslands, intermittent forested habitat and woodland-brushlands, and south to arid deserts and canyonlands. Typically found in open country in the vicinity of hills, cliffs and bluffs. Known to be sensitive to human activity and are known to avoid developed areas.	Unlikely. Marginal to low quality foraging habitat is present in the undeveloped scrub of the outer portions of the biological study area. No suitable nesting habitat is present in the biological study area. May migrate through the biological study area but unlikely to remain for foraging or breeding. None observed in the biological study area during field surveys.
Burrowing owl <i>Athene cunicularia</i>	Federal: None State: SC CDFW: SSC BLM: S	Inhabits open, dry, nearly or quite level, grassland; prairie; desert floor; shrubland should be considered potential habitat if shrub cover is below 30 percent. In coastal Southern California, some are found in microhabitats highly altered by humans, including flood control and irrigation basins, dikes, and banks, abandoned fields surrounded by agriculture, and road cuts and margins. In the western United States burrowing owls are only rarely known to construct their own burrows; there is a strong association between burrowing owls and burrowing mammals, especially ground squirrels (<i>Spermophilus</i> spp.); however burrowing owls will also occupy human-made niches such	Possible. Suitable breeding habitat may occur in the biological study area where ground squirrel burrows are found. Suitable foraging habitat is available in agricultural areas. Six CNDDDB occurrences-reported within 5 miles of the biological study area. No burrows or burrowing owls encountered during field surveys.

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Common/Scientific Name	Status	Habitat	Potential for Occurrence in Study Area
		as banks and ditches, piles of broken concrete, and even abandoned structures.	
Mountain plover <i>Charadrius montanus</i>	Federal: None State: None CDFW: SSC BLM: S	Nest in shortgrass prairie, especially where blue grama, buffalo grass, and western wheat grass are dominant; and in grassy semidesert with scattered saltbush, sage, prickly pear, and yucca, at elevations ranging from 2,100 to 10,663 feet. They also nest in fallow or recently plowed agricultural fields and in overgrazed landscapes that mimic their natural shortgrass habitat. Mountain Plover often nests around prairie-dog towns. During migration they may appear in almost any shortgrass habitat, including sod farms, playas, or tilled fields.	Absent. No suitable habitat is present within the biological study area; the lined man-made evaporation ponds in the Hinkley Compressor Station fence line do not support viable habitat. No CNDDDB occurrences recorded within 5 miles of the biological study area. Individuals may migrate through the area but are unlikely to remain for foraging or breeding. None encountered during field surveys.
Western snowy plover <i>Charadrius nivosus nivosus</i>	Federal: T State: None CDFW: SSC BLM: None	Found on sandy beaches, salt pond levees, and shores of large alkali lakes. Needs sandy, gravelly, or friable soils for nesting. Breeds primarily on coastal beaches above the high tide line on coastal beaches, sand spits, dune-backed beaches, sparsely-vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries. Wintering snowy plovers are found on many of the beaches used for nesting as well as in human-made salt	Absent. No suitable habitat is present within the biological study area; the lined man-made evaporation ponds in the Hinkley Compressor Station fence line do not support viable habitat. No CNDDDB occurrences recorded within 5 miles of the biological study area. Individuals may migrate through the area but are unlikely to remain for foraging or breeding. None encountered during field surveys.

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Common/Scientific Name	Status	Habitat	Potential for Occurrence in Study Area
		ponds, and on estuarine sand and mudflats.	
Western, yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	Federal: T State: E CDFW: None BLM: S	Inhabitant of extensive, mature, riparian forests; has declined from a fairly common, local breeder in much of California 60 years ago, to virtual extirpation with only a handful of tiny populations remaining in all of California today. Losses are tied to obvious loss of nearly all suitable habitat, but other factors may also be involved. Relatively broad, well- shaded riparian forests are utilized, although it tolerates some disturbance. A specialist to some degree on tent caterpillars, with remarkably fast development of young covering only 18–21 days from incubation to fledging.	Absent. No suitable habitat is present within the biological study area; the man-made evaporation ponds in the project site do not support viable habitat. No CNDDB occurrences recorded within 5 miles of the biological study area. May migrate through the biological study area but it is unlikely to remain for foraging or breeding. None encountered during field surveys.
Loggerhead shrike <i>Lanius ludovicianus</i>	Federal: None State: None CDFW: SSC BLM: None	Forages in open country of many types (including non-intensive agricultural areas) and nests in small trees and large shrubs, often at the edges of such open areas. Like most birds of prey, generally occurs at low densities. The species is widely distributed in Southern California with some seasonal movements evident.	Possible. Marginal, low quality foraging habitat is present within the creosote bush scrub/allscale scrub habitat in the biological study area. No CNDDB nests recorded within 5 miles of the biological study area. May migrate through the biological study area but it is unlikely to remain for foraging or breeding. None encountered during field surveys.
Yuma Ridgway's rail <i>Rallus obsoletus yumanensis</i>	Federal: E State: T CDFW: FP	Found in freshwater and alkali marshes dominated by stands of emergent vegetation interspersed	Absent. No suitable habitat is present within the biological study area; the man-made evaporation ponds in the

3.4 BIOLOGICAL RESOURCES

Common/Scientific Name	Status	Habitat	Potential for Occurrence in Study Area
	BLM: None	with areas of open water and drier, upland benches. Prefers mature marsh stands along margins of shallow ponds with stable water levels. Nest sites selected by near upland areas in shallow sites dominated by mature vegetation, often in the base of a shrub.	project site do not support viable habitat. No CNDDDB occurrences recorded within 5 miles of the biological study area. May migrate through the biological study area but it is unlikely to remain for foraging or breeding. None encountered during field surveys.
Le Conte's thrasher <i>Toxostoma lecontei</i>	Federal: None State: None CDFW: SSC BLM: S	Found in low, sandy, open deserts that are home to few other bird species. Over most of their range, saltbush, shadscale, cholla cactus, creosote, yucca, mesquite, and ocotillo are common plants, but they are usually sparsely distributed in these mostly flat or rolling landscapes. Generally do not inhabit steep-sided canyons, preferring small arroyos, open flats, or dunes.	Possible. Marginal, low quality foraging habitat is present within the creosote bush scrub/allscale scrub habitat in the biological study area. No CNDDDB occurrences recorded within 5 miles of the biological study area. May migrate through the biological study area but it is unlikely to remain for foraging or breeding. None encountered during field surveys.
Mammals			
Mohave river vole <i>Microtus californicus mohavensis</i>	Federal: None State: None CDFW: SSC BLM: None	Occurs in moist habitats including meadows, freshwater marshes, and irrigated pastures in the vicinity of the Mojave River. Suitable habitat is associated with ponds and irrigation canals along with the Mojave River. Burrows into soft soils. Elevations of known localities range between 2,325–2,700 feet.	Absent. No suitable habitat is present within the biological study area. Adjacent agricultural fields could provide marginally suitable habitat; however, there are no irrigation canals present within the biological study area. The man-made evaporation ponds in the project site do not support viable habitat. No CNDDDB occurrences recorded within 5 miles of the biological study area. May migrate through the biological study area but it is unlikely to remain for foraging or breeding. None

3.4 BIOLOGICAL RESOURCES

Common/Scientific Name	Status	Habitat	Potential for Occurrence in Study Area
			encountered during field surveys.
American badger <i>Taxidea taxus</i>	Federal: None State: None CDFW: SSC BLM: None	Found in open, drier stages of many shrub, herbaceous, and woodland communities where soils are dry and suitable for burrowing. Sensitive to fragmentation of open spaces. Generally, it requires good diversity and abundance of rodent prey.	Absent. No suitable habitat is present within the biological study area due to developed/disturbed and fragmented habitat. The Project site is surrounded by a chain link fence. One CNDDDB occurrence reported within 5 miles of the biological study area. None encountered during field surveys.
Mohave ground squirrel <i>Xerospermophilus mohavensis</i>	Federal: None State: T CDFW: None BLM: S	Restricted to the Mojave Desert in San Bernardino, Los Angeles, Kern, and Inyo Counties. Optimal habitats are open desert scrub, alkali desert scrub, and Joshua tree woodland. Feeds in annual grasslands. Prefers sandy to gravelly soils, avoids rocky areas. Uses burrows at base of shrubs for cover.	Possible. Potential suitable habitat is present within the biological study area. Three CNDDDB occurrences reported within 5 miles of the biological study area. None encountered during field surveys.
Pallid Bat <i>Antrozous pallidus</i>	Federal: None State: None CDFW: SSC BLM: S	Roosts in caves, crevices, mines, and occasionally hollow trees and buildings in a wide variety of habitats, including grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forest. Most common in open, dry habitats with rocky areas for roosting.	Absent. Suitable roosting habitat may occur within the biological study area in buildings. None encountered during field surveys and no evidence of use was found within the biological study area.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	Federal: None State: None CDFW: SSC BLM: S	Roosts in caves, tunnels, mines, & buildings in all habitats found in California except subalpine and alpine.	Absent. Suitable roosting habitat may occur within the biological study area in buildings. None encountered during field surveys and no evidence of use was found

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Common/Scientific Name	Status	Habitat	Potential for Occurrence in Study Area
			within the biological study area.
Spotted bat <i>Euderma maculatum</i>	Federal: None State: None CDFW: SSC BLM: S	Roosts mostly in rock crevices, also occasionally in caves and buildings in arid deserts, grasslands and mixed conifer forests at elevations up to and sometimes higher than 10,000 feet.	Absent. Suitable roosting habitat may occur within the biological study area in buildings. None encountered during field surveys and no evidence of use was found within the biological study area.
Western mastiff bat <i>Eumops perotis californicus</i>	Federal: None State: None CDFW: SSC BLM: S	Roosts in crevices in cliff faces, high buildings, trees, and tunnels in open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban areas.	Absent. Suitable roosting habitat may occur within the biological study area in buildings. None encountered during field surveys and no evidence of use was found within the biological study area.
Silver-haired bat <i>Lasionycteris noctivagans</i>	Federal: None State: None CDFW: SSC BLM: S	Roosts in hollow trees, snags, buildings, rock crevices, caves, and under exfoliating bark. Maternity roosts are typically in dense foliage or hollow trees. Habitat types include coastal and montane coniferous forests, valley foothill woodlands, pinyon-juniper woodlands, and valley foothill and montane riparian habitats, generally below 9,000 feet.	Absent. Suitable roosting habitat may occur within the biological study area in buildings. None encountered during field surveys and no evidence of use was found within the biological study area.

Notes:

BLM S (plants) = BLM sensitive plants

BLMS (animals) = BLM sensitive animals

CNDDDB = California Natural Diversity Database

CRPR = California Rare Plant Rank (CRPR)

E= Endangered

FC= Federal Candidate

FP= Fully Protected

NA = not applicable

PT = proposed Threatened

SC = State Candidate

SSC= State Species of Special Concern

T= Threatened

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WL = Watch List

List 1A Presumed extinct in California

List 1B Rare, threatened or endangered in California and elsewhere

List 1B.1 Seriously endangered in California

List 1B.2 Fairly endangered in California

List 1B.3 Not very endangered in California

List 2 Presumed extinct in California, but more common elsewhere

3 Plants for which more information is needed

4 Plants of limited distribution

.1 Seriously threatened in California.

.2 Fairly threatened in California.

.3 Not very threatened in California.

Source: (Jacobs 2025; PG&E 2025)

Special Status Plant Species

No special status plant species, including federal Endangered Species Act (ESA), California Endangered Species Act (CESA), BLM special status, CRPR, or CDFW Species of Special Concern were encountered during field surveys, which were conducted during the typical blooming period for the 22 special status plant species targeted during surveys (see Table 3.4-2). While some habitat for special status plant species may occur within the biological study area habitat quality is generally low due to existing development, agricultural uses, and fragmentation of native vegetation communities (Jacobs 2025). The locations of the CNDDDB recorded occurrences of Barstow woolly sunflower, desert cymopteris, and beaver dam breadroot were also surveyed as reference sites but none were encountered (Jacobs 2025). Based on the lack of evidence of occurrences, special status plants are not considered further.

Special Status Wildlife Species

Desert Tortoise

The Mojave population of desert tortoise was listed as threatened under the ESA on April 2, 1990, and listed as threatened under the CESA in 1989. Throughout most of the Mojave Desert, most desert tortoises occur on gently sloping terrain with sandy-gravel soils and sparse, low-growing shrubs which allow for establishment of herbaceous plants. Soil must be loose enough for digging burrows, but firm enough that burrows do not collapse. There are eight CNDDDB recorded occurrences of desert tortoises within five miles of the Hinkley Compressor Station. The CNDDDB indicates the largest of four historic populations of desert tortoise have been mapped within approximately one mile of the Hinkley Compressor Station. Historically, estimated densities were 20 to over 250 tortoises per square mile, but as of 1977 evidence suggests major declines in the estimated density in most areas. During field surveys, two small, decomposed fragments of a desert tortoise carcass estimated to be greater than four years old were found along the southern fence line of the Hinkley Compressor Station. No recent evidence (e.g. burrows) of desert tortoises was found in the biological study area during field surveys (Jacobs 2025).

Mohave Ground Squirrel

Mohave ground squirrel was listed as threatened under the CESA in 1993. Most Mohave ground squirrel occurrences are associated with Mojave creosote brush scrub, desert saltbush scrub, and Mojave mixed woody scrub vegetation communities. Mohave ground squirrels construct burrows to regulate temperature, escape predators, and give birth. There are three

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CDNNB recorded occurrences of Mohave ground squirrel within 5 miles of the Hinkley Compressor Station. The most recent occurrence was reported northwest of the Project site in 2012 and oldest was reported in 1949 southeast of the Project area. No Mohave ground squirrels were captured during field surveys; however potential habitat does occur within the western portion of Hinkley Compressor Station fence line (Jacobs 2025).

Monarch Butterfly

Monarch butterfly was listed as proposed threatened under the ESA in December 2024 (USFWS 2024). Monarch butterfly relies on milkweed (primarily *Asclepias* spp.) for breeding and reproduction. There are no CDNNB recorded occurrences of monarch butterfly within 5 miles of the Hinkley Compressor Station. One species of milkweed, climbing milkweed (*Funastrum cynanchoides* var. *hartwegii*), was observed in the biological study area during biological surveys. Climbing milkweed is not an important host for monarch butterflies (Nature Collective 2019).

Burrowing Owl

Burrowing owls are a CESA candidate species, a California Department of Fish and Wildlife (CDFW) species of special concern, and a BLM sensitive species. Habitat includes open, well-drained terrain; short, sparse vegetation; and underground burrows or burrow-like openings for nesting. Most burrows have been excavated by ground squirrels, badgers, foxes, desert tortoise, and coyotes. Nesting may occur in or immediately adjacent to the agricultural areas. Burrowing owl can be found year-round in old piping at long-abandoned agricultural units. There are six CNDDDB recorded occurrences within 5 miles of the Hinkley Compressor Station. Most observations have been reported west and southeast of the Hinkley Compressor Station in 2007 and 2010. No burrowing owl signs, burrows, or owls were observed in the biological study area during surveys. A total of 17 California ground squirrel burrows were observed in the area adjacent to the Project area which could potentially provide nesting habitat for burrowing owls. No burrows that could be used by burrowing owls were found within the Project area (Jacobs 2025).

Golden Eagle

Golden eagles are protected under the Bald and Golden Eagle Protection Act, are protected by CDFW. They inhabit diverse terrains including deserts but typically prefer open areas near cliffs. Because they are sensitive to human disturbance, they tend to avoid developed regions. No nesting habitat is present within the biological study area. Marginal foraging habitat may be present in undeveloped scrub in the outer portions of the biological study area. While golden eagles may migrate through the biological study area, it does not provide habitat for nesting or breeding, thus golden eagles are unlikely to occur in the biological study area or Project site and would not nest in proximity to the Project site (PG&E 2025; Jacobs 2025).

Loggerhead Shrike

Loggerhead shrikes are a CDFW species of concern when nesting. Loggerhead shrikes breed mainly in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground. They typically require open areas of short grasses, forbs, or bare ground for hunting and large shrubs or trees for nest placement. They may also use fences or power lines for

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hunting perches, territorial advertisement, and pair maintenance. They also need impaling sites for prey manipulation or storage which include sharp, thorny, or multi-stemmed plants and barbed-wire fences. Nests are generally well hidden in taller shrubs or low in trees and are often located in areas where there is a break in the landscape, such as at the base of slopes or edge of a woodland or clump of trees. Undeveloped portions of the biological study area may provide foraging habitat for loggerhead shrike. There is no suitable nesting habitat present within the biological study area. No nests have been recorded by the CNDDDB within 5 miles of the Project site. While loggerhead shrike may migrate through the biological study area it is unlikely to provide suitable nesting habitat (PG&E 2025; Jacobs 2025).

Le Conte's Thrasher

Le Conte's thrashers are a CDFW species of special concern and BLM sensitive species. They inhabit low, open deserts with sparse vegetation and prefer flat or gently rolling terrain and are usually sparsely distributed. Vegetation typically consists of saltbush, shadscale, cholla cactus, creosote, yucca, mesquite, and ocotillo. Generally, individuals prefer small arroyos, open flats, or dunes. No occurrences have been recorded by the CNDDDB within five miles of the Project site. Undeveloped portions of the biological study area may provide foraging habitat for Le Conte's thrasher, but suitable breeding habitat is not present within the Project site. There are no CNDDDB recorded occurrences within five miles of the station. While Le Conte's thrasher may migrate through the biological study area, they are unlikely to remain for breeding and are unlikely to occur within the biological study area or Project site (PG&E 2025; Jacobs 2025).

Wildlife

The biological study area supports habitat for several common plant and wildlife species. Most species are common desert species or species typically associated with developed areas. During field surveys, several waterbird species were documented within the biological study area near the evaporation ponds in the Project site (Jacobs 2025). Table 3.4-3 summarizes wildlife species documented within the biological study area during field surveys. Bird species and raptors documented within the biological study area are protected under the Migratory Bird Treaty Act (MBTA) and Fish and Game Code (FGC § 3800-3806). Desert kit fox are protected fur bearing mammals (FGC § 4000-4030).

Table 3.4-3 Wildlife Species Documented in the Biological Study Area During Field Surveys

Common Name	Scientific Name
Common side-blotched lizard	<i>Uta stansburiana</i>
Western whiptail	<i>Cnemidophorus tigris</i>
Desert iguana	<i>Dipsosaurus dorsalis</i>
Long-nosed leopard lizard	<i>Gambelia wislizenii</i>
Desert spiny lizard	<i>Sceloporus magister uniformis</i>
Snowy egret	<i>Egretta thula</i>
Cinnamon teal	<i>Anas cyanoptera</i>

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Common Name	Scientific Name
Gadwall	<i>Anas strepera</i>
Black-necked stilt	<i>Himantopus mexicanus</i>
American avocet	<i>Recurvirostra americana</i>
Eurasian collared dove	<i>Streptopelia decaocto</i>
Mourning dove	<i>Zenaida macroura</i>
Black phoebe	<i>Sayornis saya</i>
Common raven	<i>Corvus corax</i>
Northern mockingbird	<i>Mimus polyglottos</i>
American pipit	<i>Anthus rubescens</i>
European starling	<i>Sturnus vulgaris</i>
Brewer's sparrow	<i>Spizella breweri</i>
White-crowned sparrow	<i>Zonotrichia leucophrys</i>
Western meadowlark	<i>Sturnella neglecta</i>
American kestrel	<i>Falco sparverius</i>
Cooper's hawk	<i>Accipiter cooperii</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Black-tailed hare	<i>Lepus californicus</i>
California ground squirrel	<i>Otospermophilus beecheyi</i>
Antelope ground squirrel	<i>Amberspermophilus leucurus</i>
Kangaroo rat	<i>Dipodomys sp.</i>
Desert wood rat	<i>Neotoma lepida</i>
Desert kit fox	<i>Vulpes macrotis</i>

Source: (Jacobs 2025)

3.4.3 Regulatory Setting

Federal

Endangered Species Act

The ESA (16 USC 1531–1544), as amended, protects plants, fish, and wildlife that are listed as endangered or threatened by the USFWS or NOAA Fisheries. Section 9 of the ESA prohibits the “take” of listed fish and wildlife, where “take” is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 CFR 17.3). For plants, this statute prohibits removing, possessing, maliciously damaging, or destroying any listed plant under federal jurisdiction and removing, cutting, digging up, damaging, or destroying any listed plant in knowing violation of state law (16 USC 1538).

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The ESA allows for issuance of incidental take permits to private parties either in conjunction with a habitat conservation plan (HCP) or as part of a Section 7 consultation. Under Section 10 of the ESA, a private party may obtain incidental take coverage by preparing an HCP to cover target species within the Project site, identifying impacts to the covered species, and presenting the measures that will be undertaken to avoid, minimize, and mitigate these impacts. Under Section 7 of the ESA, federal agencies are required to consult with USFWS and NOAA Fisheries, as applicable, if their actions, including permit approvals or funding may affect a federally listed species (including plants) or designated critical habitat.

If the Project is likely to adversely affect a species, the federal agency will initiate formal consultation with the USFWS or NOAA Fisheries, which will issue a biological opinion as to whether the proposed agency action is likely to jeopardize the continued existence of a listed species (jeopardy) or adversely modify critical habitat (adverse modification). As part of the biological opinion, USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity, provided that the action will not jeopardize the continued existence of the species or adversely modify designated critical habitat.

Migratory Bird Treaty Act

The MBTA (16 USC 703–711) protects all migratory birds, including active nests and eggs. Birds protected under the MBTA include all native waterfowl, shorebirds, hawks, eagles, owls, doves, and other common birds such as ravens, crows, sparrows, finches, swallows, and others, including their body parts (for example, feathers and plumes), active nests, and eggs. A complete list of protected species can be found in 50 CFR 10.13. Enforcement of the provisions of the federal MBTA is the responsibility of USFWS. Most actions that result in taking or in permanent or temporary possession of a protected species constitute violations of the MBTA. Examples of permitted actions that do not violate the MBTA are the possession of a hunting license to pursue specific game birds, legitimate research activities, display in zoological gardens, bird-banding, and other similar activities. USFWS is responsible for overseeing compliance with the MBTA, and the U.S. Department of Agriculture’s Animal Damage Control Officer makes recommendations on related animal protection issues. The landscape trees in the staging area support habitat for the presence of nesting birds and migratory birds protected under the MBTA.

Bald and Golden Eagle Protection Act

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

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feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death, or nest abandonment. The Project site does not include suitable nesting or foraging habitat for bald eagles or golden eagles, but the undeveloped areas outside of the Project site could be used for foraging.

Federal Noxious Weed Act

Public Law 93-629 (7 USC 2801 et seq.; 88 Stat. 2148), enacted January 3, 1975, established a federal program to control the spread of noxious weeds. The Secretary of Agriculture (Secretary) was given the authority to designate plants as noxious weeds by regulation, and the movement of all such weeds in interstate or foreign commerce was prohibited except under permit. The Secretary also was given authority to inspect, seize, and destroy products and to quarantine areas if necessary to prevent the spread of such weeds. The Secretary also was authorized to cooperate with other federal, state, and local agencies, farmers associations, and private individuals in measures to control, eradicate, or prevent or retard the spread of such weeds. Section 1453 of Public Law 101-624, the 1990 Farm Bill, enacted November 28, 1990 (104 Stat 3611) amended the Act by requiring each federal land-managing agency to:

- Designate an office or person adequately trained in managing undesirable plant species to develop and coordinate a program to control such plants on the agency's land.
- Establish and adequately fund this plant management program through the agency's budget process.
- Complete and implement cooperative agreements (requirements for which are provided) with the states regarding undesirable plants on agency land.
- Establish integrated management systems (as defined in the section) to control or contain undesirable plants targeted under the cooperative agreements.

The law also requires that any environmental assessments or impact statements that may be required to implement plant control agreements must be completed within 1 year of the time the need for the document is established.

The Federal Noxious Weed Act does not require specific permits to conduct actions where noxious weeds are present, provided that noxious weeds are not moved.

State

California Endangered Species Act

Sections 2050 to 2098 of the CESA prohibit the take of state-listed endangered and threatened species unless specifically authorized by the CDFW. The state definition of "take" is to hunt, pursue, catch, capture, or kill a member of a listed species or attempt to do so. CDFW

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administers CESA and authorizes take through permits or memorandums of understanding issued under Section 2081 of CESA, or through a consistency determination issued under Section 2080.1. Section 2090 of CESA requires state agencies to comply with threatened and endangered species protection and recovery and to promote conservation of these species.

California Department of Fish and Wildlife Regulations

Protected Species in the Fish and Game Code

The California Fish and Game Code provides protection from take for a variety of species, referred to as fully protected species. Section 5050 lists fully protected amphibians and reptiles and prohibits the take of such reptiles and amphibians except as provided in Sections 2081.7 or 2835. Section 5515 prohibits take of fully protected fish species except as provided in Sections 2081.7 or 2835. Fully protected birds are listed under Section 3511, and fully protected mammals are listed under Section 4700; both sections prohibit take except as provided in Sections 2081.7 and 2835. Except for take related to scientific research, all take of fully protected species is prohibited.

Mammal Hunting Regulations

The Mammal Hunting Regulations at Section 2011 to 2012, Subdivision 2, Game and Furbearers, Chapter 5, Furbearing Mammals, Section 460, states that fisher, marten, river otter, desert kit fox, and red fox may not be taken at any time.

California Native Plant Protection Act and Natural Community Conservation Planning Act

The Native Plant Protection Act of 1973 (Fish and Game Code Sections 1900 to 1913) includes provisions that prohibit the taking of endangered or rare native plants. CDFW administers the Native Plant Protection Act and generally regards as rare many plant species included on the CRPR 1A, 1B, 2A, and 2B lists of the CNPS Inventory of Rare, Threatened, and Endangered Plants of California. In addition, sometimes CRPR 3 and 4 plants are considered if the population has local significance in the area and is impacted by the project.

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

Bird/Raptor Protections in the Fish and Game Code

Like the federal MBTA, Section 3503 of the California Fish and Game Code prohibits take, possession, or destruction of eggs and nests of all birds. Section 3503.5 prohibits the killing of raptor species and the destruction of raptor nests. Take or possession of any migratory non-game bird as designated in the MBTA is prohibited under Sections 3513 and 3800. Section 86 of the Fish and Game Code defines “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

California Species of Special Concern

“Species of Special Concern” is a category conferred by CDFW to fish and wildlife species that meet the state definition of threatened or endangered, but have not been formally listed (for

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example, federally- or state-listed species), or are considered at risk of qualifying for threatened or endangered status in the future based on known threats. SSC is an administrative classification only, but these species should be considered “special status” for the purposes of the CEQA analysis.

Local

PG&E Hinkley Groundwater Remediation Project Habitat Conservation Plan

The PG&E *Hinkley Groundwater Remediation Project Habitat Conservation Plan* (CH2M HILL Engineers 2017) was adopted to guide remediation activities at Hinkley Compressor Station. The Hinkley Groundwater Remediation Project HCP provides mitigation and minimization guidelines for groundwater remediation activities associated with the station that may affect the wildlife species covered by the HCP for permitted activities. The HCP authorizes incidental take of the Mojave population of desert tortoise (desert tortoise) and the incidental take of Mohave ground squirrel for groundwater remediation activities conducted by PG&E at and near the Hinkley Compressor Station.

3.4.4 Applicant Proposed Measures

PG&E has proposed APMs for the purpose of reducing environmental effects. APMs are listed in Table 2.6-9 of the Project Description and are considered part of the Project for the purpose of analysis. PG&E has proposed the APMs listed in Table 3.4-4 to address impacts relevant to biological resources.

Table 3.4-4 APMS Relevant to Biological Resources

Proposed APMs
APM BIO-1: Protect Nesting Birds For any construction scheduled during the typical migratory bird or raptor nesting season (March 1 through August 15), preconstruction migratory bird and raptor nesting surveys would be performed by a qualified biologist. Surveys would occur in publicly accessible areas and/or where PG&E has existing access. Private property would not be used for access. If active nests containing eggs or young are found, an appropriate nest exclusion zone would be established to prevent disturbance to the nest. Migratory bird and raptor nesting preconstruction surveys and avoidance measures would be performed in accordance with PG&E’s Nesting Bird Management Plan.
APM BIO-2: Protect Wildlife Trapped in Trenches or Steep-walled Holes All excavated holes/trenches that are not filled at the end of a workday would be covered, or a wildlife escape ramp would be installed to prevent the inadvertent entrapment of wildlife species. Excavated holes/trenches left overnight would be inspected prior to the onset of work. If wildlife is found, work would pause until the PG&E biologist is able to remove and relocate the animal.
APM BIO-3: Preconstruction Surveys Preconstruction biological clearance surveys would be completed by a qualified biologist prior to the onset of construction activities to minimize impacts on wildlife.

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Proposed APMs

APM BIO-4. Worker Environmental Awareness Program – Biological Resources Portion

A Worker Environmental Awareness Program (WEAP) would be prepared for the project and implemented to educate construction and O&M workers on site-specific biological and non-biological resources and proper work practices to avoid harming wildlife during construction or O&M. The WEAP would include training which addresses the requirements for protecting wildlife from entrapment in open trenches or steep-walled holes and nesting birds. A copy of the training sign-in sheets would be provided to the CPUC.

APM AIR-1: Dust Control During Construction PG&E will control fugitive dust by using BMPs, as follows:

- Water or cover with coarse rock all exposed surfaces with the potential to generate dust to reduce the potential for airborne dust from leaving the site.
- Limit the simultaneous occurrence of more than two ground-disturbing construction phases on the same area at any one time. Phase activities to reduce the amount of disturbed surfaces at any one time.
- Cover all haul trucks entering/leaving the site and trim their loads, as necessary.
- Use wet power vacuum street sweepers to sweep all paved access roads, parking areas, staging areas, and public roads adjacent to the project site daily (at minimum) during construction. Do not use dry power sweeping.
- Wash off all trucks and equipment, including their tires, prior to leaving the project site.
- Apply gravel or non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at the project site.
- Water and/or cover soil stockpiles daily.
- Plant vegetative ground cover in disturbed areas as soon as possible and water it appropriately until vegetation is established.
- Limit all vehicle speeds to 15 miles per hour (mph) or less on unpaved areas.
- Implement dust monitoring in compliance with the standards of Mohave Desert Air Quality Monitoring District (MDAQMD).
- Halt construction during any periods when wind speeds exceed 50 mph.

APM HAZ-1: Development and Implementation of Hazardous Material and Emergency Response Procedures

PG&E will implement construction controls, training, and communication to minimize the potential exposure of the public and site workers to potential hazardous materials during all phases of project construction. Construction procedures that will be implemented include worker training appropriate to the worker's role, and PG&E containment and spill control practices.

APM HAZ-2: Emergency Spill Supplies and Equipment

Materials will be available on the project site during construction to contain, collect, and dispose of any minor spill. Oil-absorbent material, tarps, and storage drums will be available on the project site during construction and will be used to contain and control any minor releases of oil. If excess water and liquid concrete escape during pouring, they will be directed to lined and berm areas within the staging area, where the concrete will dry and then be transported for disposal per applicable regulations.

3.4.5 Environmental Impacts

Methodology and Assumptions

The impact analysis for biological resources evaluates the potential for the Project to cause adverse effects on vegetation and habitats including wetland communities, sensitive natural

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communities, and wildlife movement corridors, special status plant and animal species, and general wildlife. The analysis considers whether the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- Have a substantial adverse effect on state or 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;
- 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;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP.

Direct and Indirect Effects

- 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 Game or U.S. Fish and Wildlife Service?**

Direct Construction Impacts

Special-Status Plants

Special-status plant surveys were conducted at the project site and surroundings. Due to the absence of special-status plant occurrences within the project area, construction of the Project would have no impact on special-status plants.

Desert tortoise

No desert tortoise were observed within the Project site or surroundings during protocol surveys in 2024. Ground squirrels are active in the area and could construct burrows for desert tortoise prior to construction. The Project occurs within the range of desert tortoise and desert tortoise have been observed adjacent the compressor station fence in prior years. While no burrows were identified in the Project area during initial surveys and the Project site is surrounded by a fence, if there were a break in the fence, a desert tortoise could enter the staging area and could enter a burrow created by a ground squirrel. If a desert tortoise were occupying a burrow within a staging area during construction, the desert tortoise could be crushed by construction equipment or entrapped in a trenches if they were to enter the Project area. APM BIO-2 requires trenches or steep walled holes to be covered at the end of each

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workday or be fitted with a wildlife escape ramp. Work would not be resumed until trenches are inspected and any wildlife removed and relocated by a PG&E biologist. AMP BIO-3 requires preconstruction biological surveys to be completed prior to the onset of construction. AMP BIO-4 requires implementation of a worker environmental awareness program (WEAP) to make workers aware of biological resources that may be encountered on site including desert tortoise. While the APMs would reduce potential impacts on desert tortoise, the APMs do not define specific procedures for avoiding desert tortoise if one were observed during preconstruction surveys. As a result, the Project construction could disturb or destroy a burrow containing desert tortoise, which would be a significant impact. Mitigation Measure BIO-1 requires buffers and monitoring of any occupied desert tortoise burrows to ensure avoidance of the species. With implementation of Mitigation Measure BIO-1 impacts on desert tortoise would be less than significant.

Mohave ground squirrel

Suitable habitat for Mohave ground squirrel is present within and adjacent to the Hinkley Compressor Station fence line (e.g., ground squirrel burrows within the range of Mohave ground squirrel); however, no individuals were captured or encountered during field surveys. Mohave ground squirrels could be crushed by equipment or trapped in trenches if they were to enter the Project area during construction. Occupied burrows within the project area and immediate surroundings may be disturbed by construction equipment or vehicles. APM BIO-2 requires trenches or steep walled holes to be covered at the end of each workday or be fitted with a wildlife escape ramp. Work would not be resumed until trenches are inspected and any wildlife removed and relocated by a PG&E biologist. AMP BIO-3 requires preconstruction biological surveys to be completed prior to the onset of construction. AMP BIO-4 requires implementation of a worker environmental awareness program (WEAP) to make workers aware of biological resources that may be encountered on site. While the APMs would reduce potential impacts on Mohave ground squirrel, the APMs do not define specific procedures for avoiding Mohave ground squirrel if one were observed during preconstruction surveys. As a result, the Project construction could disturb or destroy a burrow containing Mohave ground squirrel, which would be a significant impact. Mitigation Measure BIO-1 requires buffers and monitoring of any occupied Mohave ground squirrel burrows to ensure avoidance of the species. With implementation of Mitigation Measure BIO-1 impacts on Mohave ground squirrel would be less than significant.

Desert kit fox

Desert kit fox was observed on camera adjacent to the Hinkley Compressor Station fence line. While the fence likely prevents most desert kit fox from entering the site, it is possible that smaller individuals could enter the compressor station, particularly if there were a gap under the fence. Impacts on the desert kit fox could occur through collisions with construction equipment accessing the site and noise from construction equipment could disrupt dens if one occurred in or adjacent the project area. APM BIO-2, BIO-3, and BIO-4 would reduce potential impacts by minimizing the likelihood of entrapment in steep walled holes or trenches, require preconstruction surveys, and implement a WEAP. While the APMs would reduce impacts, the

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project still has the potential to disturb a natal den of desert kit fox or to injure or kill a desert kit fox if one entered the project site, which would be a significant impact. Mitigation Measure BIO-2 requires preconstruction surveys for desert kit fox dens and defines avoidance buffers to minimize impacts on desert kit fox. Impacts on desert kit fox would be less than significant with mitigation.

Monarch butterfly

One milkweed species, climbing milkweed, was encountered during field surveys. Climbing milkweed is not an important species for monarch butterflies. Suitable roost sites for the monarch butterfly are absent within the Project area, but monarch may pass through the Project area during migrations. Due to the absence of suitable larval host plants (i.e., milkweed) or roost habitat within the project area, the project on the impact on monarch butterfly would be less than significant.

Migratory Birds Including Golden Eagle, Loggerhead Shrike, and Le Conte's Thrasher

Areas adjacent to the project area may provide some foraging habitat for golden eagle. While golden eagle may pass through the area, it is not likely for them to remain as no suitable nesting habitat exists in or adjacent to the Project area. Foraging opportunities would remain available in areas adjacent to the project area. Impacts on golden eagles would be less than significant.

There are some trees within the project area that may provide suitable nesting habitat for loggerhead shrike and Le Conte's thrasher. Marginal, low quality foraging habitat for both species is present within the creosote bush scrub/allscale scrub habitat near the Hinkley Compressor Station. In addition, migratory birds that are not special status species may nest in trees in the Project area. Construction activities have the potential to disturb nesting migratory birds through visual and noise disturbance which could result in avoidance or abandonment of nests for both special-status birds and migratory birds. APM BIO-1 requires pre-construction surveys during the nesting season and avoidance of nests. With implementation of APM BIO-1, impacts on migratory birds, including loggerhead shrike and Le Conte's thrasher would be less than significant.

Burrowing owl

Although no burrowing owls, signs, or burrows were encountered during field surveys, suitable burrowing owl habitat may occur within or adjacent to the Hinkley Compressor Station. California ground squirrel burrows were observed in the area adjacent to the project area, which could potentially provide nesting habitat for burrowing owls. Any occupied burrows within the project area could be disturbed by construction equipment or vehicles. Noise from construction equipment may also disturb nesting burrowing owls in areas adjacent to the Project area, resulting in abandonment of burrows. APM BIO-3 and BIO-4 require preconstruction surveys and implementation of a WEAP, which would reduce impacts on burrowing owls; however, the APMs do not specify procedures if an occupied burrow is identified during pre-construction surveys. Mitigation Measure BIO-3 defines procedures for avoidance of burrowing owl if one is encountered during a preconstruction survey. Impacts on burrowing owl would be less than significant with mitigation.

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Indirect Construction Impacts

Construction activities such as grading and driving heavy equipment on unpaved roadways can result in increased levels of fugitive dust that may settle on surrounding plants, which can adversely affect photosynthesis. Spills from hazardous materials may harm or kill affected plants. Introduction and/or spread of invasive species could further reduce habitat quality for many native plant and wildlife species. Implementation of APM AIR-1 defines best management practices to reduce fugitive dust. APM HAZ-1 and HAZ-2 require implementation of hazardous material and emergency response procedures and emergency spill supplies and equipment to be stored on site to reduce impacts from spills. While the APMs would reduce indirect impacts on special-status species, construction equipment could introduce invasive or noxious weeds resulting in a significant impact on special-status species habitat. Mitigation Measure BIO-4 requires vehicles and equipment to be cleaned prior to entering the project area. With the implementation of Mitigation Measures BIO-4, impacts would be less than significant.

Operation

The proposed electrical upgrades would be located within the developed Hinkley Compressor Station and would not result in any habitat loss. The electrical upgrades would not generate noise or increase human presence. Maintenance activities would be equivalent to maintenance activities for the existing electrical equipment at the compressor station. Operation and maintenance of the Project would have no impact would occur on special-status species.

Mitigation Measures

Mitigation Measure BIO 1: Desert Tortoise and Mohave Ground Squirrel

Preconstruction clearance surveys for any burrows potentially containing desert tortoise or Mohave ground squirrel burrows shall be completed by a qualified biologist within 500 meters (approximately 1,600 feet) of the project footprint prior to the onset of construction activities. If the burrow has any sign of recent use by a desert tortoise or Mohave ground squirrel, the burrow shall be monitored by a qualified biologist for signs of activity. No construction activity shall be allowed within 200 meters (approximately 656 feet) of a burrow containing desert tortoise or Mohave ground squirrel without obtaining approval from CDFW. All project activities within 500 meters (approximately 1,600 feet) of an occupied desert tortoise or Mohave ground squirrel burrow shall be monitored by a qualified biologist to ensure avoidance of the species. Reduced monitoring may be authorized by CPUC in the event of existing barriers to species entry to a work area (e.g., existing fence with no breaks or potential for species entrance would preclude the individuals from entering a work area). No relocation of desert tortoise or Mohave ground squirrel may occur without first obtaining the necessary incidental take permit(s) from USFWS and CDFW, as applicable.

Mitigation Measure BIO-2 Desert Kit Fox

Preconstruction clearance surveys for burrows within the project footprint that could be used as desert kit fox dens shall be completed by a qualified biologist prior to the onset of construction activities to minimize impacts. If an active, non-natal den is detected within the project footprint, then a 50- meters (approximately 165 feet) construction exclusion zone will be

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established, and passive relocation techniques may be used as determined by the qualified biologist. The buffer area will be maintained until passive relocation is successfully completed. If an active natal den is detected within the project footprint a 200- meters (approximately 656 feet) construction exclusion zone will be established, and passive relocation will not be implemented until monitoring confirms that the den is no longer in active use as a natal den. If the qualified biologist proposes a reduced buffer due to site specific circumstances (existing barriers to entry to a work area) the reduced buffer must be approved by CPUC.

Mitigation Measure BIO-3 Burrowing Owl

Preconstruction clearance surveys for active burrowing owl burrows shall be completed by a qualified biologist prior to the onset of construction activities to minimize impacts from construction. Surveys shall be conducted according to CDFW guidelines (California Department of Fish and Game (CDFG) 2012) or updated guidelines should they become available). If burrows are located, avoidance buffers shall be determined in coordination with CDFW and based on the recommendations below:

1. From April 1-August 15, buffers shall be 200 meters (approximately 656 feet) for low levels of disturbance (i.e., vehicles, worker presence), and 500 meters (approximately 1,600 feet) for moderate to high levels of disturbance (i.e., trenching, demolition, etc.)
2. From August 16-October 15, buffers shall be 200 meters (approximately 656 feet) for low and moderate levels of disturbance and 500 meters (approximately 1,600 feet) for high levels of disturbance.
3. From October 16-March 31, buffers shall be 50 meters (approximately 165 feet) for low levels of disturbance; be 200 meters (approximately 656 feet) for moderate levels of disturbance, and 500 meters (approximately 1,600 feet) for high levels of disturbance.
4. Binocular surveys may be substituted for protocol field surveys on private lands adjacent to the project site only when PG&E has made reasonable attempts to obtain permission to enter the property for survey work but was unable to obtain such permission.
5. Reduced buffers may be requested by the qualified biologist due to existing noise and disturbance levels at the compressor station. Buffer reductions would require CDFW approval. No burrowing owl may be relocated without first obtaining a CDFW incidental take permit.

Mitigation Measure BIO-4 Invasive Species

Any ground- or vegetation-disturbing equipment and tools will be cleaned free of mud, soil, and plant material before entering the project site for the first time, and any time after driving off pavement outside the project site. Cleaning can be through car washes, compressed air, pressure washes, brushes, or similar equipment.

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- 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 Game or U.S. Fish and Wildlife Service?**

No sensitive natural communities or riparian habitat occur within the Project site; therefore, the Project would have no impact on riparian habitats or other sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFW or USFWS.

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

There are no state or federally protected wetlands or riparian areas present within the Project site or vicinity; therefore, the Project would have no impact on wetlands.

- 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?**

The Project site is located within the Fremont-Kramer to Ord-Rodman Desert Tortoise Linkage. The Project site is enclosed by fencing, which prevents most wildlife movement through the site; however, it is possible that birds, small mammals, and small reptiles, including Mohave ground squirrel, desert tortoise, desert kit fox, or burrowing owl, may slip under the fence or enter the fence line. Ongoing human presence and disturbance at the Project site likely deter many wildlife species. No other designated migratory wildlife corridors overlap with the Project site and the Project activities would occur within the existing, developed Hinkley Compressor Station. Construction and operation of the Project would thus not interfere substantially with the movement of any native or resident or migratory wildlife or with established wildlife corridors. While there is a low potential for a ground squirrel to form a burrow that could be occupied by native wildlife, the area does not contain any existing native wildlife nursery sites and would not affect a wildlife nursery site. Thus, no impact from interference with movement of wildlife or impeding use of a wildlife nursery site would occur.

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

No trees or other vegetation would be trimmed or removed as part of the Project. The Project would not affect any waterbodies or riparian vegetation as none are present within or immediately surrounding the Project site. The Project would not conflict with any local policies or ordinances protecting biological preservation, including tree preservation policies or ordinances.

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f) Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The Project is located within the boundaries of the PG&E *Hinkley Groundwater Remediation Project HCP*. The Project would be implemented within the developed Hinkley Compressor Station site and would not conflict with habitat preservation or other requirements in the *Hinkley Groundwater Remediation Project HCP*. No conflict with any habitat conservation plan is anticipated.

3.4.6 References

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3.5 Cultural Resources

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
5. CULTURAL RESOURCES. Would the Project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Cultural resources include historical architectural resources, archaeological resources, and human remains. This section assesses the potential Project impacts on cultural resources. The cultural resources study area is defined as the Project area and a 0.5-mile buffer. A literature search was conducted and revealed that the Project area has been subject to intensive archaeological pedestrian surveys, and therefore no archaeological pedestrian survey was conducted for the Project. An architectural field survey of the Project area was completed, and one built resource, the Hinkley Compressor Station, was recommended as not eligible for listing on the California Register of Historical Resources (CRHR).

3.5.1 Environmental Setting

Definitions

Cultural Resources

The term *cultural resources* is defined as prehistoric and historic sites, structures, landscapes, districts, and any other physical evidence associated with human activity that is considered important to a culture, a subculture, or a community for scientific, traditional, religious or any other reason. For analysis, cultural resources may be categorized into two groups: historical resources and archaeological resources. Cultural resources in California are recognized as non-renewable resources that require management to assure their continued benefit to present and future Californians. Cultural resources under CEQA commonly are categorized as either *historical resources* or *archaeological resources* because CEQA requires an analysis of a project's effect on historical and archaeological resources.

Historical Resources

CEQA's provisions governing analysis of historical resources are set forth in Section 21084.1 of the California Public Resources Code (PRC) and the CEQA Guidelines (Title 14 California Code of Regulations [CCR] Section 15064.5[a]–[b]). CEQA includes objects of historical significance in

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its definition of *environment* (PRC Section 21060.5). Per Section 15064.5 of the CEQA Guidelines, the term *historical resources* is defined as follows:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources (CRHR). This resource can be of either historic or prehistoric age.
2. A resource included in a local register of historical resources or identified as significant in a historical resources survey shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site area, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided a lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a cultural resource shall be considered by a lead agency to be "historically significant" if the resource meets the criteria for listing on the CRHR, including the following:
 - a. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
 - b. Is associated with the lives of persons important in our past
 - c. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
 - d. Has yielded, or may be likely to yield, information important in prehistory or history

Archaeological Resources

CEQA includes detailed standards governing the analysis of impacts on archaeological resources (PRC Section 21083.2; CEQA Guidelines Section 15064.5[c]–[f]). If a lead agency determines that a project may have a significant effect on unique archaeological resources, the impact analysis must address those archaeological resources (PRC Section 21083.2[a]). An environmental document need not address effects on archaeological resources that are not unique (PRC Section 21083.2[a], [h]).

The term "unique archaeological resource" under PRC Section 21083.2(g) refers to an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, a high probability exists 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

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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

California Historical Resources Inventory

The California Historical Resources Inventory (HRI) is maintained by the California Office of Historic Preservation (OHP). The HRI is a database of cultural resources information, including sites listed or eligible for listing on the CRHR. The HRI includes only information on historical resources that have been identified and evaluated through one of the programs that the OHP administers under the National Historic Preservation Act (NHPA) or the PRC. The HRI includes data on the following:

- Resources evaluated in local government historical resource surveys that are partially funded through Certified Local Government grants or in surveys that local governments have submitted for inclusion in the statewide inventory
- Resources evaluated and determinations of eligibility made in compliance with Section 106 of the NHPA
- Resources evaluated for federal tax credit certifications
- Resources considered for listing in the National Register of Historic Places (NRHP), CRHR, or as California State Landmarks or Points of Historical Interest

Area of Potential Effects/Area of Potential Impacts

Under the NHPA, the *area of potential effects* (APE) is defined as “the geographic area, regardless of land ownership, within which a federal agency undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist” (36 CFR Sections 800.16[d] and 800.16[y]). For CEQA analysis and assessment of archaeological resources and historic resources and the potential for impacts to those resources, the *area of potential impacts* (API), also referred to as the *survey area*, is the same as the APE as defined under the NHPA.

Regional Setting

Prehistoric Period

Paleoindian Period (10,000 to 8,000 BCE)

The Paleoindian Period covers the interval from the first accepted presence of humans in Southern California in the Late Pleistocene until approximately 8,000 calibrated years (cal) before current era (BCE). Artifacts and cultural activities from this period represent a predominantly big game hunting culture. Diagnostic artifacts include extremely large, often fluted bifaces associated with use of the spear and the atlatl. Populations appear to have been relatively small and highly mobile, living in temporary camps near readily available water. Evidence for Clovis occupation in the Mojave Desert currently is limited to scattered isolated points and a single site at Lake China, presumed to be an occupation site (Sutton et al. 2007:234). In addition, a single Clovis-like point fragment was found in the Tehachapi Mountains, and

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other points resembling Clovis have been found in the Tiefert Basin, Searles Lake, and other locations in the region (Jacobs 2024).

Lake Mojave Complex (8,000 to 6,000 BCE)

In the deserts of Southern California, the earliest substantive remains of human occupation are found along the shoreline of ancient Lake Mojave in San Bernardino County, for which this period is termed, and at ancient Lake Cahuilla in Riverside and Imperial counties. The Lake Mojave Period is associated with now-dry pluvial (also called paleo) lakes found throughout the Mojave Desert. Artifacts observed at Lake Mojave Period sites include stylized dart points of the Lake Mojave and Silver Lake series, well-made bifacial knives and other cutting tools, large domed scrapers or scraping planes, crescents, occasional cobble core tools, and ground stone implements (Jacobs 2024). Flaked stone artifacts, which make up the largest part of the toolkit, are often formal tools made of nonlocal materials, while ground stone tools, present in far smaller numbers, generally show ephemeral wear, suggesting long-term curation of more easily ported items and less reliance on floral resources. Site types include extensive habitation sites, small camps, and workshops (Jacobs 2024).

Pinto Complex (7,000 to 3,000 BCE)

The Pinto Complex is the most widely distributed of the early complexes in the Mojave Desert and occurs in a wide variety of topographic and environmental zones, including near remnant pluvial lake basins, near fossil stream channels, near springs or seeps, and in upland areas. Large Pinto Complex sites with deep middens and a wide range of artifact types appear to correlate with stable water sources. Pinto sites are found in a wide range of environments and the flourishing of new economies, including greater plant resource exploitation, seen both in the desert and along the Pacific coast. Olivella shell beads have been found at Pinto sites, potentially indicating the beginnings of trade on the coast. Diagnostic artifacts that have been recovered from Pinto Complex archaeological sites have included heavy-keeled scrapers, flat millings, manos, and Pinto series projectile points, which are large, coarsely made points, indicating the continued use of darts and atlatls (Jacobs 2024). By the end of the Middle Holocene, conditions in the Mojave Desert became much warmer and much drier than earlier. Currently, few sites are known to date to the period between 3,000 and 2,000 cal BCE, and it appears that parts of the Mojave may have been abandoned (Jacobs 2024).

Gypsum Complex (2,000 BCE to 200 current era [CE])

The start of the Gypsum Complex coincides with the beginning of the Little Pluvial wetter climatic episode at approximately 2,000 BCE and continues into the drier period following the Little Pluvial. Artifacts that offer strong evidence for the beginning of trade between the desert and the coast include Olivella shell beads and Haliotis rings from the coast and split twig figures from the southwest, which are found at Gypsum sites. Gypsum Complex toolkits include the diagnostic Elko and Elko-eared points, leaf-shaped points, rectangular-based knives, flake scrapers, T-shaped drills, the occasional large scraper plane, and hammerstones. Elko series points are associated by the researcher Michael J. Moratto with the spread of Uto-Aztec speakers throughout the Mojave during this period (Jacobs 2024). A shift in food

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procurement strategies also marks this period, when grinding implements including manos and millingsstones became common, and mortars and pestles were introduced (Jacobs 2024).

Rose Spring Complex (200 to 1,100 CE)

During this period, a strong coastal influence extended into the Western Mojave Desert (Warren 1984) and the Eastern Mojave experienced an influx from Colorado River groups. Generally, the Rose Spring Complex appears to have been in strong continuity with the Gypsum Complex. Similar artifacts, including millingsstones, manos, mortars, pestles, and incised stones, still were used. Desert populations continued a successful hunting and gathering adaptation to the desert environment through increasingly complex subsistence strategies, including development of the bow and arrow. The sites from this period contain a variety of trade items, including Southern California shell beads, steatite items, and other coastal artifacts. Eastgate and Rose Spring projectile points are the diagnostic artifacts (Jacobs 2024).

Rose Spring sites are found near springs, washes, and occasionally lakeshores. Architectural evidence of pit houses, wickiups, and other types of structures indicate an increase in sedentism during this period. The Medieval Climatic Anomaly began during the Rose Springs Complex, and the resulting desiccation of existing lakes and other water sources in the Mojave Desert appears to have changed settlement patterns significantly, resulting in a shift in dependence on permanent water sources to more ephemeral ones. The Rose Spring Complex ended by approximately 1,100 CE.

Late Prehistoric Complexes (1,100 CE to Historic Times)

This period is noted for a strong reliance on plant food gathering and hunting of small game and a decreased reliance on large game (Jacobs 2024). Separate complexes emerged that appear to represent historically known Native American linguistic and cultural ethnic groups. Anasazi turquoise mining, Hakatayan influence from the Colorado River, and the spread of the Numic Paiute and Shoshone cultures east from the Western Mojave Desert occurred during this period (Jacobs 2024). Seasonal movement was common and resulted in a diverse array of site types. For the populations in the Project region within the Mojave Desert, large village sites remain marked by a paucity of pottery. Characteristic artifacts include Desert series and Cottonwood projectile points, buffware and brownware ceramics, shell and steatite beads, and milling tools. Trade continued to develop and expand with groups on the coast (Jacobs 2024). At the end of the Late Prehistoric Complex, an abandonment of village sites appears in the desert region (Jacobs 2024).

Ethnographic Period

The Project area is within the traditional territories of the Chemehuevi—specifically the Kawaiisu branch, and the Serrano—specifically the Vanyume desert branch.

Chemehuevi

The Chemehuevi belong to the Shoshonean language group, a Southern Numic branch of the Uto-Aztecan language family. Although the Kawaiisu lived primarily in the foothills and mountains, they would travel to lower elevations during the cooler seasons. The Kawaiisu lived

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in chieftainships, which generally were based on familial ties. Kawaiisu chiefs did not inherit the role of chief; rather, any wealthy Kawaiisu man might become a village chief. A son could succeed his father as chief if he gained enough property on his own, because a man's property was destroyed at his funeral. Jimson weed was employed as a hallucinogenic for religious and shamanistic purposes as well as puberty rites among the Kawaiisu, much as it was throughout southern California. The Kawaiisu shamans practiced rain magic and rain doctors would minister to the sick as well as to summon the rain.

Kawaiisu subsistence was based on hunting, fishing, and gathering. Acorns were one of their staple crops. Piñon nuts could be gathered at higher elevations of Kawaiisu territory. Seeds, shoots, leaves, bulbs, tubers, and berries were collected as well. Large game, including deer, bear, mountain sheep, and antelope, were hunted, as was smaller game, such as squirrels, mice, and rabbits. The Kawaiisu would join the nearby Tubatulabal and Yokuts in communal antelope drives in the San Joaquin Valley (Jacobs 2024).

Chemehuevi beliefs were closer to those of groups found east of Chemehuevi territory, rather than those of the geographically closer Southern or Central California groups. Many Chemehuevi songs are similar, if not the same, as Mojave songs, including their Shaman and Doctoring songs (Jacobs 2024). The Chemehuevi had external relationships with the Mojave, Navajo, and Utes, who were sometimes friendly and sometimes hostile. The Southern Paiutes often accused the Ute and Navajo of kidnapping raids. Relations with the Western Shoshone to the north and northwest generally were friendly and often involved intermarriage. The Chemehuevi also had generally amicable relations with other Mojave Desert groups, including the Serrano and Vanyume, Cahuilla, and Diegueño. Although the Chemehuevi borrowed heavily from Mojave culture, they generally tried to avoid the frequent warfare that involved many of their more powerful and populous regional neighbors to the east (Jacobs 2024).

Serrano

The Vanyume, a desert subdivision of the Serrano, are classified as belonging to the Takic linguistic branch, a subdivision of the Uto-Aztecan language family, and are considered to be a part of the Shoshonean or Takic migration into California (Jacobs 2024). In addition to its occupation of the upper Mojave River drainage, the Vanyume, or Desert branch of the Serrano, appear to have occupied a substantial area in the Western Mojave region. Vanyume territory extended from the eastern Mojave Desert through modern day Victorville and as far west as the city of Palmdale in the Antelope Valley (Jacobs 2024). The subsistence practices of the Serrano were primarily hunting and gathering within diverse ecological zones. Food included acorns, piñon nuts, and seeds from the foothills of the San Bernardino Mountains; yucca, mesquite, and cactus from desert environs; and game, such as deer, rabbit, antelope, and other small mammals; and fish. The primarily desert-dwelling Vanyume had resources available to them from outside their territories, through trade and networking with other Serrano groups who occupied areas in both the San Gabriel and San Bernardino mountains (Jacobs 2024).

Settlement locations were dictated by water resources, and villages tended to be based near streams, springs, and rivers, with village sizes ranging from 50 to 100 people (Jacobs 2024).

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Family dwellings were the style that was encountered for many groups in Southern California, constructed in a circular, domed fashion, made of willow and tule. Each dwelling had a central fire for heat and minor cooking, although most domestic activities occurred outdoors. Other structures in a Vanyume village were composed of armadas, an unenclosed structure roofed with brush, and a ceremonial house occupied by a village leader (Jacobs 2024).

The annual cycle of social, ceremonial, and economic activities of all Serranos was dictated by the seasonal availability of important subsistence resources (Jacobs 2024). They engaged particularly in hunting, craft activities, and visiting in the winter months, after the fall piñon and acorn harvests. Early spring was the greatest food scarcity season of the year.

Historic Period

In California, the Historic Period generally is divided into the Spanish or Mission Period (1769 to 1821), the Mexican or Rancho Period (1821 to 1848), and the American Period (1848 to present).

Spanish Period (1769 to 1821)

In 1542, Juan Rodríguez Cabrillo reached California by ship, entered San Diego Bay, and claimed Alta California for Spain. The Historic Period in California began with establishment of Spanish colonial military outposts, the first of which was Mission San Diego de Alcalá, founded in 1769 by Junípero Serra. During this period, 21 missions were built in California, lined up from south to north along the El Camino Real. This period also was the era of Missionization, a period of forced conversion of the Native Americans who occupied the region. Many perished from ill treatment but more died because of the introduction of European diseases, ultimately devastating the Native American populations. The Old Spanish Trail connected Villa Real de Santa Fé de San Francisco, now Santa Fe, New Mexico, and El Pueblo de Nuestra Señora La Reina de Los Ángeles, now Los Angeles, and traversed the Barstow area. The last mission to be founded was San Francisco Solano in 1823. Later, as Spain lost its rule over New Spain and secularization was sought by the new government, the Mission system was disbanded (Jacobs 2024).

Mexican or Rancho Period (1821 to 1848)

Mexico became independent of Spain in 1821, and the Decree of Secularization, passed in 1834, effectively ended the Spanish Period in California. In 1842, Alta California Governor Juan B. Alvarado (governor from 1837 to 1842) granted Rancho San Bernardino to colonial settlers José del Carmen, José María Lugo, Vicente Lugo, and Diego Sepúlveda. The families ranched cattle on the 35,509-acre ranch, approximately 55 percent of contemporary San Bernardino County (Jacobs 2024).

American Period (1848 to Present)

Following the signing of the Treaty of Guadalupe Hidalgo in 1848, the U.S. took possession of California. The treaty bound the U.S. to honor the legitimate land claims of Mexican citizens who were residing in captured territories. The Land Act of 1851 established a Board of Land Commissioners to review these records and adjudicate claims, and it charged the Surveyor

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General with surveying the confirmed land grants (Jacobs 2024). From 1852 to 1856, the Board of Land Commissioners determined the validity of grant claims. The commissioners rejected many of the original rancho claims, which then became public domain and open for claim by squatters.

Because of the harsh climate and limited water access, the Project region continued to be unsettled and was used primarily as a travel corridor, leading from the coast into the territories of Nevada, Utah, Arizona, and other parts of the Southwestern U.S. The Gold Rush triggered a huge interest in mining operations and drew many prospectors into the Mojave Desert, in search of mineral resources (Jacobs 2024). In 1876, the Southern Pacific Railroad reached the Antelope Valley and established stops in Randsburg, Rosamond, Barstow, and Mojave. The railroad connected the desert towns, rural ranching communities, and mining camps to large consumer markets (Jacobs 2024).

In 1882, a group of agrarian immigrants disembarked the Barstow-to-Mojave Branch of the Atchison, Topeka and Santa Fe (AT&SF) Railway and established the rural community of Hinckley (now Hinkley). The AT&SF opened the western Mojave Desert to permanent settlements and broad-scale agricultural production, by providing farmers and ranchers with a direct connection to the commercial markets in Barstow (12 miles east) and Mojave (61 miles west) (Jacobs 2024). Although equipped for passenger service, Hinkley Station primarily functioned as a water stop and pumping station for the AT&SF's steam engines. In approximately 1908, Hinkley experienced a small population boom, when AT&SF constructed a section house for its railroad operations (Jacobs 2024).

PG&E's Hinkley Compressor Station was established in 1952, at a cost of \$3.5 million. The station was part of the company's "Super Inch" pipeline project and originally was equipped with seven of the largest compressors made for pipeline booster service, as well as with operational buildings and offices, cooling towers, water treatment equipment, and storage facilities (Jacobs 2024). After the initial construction, PG&E expanded the plant to accommodate California's growing utility demands (Jacobs 2024).

Local Setting

Records Search and Historical Research

Background and archival searches were completed using PG&E's Confidential Cultural Resources Database (CCRD), part of the California Historical Resources Information System. A review was completed to identify resources listed in the NRHP and the CRHR; listed as California Historical Landmarks or California Points of Historical Interest; or listed in local registers of significant resources. The Native American Heritage Commission (NAHC) and interested Native American individuals were contacted. The information then was used to evaluate the Project against the significance criteria in the CEQA Guidelines Appendix G Environmental Checklist (as amended in December 2019), to determine potential impacts. The records search did not identify any previously recorded resources within the APE/API. A total of 29 previously recorded cultural resources were identified within the 0.5-mile buffer of the APE/API, including three isolated finds, three Precontact era lithic scatters, 16 Historic era

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archaeological sites, and seven Historic era features (roads and water conveyance features) (Jacobs 2024).

Archaeological and Architectural Survey

The literature search revealed that the Project area has been subject to intensive archaeological pedestrian surveys and has low archaeological sensitivity. Therefore, no archaeological pedestrian survey was conducted for the Project. An architectural field survey of the Project area was completed, and one built resource, the Hinkley Compressor Station, was recorded. Based on a lack of historical and architectural significance, the Hinkley Compressor Station is not recommended as eligible for listing in the CRHR, and it is not considered a historical resource under CEQA in Section 15064.5(a)(2)-(3) or under the PRC in Section 5024.1. No historical resources were identified within the APE/API.

Buried Site Sensitivity

Soils in the Project area are dominated by Cajon loamy sand, with minor components of Norob-Holloran series soils (Jacobs 2024). These soils typically are described as excessively drained into well-drained sandy loams and are not identified as typical expansive soils, which are composed of a high clay content. Beneath the Project area, the soils are made up of interbedded sands, gravels, silts, and clays (Jacobs 2024).

The potential of an area to contain buried resources often can be assessed by an examination of an area's topography, soil types, and proximity to water. Buried sites are found in many contexts, especially alluvial fans and stream terraces. Buried sites are more likely in certain locations near water courses, where deposition is deep, or where previous studies have shown a higher density of sites exists or deposition is ongoing. All these conditions were reviewed to assess the sensitivity for subsurface archaeological deposits in the Project area. In addition, previous studies were reviewed, particularly those including excavations or archaeological monitoring, and depositional information (Jacobs 2024).

Furthermore, one previous study in a location that intersects the Project area included the results of archaeological monitoring (Jacobs 2024). PG&E completed hydrostatic testing of critical sections of a 34-inch-diameter gas pipeline along Line 300B near Hinkley in 2021. Ground disturbance occurred at several locations along this line and in the southern portion of the Project area. Archaeological monitoring locations included areas within and east of the study area, but no monitoring of ground disturbance occurred in the Project area. One ground stone artifact was found on the surface near a previously recorded site outside the study area, and no deposits were found subsurface during the work. A buried soil (but no artifacts) was noted approximately 10 feet below the ground; however, this find was made east of the study area where the Mojave River passes close to the foothills.

The Project area generally is developed. Areas outside the buildings have been disturbed as well from installation of the below-ground gas pipelines and subsequent maintenance work, described previously. The Project area, like many areas of the Mojave Desert, has been subject to continuous aeolian and alluvial activity, but other factors that would indicate a potential for

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intact buried archaeological deposits are absent. The Project area is more than 1 mile from the Mojave River, and no other freshwater is evident closer. Because only ephemeral surface lithic scatters are recorded nearby, no evidence exists of more complex occupation. Thus, the potential for buried archaeological deposits in the Project area is considered low.

Resource Summary

The records search did not identify any previously recorded resources in the Project area. The architectural field survey of the Project area was completed. No historical resources were identified in the Project area.

3.5.2 Regulatory Setting

Federal

Although no federal nexus is associated with the Project, the following information regarding federal laws addressing cultural resources is presented to provide context and continuity with State laws.

National Historic Preservation Act

The principal federal law addressing historical properties is the NHPA, as amended (U.S. Code Title 54, Section 300101 et seq.), and its implementing regulations (36 CFR 800). Section 106 requires a federal agency with jurisdiction over a proposed federal action (referred to as an “undertaking” under the NHPA) to consider the effects of the undertaking on historic properties, and to provide the Advisory Council on Historic Preservation and other interested parties with an opportunity to comment on the undertaking.

The term *historic properties* refers to “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register [of Historic Places]” (36 CFR 800.16[l][1]). The implementing regulations (36 CFR 800) describe the process for identifying and evaluating historic properties, for assessing the potential adverse effects of federal undertakings on historic properties, and seeking to develop measures to avoid, minimize, or mitigate adverse effects. The Section 106 process does not require the preservation of historic properties; instead, it is a procedural requirement mandating that federal agencies consider effects on historic properties from an undertaking before approval.

The steps of the Section 106 process are accomplished through consultation with the State Historic Preservation Officer, federally recognized Indian tribes, local governments, and other interested parties. The goal of consultation is to identify potentially affected historic properties, assess effects on such properties, and seek ways to avoid, minimize, or mitigate any adverse effects on such properties. The agency also must provide an opportunity for public involvement (36 CFR 800.1[a]). Consultation with Native American tribes regarding issues related to Section 106 and other authorities (such as NEPA and Executive Order No. 13007) must recognize the government-to-government relationship between the federal government and tribes, as set forth in Executive Order 13175 (Title 65, Federal Register [FR], page 67249 [November 9, 2000]) and the Presidential Memorandum of November 5, 2009.

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National Register of Historic Places

The National Register was established by the NHPA as “an authoritative guide to be used by federal, State, and local governments, private groups, and citizens to identify the Nation’s historic resources and to indicate what properties should be considered for protection from destruction or impairment” (36 CFR 60.2). The National Register recognizes a broad range of cultural resources that are significant at the national, state, and local levels and can include districts, buildings, structures, objects, prehistoric archaeological sites, historic-period archaeological sites, traditional cultural properties, and cultural landscapes. As noted above, a resource that is listed in or eligible for listing in the National Register is considered “historic property” under Section 106 of the NHPA.

To be eligible for listing in the National Register, a property must be significant in American history, architecture, archaeology, engineering, or culture. Properties of potential significance must meet one or more of the following four established criteria:

1. Are associated with events that have made a significant contribution to the broad patterns of our history
2. Are associated with the lives of persons significant in our past
3. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction
4. Have yielded, or may be likely to yield, information important in prehistory or history

In addition to meeting one or more of the criteria of significance, a property must have integrity. *Integrity* is defined as “the ability of a property to convey its significance” (U.S. DOI 1997). The National Register recognizes seven qualities that, in various combinations, define integrity: location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity, a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.

Ordinarily, religious properties, moved properties, birthplaces or graves, cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years are not considered eligible for the National Register unless they meet one of the “Criteria Considerations” (A–G), in addition to meeting at least one of the four significance criteria and possessing integrity (U.S. DOI 1997).

State

California Register of Historical Resources

The State of California implements the NHPA of 1966, as amended, through its statewide comprehensive cultural resources surveys and preservation programs. The OHP, as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a

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statewide level. The OHP also maintains the HRI. The State Historic Preservation Officer is an appointed official who implements historic preservation programs within the state's jurisdictions.

The California Register is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1[a]). The criteria for eligibility for the California Register are based on National Register criteria (PRC Section 5024.1[b]). Certain resources are determined by statute to be included automatically in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for the California Register, a prehistoric or historic-period property must be significant at the federal, State, and/or local level under one or more of the following four criteria:

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 our past
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 values
4. Has yielded, or may be likely to yield, information important in prehistory or history

A resource eligible for the CRHR must meet one of the criteria of significance described above and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and convey the reason for its significance. A historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register but still may be eligible for listing in the CRHR. Furthermore, the CRHR consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The CRHR automatically includes the following:

- California properties listed on the National Register and those formally determined eligible for the National Register
- California Registered Historical Landmarks from No. 770 onward³
- California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion in the CRHR.

³ The current standards for designating a California Historic Landmarks are applied to landmarks #770 and onward. Landmarks designated before #770 do not meet the current designation criteria, and therefore do not qualify as historical resources.

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Other resources that may be nominated to the CRHR include:

- Historical resources with a NRHP Status Code of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the CRHR, and/or a local jurisdiction register)
- Individual historical resources
- Historical resources contributing to historic districts
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the State and is codified under PRC Section 21000 et seq. CEQA requires lead agencies to determine whether a project would have a significant effect on the environment, including significant effects on historical or unique archaeological resources.

Under CEQA (Section 21084.1), a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. An archaeological resource may qualify as a “historical resource” under CEQA. The CEQA Guidelines (Title 14 CCR Section 15064.5) recognize that historical resources include: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in the CRHR; (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided that the lead agency’s determination is supported by substantial evidence in light of the whole record. The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be a historical resource as defined in PRC Section 5020.1(j) or 5024.1.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Section 21084.1 of CEQA and Section 15064.5 of the CEQA Guidelines apply. If a project may cause a substantial adverse change (defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings, so that the significance of a historical resource would be impaired materially) in the significance of a historical resource, the lead agency must identify potentially feasible measures to mitigate these effects (CEQA Guidelines Sections 15064.5[b][1] and 15064.5[b][4]).

If an archaeological site does not meet the criteria for a historical resource as presented in the CEQA Guidelines, then the site may be treated in accordance with the provisions of PRC Section 21083, which establishes requirements for unique archaeological resources. As defined in PRC Section 21083.2, a “unique” archaeological resource is an archaeological artifact, object,

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or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, a high probability exists that it meets any of the following criteria:

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

If an archaeological site meets the criteria for a unique archaeological resource as defined in Section 21083.2, and if the lead agency determines that a project would have a significant effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place (Section 21083.1[a]). If preservation in place is not feasible, mitigation measures are required.

The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources should not be considered a significant effect on the environment (CEQA Guidelines Section 15064.5[c][4]).

Assembly Bill 52

A summary of the Assembly Bill (AB) 52 statutes is presented in Section 3.18, Tribal Cultural Resources.

California Health and Safety Code Section 7050.5

Section 7050.5 in the California Health and Safety Code requires that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery or at any nearby area reasonably suspected to overlay adjacent remains, no further excavation or disturbance of the site should occur until the County Coroner has examined the remains. If the Coroner determines, or has reason to believe, that the remains are those of a Native American, the Coroner will contact the NAHC by telephone within 24 hours.

California Public Resources Code Section 5097.98

Section 5097.98 of the PRC states the procedures to be followed in the event that human remains of Native American origin are discovered during Project implementation. The code requires that no further disturbances occur in the immediate vicinity of the discovery, that the discovery be adequately protected according to generally accepted cultural and archaeological standards, and that further activities consider the possibility of multiple burials. It further requires that the NAHC, on notification by a County Coroner, designate and notify a Most Likely Descendant (MLD) regarding the discovery of Native American human remains. After the MLD has been granted access to the site by the landowner and has inspected the discovery, the MLD then has 48 hours to provide recommendations to the landowner for the treatment of the human remains and any associated grave goods.

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In the event that no MLD is identified, or if the MLD fails to make a recommendation for disposition, or if the landowner rejects the recommendation of the MLD, the landowner may, with appropriate dignity, re-inter the remains and burial items on the property in a location that will not be subject to further disturbance.

Local

If cultural human remains are encountered during Project activities, all work in the immediate vicinity would cease, and the area would be secured. The San Bernardino County Coroner would be notified immediately, in accordance with Section 7050.5 of the California Health and Safety Code. If the Coroner determined that the remains are of Native American origin, the Coroner would notify the NAHC within 24 hours, as required by Section 5097.98 of the PRC. The NAHC would designate an MLD, who would provide recommendations regarding the respectful treatment and disposition of the remains. Project activities in the vicinity of the find would not resume until the process has been completed, in consultation with the MLD and in compliance with all applicable laws and regulations.

3.5.3 Applicant Proposed Measures

PG&E has proposed APMs for reducing the Project's environmental effects. The APMs are listed in Table 2.6-9 of the Project Description and are considered part of the Project for the analysis. PG&E has proposed the APMs shown in Table 3.5-1, to address the impacts relevant to cultural resources.

Table 3.5-1 APMs Relevant to Cultural Resources

Proposed APMs
APM CUL-1: Worker Environmental Awareness Training Program, Cultural Resources Portion A worker environmental awareness training program (WEAP) will be prepared to communicate environmental issues and appropriate work practices specific to the Project to all construction field personnel before they begin work on the Project, when performing excavation or trenching activities. This training will be administered by a qualified cultural resource professional, either as a stand-alone training or as part of the overall environmental awareness training that will be required for the Project. This training may be recorded for use in subsequent training sessions. The WEAP will be provided separately to CPUC staff before the start of construction. The WEAP will address the following topics at a minimum: • A review of archaeology, history, precontact, and Native American cultures associated with historical resources in the Project vicinity • A review of applicable local, State, and federal ordinances, laws, and regulations pertaining to historic preservation • A discussion of procedures to be followed if unanticipated cultural resources are discovered during Project implementation • A discussion of disciplinary action and other actions that can be taken against persons violating historic preservation laws and PG&E policies • A statement by the construction company or applicable employer, agreeing to abide by the WEAP, PG&E policies, and other applicable laws and regulations.
APM CUL-2: Inadvertent Cultural Resource Discoveries

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If unanticipated cultural resources are identified during Project construction, the following procedures will be initiated:

- All ground-disturbing construction activities within 100 feet of the discovery will halt immediately.
- The construction crew will protect the discovery from further disturbance until a qualified archaeologist has assessed it.
- The Construction Supervisor will contact the Project Environmental Inspector and the PG&E Cultural Resource Specialist immediately.

The PG&E Cultural Resources Specialist will coordinate with the CPUC and NAHC, as appropriate. If the discovery can be avoided or protected and no further impacts will occur, then the resource will be documented on DPR 523 forms, and no further effort will be required. If the resource cannot be avoided and may be subjected to further impacts, qualified personnel will evaluate the significance of the discovery, in accordance with the State laws outlined previously; personnel will implement data recovery or other appropriate treatment measures, if warranted. A qualified historical archaeologist will complete an evaluation of historic period resources, while evaluation of precontact resources will be completed by a qualified archaeologist specializing in California prehistoric archaeology.

Evaluations may include archival research, oral interviews, and/or field excavations to determine the full depth, extent, nature, and integrity of the deposit.

APM CUL-3: Unanticipated Discovery of Human Remains

If human remains or suspected human remains are discovered during Project construction, work within 100 feet of the find will stop immediately and the construction supervisor will contact the PG&E cultural resources specialist who meets the Secretary of Interior's Standards for archaeology. On discovery, the Specialized Investigations Division of the San Bernardino County Sheriff's Department will be contacted for identification of human remains. The Coroner will have 2 working days to examine the remains after being notified.

If the remains are Native American, the Coroner will notify the NAHC about the discovery within 24 hours. The NAHC then will identify and contact a Most Likely Descendant (MLD). The MLD may make recommendations to the landowner or representative for treatment or disposition, with proper dignity, of the remains and grave goods. When proper consultation has occurred, a procedure that may include the preservation, excavation, analysis, and curation of artifacts and/or reburial of those remains and associated artifacts will be formulated and implemented.

If the remains are not Native American, the Coroner will consult with the archaeological research team and the lead agency to develop a procedure for the proper study, documentation, and ultimate disposition of the remains. If a determination can be made as to the likely identity—either as an individual or as a member of a group—of the remains, an attempt will be made to identify and contact any living descendants or representatives of the descendant community. As interested parties, these descendants may make recommendations to the owner or representative for the treatment or disposition, with proper dignity, of the remains and grave goods. Final disposition of any human remains or associated funerary objects will be determined in consultation between the landowner and the MLD.

3.5.4 Environmental Impacts

Methodology and Assumptions

The impact analysis for cultural resources evaluated the potential for the Project to cause adverse effects on potential historical resources, including archaeological resources and architectural resources. Potential historical resources, including archaeological resources and architectural resources, were identified from background research, survey efforts, and the archaeological sensitivity analysis described previously in Section 3.5.1. The cultural resources study area for the Project was defined as the Project area and a 0.5-mile buffer.

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Direct and Indirect Effects

a) Would the Project result in a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5(a)?

Section 15064.5 of the CEQA Guidelines requires the lead agency to consider the effects of a project on historical resources. A *historical resource* is defined as any building, structure, site, or object listed in or determined to be eligible for listing in the CRHR or determined by a lead agency to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California. No historical resources are known to occur within the Project APE/API. Although no known resources exist, the Project would include excavating or trenching for the MCC foundations and electrical conduit up to 5 feet deep and therefore would have the potential to encounter buried historical resources that could be eligible for listing in the CRHR. PG&E would implement APM CUL-1 and APM CUL-2. APM CUL-1 would require a WEAP to train workers on historic preservation regulations, procedures to follow if unanticipated cultural resources are discovered, and disciplinary actions if procedures are not followed. APM CUL-2 would require workers to follow detailed procedures if inadvertent discoveries are identified during construction. While the APMs would reduce impacts on cultural resources, the project could destroy a historical resource if one were to occur in the area of trenching or foundation excavation as the workers engaged in construction are not focused on identification of cultural resources. Mitigation Measure Cultural -1 requires archaeological and tribal monitoring during trenching and excavation activities to ensure that a historical resource would be identified and avoided if one occurred in the work area. The resulting impact on the significance of a historical resource would be less than significant with mitigation.

Mitigation Measures

Mitigation Measure Cultural - 1: Archaeological Monitoring

During trenching and excavation activities, in soil or sediment that is not imported or not previously disturbed, a tribal monitor from one tribe to be identified by the lead agency, shall be invited to be retained by PG&E to inspect for potential archaeological deposits or Tribal cultural resources. In the event of the discovery of archaeological deposits or Tribal cultural resources, a tribal representative shall have the authority to halt work within 100 feet of the discovery, and CPUC shall be notified within 48 hours of the discovery. All procedures in APM CUL-2 shall be implemented during investigation of the resource.

b) Would the Project result in a substantial adverse change to a unique archaeological resource, pursuant to Section 15064.5?

As discussed in Section 3.5, no known archaeological resources are within the Project's APE/API. Thus, the Project would not result in adverse change to a known unique archaeological resource. The Project would involve excavation or trenching for the MCC foundations and electrical conduit up to 5 feet deep, which would have the potential to cause inadvertent discovery of buried archaeological resources. As discussed in Section 3.5.1, the potential for encountering buried archaeological resources would be low but cannot be ruled

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out. PG&E would implement APM CUL 2, requiring workers to follow detailed procedures if inadvertent discoveries are identified during construction. While the APMs would reduce impacts on a unique archaeological resource, the project could destroy a unique archaeological resource if one were to occur in the area of trenching or foundation excavation as the workers engaged in construction are not focused on identification of cultural resources. Mitigation Measure CUL-1 requires inviting a tribal monitor from one tribe to inspect for potential archaeological deposits or tribal cultural resources during trenching and excavation activities to ensure that a unique archaeological resource would be identified and avoided if one occurred in the work area. The resulting impact on the significance of a unique archaeological resource would be less than significant with mitigation.

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

No known burial sites are in the Project site, and the Project would not impact any known graves. Project impacts on human remains are not anticipated. However, construction of the MCC foundations and electrical conduit would require excavation to a depth of approximately 5 feet. If human remains were found during Project construction, PG&E would be required to adhere to the regulations that are outlined in Section 7050.5 of the California Health and Safety Code. In accordance with these regulations, in the event of unanticipated discovery of human remains, no further disturbance would occur until the County Coroner makes a determination of origin and disposition, pursuant to Section 5097.98 of the PRC. If the human remains are determined to be prehistoric, the Coroner would notify the NAHC, which would determine and notify an MLD. The MLD would complete inspection of the site within 48 hours of being granted access and provide recommendations as to the treatment of the remains to the landowner. Because the Project would have a low potential to encounter human remains, PG&E would implement APM CUL 3, requiring workers to follow detailed procedures if unanticipated discoveries of human remains are identified during construction, in compliance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the PRC. The impact would be less than significant. No mitigation is required.

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

3.6.1 Environmental Setting

State of California

Energy use for the State is monitored by the California Energy Commission (CEC). The most recent estimated energy use in California is shown in Table 3.6-1.

Table 3.6-1 Recent Estimated Energy Use in California

Energy Use	Consumption
Electricity	281,140 GWh
In-state generation	215,623 GWh
Northwest Imports	15,925 GWh
Southwest Imports	49,593 GWh
Natural Gas	2,087,461 cubic feet
Petroleum	628,086 barrels
Gasoline	13.6 billion gallons
Diesel	3.5 billion gallons

Source: (CEC 2025a; 2025b; EIA 2025a; 2025b)

Electricity

Electricity use in California varies substantially among buildings, according to the types of use in a given building, construction materials, and the efficiency of electricity-consuming devices. Because of the State's energy efficiency building standards and its efficiency and conservation programs, California's per capita electricity use has remained stable for more than 30 years, while the national average has steadily increased (CEC 2025a).

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Natural Gas

The CPUC regulates California natural gas rates and natural gas services, including in-state transportation of natural gas over the utilities' extensive transmission and distribution pipeline networks and storage, procurement, metering, and billing systems. California's natural gas utilities provide service to more than 11 million gas meters in the state (CEC 2025c). In 2023, California used approximately 2.09 million cubic feet of natural gas (EIA 2025a). Residential and small commercial customers account for approximately 35 percent of the natural gas delivered by California utilities. Large consumers, such as electric generators and industrial non-core customers, account for approximately 65 percent of usage of the natural gas provided by California utilities (CPUC 2025). Most of the natural gas that is used in California is imported from out-of-state natural gas basins. In 2017, California utility customers received 38 percent of their natural gas supply from basins in the U.S. Southwest, 27 percent from Canada, 27 percent from the U.S. Rocky Mountain region, and 8 percent from production in California (CPUC 2025).

Petroleum (Gasoline and Diesel)

Petroleum usage in California includes petroleum products, such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. Petroleum fuels that are refined from crude oil are the dominant source of energy for transportation sources. For petroleum that has been converted into gasoline and diesel, the Alternative Fuels Data Center estimated that California used approximately 13.6 billion gallons of gasoline in 2023 and approximately 3.5 billion gallons of diesel in 2023 (DOE 2025a; 2025b). According to the California Department of Tax and Fee Administration (CDTFA), gasoline is the most used transportation fuel in California, with light-duty cars, pickup trucks, and sport utility vehicles accounting for 97 percent of gasoline consumption. In 2023, approximately 13.6 billion gallons of gasoline were sold (CDTFA 2025). Diesel fuel is the second largest transportation fuel used in California, representing 17 percent of total fuel sales (CEC 2025d). Nearly all heavy-duty trucks; delivery vehicles; buses; trains; marine ships, boats, and barges; and farms, construction, and heavy-duty military vehicles and equipment have diesel engines. According to CDTFA, approximately 3 billion gallons of diesel, including off-road diesel, were sold in 2023 in California (CDTFA 2025). California has implemented policies to improve vehicle efficiency and support use of alternative transportation, such as Section 399.24 in the California Public Utilities Code (PUC), which states that CPUC “shall adopt policies and programs that promote the in-state production and distribution of biomethane (biogas) for transportation use.” Accordingly, the CEC anticipates an overall decrease in petroleum demand in the state over the next decade.

Local and Regional Energy Use

The Project site is in San Bernardino County, which is served by Southern California Edison (SCE), including the communities of Barstow and Hinkley (SCE 2025). San Bernardino County has 19 power plants, with natural gas being the primary fuel for electricity generation. Solar, hydroelectric, and coal also are used for electricity generation, but to a lesser degree than natural gas (approximately 48.94 percent in total as compared to approximately 51.48 percent for natural gas) (Find Energy 2025). Although the Hinkley Compressor Station produces

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electricity for most of its operations, the fire pump and the technical shop building in the compressor station, as well as areas around the station, are supplied electricity by SCE.

The CEC provides data on energy production sources. Table 3.6-2 shows energy production sources for SCE.

Table 3.6-2 2023 Energy Resources for Electricity Service Providers in San Bernardino County

Retail Suppliers	Eligible Renewables (total) ^a	Large Hydroelectric	Natural Gas	Nuclear	Other ^b	Unspecified Power	Total
Southern California Edison	37.6%	4.5%	20.0%	9.1%	0.1%	28.8%	100.0%

Notes:

- ^a Eligible renewable resources include biomass and biowaste, geothermal, hydroelectric, solar, and wind.
- ^b The “Other” category does not include coal.
- ^c Southern California Edison offers several different service plans. The energy resources shown here conservatively reflect the plan with the fewest renewables.

Source: (CEC 2025)

The total energy consumption in San Bernardino County has increased since the early 1990s. However, natural gas consumption has increased at a lower rate than electricity consumption, suggesting an ongoing transition away from fossil fuels (CEC 2023a; 2023b). In 2022, residential and nonresidential consumption of electricity in San Bernardino County was approximately 5,372 gigawatt hours (GWh) and 9,994 GWh, respectively (CEC 2023a). For the same year, residential and nonresidential consumption of natural gas in the County was approximately 293.7 million therms and 298.5 million therms, respectively (CEC 2023b). Energy consumption in the Project vicinity is associated with land uses (rural residential and agricultural energy use). The Hinkley Compressor Station is powered by permanent generators, fueled by natural gas from PG&E’s supplies.

Project Site Energy Use

The Hinkley Compressor Station is not within PG&E service territory. Rather, it is a major compressor station on PG&E’s “backbone” gas transmission system, which transports natural gas to millions of customers in California (PG&E 2025). The station uses four natural gas engine-driven permanent generators to supply electric power for most of the station’s operation, including natural gas compression. The Project would upgrade the existing electrical distribution system (existing system), connecting and controlling the flow of electrical power between the station’s equipment. The existing system is operated by switchgear that would be replaced as part of the Project. The switchgear has switching devices that turn the power on or off to protect, control, maintain, and isolate the system’s electrical equipment, including the switchgear itself. The station’s upgraded reliability would improve gas transmission system reliability by avoiding unplanned station shutdowns that may be caused by the aging electrical

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distribution equipment. This would allow the compressors to operate independently from the electrical grid and remain functional even during grid outages.

Utility agreements prevent PG&E from using the power that is generated at the station outside the immediate station area. During Project construction, temporary generators would replace the permanent generators to provide the station's electrical power. The temporary generators would be fueled by natural gas and be used when the existing electrical equipment connecting the permanent generators is de-energized during certain construction activities. The facility's infrastructure would continue to be available during Project construction, to maintain PG&E's service reliability (PG&E 2025).

The Hinkley Compressor Station used approximately 7,900 megawatt-hours of electricity in 2023 (PG&E 2025).

3.6.2 Regulatory Setting

Federal, State, and local regulations were reviewed for applicability to the Project and are discussed next.

Federal

National Energy Conservation Policy Act

The National Energy Conservation Policy Act (NECPA) (42 U.S. Code Section 8201 et seq.) established energy-efficiency standards for consumer projects and includes a residential program for low-income weatherization assistance, grants, and loan guarantees for energy conservation in schools and hospitals, as well as energy efficiency standards for new construction. The NECPA also established fuel economy standards for on-road motor vehicles in the U.S. The National Highway Traffic and Safety Administration, which is part of USDOT, is responsible for establishing additional vehicle standards and revising existing standards under the NECPA. USDOT is authorized to assess penalties for noncompliance.

Energy Policy Act of 2005

The Energy Policy Act of 2005 (42 U.S. Code Section 13201 et seq.) sets equipment energy efficiency standards, seeks to reduce reliance on nonrenewable energy resources, and provides incentives to reduce current demand on these resources, including establishing programs to improve the reliability and efficiency of distributed energy resources and systems by integrating advanced energy technologies with grid connectivity.

Energy and Independence Security Act of 2007

The Energy and Independence Security Act of 2007 (42 U.S. Code Section 17001) sets federal energy management requirements in several areas, including energy reduction goals for federal buildings, facility management and benchmarking, performance and standards for new buildings and major renovations, high-performance buildings, energy savings performance contracts, metering, energy-efficient product procurement, and reduction in petroleum use by methods, including setting automobile efficiency standards and increases in alternative fuel use. This act also amends portions of the NECPA, as described previously.

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State

Warren-Alquist Act

The 1975 Warren-Alquist Act (PRC Section 25000 et seq.) established the California Energy Resources Conservation and Development Commission, now known as the CEC. The CEC is California's leading policy and planning agency, responsible for establishing rules and regulations for multiple facets of the energy industry. The Warren-Alquist Act also established a State policy to reduce wasteful, uneconomical, and unnecessary uses of energy.

California 2008 Energy Action Plan Update

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

Executive Order S-3-05

State Executive Order S-3-05, issued in 2005, established GHG emissions reduction targets for California. The targets called for a reduction of GHG emissions to 2000 levels by 2010, a reduction of GHG emissions to 1990 levels by 2020, and a reduction of greenhouse gas (GHG) emissions to 80 percent below 1990 levels by 2050 (Office of the Governor 2005). The secretary of CalEPA is required to coordinate development and implementation of strategies to achieve the GHG emissions reduction targets, including reduction in natural gas consumption.

Global Warming Solutions Act of 2006

In 2006, the State Legislature signed the Global Warming Solutions Act of 2006 (AB 32), which provides the framework for regulating GHG emissions in California. This law required the CARB to design and implement emission limits, regulations, and other measures, so that statewide GHG emissions would be reduced in a technologically feasible and cost-effective manner to 1990 levels by 2020.

Climate Change Scoping Plan

Part of the CARB's direction under AB 32 was to develop a scoping plan containing the main strategies for California to use in reducing its GHG emissions. The CARB first approved the AB 32 Scoping Plan in 2008, and its latest adopted plan is the 2022 Scoping Plan for Achieving Carbon Neutrality (CARB 2022). The 2022 Scoping Plan lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045 (CARB 2022). This path includes strategies for reducing California's dependency on petroleum (e.g., electrifying the transportation sector and continuing to build out renewable energy resources), minimizing the use of chemicals and refrigerants with high global warming

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potentials, and expanding the role of natural and working lands in capturing and storing carbon (CARB 2022).

Executive Order B-30-15

In April 2015, Governor Brown signed Executive Order B-30-15, which added the intermediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030 (Office of the Governor 2015). Specifically, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030, by reducing reliance on fossil fuels, including natural gas (CEC, n.d., 350).

Senate Bill 32 and Assembly Bill 197

On September 8, 2016, Governor Brown signed SB 32 and AB 197, which codified the 2030 GHG emissions reduction target of 40 percent below 1990 levels and provided additional direction for updating the Scoping Plan.

Clean Energy and Pollution Reduction Act

In 2015, Senate Bill (SB) 350, the Clean Energy and Pollution Reduction Act, was enacted, establishing new clean energy, clean air, and GHG reduction goals for 2030 and beyond. SB 350 requires the State to double statewide energy efficiency savings in electricity and natural gas end uses by 2030.

Renewable Energy Transmission Initiative

The Renewable Energy Transmission Initiative was a statewide, nonregulatory planning effort, convened by the California Natural Resources Agency, with participation from stakeholders such as the CEC, CPUC, California Independent System Operator, and the BLM, California Office. The Initiative was created to develop a conceptual plan to expand the State's electric transmission grid, to provide access to renewable energy deemed necessary to meet State energy goals (Olsen et al. 2012).

California Integrated Energy Policy

Section 25301(a) of the PRC requires the CEC to develop an Integrated Energy Policy Report (IEPR) at least every 2 years for electricity, natural gas, and transportation fuels. The current IEPR (2021 edition, updated in 2022) calls for the state to assist in decarbonization of buildings and the agricultural sector, for electricity reliability in a changing climate, decarbonizing the State's gas systems, and improving electricity demand forecasting.

California Renewables Portfolio Standard Program

The State adopted standards to increase the percentage that electricity retail sellers, including investor-owned utilities and community choice aggregators, must provide from renewable resources. The standards are referred to as the Renewable Portfolio Standards (RPS). As of 2018, utility providers were required to have 60 percent of their energy portfolio supplied by renewable energy sources by 2030, and all the state's electricity was required to be generated by carbon-free resources by 2045. All electricity retail sellers were required to meet an interim target of at least 38.5% of their load with RPS-eligible resources by December 31, 2022. Retail

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sellers in general either met or exceeded the interim 38.5% and are on track to meet compliance requirements (CPUC, n.d.).

Senate Bill 100

Senate Bill 100, enacted in September 2018, amended the California Renewables Portfolio Standard Program. The program required CPUC to establish a renewables portfolio standard, requiring all retail sellers to procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt-hours of those products sold to their retail end-use customers would achieve 25 percent of retail sales by December 31, 2016, 33 percent by December 31, 2020, 40 percent by December 31, 2024, 50 percent by December 31, 2026, and 60 percent by December 31, 2030. The program additionally requires each local publicly owned electric utility to procure a minimum quantity of electricity products from eligible renewable energy resources, to achieve the procurement requirements established by the program.

Senate Bill 1020

SB 1020, enacted in 2022, revised the State policy that was outlined in SB 100, requiring that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035; 95 percent by December 31, 2040; 100 percent by December 31, 2045; and 100 percent of electricity procured to serve all state agencies by December 31, 2035.

California Advanced Clean Cars Program/Zero-Emission Vehicle Program

In January 2012, the CARB approved a new emissions-control program for vehicle models from 2017 through 2025. The program combined emissions controls with requirements for greater numbers of zero-emission vehicles (ZEVs) into a package of standards called the Advanced Clean Cars Program. The components of the program included low-emission vehicle regulations to reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and ZEV regulations to require manufacturers to produce an increasing number of pure ZEVs (e.g., battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles in 2018 through 2025 models. In March 2017, the CARB voted unanimously to continue with the vehicle GHG emission standards and the ZEV program for cars and light-duty trucks sold in California after 2025. Each year, the agency updates its action plan and produces an annual report. The most recent 2023–2024 Action Plan focuses on near-term concrete actions, including regulations, incentives, ZEV market development, mobility and technology advancement, external market development, and consumer and worker awareness (CARB 2023).

CARB Heavy-Duty Regulations

CARB's Truck and Bus Regulation requires diesel trucks that operate in California to be upgraded to reduce emissions. It established a final deadline of January 1, 2023, to upgrade all trucks with 2010 model engines or equivalent. In 2004, CARB adopted a fourth tier of increasingly stringent advanced after-treatment for new off-road compression-ignition engines, including those found in construction equipment. These Tier 4 standards were phased across product lines from 2008 through 2015. In 2007, CARB first approved the Off-Road Regulation

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requiring off-road fleets to reduce their emissions by retiring, replacing, or repowering older engines.

As heavy-duty on-road vehicles are such a significant source of pollutants, the Truck and Bus Regulation is one of the most far-reaching and important tools to reduce smog-forming and toxic emissions, and to protect public health in disadvantaged communities. It is a key element in the CARB's Diesel Risk Reduction Plan and the State Implementation Plan, both of which are designed to provide clean air for Californians by helping to meet State and federal health standards. From January 1, 2020 onward, SB 1 allowed only vehicles compliant with this regulation to be registered by the California Department of Motor Vehicles.

California Green Building Standards (Title 24, Part 11)

The 2022 California Green Building Standards Code (24 CCR 11), commonly referred to as the CALGreen Code, established mandatory green building requirements for residential and nonresidential structures. The CALGreen Code went into effect on January 1, 2023, building on prior code versions by enhancing provisions related to electric vehicle (EV) infrastructure, water and energy efficiency, waste reduction, and indoor environmental quality. For nonresidential development, the 2022 update included revised requirements for EV charging infrastructure, stormwater management, and water re-use systems. For residential development, including new multifamily housing, the updates expanded EV charging space requirements, strengthened low-flow plumbing fixture thresholds, and promoted electrification-readiness. Compliance with the CALGreen Code is enforced through the local building permit process, for integration of sustainable design principles in alignment with California's broader climate and resource conservation goals.

Title 24 Building Energy Efficiency Standards

Title 24, Part 6, of the CCR is the California Building Code, which governs all aspects of building construction. It includes the standards mandating energy efficiency measures in new construction. Since its establishment in 1977, the building efficiency standards (along with standards for energy efficiency in appliances) have contributed to a reduction in electricity and natural gas usage and costs in California. The standards are updated every 3 years to incorporate new energy-efficiency technologies. The latest update to the Title 24 standards became effective on January 1, 2020. The standards regulate energy consumed in buildings for heating, cooling, ventilation, water heating, and lighting. Title 24 is implemented through the local planning and permitting processes

Construction Equipment Idling

The CARB also has adopted a regulation for in-use off-road diesel vehicles that is designed to reduce emissions from diesel-powered construction vehicles by imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. The regulation requires an operator of applicable off-road vehicles (self-propelled, diesel-fueled vehicles 25 horsepower and up that were not designed to be driven on-road), to limit idling to no more than 5 minutes.

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Local

San Bernardino County Countywide Plan

The San Bernardino County Countywide Plan Infrastructure and Utilities Element's (Infrastructure & Utilities – San Bernardino County 2020) goals and policies to reduce energy consumption in the county include the following:

Goal NR-1, Air Quality. Air quality that promotes health and wellness of residents in San Bernardino County through improvements in locally generated emissions.

Policy NR-1.8, Construction and Operations. We invest in county facilities and fleet vehicles to improve energy efficiency and reduce emissions. We encourage county contractors and other builders and developers to use low-emission construction vehicles and equipment to improve air quality and reduce emissions.

3.6.3 Applicant Proposed Measures

PG&E has proposed APMs for reducing environmental effects. The APMs are listed in of the Project Description and are considered part of the Project for the analysis. The Project would implement APM GHG-1 (refer to Section 3.8) to reduce energy use during construction.

3.6.4 Environmental Impacts

Methodology and Assumptions

The analysis evaluated the potential impacts of Project construction on energy resources. The analysis of energy impacts applied assumptions regarding construction-related fossil fuel use and operational energy requirements. Construction-related fossil fuel use was estimated based on the anticipated construction equipment use and vehicle trips as well as energy use from generators. The CARB's Off-Road Emissions Inventory (CARB 2024b) was used to estimate the gasoline and diesel fuel that would be used by construction equipment, based on equipment category and horsepower rating. Engine-specific total maximum heat input and the EPA's established average gross heating value of natural gas were used to estimate natural gas fuel that would be consumed by the PERP temporary generators during construction (refer to Appendix C Energy Calculations for energy use details). The EMFAC2021 (CARB 2024a) motor vehicle emissions model was used to estimate the gasoline and diesel fuel used by on-road vehicles, assuming the following based on vehicle miles traveled (VMT):

- Workers would travel in gasoline-fueled passenger vehicles (67 percent light-duty automobiles, 5 percent light-duty class 1 trucks, and 28 percent light-duty class 2 trucks), although some of these trips may occur in diesel-fueled, electric, or plug-in hybrid vehicles.
- On-site construction vehicles and off-site material and equipment transport would occur in diesel-fueled heavy-duty trucks (100 percent heavy-duty trucks), although some of these trips may occur in gasoline-fueled, electric, or natural gas-fueled vehicles.

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Direct and Indirect Effects

- a) **Would the Project result in a potentially significant environmental impact because of wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation?**

Project Construction

Construction would result in fuel consumption from using construction tools and equipment and vehicle trips generated from workers traveling to and from the Project site. Temporary power for construction would be provided by two small and two large diesel generators (no more than 50 horsepower). During construction when the switchgear is replaced, the station would receive power for operation of its critical loads from up to 22 temporary generator units, powered by natural gas.

When the permanent Hinkley Compressor Station generators are de-energized during construction, up to 22 temporary generators would be in operation 24 hours per day—seven days per week—for approximately 6 to 8 months. A HiPower HRNG 230 T6 unit with a 302-horsepower engine would be a representative generator that would be used during construction to support the ongoing operation of the compressor station.

PG&E would implement APM GHG-1 to reduce energy use during construction. APM GHG-1 would require a “common sense” approach to vehicle use, which would require reducing vehicle idling as much as possible below the maximum of 5 consecutive minutes allowed by California law. In addition, APM GHG-1 would require shut-off of all vehicles not required for use immediately or continuously for construction activities. The inclusion of these measures would minimize unnecessary construction vehicle idling time and reduce construction energy consumption.

During construction, the PERP temporary, natural gas-fueled generators would be used. Total natural gas consumption from these generators was included in the fuel consumption estimates, shown in Table 3.6-4. Natural gas was estimated conservatively based on the use of the PERP generators. The estimates did not include the reduction of natural gas use from the stationary generators being offline when the PERP generators are in use. The PERP generator use conservatively calculated operation 24 hours per day for 8 months. The PERP generators would not be operating continuously during Project construction. The PERP generators would be operated only to power station equipment when the equipment is disconnected from its permanent power source. The actual use of energy during Project construction would not increase beyond what typically is used during normal station operation. The Project would not change the throughput of energy.

As shown in Table 3.6-3, Project construction would result in the consumption of an estimated 5,841 gallons of gasoline, 90,139 gallons of diesel, and 179 million standard cubic feet (MMscf) of natural gas. Project construction activities would use less than 0.01 percent of the statewide fuel consumption, as shown in Table 3.6-4. The consumption of this fuel would occur only when electrical power is unavailable to the Hinkley Compressor Station because of the switchyard being taken offline. After the upgrades at the switchyard are completed, generator use would

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not be required to support the Hinkley Compressor Station's operation. The generators would be unnecessary to support the Hinkley Compressor Station operation. Use of energy would be unnecessary. The impact would be less than significant. No mitigation is required

Table 3.6-3 Summary of Estimated Fuel Consumption during Construction

Project Activity	Gasoline (gallons)	Diesel (gallons)	Natural Gas (MMscf)
Construction Duration	5,841	90,139	179

Source: (PG&E 2025)

Table 3.6-4 Summary of Estimated Fuel Consumption during Construction Compared to Statewide Fuel Consumption

Project Activity	Fuel Type	Estimated Amount of Fuel Consumed (gallons of MMscf) ^a	Statewide Fuel Resources Consumed (gallons) ^b	Consumed by Project (%)
Construction	Gasoline	5,841	12,746,185,200	0.00005%
	Diesel	90,139	2,373,378,000	0.004%
	Natural Gas	179	N/A	N/A

Notes:

^a Total gallons of fuel consumed for Project construction represents the total gasoline and diesel from employee vehicle trips, construction equipment, and material and equipment transport truck trips, as applicable. Total natural gas consumed (in million standard cubic feet [MMscf]) represents the total natural gas from use of the PERP engines during construction.

^b A conservative estimate of annual statewide fuel resources that would be consumed was assumed to be equivalent to 100 percent of annual production/stocks consumed in the state between January 1 and December 31, 2023.

NA = not applicable

Source: (PG&E 2025)

b) Would the Project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Project construction would increase reliability of the energy infrastructure at the Hinkley Compressor Station. The Project would replace or upgrade electrical equipment. Overall energy use at the Project site would not change because of the replaced or upgraded switchgear. Therefore, Project construction would not conflict with any local or State energy plans because energy use would remain consistent with current usage. The replacement of on-site electrical equipment would not conflict with State policies for phasing out natural gas; the Project's upgrades would address safety, reliability, and maintainability of the existing electrical distribution equipment. No significant expansion of natural gas services would result. No impact would occur.

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3.7 GEOLOGY AND SOILS

3.7 Geology and Soils

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
7. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving	☐	☐	☒	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist–Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and, potentially, result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

3.7.1 Environmental Setting

This section discusses existing conditions for geological, soils, and paleontological resources in the Project site.

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Regional Geology

The Project is within the Mojave Desert geomorphic province, which is characterized by isolated mountain ranges separated by expansive areas of alluvial deposits that terminate at dry lakebeds (playas). The Mojave Desert province is wedged between the Garlock and San Andreas fault zones (CGS 2002).

Hinkley Valley is within the central/western portions of the Mojave Desert. The bedrock of the area represents continental-margin marine sediments that were intruded and deformed during the Mesozoic Era (252 million years ago [mya] to 66 mya). The Mesozoic-age igneous rocks are variable in composition, ranging from diorite to granite. The Mesozoic-age bedrock is overlain by sedimentary deposits dating from the Miocene Epoch to the Holocene Epoch (11,700 years ago to recent) (Miller et al. 2020a).

Local Geology

Geologic mapping indicates that the Project site is underlain by Holocene- to late Pleistocene-age young mixed alluvial and eolian deposits (Q_{ya}) and Middle- to late Pleistocene-age intermediate Mojave River deposits (Q_{imr}) (Miller et al. 2020a).

The Holocene- to late Pleistocene-age young mixed alluvial and eolian deposits are characterized by alluvial and eolian sediments that are moderately- to well-sorted sand and gravel. These sediments are typically loose and are found in areas where there is significant eolian contribution from Harper Lake and local playas (Miller et al. 2020b).

The Middle- to late Pleistocene-age intermediate Mojave River deposits are characterized as arkosic gravel, sand, and silt with reddish quartzite pebbles. These deposits are well bedded with typical fluvial stream deposit characteristics (i.e., normal grading, cross-beds, and floodplain sediment) (Miller et al. 2020b).

Soil

The Natural Resources Conservation Service (NRCS) Web Soil Survey database identifies the soil on the Project site as Cajon Loamy Sand with minor components of Norob-Halloran series soil (NRCS 2024a). This soil is typically described as excessively drained to well-drained sandy loams.

Expansive Soil

Expansive soils are soils that possess a “shrink-swell” characteristic. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in the fine-grained clay sediments from the process of wetting and drying; the volume change is reported as a percent change for the whole soil. This property is measured using the coefficient of linear extensibility (COLE) (NRCS 2024b). The NRCS relies on linear extensibility measurements to determine the shrink-swell potential of soils. If the linear extensibility percentage is more than 3 percent (COLE=0.03), shrink and swelling may cause damage to buildings, roads, and other structures (NRCS 2024b).

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According to the NRCS Web Soil Survey, the linear extensibility rating for Cajon loamy sand at the Project site is 1.5 percent, which correlates to a low linear extensibility rating and the soils are not considered expansive (NRCS 2024a).

Geologic Hazards

The California Earthquake Hazards Zones Application (EQ Zapp) is an interactive map available on the California Geological Survey (CGS) website. The EQ Zapp allows users to view all available earthquake hazard zone data, including delineated Earthquake Fault Zones (EFZs), liquefaction zones, and earthquake-induced landslide zones—as required by the Alquist-Priolo Earthquake Fault Zoning Act (A-P Act) and Seismic Hazards Mapping Act.

Faults and Seismicity

Under the A-P Act, EFZs are boundaries delineated around the traces of Holocene-active⁴ faults; all other faults are considered pre-Holocene⁵ faults. It should be noted that pre-Holocene faults are not necessarily “inactive”; historic earthquakes have occurred on some pre-Holocene faults, but the earthquakes did not result in displacement at the surface.

Surface Fault Rupture

Surface fault rupture occurs when fault movement causes displacement of surface deposits; not all earthquakes result in surface displacement. The displacement may result from a large-magnitude earthquake or from *creep*—measurable surface displacement in the absence of an earthquake) along a fault without an associated earthquake.

According to EQ Zapp, there are no known Holocene-active faults (i.e., EFZs) within the Project site (CGS 2025). The nearest EFZs are the Mount General fault zone (approximately 3.5 miles northeast of the Project site) and the Lenwood Section of the Lenwood-Lockhart fault zone (approximately 4.8 miles southeast of the Project site).

The Lockhart Section of the Lenwood-Lockhart fault zone transects the southwestern corner of the Project site; however, this section of the Lenwood-Lockhart fault zone is considered a pre-Holocene fault and is not an established EFZ.

Ground Shaking

Ground shaking occurring as a result of a seismic event can endanger human life, cause extensive property damage, and potentially affect areas of hundreds of miles from the earthquake epicenter. The extent of damage varies by event and is determined by factors such as earthquake magnitude and depth, distance from epicenter, duration and intensity of shaking, the underlying soil and rock composition, and the degree of structural integrity. Ground shaking can occur as a result of an earthquake on both Holocene-active and pre-Holocene faults.

⁴ Holocene-active faults show evidence of surface displacement within the Holocene Epoch, or the last 11,700 years, are considered active.

⁵ Pre-Holocene faults have not shown evidence of surface displacement in the last 11,700 years.

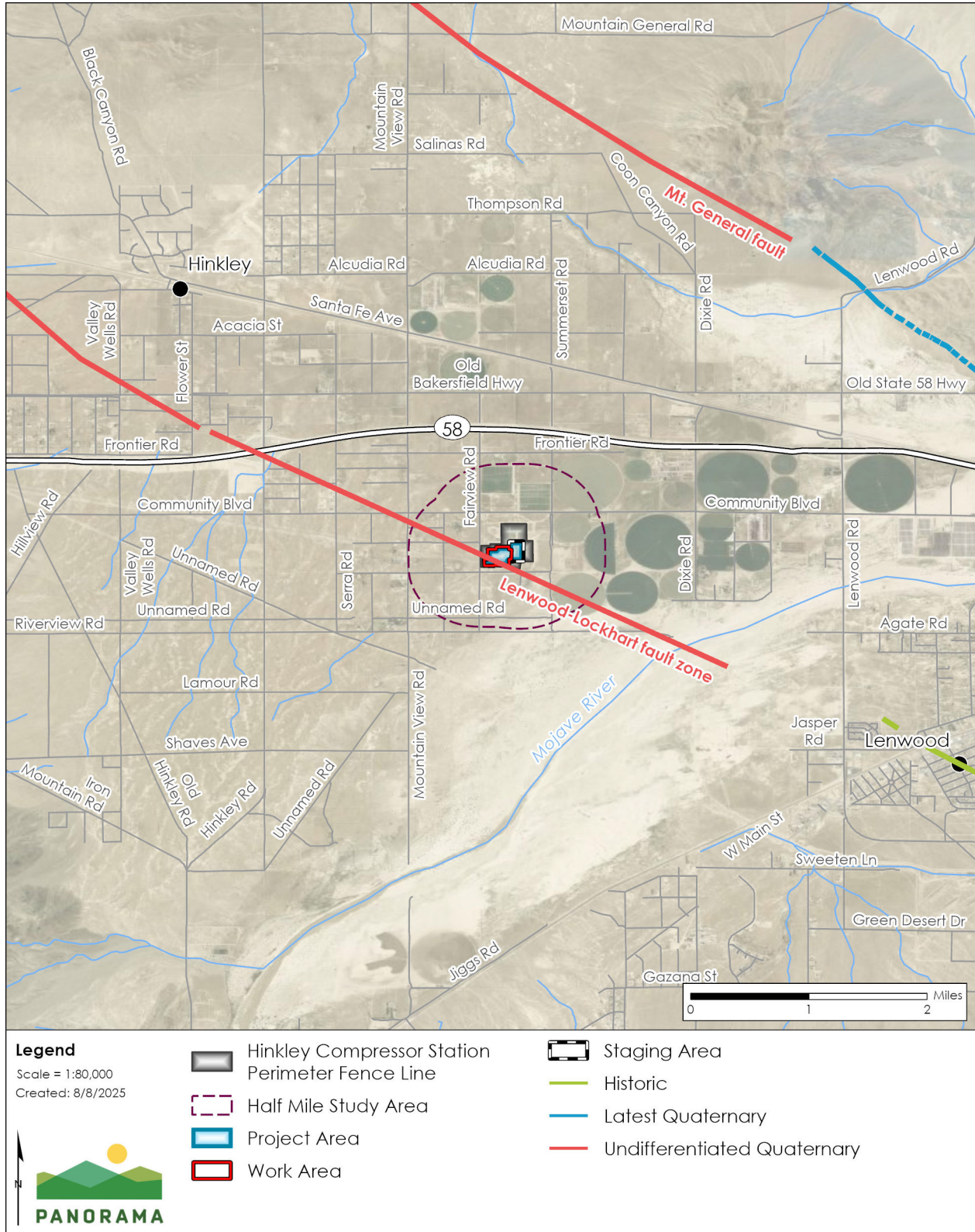
3.7 GEOLOGY AND SOILS

The faults and fault systems in the Project region have the potential to produce high-magnitude earthquakes, including at the Project site.

As stated above, the Lockhart Section of the Lenwood-Lockhart fault zone transects the southwestern corner of the Project site but is not an established EFZ. In addition to the Mount General fault zone and the Lenwood Section of the Lenwood-Lockhart fault zone (discussed above), there are multiple additional faults in the vicinity of the Project site: the Harper (approximately 7 miles northeast of the Project site), Blackwater (approximately 11.3 miles northeast of the Project site), Helendale-South Lockhart (approximately 12 miles southwest), Calico-Hidalgo (approximately 14.2 miles northeast of the Project site), Camp Rock-Emerson-Copper Mountain (approximately 19.4 miles southeast of the Project site), and Kramer Hills (approximately 20 miles west of the Project site) fault zones (USGS 2025b). The nearest fault zones are shown on Figure 3.7-1

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Figure 3.7-1 Fault Lines within the Proposed Project Site



Source: (California Governor's Office of Emergency Services 2021)

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ShakeMap is a product of the United States Geological Survey (USGS) Earthquake Hazards Program; the earthquake scenarios on ShakeMap represent one realization of a potential future earthquake by assuming a particular magnitude and location (USGS 2025a).

According to the ShakeMap scenario that corresponds with a hypothetical magnitude 7.5 earthquake within the Lenwood-Lockhart fault zone, the Project site could experience violent ground shaking in the event of an earthquake within this fault zone (USGS 2017).

Liquefaction and Lateral Spreading

Liquefaction occurs when loosely packed, water-saturated sediments at or near the ground surface become unstable in response to strong seismic ground shaking which can cause severe damage to buildings and structures. Lateral spreading is a variety of minor landslide that occurs when unconsolidated liquefiable material breaks and spreads as a result of gravity, usually down gentle slopes. Liquefaction-induced lateral spreading is the finite, lateral displacement of gently sloping ground as a result of liquefaction in a shallow underlying deposit during an earthquake. The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of ground shaking, particle-size distribution, and the density of the soil. In general, a relatively high potential for liquefaction exists in loose, sandy soil that lies within 50 feet of the ground surface and is saturated (below the groundwater table). The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of structure slabs. Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure (CGS 2008).

According to EQ Zapp, the Project site is not within an established liquefaction hazard zone (CGS 2025).

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Landslides

A landslide is the movement of a mass of rock, debris, or earth down a slope and can be caused by rainfall, snowmelt, changes in water level, stream erosion, changes in groundwater, earthquakes, volcanic activity, disturbance by human activities, or any combination of these factors (CGS 2008).

According to EQ Zapp, the Project site is not within an established landslide hazard zone (CGS 2025). Additionally, regional geologic mapping does not indicate that there are any historical landslides on or near the Project site (Miller, et al. 2020a). The Project site is located on soil that has a 0 to 5 percent slope. No areas prone to seismic induced landslides were identified in the Project site (PG&E 2025).

Subsidence

Land subsidence is the sinking or collapsing of the Earth's surface that may occur naturally or result from excessive groundwater pumping, drainage of organic soils, or underground mining (USGS 2000). Seismic activity increases the potential for land subsidence to occur.

Increased demand for water supplies in the southwestern Mojave Desert has caused a decline in groundwater levels by more than 100 feet between 1950 and 1990. This decline in the groundwater level has caused the aquifer system to compact, subsequently resulting in land subsidence. The area surrounding Harper Lake (a dry lake near Lockhart, approximately 8.4 miles northwest of the Project site) has experienced approximately 6 inches of land subsidence between 1992 and 2009 (Brandt and Sneed 2017).

Paleontological Resources

Paleontological resources are the fossilized remains of plants and animals, including vertebrates (animals with backbones; fish, amphibians, reptiles, birds, mammals, etc.), invertebrates (animals without backbones; starfish, clams, coral, etc.), microscopic plants and animals (microfossils), and trace fossils/ichnofossils (i.e., footprints, burrows, etc.). They are valuable, non-renewable, scientific resources used to document the existence of extinct life forms and to reconstruct the environments in which they lived. Fossils can be used to determine the relative ages of the depositional layers in which they occur and of the geologic events that created those deposits. The age, abundance, and distribution of fossils depend on the geologic formation in which they occur and the topography of the area in which they are exposed.

The Society of Vertebrate Paleontology (SVP) has established standard guidelines that outline professional protocols and practices for conducting paleontological resource assessments and surveys; monitoring and mitigation; data and fossil recovery; sampling procedures; and specimen preparation, identification, analysis, and curation (SVP 2010). Most practicing professional vertebrate paleontologists adhere closely to the SVP's assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Many federal, state, county, and city agencies have either formally or informally adopted the SVP's standard guidelines for the mitigation of adverse construction-related impacts on paleontological resources.

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A Paleontological Evaluation Report was prepared by Applied EarthWorks, Inc. (Applied EarthWorks) in 2014 (Applied EarthWorks, Inc. 2014) and covers the Project site. The report includes a comprehensive review of published and unpublished literature and museum collection records maintained by the Natural History Museum of Los Angeles County and the San Bernardino County Museum to determine if previously recorded paleontological localities occur within the Project site and Project area of potential effect (APE) which was defined as Operable Unit 3 (Applied EarthWorks, Inc. 2014). The museum records search was supplemented by a review of the University of California Museum of Paleontology (UCMP) online locality database. Approximately 79 significant fossils localities have been recorded in San Bernardino County from similar alluvial and lacustrine deposits. It has been determined the geologic units underlying the Project site have a high potential to contain significant paleontological resources. Applied EarthWorks conducted a field survey of the Project site to visually inspect the ground surface for exposed fossils and to evaluate the exposed geologic units for their potential to contain preserved fossil material in the subsurface. No previously recorded fossil localities were identified in the report.

3.7.2 Regulatory Setting

Federal, state, and local regulations were reviewed for applicability to the Project.

Federal

National Earthquake Hazards Reduction Act of 1977

The National Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) created the National Earthquake Hazards Reduction Program (NEHRP), establishing a long-term earthquake risk reduction program to better understand, predict, and mitigate risks associated with seismic events. Four federal agencies are responsible for coordinating activities under NEHRP: the USGS, National Science Foundation, Federal Emergency Management Agency (FEMA), and National Institute of Standards and Technology. Since its inception, NEHRP has shifted its focus from earthquake prediction to hazard reduction. The current program objectives are as follows:

- Advance the understanding of earthquake processes and their consequences.
- Enhance existing, and develop new information, tools, and practices for protecting the nation from earthquake consequences.
- Promote the dissemination of knowledge and implementation of tools, practices, and policies that enhance strategies to withstand, respond to, and recover from earthquakes.
- Learn from post-earthquake investigations to enhance the effectiveness of available information, tools, practices, and policies to improve earthquake resilience.

Implementation of NEHRP objectives is accomplished primarily through original research, publications, and recommendations and guidelines for state, regional, and local agencies in the development of plans and policies to promote safety and emergency planning.

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National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program, authorized by Section 402(p) of the federal Clean Water Act, controls water pollution by regulating point sources, such as construction sites and industrial operations, that discharge pollutants into waters of the United States.

The NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit) (Order WQ 2022-0057-DWQ, NPDES No. CAS000002) regulates discharges to waters of the United States (WOTUS) from stormwater and authorized non-stormwater associated with construction activity from sites that disturb one or more acres of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface.

The General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that includes specific *best management practices* (BMPs) designed to prevent sediment and pollutants from coming into contact with stormwater and moving off site into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management, and good housekeeping. They are intended to protect surface water quality by preventing eroded soil and construction-related pollutants from migrating off site from the construction area. Routine monitoring of all BMPs is required under the General Permit. The General Permit also sets post-construction standards (i.e., implementation of BMPs to reduce pollutants in stormwater discharges from the site after construction).

At the Project site, the General Permit is implemented and enforced by the Lahontan Regional Water Quality Control Board (Region 6), which administers the stormwater permitting program.

American Concrete Institute Standards

The American Concrete Institute (ACI), founded in 1904 is the leading global authority for development, dissemination, and adoption of its consensus based standards (ACI, n.d.-a). ACI facilitates code development and standards adoption at the international, state, and local levels. The ACI offers dozens of codes that cover topics such as structural concrete design, concrete repair, precast concrete, seismic analysis, and residential concrete that aim to help design professionals create quality concrete projects. ACI standards are written in mandatory language consisting of design codes and construction specifications (ACI, n.d.-b).

State

Alquist-Priolo Earthquake Fault Zoning Act

The A-P Act was passed in 1972 to mitigate the hazard of surface fault rupture to structures for human occupancy. In accordance with the A-P Act, the State Geologist establishes regulatory zones, called EFZs, around the surface traces of Holocene-active faults and publishes maps depicting these zones. The A-P Act regulates the construction of structures for human occupancy within these zones, which extend approximately 200 to 500 feet on either side of a mapped fault trace. California Code of Regulations (CCR) Title 14, Section 3601(e) defines

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buildings intended for human occupancy as those that would be inhabited for more than 2,000 hours per year.

California Building Code

The California Building Code (CBC), which is codified in Title 24 of the CCR Part 2, was promulgated to safeguard public health, safety, and general welfare by establishing minimum standards related to structural strength, means of egress to facilities (entering and exiting), and general stability of buildings. The purpose of the CBC is to regulate and control design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction. The California Building Standards Commission (CBSC) administers Title 24, and by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable, the provisions of the CBC apply to the construction, alteration, movement, replacement, repair, location, maintenance, and demolition of every building or structure, or any appurtenances connected or attached to such buildings or structures throughout California.

The CBC contains necessary California amendments, which are based on American Society of Civil Engineers/Structural Engineering Institute (ASCE/SEI) Standards. The ASCE/SEI Standards provide requirements for general structural design and include means for determining earthquake loads, as well as other loads for inclusion into building codes.

Seismic Hazards Mapping Act

Like the A-P Act, the Seismic Hazards Mapping Act of 1990 (Public Resources Code [PRC] §§ 2690–2699.6) is intended to reduce damage resulting from earthquakes. While the A-P Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to the A-P Act in that the state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards; and cities and counties are required to regulate development within mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites within Seismic Hazard Zones until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

Local

San Bernardino County Countywide Plan

The San Bernardino Countywide Plan is a collection of planning tools to guide future decisions, investments, and improvements within the County. The Countywide Plan contains three main components: Policy Plan, Business Plan, and Community Action Guides (San Bernardino County 2022).

The Policy Plan contains long-term goals and policies that guide decisions in the County and serves as the County General Plan for the unincorporated areas, including the Project. The

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following goals and policies from the County Policy Plan are relevant to geology, soil, and paleontological resources, and are included for informational purposes.

Hazards Element

Goal HZ-1: Natural Environmental Hazards. Minimized risk of injury, loss of life, property damage, and economic and social disruption caused by natural environmental hazards and adaptation to potential changes in climate.

Policy HZ-1.6: Critical and essential facility location. We require new critical and essential facilities to be located outside of hazard areas, whenever feasible.

Policy HZ-1.7: Underground utilities. We require that underground utilities be designed to withstand seismic forces, accommodate ground settlement, and hardened to fire risk.

Cultural Resources Element

Goal CR-2: Historic and Paleontological Resources. Historic resources (buildings, structures, or archeological resources) and paleontological resources that are protected and preserved for their cultural importance to local communities as well as their research and educational potential.

Policy CR-2.3: Paleontological and archeological resources. We strive to protect paleontological and archeological resources from loss or destruction by requiring that new development includes appropriate mitigation to preserve the quality and integrity of these resources. We require new development to avoid paleontological and archeological resources whenever possible. If avoidance is not possible, we require the salvage and preservation of paleontological and archeological resources.

3.7.3 Applicant Proposed Measures

PG&E has proposed APMs for the purpose of reducing environmental effects. APMs are listed in Table 2.6-9 of the Project Description and are considered part of the Project for the purpose of analysis. PG&E has proposed the Applicant Proposed Measures (APMs) listed in Table 3.7-1 to address impacts relevant to geologic, soil and paleontological resources.

Table 3.7-1 APMs Relevant to Geological, Soil, and Paleontological Resources

Proposed APMs
APM PAL-1: Retain a Qualified Paleontological Principal Investigator. A Paleontological Principal Investigator who meets the standards set forth by the Society of Vertebrate Paleontology will be retained to ensure that all APMs related to paleontological resources are properly implemented during construction. The Paleontological Principal Investigator will have a master's degree or Ph.D. in geology or paleontology, have knowledge of the local paleontology, and be familiar with paleontological procedures and techniques.

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Proposed APMs

APM PAL-2: Worker Environmental Awareness Program Training – Paleontological Portion. A Worker Environmental Awareness Program (WEAP) will be prepared to communicate environmental issues and appropriate work practices specific to the project to all construction field personnel before they begin work on the Project performing excavation or trenching activities. The WEAP will address, among other topics, paleontological resources protection. Training may be provided by PG&E as stand-alone training, or it may be included as part of the overall environmental awareness training as required by the project. The WEAP will be provided separately to CPUC staff prior to construction.

The paleontological training portion will include the following:

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

APM PAL-3: Paleontological Resource Monitoring for Project Excavation or Trenching Activities. A paleontological monitor will be present to monitor paleontological resources where excavation or trenching occurs. Monitoring is not required if this work occurs in soil or sediment that is imported or previously disturbed. The paleontological monitor will be able to: (1) recognize fossils and paleontological deposits and deposits that may be paleontologically sensitive; (2) take accurate and detailed field notes, photographs, and locality coordinates; and (3) document Project-related ground-disturbing activities, their locations, and other relevant information, including a photographic record. The qualified paleontologist will be responsible for a weekly reassessment of paleontological sensitivity after reviewing monitoring reports, which may result in reducing or increasing the amount of monitoring required.

AMP PAL-4: Unanticipated Paleontological Discovery. If significant paleontological resources are discovered during PG&E's excavation and trenching activities, the following procedures will be followed:

- Stop work immediately within 100 feet of the fossil find.
- Contact the designated Project inspector and PG&E Cultural Resource Specialist (CRS) immediately.
- Protect the site from further impacts, including looting erosion, or other human or natural damage.
 - Arrange for a qualified paleontologist to evaluate the discovery. If the discovery is determined to be significant, PG&E will implement measures to protect and document the paleontological resource. Work may not resume within 100 feet of the find until approved by the paleontologist and CRS.
 - Collect and curate fossils only when it is safe for the qualified paleontologist to be in the Project work area. Collect fossils only when the collection activity will not damage the resource further than not collecting it, as determined by the qualified paleontologist. Curate all fossils discovered in an appropriate repository.

AMP HYD-1: Worker Environmental Awareness Program – Water Quality Portion. A WEAP will be prepared for the project to communicate environmental issues and appropriate work practices specific to the project to all construction field personnel before they begin work on the project. The WEAP will include, among other topics, spill prevention and response measures and proper BMP implementation. A copy of the training materials and training sign-in sheets documenting participation in the training will be provided to the CPUC.

3.7.4 Environmental Impacts

Methodology and Assumptions

The following impact analysis considers the potential impacts related to geology, soil, and paleontological resources from construction, operation, and maintenance of the Project. The impacts related to geologic and seismic hazards would be significant if they would result in

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injury, structural collapse, unrepairable facility or utility damage, or severe service disruption. Impacts related to paleontological resources would be significant if ground disturbance associated with the Project resulted in disturbance or destruction of significant paleontological resources.

This analysis assumes that construction and design of the Project would use standard site preparation practices, engineering designs, and seismic safety techniques required by the CBC and other state and local regulations related to geologic hazards. The analysis also assumes that the Project would comply with federal, state, and local laws and regulations, and that state and local agencies would continue to enforce applicable requirements to the extent that they do now.

Direct and Indirect Effects

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

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

The Project is not within an established EFZ. The nearest EFZ to the Project is the Mount General fault zone (approximately 3.5 miles northeast of the Project site) and the Lenwood Section of the Lenwood-Lockhart fault zone (approximately 4.8 miles southeast of the Project site). The Project involves electrical upgrades and would not construct any habitable buildings. Because the Project would not construct any habitable buildings within an EFZ, no impact would occur.

(ii) Strong seismic ground shaking?

The Project would install replacement motor control centers (MCCs) on new foundations and new underground conduit. The Project site is in an area of high seismic activity and is in the vicinity of several faults, including a fault within the Project site. Seismic ground shaking can endanger human life and cause extensive property damage. The extent of damage varies by event and is determined by many factors (i.e., earthquake magnitude and depth, distance from epicenter, intensity of shaking, underlying soil and rock composition, and degree of structural integrity). If not properly designed seismic ground shaking could impact the foundations and equipment at the Project site, potentially resulting in property damage, loss, and impacts to the existing gas transmission system.

The concrete design for the Project foundations would be consistent with the 2022 CBC and the American Concrete Institute (ACI) standards for reinforced concrete, hot weather concrete, and cold weather concrete. Additionally, the new foundations would be designed in accordance with a site-specific geotechnical report following the current seismic and soil design recommendations for foundations.

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Adherence to geotechnical recommendations and the CBC would reduce potential impacts related to seismic ground shaking. Due to implementation of geotechnical engineering standards in the design, the Project would not directly or indirectly cause loss, injury, or death involving seismic ground shaking; therefore, the impact would be less than significant.

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

According to EQ Zapp, the Project site is not within an established liquefaction hazard zone (Department of Conservation, California Geological Survey 2024). As discussed in Section 3.10, Hydrology and Water Quality, groundwater is expected to be approximately 75 to 95 feet below ground surface (bgs). The depth of the MCC foundations would be 5 feet or less and would not be within areas that are subject to liquefaction. The Project would not directly or indirectly cause loss, injury, or death involving liquefaction; no impact would occur.

(iv) Landslides?

The Project site is currently developed and has relatively flat topography (USGS 2025c). According to EQ Zapp, the Project site is not within an established landslide hazard zone. Additionally, the CGS Information Warehouse on landslides map viewer does not indicate that there are any reports on landslides on or near the Project site (CGS, n.d.). Due to the absence of landslide hazards at the Project site, construction and operation of the Project would not directly or indirectly cause loss, injury, or death involving landslides; there would be no impact.

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

Construction activities would involve ground-disturbing earthwork during trenching activities, which could contribute to construction-related erosion and runoff; the Project work area is 15.8 acres and Project ground disturbance would comply with the requirements of the SWRCB Construction Stormwater General Permit, which mandates preparation and implementation of a SWPPP. In compliance with the Construction Stormwater General Permit, sediment and erosion control BMPs would be installed following manufacturer specifications and according to standard industry practice. In areas where soil would be temporarily stockpiled, the soil would be placed in a controlled area managed using standard stockpile management techniques. APM HYD-1 would also be implemented during construction, which would include worker training to ensure proper implementation of BMPs. Compliance with the Construction Stormwater General Permit and APM HYD-1 would ensure that impacts associated with soil erosion and loss would be less than significant.

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

The Project site is not susceptible to liquefaction or landslide hazards as discussed previously. The Project site is not located on any area with recorded ground subsidence (USGS, n.d.) The Project is not located on collapsible soils. While not previously reported in literature, it is possible that localized land subsidence may have occurred in Hinkley Valley because of prior agricultural pumping (ICF International and Cadno Entrix 2012). The Project would temporarily require water to support activities during construction (i.e., dust suppression and potential fire

3.7 GEOLOGY AND SOILS

suppression). Water for the Project is expected to be sourced from PG&E's existing water rights. Due to the minimal and short-term water use for construction, the Project would not cause liquefaction.

The Project site would not be on an unstable geologic unit or soil, and construction activities would not result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse; therefore, no impact would occur.

d) Would the Project be located on expansive soil, creating substantial direct or indirect risks to life or property?

The soil units underlying the Project site have low expansive potential. Due to the absence of collapsible soils at the site, the Project would have no impact from location on expansive soils.

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

The Project would not include the installation or use of septic tanks or alternative wastewater disposal systems. Because the Project would not use septic tanks or alternative wastewater disposal systems it would not require soils capable of adequately supporting such systems. Therefore, no impact would occur.

f) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The Project site is underlain by Holocene- to late Pleistocene-age young mixed alluvial and eolian deposits and Middle- to late Pleistocene-age intermediate Mojave River deposits. While the Holocene-age deposits are considered too young to contain significant paleontological resources, the Pleistocene-age Mojave River deposits are considered to have high potential to contain significant paleontological resources, as indicated by the Paleontological Evaluation Report that was prepared in 2014 for a larger project that included the Project site (Applied EarthWorks, Inc. 2014). No surface paleontological resources were identified during a paleontological investigation conducted at the Project site.

The Project would include trenching for installation of buried conduit and excavation at the MCC foundations. Trenching and excavation activities would be approximately 5 feet deep and have the potential to excavate previously undisturbed sediment, which could contain significant paleontological resources. PG&E has proposed implementation of APMs PAL-1, PAL-2, PAL-3, and PAL-4 to reduce impacts on paleontological resources during subsurface excavation. These APMs require retaining a qualified professional paleontologist (AMP PAL-1), conducting worker environmental awareness training on paleontological resources (AMP PAL-2), monitoring during excavation or trenching activities (AMP PAL-3), and proper recovery procedures in the event of a discovery (AMP PAL-4). Implementation of APM PAL-1 through AMP PAL-4 would protect paleontological resources during excavation to avoid destruction of a unique paleontological resource; therefore, impacts from destruction of a unique paleontological resource would be less than significant.

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3.8 Greenhouse Gas Emissions

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

3.8.1 Environmental Setting

Greenhouse Gas Emissions

Increases in heat trapping greenhouse gases (GHG) create changes in Earth's weather patterns including the rise of rise in average global temperatures. Existing GHGs allow about two-thirds of the visible and ultraviolet light from the sun to pass through the atmosphere and be absorbed by the Earth's surface. To balance the absorbed incoming energy, the surface radiates thermal energy back to space at longer wavelengths, primarily in the infrared part of the spectrum. Much of the thermal radiation emitted from the surface is absorbed by the GHGs in the atmosphere and is re-radiated in all directions. Because part of the re-radiation returns to the surface and lowers the atmosphere, global surface temperatures are elevated above what they would be in the absence of the GHGs. This process of trapping heat in the lower atmosphere is known as the *greenhouse effect*.

An increase of GHGs in the atmosphere affects the energy balance of the Earth and results in a global warming trend. Increases in global average temperatures have been observed since the mid-twentieth century and have been linked to observed increases in GHG emissions from anthropogenic sources. The primary GHG emissions of concern are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Other GHGs of concern include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆), but their contributions to climate change are less than 1 percent of the total GHGs that are well-mixed (i.e., that have atmospheric lifetimes long enough to be homogeneously mixed in the troposphere) (IPCC 2013). Each GHG has a different global warming potential. For instance, CH₄ traps about 25 times more heat per molecule than CO₂ (CARB 2022). Therefore, GHG emissions are reported in metric tons (MT) of carbon dioxide equivalents (CO₂e), wherein each GHG is weighted by its global warming potential relative to CO₂.

According to the Intergovernmental Panel on Climate Change (IPCC), over the past few hundred years, the atmospheric concentrations of CO₂ have increased to unprecedented levels

3.8 GREENHOUSE GAS EMISSIONS

compared to previous fluctuations in CO₂ concentrations observed over the past 800,000 years because of anthropogenic sources. According to a 2025 report prepared by the National Oceanic and Atmospheric Administration (NOAA), all of the 10 warmest years in the 175-year record have occurred in the last decade (2015–2024), based on measurements of the Earth’s global average surface temperature (NOAA 2025). The global increases in CO₂ concentrations primarily are related to fossil fuel combustion and land use change (e.g., deforestation). The dominant anthropogenic sources of CH₄ are from ruminant livestock, fossil fuel extraction and use, rice paddy agriculture, and landfills, while the dominant anthropogenic sources of N₂O are from ammonia for fertilizer and industrial activity. Fossil fuels combustion and industrial processes account for the largest share and growth in gross GHG emissions (IPCC 2023).

Effects of GHG Emissions

In March 2023, the IPCC published the final installment of the Six Assessments Report (AR6), summarizing the current understanding of global warming including the widespread impacts and risks and mitigation and adaptation. The IPCC report found that the consequences of global warming already are being seen because of a 1.1 degree Celsius (°C) increase in pre-industrial levels, including extreme weather conditions, rising sea levels, and melting glaciers and ice sheets. Climate impacts on ecosystems and humans are widespread across the globe, and vulnerable communities that historically have contributed the least to current increasing global temperatures are being affected disproportionately.

Global warming will continue to increase in the near term (2021–2040), mainly because of increased cumulative CO₂ emissions, and temperatures are likely to reach 1.5°C above pre-industrial levels between 2021 and 2040. Risks and projected adverse impacts and related losses and damages from increasing global temperatures will escalate with every increment of global warming. The IPCC states that deep, rapid, and sustained reductions in GHG emissions would lead to a discernible slowdown in global warming in approximately two decades, and to discernible changes in atmospheric composition within a few years (IPCC 2023).

3.8.2 Regulatory Setting

Federal

Climate Action Goals

On April 2, 2007, the U.S. Supreme Court ruled that CO₂ is an air pollutant as defined under the federal Clean Air Act, and that EPA has the authority to regulate GHG emissions (U.S. Supreme Court 2007). EPA made two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act, as follows:

- **Endangerment Finding:** The current and projected concentrations of the six key well-mixed GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) in the atmosphere threaten the public health and welfare of current and future generations. EPA found that the combined emissions of these GHG emissions from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that endangers public health and welfare under Section 202(a) of the Clean Air Act.

3.8 GREENHOUSE GAS EMISSIONS

- **Cause or Contribute Finding:** 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.

These findings do not impose any requirements on industry or other entities. However, they were a prerequisite for implementing GHG emissions standards for vehicles.

State

California Climate Action Goals

The State has established the following long-term climate action goals:

AB 32: Reduce GHG emissions to 1990 levels by 2020

SB 32: Reduce GHG emissions to 40 percent below 1990 levels by 2030

AB 1279: Achieve carbon neutrality as soon as possible but no later than 2045, maintain net negative GHG emissions thereafter, and reduce GHG emissions to 85 percent below 1990 levels by 2045

California's Climate Change Scoping Plan

In December 2008, the CARB adopted the Climate Change Scoping Plan to identify how the State could achieve its 2020 climate action goal under AB 32. In 2017, the CARB updated the Scoping Plan to identify how the State could achieve its 2030 climate action goal under SB 32, and substantially advance toward its 2050 climate action goal under Executive Order S-3-05. The 2017 Scoping Plan (CARB 2017) included the regulatory programs identified above (e.g., the Advanced Clean Cars Program, Low-Carbon Fuel Standard, Renewable Portfolio Standard Program, energy efficiency standards, Short-Lived Climate Pollutants Reduction Strategy, Cap-and-Trade Program).

In December 2022, CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan), which outlined a roadmap to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045 (CARB 2022). Building on the 2017 Scoping Plan, the 2022 Scoping Plan evaluated the progress made toward meeting the 2030 GHG emissions reduction target that was established in SB 32 and identified a technologically feasible, cost-effective, and equity-focused path to achieve carbon neutrality by 2045 or earlier.

The 2022 Scoping Plan presented an approach for an aggressive reduction of fossil fuels and a rapid transition to renewable energy resources and ZEVs. With respect to the transportation sector in particular, the update strived to achieve a per-capita VMT reduction of at least 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045. The 2022 Scoping Plan outlined the strategies that the State would implement to achieve carbon neutrality, by reducing GHG emissions to meet the anthropogenic target, expanding actions to capture and store carbon through the state's natural and working lands, and using a variety of mechanical approaches. Such approaches would include rapidly moving to zero-emission

3.8 GREENHOUSE GAS EMISSIONS

transportation; electrifying cars, buses, trains, and trucks; phasing out the use of fossil fuel gas for heating homes and buildings; clamping down on chemicals and refrigerants; providing communities with sustainable options for walking, biking, and public transit; building out clean, renewable energy resources (e.g., increasing solar arrays and wind turbine capacity) to displace fossil fuel-fired electrical generation; and scaling up new options, such as renewable hydrogen and biomethane.

Appendix D of the 2022 Scoping Plan included recommendations for local governments to take actions that would align with the State’s climate goals, with a focus on local climate action plans and local authority over new residential and mixed-use development. For project-level analysis, Appendix D of the 2022 Scoping Plan recommended key project attributes for residential and mixed-use projects, to determine consistency qualitatively with the 2022 Scoping Plan, including transportation electrification, VMT reduction, and building decarbonization. The CARB plans to continue to explore the qualitative approaches for other types of land uses.

Regional

Because the CPUC would have exclusive jurisdiction over Project siting, design, and construction, the Project would not be subject to local (city and county) discretionary regulations, except for air districts with respect to air quality regulations.

Mojave Desert Air Quality Management District CEQA and Federal Conformity Guidelines

The Project area is under the jurisdiction of the MDAQMD. This is the regional agency charged with preparing, adopting, and implementing emission control measures and standards for stationary sources of air pollution, pursuant to delegated State and federal authority.

The MDAQMD’s CEQA and federal Conformity Guidelines (MDAQMD CEQA Guidelines) provide project-level significant emissions thresholds, which can be used to evaluate quantitatively whether a project would be considered significant and require mitigation (MDAQMD 2020). The MDAQMD’s recommended thresholds of significance for GHG emissions are:

- 100,000 tons CO_{2e} per year
- 548,000 pounds (lb) CO_{2e} per day

3.8.3 Applicant Proposed Measures

PG&E has proposed the APMs that are shown in Table 3.8-1 to minimize GHG emissions

Table 3.8-1 Greenhouse Gas APMs

Proposed APMs
APM GHG-1: PG&E Minimize GHG Emissions
PG&E will implement the following measures to minimize GHG emissions, consistent with the recommendations provided in the CPUC’s Draft Environmental Measures:
• Encourage construction workers to carpool to the job site if suitable park-and-ride facilities are available in the Project vicinity.

3.8 GREENHOUSE GAS EMISSIONS

Proposed APMs

- Develop a carpool program to the job site.
- Maintain on-road and off-road vehicle tire pressures to manufacturer specifications. Check and reinflate tires at regular intervals.
- Recycle demolition debris for re-use to the greatest extent feasible.
- Maintain construction equipment per the manufacturer's specifications.
- Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time will depend on the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following startup that limit their availability for use following startup. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles 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 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction supervisors will include briefings to crews on vehicle use as part of preconstruction briefings. These briefings will include discussion of a "common sense" approach to vehicle use.
- Register portable diesel-fueled construction equipment with engines 50 horsepower or larger and manufactured in 2000 or later under the CARB's statewide Portable Equipment Registration Program.

3.8.4 Environmental Impacts

Methodology

This analysis was prepared based on the GHG emissions analysis that was documented in the Environmental Assessment for the Project, dated April 9, 2025 (PG&E 2025). The GHG emissions analysis was peer-reviewed during the CPUC pre-filing consultation process. Based on Project-specific information, provided by the Proponent, GHG emissions from Project construction were calculated using CalEEMod version 2022.1 methodologies. CalEEMod emission factors, CARB's EMFAC2021 database emission factors, and MDAQMD's default emission factors for internal combustion engines were used to estimate emissions from off-road construction equipment, on-road vehicles, and the temporary generators, respectively. Input information, detailed emission calculations, GHG emissions analysis, and associated calculations are provided in Appendix A.

Direct and Indirect Effects

- a) **Would the Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?**

Project Construction

Construction is expected to start in October 2026 and take approximately 23 months to complete. Construction activities would generate GHG emissions from several sources, such as the operation of on-site heavy construction equipment, operation of temporary generators, and on-road construction vehicles related to worker vehicles, vendor trucks, and haul trucks.

The estimated daily and annual CO_{2e} emissions during Project construction are shown in Table 3.8-2. As shown in Table 3.8-2, the Project's estimated CO_{2e} emissions during construction

3.8 GREENHOUSE GAS EMISSIONS

would be below the MDAQMD’s threshold of significance. Therefore, the impact would be less than significant. Furthermore, implementation of APM GHG-1 would reduce the Project’s construction GHG emissions further. No mitigation is required.

Table 3.8-2 Summary of Daily and Annual Estimated Construction Greenhouse Gas Emissions

Scenario	Daily Emissions (pounds of CO ₂ e per day)	Annual Emissions (tons of CO ₂ e per year)
Construction without APMs ¹ – 2026	3,589	108
Construction without APMs ¹ – 2027	92,026	11,043
Construction without APMs ¹ – 2028	2,478	198
Maximum Daily and Yearly Emissions	92,076	11,043
Thresholds of Significance	548,000	100,000
Exceeds Threshold?	No	No

Notes:

1. The potential GHG reduction associated with implementation of APM GHG-1 is not quantifiable; therefore, it is not included in the emission estimates.

Source: (MDAQMD 2020)

Project Operation and Maintenance

The Project would upgrade and replace PG&E’s S-238 Hinkley Compressor Station’s electrical distribution equipment. No change would occur to current operation of the compressor station. After Project construction, the Project would not contribute to new GHG emissions during operation. Therefore, no impact related to operation would occur.

In summary, the Project would not generate a net increase in GHG emissions that would, either directly or indirectly, have a significant impact on the environment. The impact would be less than significant. No mitigation is required.

b) Would the Project conflict with an applicable plan, policy, or regulation adopted for reducing GHG emissions?

In December 2022, the CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality, outlining a roadmap to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045 (CARB 2022). As discussed above, the Project would not generate new GHG emissions during operation, and the GHG emissions during construction would be short-term and below applicable MDAQMD thresholds of significance. The Project would not modify PG&E’s existing gas transmission system, other than the station’s electrical distribution equipment upgrade. The Project would not change existing gas transmission capacities or modify station operation functions, other than increasing safety and reliability associated with the electrical distribution system. The Project would not increase natural gas usage during operation. In summary, Project operation would not conflict with the 2022 Scoping Plan. The impact would be less than significant. No mitigation is required.

3.8 GREENHOUSE GAS EMISSIONS

3.8.5 References

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3.9 HAZARDS AND HAZARDOUS MATERIALS

3.9 Hazards and Hazardous Materials

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
9. HAZARDS AND HAZARDOUS MATERIALS. Would the Project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

3.9.1 Environmental Setting

Records Search of Hazardous Materials Databases

A search of the State Water Resources Control Board's (SWRCB) GeoTracker database and the California Department of Toxic Substances Control's (DTSC) EnviroStor database identified the

3.9 HAZARDS AND HAZARDOUS MATERIALS

Project site as being listed on the Cortese List⁶ of hazardous materials sites, compiled pursuant to Section 65962.5 of the Government Code (RWQCB 1987; SWRCB 1995). The Project site appears in GeoTracker under the following two separate records:

- Cleanup and Abatement Order (Global ID: SL0607111288) – This case addresses historic releases of hexavalent chromium (Cr[VI]) from compressor station operations between 1952 and 1964, which resulted in groundwater contamination extending beyond the facility boundary. The Lahontan Regional Water Quality Control Board (RWQCB) oversees remediation under the Cleanup and Abatement Order and associated Waste Discharge Requirements. Cleanup measures include in situ treatment, agricultural treatment units, groundwater extraction, and injection systems, with the remedial goal of achieving 10 ppb total chromium across the plume area by 2032. Monitoring and corrective action are ongoing, under an amended Monitoring and Reporting Program (RWQCB 1987).
- Leaking Underground Storage Tank (LUST) Case (Global ID: T0607100781) – This case involves petroleum hydrocarbon impacts on soil associated with past operations at the Hinkley Compressor Station; this site is within the Project site. Corrective action and site management also are under the jurisdiction of the Lahontan RWQCB (SWRCB 1995).

The EnviroStor database does not list any additional active cleanup sites within the Project site. No other hazardous materials cleanup sites were identified within 0.25 miles of the site in either database.

Both the chromium and petroleum cleanup cases are subject to ongoing remediation, compliance monitoring, and regulatory oversight. Project construction and operation would occur within this regulated setting and would be subject to coordination with the Lahontan RWQCB, as necessary, for consistency with site management and remediation activities.

Schools and Daycare Centers

No schools or daycare centers are within 0.25 mile of the Project site. The surrounding area consists primarily of open desert, rural residential properties, and community facilities.

Airports

The Project site is more than 20 miles from the nearest public airport, Barstow–Daggett Airport, and approximately 8 miles from the Barstow Community Hospital Heliport. The site is not within an airport land use plan area and is outside any designated airport safety zones (San Bernardino County 1992).

⁶ The Cortese List is a planning document used by the State, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Emergency Response

The Project site is accessed primarily via Fairview Road, which connects Community Boulevard to the north and Riverview Road to the south. These roads link Hinkley Road, SR-58, Lenwood Road, and I-15, which serve as regional evacuation routes (San Bernardino County 2022). A secondary access point is available from the northeast corner of the facility via a dirt road connecting Community Boulevard and Sommerset Road.

Wildfire Hazards

According to California Department of Forestry and Fire Protection (CALFIRE) mapping, the Project site is within a Local Responsibility Area (LRA) and is not designated as a Fire Hazard Severity Zone (FHSZ) (CALFIRE 2024). The CPUC High Fire-Threat District Map shows that the Project site is outside Tier 1, Tier 2, and Tier 3 fire-threat areas (CPUC 2025).

3.9.2 Regulatory Setting

Federal

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as the Superfund, authorizes EPA to respond to releases or threatened releases of hazardous substances that may endanger public health or the environment. The act establishes liability for responsible parties and provides a trust fund for cleanup when no responsible party is identified. CERCLA also enables federal and state agencies to recover costs for cleanup and damages.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) governs the generation, transportation, treatment, storage, and disposal of hazardous waste. It establishes a framework for the management of solid and hazardous waste to protect human health and the environment. EPA has delegated RCRA implementation to DTSC for most hazardous waste activities in the state.

Emergency Planning and Community Right-to-Know Act

The Emergency Planning and Community Right-to-Know Act (EPCRA) requires facilities that handle certain hazardous chemicals to report storage, use, and release information to state and local emergency planning entities. This promotes community awareness and emergency preparedness in the event of a chemical release.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act (HMTA) regulates the transport of hazardous materials in commerce to protect against risks to life, property, and the environment. USDOT administers HMTA through requirements for labeling, placarding, packaging, and handling of hazardous materials.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Occupational Safety and Health Act – Hazard Communication Standard

The Occupational Safety and Health Act – Hazard Communication Standard requires employers to inform and train employees about hazardous chemicals in the workplace through safety data sheets, container labeling, and employee training programs.

Toxic Substances Control Act

The Toxic Substances Control Act authorizes EPA to evaluate, regulate, and restrict the manufacture, processing, distribution, use, and disposal of chemical substances to protect human health and the environment.

State

California Hazardous Waste Control Law

The California Hazardous Waste Control Law implements and supplements RCRA in California, establishing requirements for the generation, handling, treatment, storage, and disposal of hazardous waste. DTSC is the lead agency for California Hazardous Waste Control Law enforcement.

California Health and Safety Code – Hazard Materials Release Response Plans and Inventory Law (Business Plan Act)

This law requires facilities storing hazardous materials above threshold quantities to prepare a Hazardous Materials Business Plan (HMBP). The plan includes an inventory of hazardous materials, emergency response procedures, and employee training, and must be submitted to the Certified Unified Program Agency (CUPA). The local CUPA for the Project would be the Hazardous Materials Division of the San Bernardino County Fire Department.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act is California's primary water quality law, administered by the SWRCB and RWQCBs. It regulates discharges of waste to land and waters of the State, including those that could affect surface water or groundwater.

California Code of Regulations, Title 8 – Occupational Safety and Health (California Occupational Safety and Health Administration [Cal/OSHA])

Title 8 contains workplace safety regulations, including requirements for the safe storage, handling, and use of hazardous substances, and mandates employee training and protective equipment where necessary.

California Fire Code

The CFC establishes fire safety requirements for the storage, use, and handling of hazardous materials, including limits on quantities, requirements for secondary containment, and emergency access provisions.

California Accidental Release Prevention Program

The California Accidental Release Prevention (CalARP) Program requires facilities with regulated substances above threshold quantities to develop and implement a Risk Management Plan to prevent accidental releases and minimize impacts if a release occurs.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) consolidates six State environmental programs, including hazardous waste generator requirements, hazardous materials business plans, underground storage tank regulations, and CalARP, under the oversight of local CUPAs.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

Proposition 65 requires businesses to provide warnings before exposing individuals to chemicals known to the State to cause cancer or reproductive toxicity and prohibits the discharge of such chemicals into sources of drinking water.

Local

San Bernardino County Fire Code

The County Fire Code incorporates the CFC and includes local amendments regulating hazardous materials storage, use, and emergency response requirements.

San Bernardino County Multi-Jurisdictional Hazard Mitigation Plan

This plan identifies hazards that could affect the county, including hazardous materials incidents, and outlines mitigation strategies to reduce potential risks to people and property.

San Bernardino County Development Code – Hazardous Materials and Waste Management Provisions

The Development Code contains standards for siting and operating facilities that store or handle hazardous materials, as well as requirements for waste management and emergency access.

3.9.3 Applicant Proposed Measures

PG&E has proposed APMs for reducing environmental effects. The APMs are listed in Table 2.6-9 of the Project Description and are considered part of the Project for the analysis. PG&E has proposed the APMs shown in Table 3.9-1 to address impacts relevant to hazards and hazardous materials.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Table 3.9-1 APMs Relevant to Hazards and Hazardous Materials

Proposed APMs
APM HAZ-1: Development and Implementation of Hazardous Material and Emergency Response Procedures PG&E will implement construction controls, training, and communication to minimize the potential exposure of the public and site workers to potential hazardous materials during all phases of Project construction. Construction procedures that will be implemented include worker training appropriate to the worker's role, and PG&E containment and spill control practices.
APM HAZ-2: Emergency Spill Supplies and Equipment Materials will be available on the Project site during construction to contain, collect, and dispose any minor spill. Oil-absorbent material, tarps, and storage drums will be available on the Project site during construction and will be used to contain and control any minor releases of oil. If excess water and liquid concrete escape during pouring, they will be directed to lined and berm areas in the staging area, where the concrete will dry and then be transported for disposal per applicable regulations.
APM HAZ-3: Shock Hazard Safety Measures All authorized personnel working on site during either construction or O&M will be trained according to PG&E shock hazard safety standards.
APM HAZ-4: Worker Environmental Awareness Program – Hazard Portion A WEAP will be prepared to communicate environmental issues and appropriate work practices specific to the Project to all construction field personnel before they begin work on the Project. The WEAP will address, among other topics, hazards and hazardous materials. The training program will emphasize site-specific physical conditions to improve hazards prevention and will include a review of spill response and proper best management practices (BMPs) implementation. The WEAP program will be provided separately to CPUC staff before the start of construction.
APM HAZ-5: Potentially Contaminated Soil Where existing data are not available and a known potential of contaminated soil exists in the trenching or excavation area, crews will be notified before the start of earth-moving activities in that area. Excavation or trenching areas either within or directly adjacent to locations of known or suspected contaminated soil will be evaluated by PG&E's Remediation and Industrial Hygiene departments before soil disturbance, so that soil-disturbing activities will be supervised and conducted by appropriately trained and qualified individuals. In accordance with standard protocol for any soil-disturbing activities at PG&E facilities, soil showing visual, olfactory, or other evidence of contamination will be stockpiled and managed separately. Soil that is known or suspected of being contaminated (based on existing analytical data or visual, olfactory, or other evidence) and is removed during trenching or excavation activities will be segregated and stockpiled on top of one layer of 20-mil polyethylene sheeting (or equivalent). When the stockpiled material is not being handled, top sheeting will be secured adequately, or equivalent soil stabilization methods will be employed so that all surface areas are covered or equivalently prevented from dispersion or mixing with nearby soils. The stockpiled soil will have a temporary berm placed around it to prevent runoff from leaving the area, and it will not be positioned near storm drains. Soil sampling and testing will be conducted for each stockpile, to characterize the chemical quality of the soil for potential re-use, disposal, and assess worker health and safety risks. The location, distribution, and frequency of the sampling locations where a known or suspected contaminated soil exists in a trenching or excavation area will be determined by a qualified environmental scientist, based on the quantity of excavated material, so that the analytical data adequately characterize the material with the intent to provide adequate representation of the conditions in the construction area. All soil intended for disposal will be tested in accordance with landfill requirements, regardless of known or suspected contamination being present. Appropriate handling, transportation, and disposal locations for soil will

3.9 HAZARDS AND HAZARDOUS MATERIALS

Proposed APMs

be determined based on the results of the analyses. If the soil is contaminated at concentrations greater than State or federal hazardous waste levels, it will be contained and disposed off-site at a licensed hazardous waste facility. In addition, the results will be provided to contractors and construction crews, to inform them about soil conditions and potential hazards.

3.9.4 Environmental Impacts

Methodology and Assumptions

The analysis of hazards and hazardous materials evaluated the potential for the Project to create or increase risks to public health, safety, or the environment through transport, use, storage, or disposal of hazardous materials; accidental release; and exposure to existing contamination or other hazard conditions.

The analysis was based on information from the Project Description, a review of applicable federal, State, and local regulations, and available environmental data sources, including the SWRCB's GeoTracker database, the DTSC's EnviroStor database, and CALFIRE FHSZ mapping. Data from the Lahontan RWQCB Cleanup and Abatement Order and LUST case files for the Hinkley Compressor Station also were reviewed to determine the nature, extent, and regulatory status of existing contamination.

For hazardous materials use and transport, all construction and O&M activities would comply with applicable regulations, including hazardous materials storage, handling, and disposal requirements; spill prevention and control procedures; and employee training programs. The analysis also assumed that the APMs that were identified in the Project Description would be implemented in full.

The evaluation considered the proximity of the Project site to schools, airports, and designated evacuation routes; existing emergency response plans; and site-specific hazard conditions, such as wildfire threat and regulated contamination. The impacts were characterized based on the potential for the Project to increase existing hazards to the public or environment or introduce new hazards that could reasonably affect public safety or environmental quality.

Direct and Indirect Effects

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

Project Construction

Project construction would involve the transport, use, and disposal of small quantities of hazardous materials typical for construction, such as fuels, lubricants, hydraulic fluids, paints, adhesives, solvents, and concrete curing compounds. As described in Chapter 2, Project Description, hazardous materials would be managed consistent with applicable regulations and typically would be kept within the designated construction staging areas on the Project site. Applicable federal and State regulations would include the RCRA and California Hazardous

3.9 HAZARDS AND HAZARDOUS MATERIALS

Waste Control Law, which govern the generation, handling, storage, and disposal of hazardous waste; the EPCRA, which requires reporting of hazardous chemical storage and use; the HMTA, which regulates transport of hazardous materials; the California Health and Safety Code HMBP requirements, administered locally by the San Bernardino County Fire Department as the CUPA; and the CFC, which establishes requirements for hazardous materials storage, secondary containment, and emergency access. Compliance with these regulations, along with PG&E's implementation of APM HAZ-1, APM HAZ-2, and AMP HAZ-4, would be enforced so that routine transport, use, and disposal of hazardous materials during construction would not create a significant hazard to the public or environment. The impact would be less than significant. No mitigation is required

Project Operation and Maintenance

The Project would make upgrades to the electrical system at the Hinkley Compressor Station. Project O&M would not change hazardous materials use at the Hinkley Compressor Station. Operational hazardous materials management would continue to be conducted under existing facility protocols to meet the regulatory requirements. The Project would not introduce new hazardous materials, no hazardous materials would be managed for the electrical system during operation, and Project operation would not involve transport, use, or disposal of hazardous materials. No impact would occur.

- 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?**

Project Construction

Hazardous Material Use

Project construction would involve the temporary use of hazardous materials, such as fuels, lubricants, and concrete curing compounds. These materials could be released into the environment if accidental spills or leaks occur.

Natural gas for the large temporary generators would be supplied directly from existing station gas lines and would not be stored on site. Diesel and gasoline for small generators, equipment, and vehicles would not be stored on site, and fueling would occur off-site, via delivery/service trucks in compliance with PG&E protocols and regulatory requirements.

All hazardous materials would be handled in accordance with applicable federal, State, and local regulations. These would include the California Hazardous Waste Control Law (Health and Safety Code, Division 20, Chapter 6.5), which implements federal RCRA requirements and established standards for the generation, transportation, storage, and disposal of hazardous waste. The handling also would include the CFC (24 CCR 9), which has established requirements for the safe storage, use, and secondary containment of hazardous materials and provides standards for fire prevention and emergency access. The Project would comply with the San Bernardino County Fire Department Hazardous Materials Division requirements (administered under the San Bernardino County CUPA authority), for preparation and

3.9 HAZARDS AND HAZARDOUS MATERIALS

maintenance of an HMBP for facilities handling hazardous materials above regulatory thresholds. Under the California Health and Safety Code (Business Plan Act), any facility that handles hazardous materials in quantities above threshold amounts must prepare and maintain an HMBP. The Hinkley Compressor Station operates under an HMBP, filed with the San Bernardino County Fire Department (the local CUPA). The HMBP includes an inventory of hazardous materials, emergency response procedures, and employee training requirements, so that hazardous materials use during both ongoing operations and temporary construction activities would be conducted in compliance with State and local regulations.

PG&E would implement APM HAZ-1 (hazardous materials and emergency response procedures), APM HAZ-2 (emergency spill supplies and equipment), and AMP HAZ-4 (WEAP—hazards portion), which would require preparing and implementing hazardous material handling and spill response procedures, maintaining spill containment equipment on site, and training all construction workers in spill prevention and emergency response. Because of the implementation of APMs and compliance with State and local requirements for hazardous materials storage and handling, accidental release of hazardous materials is not reasonably expected to occur in a manner that would cause a significant hazard to the public or the environment. Therefore, the impact would be less than significant. No mitigation is required.

Open Hazardous Materials Site

The Project site is within the Hinkley Compressor Station, which is subject to ongoing cleanup of historical groundwater contamination, regulated by the Lahontan RWQCB under a Cleanup and Abatement Order. Furthermore, a recorded LUST site is within the Project site.

Construction activities would occur entirely within this regulated setting and would not interfere with the remediation systems or monitoring wells, and would not involve activities that could encounter groundwater (contaminated medium). Project-related excavation would be shallow, generally limited to about 5 feet below ground surface (bgs), and would not encounter groundwater. Because the Project would not encounter any contaminated medium (groundwater), the impact from a significant hazard to the public or the environment through reasonably foreseeable release of hazardous materials into the environment from excavation within an open hazardous materials site would be unlikely. The impact would be less than significant. No mitigation is required.

Project Operation and Maintenance

Project O&M would involve the continued use of hazardous materials already present at the Hinkley Compressor Station (i.e., fuels, lubricants, and cleaning solvents for equipment). These materials could be released into the environment if accidental spills or leaks occur during routine operations or maintenance activities. However, the Project would not increase the types or volumes of hazardous materials used at the station, compared to existing conditions, or require new types of hazardous materials handling. Because the Project would not introduce new hazardous materials and no hazardous materials would be managed for the electrical system during operation, no risk of accidental release of hazardous materials would happen. No impact would occur.

3.9 HAZARDS AND HAZARDOUS MATERIALS

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

No schools or daycare centers are within 0.25 miles of the Project site. Construction would involve the short-term use of small quantities of hazardous materials, such as fuels, lubricants, and concrete additives, which would be handled and stored in accordance with applicable laws and regulations. Use of hazardous materials would be subject to implementation of APMs for spill prevention, containment, and cleanup (APM HAZ-1, APM HAZ-2, and APM HAZ-4) and would meet State and local regulatory requirements for hazardous materials handling, storage, and use. Because no existing or proposed schools are within 0.25 miles of the Project site and hazardous materials use would be limited and managed in accordance with the APMs and State and local regulatory requirements, no impact would occur.

d) Would the Project be performed on a site that is included on a list of hazardous materials sites compiled pursuant to Section 65962.5 of the Government Code, and therefore would it create a significant hazard to the public or the environment?

Project Construction

The Project site is included in the SWRCB GeoTracker database for both a Cleanup and Abatement Order (Global ID: SL0607111288) and a LUST case (Global ID: T0607100781). These listings are part of the Cortese List, compiled pursuant to Section 65962.5 of the Government Code.

The Cleanup and Abatement Order addresses historical releases of Cr(VI) from compressor station operations, which resulted in groundwater contamination extending beyond the facility boundary. Groundwater is approximately 90 to 110 feet bgs at the Project site (Arcadis 2025b). Remediation at the site involves a freshwater injection system (to maintain hydraulic control and dilute contaminants), in situ reactive zone (IRZ) systems (injecting carbon-based substrates to promote reduction of Cr[VI] to trivalent chromium [Cr(III)]), groundwater extraction wells (to control plume migration), and a monitoring well network to track concentrations and water levels (Arcadis 2025a).

The LUST case addresses petroleum hydrocarbon impacts from past operations. The LUST resulted in gasoline contamination to soil—groundwater was not impacted in this case. The case was overseen by the Lahontan RWQCB and San Bernardino County and was formally closed in 1995, indicating that corrective action was completed and no further remediation was required (SWRCB 1995). The case summary does not specify the remedial methods that were implemented, but case closure confirms that the cleanup was determined to be protective of human health and the environment. Remediation systems and monitoring associated with the chromium cleanup were operated in accordance with applicable regulatory orders, including the amended Monitoring and Reporting Program and Waste Discharge Requirements (Arcadis 2025a; SWRCB 1995).

Project construction would not disturb remediation systems, monitoring wells, or other cleanup infrastructure associated with the Cleanup and Abatement Order. Excavation would be shallow (generally up to 5 feet bgs) and would not reach groundwater.

3.9 HAZARDS AND HAZARDOUS MATERIALS

All construction and staging would occur within the fenced Hinkley Compressor Station; no off-site ground disturbance is proposed. Although remediation infrastructure extends across a broad area of the station and its surroundings, the proposed excavation and foundation work areas do not overlap any monitoring, extraction, or injection wells, and the former unlined wastewater ponds that served as the chromium source area are north of the proposed work areas; therefore, Project construction would not disturb the cleanup infrastructure.

With respect to the historic LUST case at the Project site, the case summary identifies gasoline in the soil and indicates that the case was closed in 1995; the record does not specify the depth of soil impact. Because Project excavations would be limited to approximately 5 feet bgs and groundwater occurs much deeper beneath the Project site, encountering groundwater is not expected. If any local petroleum-affected soil (e.g., staining/odors) is encountered during excavation, work would pause in the immediate area and the material would be managed, profiled, and disposed in accordance with the Hazardous Waste Control Law and San Bernardino County Fire Department requirements, consistent with APM HAZ-1, APM HAZ-2, and APM HAZ-4.

The Project would not interfere with ongoing remediation, would not increase the extent of existing contamination, and is not expected to have the potential to encounter groundwater or disturb contaminated media because of the shallow depth of the proposed excavation. By complying with the applicable regulatory requirements and implementation of the APMs, the Project would not expose the public or environment to a significant hazard. The impact would be less than significant. No mitigation is required.

Project Operation and Maintenance

Project O&M would involve continued use of small quantities of hazardous materials that already are present at the Hinkley Compressor Station (e.g., fuels and lubricants for equipment, cleaning solvents). The Project would not introduce new hazardous materials, new bulk storage, or new hazardous waste streams beyond existing station practices. Temporary generators that would be used during construction would be removed at the end of construction; no ongoing fuel storage or new fueling practices would be required for O&M of the electrical upgrades.

Hazardous materials management during O&M would continue to comply with applicable federal and State laws and local requirements, including the RCRA and the California Hazardous Waste Control Law (governing hazardous waste generation, accumulation, and disposal), the Hazardous Materials Transportation Act (transport), the CFC (safe storage and secondary containment), and the San Bernardino County Fire Department's CUPA requirements, including the facility's HMBP for hazardous materials inventory, emergency response procedures, and employee training. PG&E would continue to implement station-wide hazardous materials handling, spill prevention, and emergency response procedures; APM HAZ-1 and APM HAZ-4 would remain in effect for maintenance activities.

O&M activities would occur within the existing fenced station and would not disturb remediation systems, monitoring wells, or other cleanup infrastructure associated with the

3.9 HAZARDS AND HAZARDOUS MATERIALS

Cleanup and Abatement Order. Because no new hazardous materials handling would be introduced, and hazardous materials would continue to be stored, used, and disposed under the existing HMBP and applicable regulations, accidental releases during O&M are not reasonably expected to occur in a manner that would create a significant hazard to the public or the environment. Therefore, the impact would be less than significant. No mitigation is required.

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

The Project site is more than 20 miles from the nearest public airport, Barstow–Daggett Airport, and approximately 8 miles from the Barstow Community Hospital Heliport. The site is not within an airport land use plan area or airport influence area and is outside any designated airport safety zones. Because the Project is not within an airport land use plan area or within 2 miles of a public or private airport, it would not result in a safety hazard or excessive noise for people residing or working in the vicinity. No impact would occur.

f) Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The Project site is within the existing fenced Hinkley Compressor Station and would be accessed primarily via Fairview Road, which connects to Community Boulevard and Riverview Road, providing access to Hinkley Road, SR-58, Lenwood Road, and I-15. These roadways serve as regional evacuation routes. A secondary access route is available from the northeastern corner of the site via a dirt road connecting to Community Boulevard and Sommerset Road.

Construction activities would occur entirely within the Project site and would not require road closures or detours that could impede emergency response or evacuation. Construction traffic would comply with applicable traffic control requirements, and emergency vehicle access to and from the facility would be always maintained.

Because the Project would not restrict emergency access or alter any established evacuation routes, it would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. No impact would occur.

g) Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

As discussed in Section 3.19.1, the Project site is not in a high-risk area for wildfire. Project construction would involve activities such as vehicle and equipment use and hot work (e.g., welding) that would include ignition sources. Vegetation at the facility is sparse and, except for the staging area, the Project work areas are developed and absent vegetation. Because of the limited vegetation, very limited potential would exist for fire ignition during construction. In addition, PG&E would implement the fire prevention measures included in the PG&E Wildfire Mitigation Plan during construction, including maintaining fire suppression equipment on site,

3.9 HAZARDS AND HAZARDOUS MATERIALS

implementing equipment use restrictions during periods of high fire danger, and maintaining defensible space around work areas (PG&E 2025).

Based on the absence of high risk at the Project site, the limited vegetation present within the site, and implementation of fire prevention measures, the Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. The impact would be less than significant. No mitigation is required.

3.9.5 References

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3.9 HAZARDS AND HAZARDOUS MATERIALS

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3.10 HYDROLOGY AND WATER QUALITY

3.10 Hydrology and Water Quality

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

3.10.1 Environmental Setting

Regional Setting

The Project site is within the South Lahontan Hydrologic Region, within the Centro Subarea of the Mojave River Groundwater Basin. The Project site is in the Mojave River Valley, which has an estimated average ground slope of 0.3 percent from the southeast to the northwest. The area surrounding the site is relatively flat.

3.10 HYDROLOGY AND WATER QUALITY

According to the Western Regional Climate Center (WRCC) at Barstow–Daggett Airport (GHCN USW00023161)—the nearest station with recent, continuous records—the Project area receives approximately 4 inches of precipitation per year and experiences precipitation approximately 20 days per year (WRCC 2025a; 2025b; 2025c; NOAA 2025).

Surface Water Bodies

No surface water bodies are in the Project site. No streams, creeks, lakes, rivers, wetlands, or other jurisdictional surface waters are mapped within or adjacent to the Project site. The nearest surface water features are Harper Lake (a dry lakebed approximately 7 miles northwest of the Project site) and the Mojave River (approximately 11.2 miles south of the Project site) (Google Earth 2025). Both features are ephemeral and typically dry, holding water only temporarily after significant storm events (Izbicki et al. 2023).

Groundwater

The Project site is within the Harper Valley Subbasin of the Mojave River Groundwater Basin, within the Centro subarea. The basin is composed of unconsolidated alluvial deposits forming two primary aquifers, a floodplain aquifer and a deeper regional aquifer. The depth-to-groundwater beneath the Project site ranges from approximately 75 to 95 feet bgs, and groundwater flow generally is to the north (LRWQCB 2024).

The groundwater beneath the Project site was affected by historical discharges of chromium-contaminated water to unlined ponds, between 1952 and 1964. These discharges resulted in contamination of shallow groundwater at, and surrounding, the Project site. PG&E has been implementing remediation activities since 1992, in accordance with a Cleanup and Abatement Order issued by the Lahontan RWQCB (LRWQCB 2024). Remediation systems include extraction wells, injection wells, and in situ treatment methods, with infrastructure extending from approximately 0.5 mile south to more than 3 miles north of the Project site (PG&E 2025). Section 3.9, Hazards and Hazardous Materials, presents additional discussion on contamination at the Project site. Four groundwater monitoring wells for the remediation activities and one municipal well are within 150 feet of the Project site.

Flooding Potential and Dam Failure Inundation Areas

No mapped floodways, rivers, or streams would be affected by the Project. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) that shows the Project area, it is not mapped within a 100-year flood hazard area. The nearest mapped FEMA Special Flood Hazard Area (Zone A) is approximately 0.25 miles east of the Project site and is associated with an unnamed drainage feature. The Project site is within FEMA Zone X (areas determined to be outside the 0.2 percent annual chance floodplain), indicating minimal flood risk (FEMA 2008; PG&E 2025). Furthermore, the Project site is not within a dam inundation zone, and no dams are upstream that would create a flooding hazard at the Project site.

Water Quality

The groundwater beneath the Project site has been affected by historical facility operations. Between 1952 and 1964, untreated cooling tower water containing chromium was discharged to

3.10 HYDROLOGY AND WATER QUALITY

unlined ponds at the Hinkley Compressor Station. The discharge percolated through the soils to the underlying aquifer, resulting in elevated chromium concentrations in the groundwater (CRWQCB 2013).

The receiving water for runoff from the Project site is an ephemeral desert wash network tributary to Harper Lake within the Coyote-Cuddeback Lakes watershed. Runoff generally infiltrates on site, and during rare large storm events, any off-site flow migrates northwest toward Harper Lake (PG&E 2025). Harper Lake currently is not listed on California's Clean Water Act 303(d) list of impaired waters (SWRCB 2024).

Tsunamis and Seiches

The Project site is outside any established tsunami hazard zone; the site is approximately 95 miles northeast of the Pacific Ocean. Furthermore, no large water bodies are near the Project site that could generate seiche waves that would affect the site.

Water Supplies

The Project site is outside any municipal water service areas, and water is supplied by four PG&E-owned wells in the vicinity of the facility. These wells are operated by a private system operator and provide water for domestic use (e.g., sinks, toilets), industrial operations (primarily for cooling processes), and fire suppression needs at the facility. The wells also support ongoing groundwater remediation activities that are associated with historical site operations, as well as provide a limited supply of water to nearby properties. The four wells have capacities ranging from approximately 40 to 400 gallons per minute, which was sufficient to meet the facility's 2023 total demand of about 88 million gallons (approximately 270 acre-feet) (PG&E 2025).

3.10.2 Regulatory Setting

Federal

Clean Water Act

The Clean Water Act (33 U.S. Code Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, establishes the basic structure for regulating discharges of pollutants to waters of the U.S. and protecting water quality. The primary objective of the act is to restore and maintain the chemical, physical, and biological integrity of waters of the U.S. The act provides a framework for setting water quality standards, controlling pollutant discharges, and managing water quality through federal and state programs. Under the act, EPA has authority to implement pollution control programs, such as setting wastewater standards for industry, developing water quality criteria, and issuing permits for point-source discharges. In California, the SWRCB and RWQCBs are authorized by EPA to administer most Clean Water Act programs at the State level. The act requires states to set standards to protect, maintain, and restore water quality through the regulation of point-source and certain non-point-source discharges to surface water.

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Section 303 and 304

Clean Water Act Section 303 requires states to adopt water quality standards for all surface waters, which include designated beneficial uses, numeric and narrative water quality objectives, and antidegradation policies. States must review and update these standards periodically and identify water bodies that do not meet them, which are then placed on the Clean Water Act Section 303(d) List of Impaired Waters.

Section 304 directs EPA to publish criteria for water quality that reflect the latest scientific knowledge regarding the effects of pollutants on human health and aquatic life. These criteria serve as guidance to states when establishing or revising their water quality standards.

Section 401

Under Section 401, any project that may result in a discharge to waters of the U.S. must obtain water quality certification. In California, this certification is issued by the SWRCB or the appropriate RWQCB. Section 401 certification verifies that the proposed activity will comply with applicable water quality standards, effluent limitations, and other water quality requirements. Certification may include conditions to avoid or minimize impacts on water quality. Because no surface water bodies or wetlands are in the Project site, Section 401 permitting will not be necessary for the Project.

Section 402

Section 402 establishes the National Pollutant Discharge Elimination System (NPDES) permit program, which regulates point-source discharges of pollutants to surface waters. EPA has delegated authority to the SWRCB to administer the NPDES program in California. The program includes general permits for categories of discharges, such as the Construction Stormwater General Permit (Order WQ 2022-0057-DWQ, NPDES No. CAS000002) for stormwater discharges associated with construction activities that disturb 1 acre or more of soil. The Construction Stormwater General Permit requires development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes site-specific BMPs to control erosion, manage runoff, and prevent the discharge of pollutants. Dischargers also must conduct inspections and monitoring for permit compliance.

On September 8, 2022, the SWRCB adopted Order No. 2022-0057-DWQ (Construction General Permit), which re-issued Order 2009-0009-DWQ and previous Order 99-08-DWQ for projects disturbing 1 or more acre of land, or that are part of a common plan of development or sale that disturbs more than 1 acre of land. The new permit became effective on September 1, 2023, and all new dischargers are required to obtain coverage under the new permit by submitting permit registration documents.

The Construction General Permit requires implementation of an SWPPP, which must be prepared before construction begins and kept on site throughout the construction phase. In accordance with the Construction General Permit, the SWPPP must include the following:

- Identification of pollutant sources and non-stormwater discharges associated with construction activities

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- Specifications for BMPs that will be implemented during Project construction to minimize the potential for accidental releases and runoff from construction areas, including temporary construction yards and other temporary work areas
- Calculations and design details, as well as BMP controls for site run-on
- BMPs to be used to eliminate or reduce pollutants after construction is completed
- Certification from a Qualified SWPPP Developer (QSD)

Section 404

Section 404 of the Clean Water Act regulates the discharge of dredged or fill material into waters of the U.S., including wetlands. The U.S. Army Corps of Engineers (USACE) and EPA jointly administer the program. USACE is responsible for issuing permits for activities that result in the placement of dredged or fill material into jurisdictional waters, while EPA provides oversight and may develop environmental guidelines for evaluating permit applications. In California, projects that involve discharges to waters of the U.S. often require coordination with the RWQCB under Section 401 for water quality certification. Section 404 permits are not required if a project does not involve discharge to waters of the U.S. Because no surface water bodies or wetlands are in the Project site, Section 404 permitting would not be required for the Project.

National Flood Insurance Act of 1968

FEMA is responsible for determining flood elevations and floodplain boundaries based on USACE studies, and for distributing the Flood Insurance Rate Maps that are used in the National Flood Insurance Program (NFIP). These maps identify the locations of special flood hazard areas, including the 100-year floodplain. FEMA allows non-residential development in floodplains; however, construction activities are restricted within flood hazard areas, depending on the potential for flooding in each area. Federal regulations governing development in a floodplain are set forth under Title 44, Part 60 of the CFR, enabling FEMA to require municipalities that participate in the NFIP to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains.

State

California Fish and Game Code Sections 1600 to 1617 – Lake and Streambed Alteration (LSA)

Section 1602 requires any person, state or local governmental agency, or public utility to notify CDFW before beginning any activity that may divert or obstruct the natural flow, change the bed, bank, or channel, use material from, or deposit material into any river, stream, or lake (including ephemeral features). If CDFW determines the activity may substantially adversely affect fish or wildlife resources, the Department issues an LSA Agreement specifying measures to avoid, minimize, or mitigate impacts. Sections 1603–1605 address agreement contents, timelines, and dispute resolution; §1606 addresses emergency work; §1615 establishes penalties; and § 1617 authorizes programmatic (“general”) agreements.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) provides guidance for the protection of water quality and beneficial uses of water throughout

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the state and, along with the Clean Water Act, provides the overarching legislation governing the SWRCB and RWQCBs. Waters of the State are defined as any surface water or groundwater, including saline waters, which are within the boundaries of the state (PRC Section 71200). This differs from the Clean Water Act definition of waters of the U.S. by its inclusion of groundwater and waters outside the ordinary high-water mark in its jurisdiction.

The Porter-Cologne Water Quality Control Act requires that each RWQCB adopt a basin plan for the region. Pursuant to the act, these basin plans become part of the California Water Plan, when such plans have been reported to the Legislature (California Water Code Section 13141). Individual basin plans are prepared for each RWQCB. These plans set implementation policies, goals, and water management practices in accordance with the act. NPDES permits, waste discharge requirements, and waivers are mechanisms used by the RWQCBs to control discharges and protect water quality.

The Project site would be under the jurisdiction of the Lahontan RWQCB (Region 6) and would be subject to the water quality standards that described in its Basin Plan.

Water Quality Control Plan—Lahontan Region

The Water Quality Control Plan (Basin Plan) for the Lahontan Region establishes beneficial uses, water quality objectives, and an implementation program for waters within the region, including the Mojave River and its tributaries. In 2019, the Basin Plan was amended to revise beneficial use designations for the Mojave River. The amendment added the Rare, Threatened, or Endangered Species (RARE) and Inland Saline Habitat (BIOL) beneficial uses to portions of the river and its tributaries, de-designated the Cold Freshwater Habitat (COLD) beneficial use for the reach downstream from the Lower Narrows, and made other clarifying revisions. These changes ensure that water quality protections reflect the current ecological and hydrological conditions of the river system.

The Basin Plan also contains prohibitions on certain discharges, water quality objectives for both surface water and groundwater, and policies consistent with SWRCB Resolution 68-16 (the State's Antidegradation Policy) to maintain high-quality waters. Implementation of these objectives in the Mojave River Basin is coordinated with State and local agencies through monitoring programs, permitting actions, and enforcement measures. The Basin Plan is updated periodically to address new scientific information, regulatory requirements, and stakeholder priorities through a triennial review process.

Lahontan's Basin Plan includes region-wide and hydrologic-unit-specific waste discharge prohibitions (Chapter 4.1). Of note, the discharge of pesticides to surface or groundwater is prohibited (with limited exemption criteria not applicable to the Project). Mojave Hydrologic Unit (HU) prohibitions apply to upper-watershed segments (e.g., tributaries to the West Fork Mojave River/Deep Creek above approximately 3,200 feet, Silverwood Lake/Deep Creek/Grass Valley watersheds, and waters upstream from the Lower Narrows); the Project area near Hinkley is downstream from the Lower Narrows, and therefore these Mojave HU prohibitions would not apply to the Project site. Consistent with a 2006 Basin Plan clarification, stormwater

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discharges with pollutants controlled through BMPs that do not cause water quality objective exceedances are not subject to the Basin Plan prohibitions; stormwater/erosion controls are addressed in Chapter 4.3 of the Basin Plan and implemented through the Construction General Permit/SWPPP and site BMPs (SWRCB 2022a; 2022b).

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA), enacted in 2014, created California's first comprehensive framework for sustainable groundwater management. SGMA requires local entities to form Groundwater Sustainability Agencies (GSAs) to prevent "undesirable results" (i.e., overdraft, subsidence, or water quality degradation) through a long-term planning horizon (up to 20 years), and to achieve sustainability by 2042. The California Department of Water Resources (DWR) oversees Groundwater Sustainability Plan (GSP) development and technical adequacy, while the SWRCB has authority to step in if a GSP is inadequate or not implemented, including imposing corrective actions or fees. Thus, SGMA integrates local governance with State oversight for reliable groundwater resources.

No GSA or GSP exists for the Mojave River Groundwater Basin, because it is an adjudicated basin. Basin management is carried out by the Mojave Basin Area Watermaster, which is administered by the Mojave Water Agency. Adjudicated basins are exempt from preparing GSPs; instead, the Watermaster files annual reports with DWR under SGMA's adjudicated-area reporting requirements.

Local

San Bernardino Countywide Plan

The San Bernardino Countywide Plan offers policy direction that supports water conservation, protection of groundwater recharge, stormwater and flood management, and clean water stewardship. The Infrastructure and Utilities Element underlines the County's role in supporting water supply resilience, encouraging recharge strategies, and overseeing water and stormwater infrastructure in unincorporated areas (San Bernardino County 2022). The Natural Resources Element reinforces the importance of safe, clean water and protective coordination among agencies. The relevant policies from the Natural Resources Element are as follows:

Policy NR-2.1 (Coordination on water quality): We collaborate with the state, regional water quality control boards, watermasters, water purveyors, and government agencies at all levels to ensure a safe supply of drinking water and a healthy environment.

Policy NR-2.2 (Water management plans): We support the development, update, and implementation of ground and surface water quality management plans emphasizing the protection of water quality from point and non-point source pollution.

Policy NR-2.4 (Wastewater discharge): We apply federal and state water quality standards for wastewater discharge requirements in the review of development proposals.

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Policy NR-2.5 (Stormwater discharge): We ensure compliance with the County's Municipal Stormwater NPDES Permit by requiring new development and significant redevelopment to protect the quality of water and drainage systems through site design, source controls, stormwater treatment, runoff reduction measures, best management practices, low impact development strategies, and technological advances.

3.10.3 Applicant Proposed Measures

PG&E has proposed APMs for reducing the Project's environmental effects. The APMs are listed in Table 2.6-9 of the Project Description and are considered part of the Project for the analysis. PG&E has proposed the APMs shown in Table 3.10-1 to address impacts relevant to hydrology and water quality.

Table 3.10-1 Proposed APMs for Hydrology and Water Quality

Proposed APMs
APM HYD-1: Worker Environmental Awareness Program – Water Quality Portion A WEAP will be prepared to communicate environmental issues and appropriate work practices specific to the Project in a training to be given to all construction field personnel before they begin work on the Project. The WEAP will include spill prevention and response measures and proper BMP implementation. A copy of the training materials and training sign-in sheets documenting participation in the training will be provided to the CPUC.
APM HAZ-1: Development and Implementation of Hazardous Material and Emergency Response Procedures PG&E will implement construction controls, training, and communication to minimize the potential exposure of the public and site workers to hazardous materials during all phases of Project construction. Construction procedures that will be implemented will include worker training appropriate to the worker's role, and PG&E containment and spill control practices.
APM HAZ-2: Emergency Spill Supplies and Equipment Materials will be available on the Project site during construction to contain, collect, and dispose of any minor spill. Oil-absorbent material, tarps, and storage drums will be available on the Project site during construction and will be used to contain and control any minor releases of oil. If excess water and liquid concrete escape during pouring, they will be directed to lined and berm areas within the staging area, where the concrete will dry and then be transported for disposal per applicable regulations.
APM HAZ-4: Worker Environmental Awareness Program – Hazard Portion A WEAP will be prepared to communicate environmental issues and appropriate work practices specific to the Project to all construction field personnel in a training session before they begin work on the Project. The WEAP will address, among other topics, hazards and hazardous materials. The training program will emphasize site-specific physical conditions to improve hazard prevention and will include a review of spill response and proper BMP implementation. The WEAP will be provided separately to CPUC staff before the start of construction.

3.10.4 Environmental Impacts

Methodology and Assumptions

The impact analysis for hydrology and water quality evaluated the potential for the Project to cause adverse effects on surface water quality, groundwater quality, drainage patterns, and related resources during construction and O&M. The analysis considered the physical

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characteristics of the Project site, including topography, soils, existing drainage infrastructure, and the absence of surface water bodies within or adjacent to the Project site.

Regulatory requirements from the SWRCB, the Lahontan RWQCB, and applicable basin plans were reviewed to determine compliance with water quality standards, waste discharge requirements, and groundwater management objectives. Existing hydrologic and hydrogeologic information, including FEMA flood hazard maps, the Mojave River Groundwater Basin adjudication, and PG&E's water rights and usage records informed the analysis.

The construction activities were evaluated for potential erosion, sedimentation, hazardous material releases, and pollutant discharges, with consideration given to the applicant-proposed measures and BMPs that would be required under the Construction General Permit and SWPPP. The O&M conditions were assessed for changes to impervious surface area, drainage patterns, and long-term pollutant sources. The analysis assumed that all applicable permits, plans, and BMPs would be implemented as described in the Project description and required by law.

Direct and Indirect Effects

- a) **Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?**

Project Construction

Construction would involve ground-disturbing activities, such as trenching, excavating for equipment foundations, and grading for staging areas. These activities would have the potential to cause erosion and mobilize sediments or other pollutants that could degrade surface water quality if they were to enter a water body. However, no surface water bodies are present in the Project site, and the nearest mapped surface waters are several miles away. The Project would disturb more than 1 acre of land and would be required to comply with the requirements of the Construction General Permit, which would mandate preparation and implementation of an SWPPP. The SWPPP would identify site-specific BMPs for erosion control, sediment containment, and spill prevention. These measures would be implemented so that construction-related stormwater discharges would not violate the water quality standards or waste discharge requirements.

Small quantities of hazardous materials (i.e., fuels, lubricants, and concrete curing compounds) would be used during construction. Natural gas for the large temporary generators would be supplied directly from existing station gas lines and would not be stored on site. Diesel and gasoline for small generators, equipment, and vehicles would not be stored on site; fueling would occur off-site, via delivery/service trucks in compliance with PG&E protocols and regulatory requirements.

These materials would be handled and disposed in accordance with applicable regulations and APM HAZ-1, AMP HAZ-2, and APM HAZ-4 for spill prevention and response. PG&E would implement APM HAZ-1 (hazardous materials and emergency response procedures), APM

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HAZ-2 (emergency spill supplies and equipment), and AMP HAZ-4 (WEAP – hazards portion), which would require preparing and implementing hazardous material handling and spill response procedures, maintaining spill containment equipment on site, and training all construction workers in spill prevention and emergency response. Consistent with Chapter 2, Project Description, the BMPs would include establishing a concrete truck washout station in the staging area, with berms or other containment to manage wash water. In addition, consistent with the APMs, refueling/maintenance would occur only in designated areas with appropriate containment, and spill-response materials would be maintained on site to contain and clean any incidental leaks or spills promptly. Because the Project would implement APMs and implement an SWPPP in compliance with the Construction General Permit for protection of water quality, the Project would not violate any water quality standards or waste discharge requirements. The impact would be less than significant. No mitigation is required.

Groundwater beneath the Project site has been affected by historical contamination from legacy operations at the Hinkley Compressor Station. All Project construction and staging would occur within the existing fenced station. The Project work area would be limited to discrete equipment pads and approximately 200 feet of conduit trenching to 5 feet bgs and would not overlap remediation infrastructure (the former unlined wastewater ponds are approximately 355 feet north of the edge of the Project work area). Although the chromium cleanup includes wells and pipelines across a broad area of Hinkley, the mapped Project disturbance area is separate from those systems and would not alter or interfere with cleanup operations. Excavation for trenching of the electrical lines and foundations would be up to 5 feet bgs and would not encounter groundwater, which occurs at depths of about 75 to 95 feet bgs. Thus, no impact would occur.

Project Operation and Maintenance

The Project would make electrical upgrades to the Hinkley Compressor Station. O&M activities would be consistent with the current ones at the facilities, and operation of the electrical equipment would not introduce any sources of potential water quality pollutants. The O&M activities would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. No impact would occur.

- b) Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?**

Project Construction

Water needed for dust suppression and minor concrete mixing during construction would be obtained from existing PG&E wells that already supply the Hinkley Compressor Station. The Mojave River Groundwater Basin is adjudicated; the court-appointed Mojave Basin Area Watermaster administers pumping through each producer's Free Production Allowance (FPA) and requires that any production above FPA be offset through leases/transfers or replacement assessments. Construction water for dust control and minor concrete work would be supplied from existing PG&E wells and accounted under PG&E's adjudicated rights in the Centro

3.10 HYDROLOGY AND WATER QUALITY

Subarea; no new wells or water rights are proposed. Because of the short duration and small volume of construction water use relative to PG&E's annual FPA (base FPA of 3,619 acre-feet), and because any approach toward FPA exceedance would be managed through Watermaster-approved transfers or replacement, the temporary construction water demand would not impede sustainable groundwater management of the basin (Webster 2012; Mojave Basin Area Watermaster 2024). No impact would occur.

Project Operation and Maintenance

The Project site is fully developed and surfaced with pavement, gravel, or compacted soil. The Project would not add a new impervious surface area. All work would occur on existing developed pads and foundations, and the only new equipment foundation (MCC-9, approximately 319 square feet) would be offset by removal of an existing load-center foundation of similar size. If the existing foundation is retired in place, rather than removed, the net increase in impervious surface would be up to approximately 319 square feet (0.0073 acre). This potential minimal change in impervious surface area would not measurably alter the infiltration or recharge rates. The impact would be less than significant. No mitigation is required.

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

(i) result in substantial erosion or siltation on or off-site?

The Project site is within the Hinkley Compressor Station facility. Most ground-disturbing work would occur on paved or compacted surfaces, and the small areas of grading or trenching would be stabilized with erosion and sediment control BMPs, required under the Construction General Permit. No natural drainages are in the Project site, and no work would occur in a stream or river. With implementation of the BMPs identified in the Project-specific SWPPP, prepared in compliance with the Construction General Permit, the potential for erosion or siltation would be minimized. Therefore, the impact would be less than significant. No mitigation is required.

(ii) substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off-site?

The Project would not add new impervious surface area. All work would be performed on existing developed pads and foundations, and the only new equipment foundation (MCC-9, approximately 319 square feet) would be offset by removal of the existing load-center foundation of similar size; if the existing foundation is retired in place, rather than removed, the net increase in impervious surface would be up to approximately 319 square feet (0.0073 acre).

This potential minor change would not increase runoff to a level that could cause flooding. Existing on-site drainage patterns would be maintained, and no new connections to off-site drainage systems would be created. Therefore, the impact would be less than significant. No mitigation is required.

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(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The Project site drains through existing on-site systems that manage stormwater in the facility. Based on the minimal change in impervious surface area and the absence of new pollutant sources beyond those addressed by BMPs in the SWPPP, the Project would not exceed the capacity of any drainage system or introduce substantial new sources of polluted runoff. Therefore, the impact would be less than significant. No mitigation is required.

(iv) impede or redirect flood flows?

The Project site is outside the FEMA 100-year flood hazard area and is not subject to mapped flood flows. All work would occur within the existing fenced facility and would not alter or obstruct any floodways. Therefore, no impact would occur.

d) Would the proposed Project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?

The Project site is outside the FEMA 100-year and 500-year flood hazard zones and is not subject to mapped dam inundation hazards. The site is in an inland desert region, far from coastal areas and large inland lakes, and is not susceptible to tsunami or seiche events. Because the Project would be constructed entirely within an existing fenced facility in an area with minimal flood risk, no potential would exist for inundation to release pollutants. Therefore, no impact would occur.

e) Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The Project site is within the Mojave River Groundwater Basin, which is subject to an adjudication that governs groundwater rights and management. PG&E's use of groundwater during Project construction for dust control and compaction would be consistent with its adjudicated rights and would not conflict with the adjudication of the basin. No impact would occur.

The Project also would comply with the Lahontan RWQCB Basin Plan. Chapter 4.1 establishes waste discharge prohibitions, including region-wide prohibitions on the discharge of pesticides to surface or groundwater and Mojave HU-specific prohibitions that would apply to upper-watershed reaches (e.g., tributaries to the West Fork Mojave River/Deep Creek and waters upstream from the Lower Narrows). The Project would not involve pesticide application or process wastewater discharges, and construction would occur within the fenced Hinkley Compressor Station, with erosion/sediment controls and a lined/bermed concrete washout consistent with the Construction General Permit and SWPPP. In addition, consistent with the Basin Plan, stormwater discharges with pollutants controlled through BMPs that would not cause water quality objective exceedances would not be subject to Basin Plan prohibitions. Accordingly, the Project would not conflict with or obstruct any Basin Plan prohibition or water quality objective. Furthermore, no changes to groundwater extraction rates, recharge

3.10 HYDROLOGY AND WATER QUALITY

conditions, or water quality objectives would be implemented. Therefore, no impact would occur.

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3.11 Land Use and Planning

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

3.11.1 Environmental Setting

The Project site is on San Bernardino County Assessor Parcel Number (APN) 048811252, which is owned, in fee, by PG&E. The site is approximately 2.5 miles southeast of the unincorporated community of Hinkley and approximately 1 mile west of the city of Barstow. Barstow includes the communities of Grandview and Lenwood, which are approximately 3 miles east-southeast and southeast of the site, respectively.

The Project is within the Desert Region regional planning area under the San Bernardino Countywide Plan. Therefore, the Project is subject to Desert Region policies, the Countywide Plan Land Use Element, and San Bernadino County zoning and ordinances. The Project site is not within a Community Plan area or Specific Plan area. An interactive map from the San Bernardino Countywide Plan indicates that the Project site and surrounding area have a land use designation of Rural Living (a maximum of one dwelling unit per 2.5 acres) and a zoning designation of RL-1 (Rural Living – 2.5-acre minimum) (San Bernardino County 2020).

According to the Land Use Element of the Barstow General Plan (City of Barstow 2020), the Project site is within the City of Barstow’s “sphere of influence,” which refers to the probable ultimate boundaries of full buildout of Barstow and represents its point of maximum population capacity.

The Project site is designated as Resource Conservation Open Space (ROS) because it is unsuitable for urban development. ROS designations are assigned either for the need for habitat preservation or environmental mitigation. The area surrounding the Project site is designated primarily as ROS, with an area designated as Estate Residential (RE) (City of Barstow 2020). Marine Corps Logistics Base Barstow is the closest military installation, approximately 12 miles east of the Project site. (San Bernardino County 2020).

3.11.2 Regulatory Setting

Federal

No federal regulations apply to land use in the Project area. The Project site is on private land.

3.11 LAND USE AND PLANNING

State

California Public Utilities Commission General Order 177

Section VII in GO No. 177 discusses preemption of local authority. Specifically, “This General Order clarifies that local jurisdictions acting pursuant to local authority are preempted from regulating gas utility facilities constructed by public utilities subject to the Commission’s jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters. In instances where the public utilities and local agencies are unable to resolve their differences, the local agency should promptly file a complaint with the Commission.” Therefore, local zoning and land use are preempted by the CPUC’s jurisdiction.

Local

As discussed above, CPUC has exclusive jurisdiction over the siting, design, and construction of the Project. Therefore, the Project would not be subject to local discretionary regulations.

San Bernardino Countywide Plan Land Use Element

The 2020 San Bernardino Countywide Plan is a comprehensive, long-term policy document that guides land use, resource conservation, infrastructure development, community services, environmental protection, and economic development (San Bernardino County 2020). Goals and policies that would be applicable to the Project include the following:

Objective PF-1: Provide public facilities and infrastructure that support existing and planned development while protecting public health and safety.

Policy PF-1.5: Coordinate utility improvements with land use and infrastructure planning to ensure timely and efficient service delivery while minimizing land use conflicts.

Policy PF-1.7: Ensure that large-scale utility facilities, including transmission lines and compressor stations, are designed and operated to minimize impacts on adjacent land uses and natural resources.

Barstow General Plan – Land Use Element

The 2015–2020 Barstow General Plan – Land Use Element (City of Barstow 2020) sets the framework for how land in Barstow should be used and developed over time to support the City’s vision for growth, economic vitality, and community character. Although the Project site is not within city limits, it is within the City’s potential future sphere of influence jurisdiction or influence on development patterns is anticipated.

Goals and policies that would be applicable to the Project include the following:

Objective PF-1: Ensure the provision of public facilities and utilities in a manner that supports orderly development and protects public health and safety.

3.11 LAND USE AND PLANNING

Policy PF-1.1: Coordinate the location of major utility facilities, such as compressor stations and transmission lines, with land use planning to minimize land use conflicts and environmental impacts.

Policy PF-1.2: Require that new or expanded public utility facilities be designed and operated to avoid or minimize adverse impacts on adjacent land uses, including the use of appropriate landscaping, screening, and siting techniques.

3.11.3 Applicant Proposed Measures

PG&E has proposed APMs for reducing environmental effects. The APMs are listed in Table 2-10 of the Project Description and are considered part of the Project for the analysis. No APMs were proposed for land use and planning.

3.11.4 Environmental Impacts

Methodology and Assumptions

The analysis evaluated the potential for the Project to cause adverse impacts on existing land uses and planning. Aerial photographs, area plans and policies, land use maps, zoning ordinances, and previous environmental impact studies that were completed at the Hinkley Compressor Station were evaluated for the analysis, including the San Bernardino County Policy Plan (San Bernardino County 2022), San Bernardino County Public Works Documents (San Bernardino County 2025a), San Bernardino County Interactive Land Use Map (San Bernardino County 2025b), and the San Bernardino County Land Use Plan Element (San Bernardino County 2020).

Direct and Indirect Effects

a) Would the Project physically divide an established community?

Typically, the division of an established community would result from construction of a physical barrier to neighborhood access or the removal of a means of access. Upgrades to the Hinkley Compressor Station would occur within the boundaries of the existing facility and would not create any physical barrier to the established community or surrounding properties. No established community would be divided by the Project. Therefore, no impact would occur.

b) Would the Project cause a significant environmental impact because of a conflict with any land use plan, policy, or regulation adopted for avoiding or mitigating an environmental effect?

Upgrades to the Hinkley Compressor Station's electrical equipment would improve operational reliability and reduce system failures and unplanned maintenance events. All Project work would occur within the limits of the existing facility. The Project improvements would not conflict with any local land use policies, plans, or regulations that have been adopted for avoiding or mitigating a significant environmental effect, because the work would involve upgrades of existing infrastructure within the existing facility disturbance area. Therefore, no impact would occur.

3.11 LAND USE AND PLANNING

3.11.5 References

City of Barstow. 2020. "2015 - 2020 Land Use Element."

<https://www.barstowca.org/departments/community-development-department/planning/general-plan-and-master-environmental-impact-report>.

San Bernardino County. 2020. "San Bernardino Countywide Plan - Land Use Element." Land Use Element, October 27. <https://countywideplan.sbcounty.gov/policy-plan/land-use/>.

San Bernardino County. 2022. "San Bernardino County - Policy Plan." September. <https://countywideplan.sbcounty.gov/policy-plan/>.

San Bernardino County. 2025a. "Land Development." *Land Use Services*. <https://lus.sbcounty.gov/land-development-home/>.

San Bernardino County. 2025b. "San Bernardino Countywide Plan Planning Areas Interactive Map." Land Use Services, June 12. <https://www.arcgis.com/apps/webappviewer/index.html?id=f23f04b0f7ac42e987099444b2f46bc2>.

3.12 MINERAL RESOURCES

3.12 Mineral Resources

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
12. MINERAL RESOURCES. 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?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

3.12.1 Environmental Setting

Mineral Resource Classification and Designation

The California Geological Survey (CGS) is required by the Surface Mining and Reclamation Act of 1975 (SMARA) to conduct Mineral Land Classification (MLC) studies, to identify and map *mineral resource zones* (MRZs). MRZs are intended to prevent development of incompatible land uses in areas determined to have substantial mineral resource deposits. The California mineral land classification system's category descriptions are shown in Table 3.12-1. Classifications MRZ-2a and MRZ-2b are considered to have the highest economic importance because the resource significance has been identified and either determined or inferred through evidence. MRZ-3a and MRZ-3b are considered to have moderate economic importance based on the likelihood of the resource significance but undetermined presence. MRZ-1 and MRZ-4 are considered to have low economic importance because the presence of significant resources is unlikely or unknown.

Table 3.12-1 California Mineral Land Classification System Category Descriptions

Mineral Resource Zone Category	Category Description	Definition
MRZ-1	NA	Area of no mineral resource significance
MRZ-2a	Reserves, marginal reserves	Area of identified mineral resource significance
MRZ-2b	Inferred resources	Area of identified mineral resource significance
MRZ-3a	Known mineral occurrence	Area of undetermined mineral resource significance
MRZ-3b	Inferred mineral occurrence	Area of undetermined mineral resource significance
MRZ-4	No known mineral occurrence	Area of unknown mineral significance

Source: (CDOC n.d.)

3.12 MINERAL RESOURCES

The Project site is in an area designated MRZ-3a, which is a designation assigned to areas that may contain significant aggregate deposits (County of San Bernardino 2023).

Oil, Gas, and Geothermal Resources

The California Geologic Energy Management Division (CalGEM)⁷ provides oversight of California oil, natural gas, and geothermal industries, and regulates the drilling, operation, and permanent closure of energy resource wells. CalGEM's online mapping application, Well Finder, was reviewed to determine the presence of any oil, gas, or thermal resources at or near the Project site. The Well Finder data indicated that no significant resources are at or near the Project site (CalGEM 2025).

3.12.2 Regulatory Setting

Federal

No federal regulations related to mineral resources would apply to the Project.

State

Surface Mining and Reclamation Act

SMARA and its implementing regulations (14 CCR Section 3500 et seq.) establish a comprehensive State policy for the conduct of surface mining operations and the reclamation of mined lands to a usable condition that is readily adaptable for alternative land uses. SMARA encourages the production, conservation, and protection of the state's mineral resources and recognizes that "the state's mineral resources are vital, finite, and important natural resources and the responsible protection and development of these mineral resources is vital to a sustainable California" (PRC 2711). Under SMARA, the term "minerals" includes "any naturally occurring chemical element or compound, or group of elements and compounds, formed from inorganic processes and organic substances, including ... coal, peat, and bituminous rock, but excluding geothermal resources, natural gas, and petroleum" (14 CCR Section 3501).

The CGS maps and regulates the locations of potential mineral resources in California, consistent with SMARA. To protect these potential mineral resources, the CGS has mapped the resource areas and classified the regional significance of the resources into MRZs.

Local

San Bernardino County Countywide Plan

The San Bernardino Countywide Plan's Natural Resources Element (County of San Bernardino 2020b) provides guidance and support for mining operations and the location and distribution of new development to protect natural resources.

The mineral resource policies that would be applicable to the Project are as follows:

⁷ Formerly, the California Division of Oil, Gas, and Geothermal Resources (DOGGR).

3.12 MINERAL RESOURCES

Natural Resources Element

Goal NR-6: Mineral Resources. Mineral resource zones that allow extraction industries to continue supporting the regional and national economy while minimizing negative impacts on the public and natural environment.

Policy NR 6.1: Mineral Resource Areas. We prioritize the conservation of land area with mineral resources by prohibiting or discouraging development of land that would substantially preclude the future development of mining facilities in areas classified as Mineral Resource Zone 2a, 2b, or 3a.

3.12.3 Applicant Proposed Measures

PG&E has proposed APMs for reducing environmental effects. The APMs are listed in Table 2.6-9 of the Project Description and are considered part of the Project for the analysis. PG&E has not proposed any APMs that would be applicable to mineral resources.

3.12.4 Environmental Impacts

Methodology and Assumptions

This analysis evaluated the potential impacts of the Project, based on published maps showing the MRZ classification for the Project site and reviewing USGS and CGS online databases for mineral resources. The San Bernardino County Countywide Plan also was reviewed to identify potential mineral resource recovery areas of local and/or regional importance. The reviewed data was compared to the Project description, to determine whether Project construction and/or operation would result in the loss of, or limit access to, significant mineral resources.

Direct and Indirect Effects

a) Would the Project cause 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 site is within an MRZ-3a, which indicates that the area has known mineral resources, but the significance of these mineral resources is undetermined. The mineral resources at and near the Project site are aggregate resources in the form of alluvial deposits. Although mineral resources are within and near the Project site, the significance of these resources is undetermined. The Project would include construction and O&M of upgrades to the electrical equipment in the Hinkley Compressor Station. No mineral resource extraction activities are allowed in the station, and the Project would not expand the station. Thus, the Project would not cause the loss of availability of a known mineral resources that would be of value to the region and/or State. No impact would occur.

3.12 MINERAL RESOURCES

b) Would the Project cause 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 site is not in an area that is identified in the San Bernardino Countywide Plan as a locally important mineral resource recovery site (County of San Bernardino 2020a). A specific plan has not been developed for the Project site. Thus, Project construction and O&M would not cause the loss of availability of a locally important mineral resource recovery site, delineated on a local general plan, specific plan, or other land use plan. No impact would occur.

3.12.5 References

CalGEM. 2025. "Well Finder Database." California Geologic Energy Management Division.
<https://maps.conservation.ca.gov/doggr/wellfinder/>.

California Department of Conservation (CDOC). n.d. *Guidelines for Classification and Designation of Mineral Lands*. Accessed December 16, 2024. Available:
<https://www.conservation.ca.gov/cgs/minerals/mineral-land-classification-smara>.

County of San Bernardino. 2020a. "NR-4 Mineral Resource Zones."
<https://www.arcgis.com/apps/webappviewer/index.html?id=9948b9bc78f147fd9ea193c2ce758081>.

County of San Bernardino. 2020b. "San Bernardino Countywide Plan - Natural Resources Element."

County of San Bernardino. 2023. "Mineral_Resources_Zones_2023 (FeatureServer)."
https://services9.arcgis.com/C2UkwXxRekdnbbm6/arcgis/rest/services/Mineral_Resources_Zones_2023/FeatureServer.

3.13 Noise and Vibration

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

3.13.1 Environmental Setting

Background Information on Noise and Vibration

Noise

Noise is defined as unwanted sound. Airborne sound, which is a rapid fluctuation of air pressure above and below atmospheric pressure, becomes unwanted when it interferes with regular activities (e.g., sleep, speech, recreation, tasks demanding concentration or coordination) or when it has harmful effects on human or environmental health. An individual's sound experience differs based on ambient noise levels, proximity to the sound, intensity and duration of the sound, and time of day the sound occurs (Caltrans 2013).

Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The response of the human body to vibration is dependent on the average amplitude of a vibration. People may tolerate infrequent, short-duration vibration levels, but human annoyance to vibration becomes more pronounced if the vibration is continuous or occurs frequently.

3.13 NOISE AND VIBRATION

Sound

Decibels and A-weighted Sound Levels

Various noise descriptors are used to quantify the sound experience depending on different time scales and perception. Sound levels usually are measured and expressed in decibels (dB), with 0 dB corresponding roughly to the threshold of human perception. Most of the sounds that we hear in the environment consist not of a single frequency but of a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency combine to generate a sound. The method commonly used to quantify environmental sounds consists of evaluating all frequencies of a sound in accordance with a filter that reflects the fact that human hearing is less sensitive at low and extreme high frequencies than in mid-range frequencies. This is called *A-weighting*, and the decibel level measured is called the *A-weighted sound level* (dBA). Examples of A-weighted levels measured for typical noise in the environment are listed in Table 3.13-1.

Not all changes in dBA level are easily perceptible by humans. A change of 1 dBA generally cannot be perceived, and a 3-dBA change is considered a just-perceivable difference. A change in noise level of at least 5 dBA is required before any noticeable change in community response can be expected. A 10 dBA change is heard subjectively as about a doubling in loudness (Caltrans 2013).

Table 3.13-1 Typical Noise Level in the Environment

Common outdoor noise source	Noise level (dBA)	Common indoor noise source
	110 dBA	Rock band
Jet fly-over at 1,000 feet		
	100 dBA	
Gas lawn mower at 3 feet		
	90 dBA	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80 dBA	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	70 dBA	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60 dBA	
		Large business office
Quiet urban daytime	50 dBA	Dishwasher in next room
Quiet urban nighttime	40 dBA	Theater, large conference room
Quiet suburban nighttime		

3.13 NOISE AND VIBRATION

Common outdoor noise source	Noise level (dBA)	Common indoor noise source
	30 dBA	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20 dBA	
		Broadcast/recording studio
	10 dBA	
	0 dBA	

Source: (Caltrans 2013)

Equivalent Sound Level

Although the A-weighted sound level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources, creating a relatively steady background noise in which no particular source is identifiable. A single number descriptor called the equivalent continuous sound level, or L_{eq} , is widely used. The L_{eq} is the average A-weighted noise level during a stated period of time (Federal Transit Administration 2018a).

Day/Night Noise Level and Community Noise Equivalent Level

In determining the daily level of environmental noise, accounting for the difference in response of people to daytime and nighttime noises is important. Exterior background noises generally are lower during the nighttime than during the daytime. Most household noise also decreases at night, and exterior noise becomes very noticeable despite the reduced noise level. At night, most people sleep and are very sensitive to noise intrusions. To account for human sensitivity to nighttime noise levels, a descriptor for day/night average sound level, L_{dn} , was developed. The L_{dn} divides the 24-hour day into the daytime between 7 a.m. and 10 p.m. and the nighttime between 10 p.m. and 7 a.m. (Federal Transit Administration 2018a).

Noise Attenuation

Stationary point sources of noise, including construction equipment, *attenuate*, or lessen, at a rate of 6 to 7.5 dB per doubling of distance from the source, depending on ground absorption. Soft sites attenuate at 7.5 dB per doubling because they have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. Hard sites have reflective surfaces (e.g., parking lots or smooth bodies of water) and therefore have less attenuation (6.0 dB per doubling). Sound from a roadway with moving vehicles, known as a *line source*, typically attenuates at a lower rate, approximately 3 to 4.5 dB per doubling, that also depends on ground Physical barriers located between a noise source and the noise receptor, such as berms or sound walls, increase the attenuation that occurs by distance alone (Caltrans 2013).

Groundborne Vibration and Noise

Groundborne vibration may occur when heavy equipment or vehicles create vibrations in the ground, which then can propagate through the ground to buildings, creating a low-frequency

3.13 NOISE AND VIBRATION

sound. Groundborne vibrations can be a source of annoyance to humans because of a “rumbling” effect, and such vibrations also may cause damage to buildings. Groundborne vibration is discussed in terms of these impacts on humans and structures. The annoyance potential of groundborne noise typically is characterized by the A-weighted sound level. Due to its low frequency, groundborne noise sounds louder than airborne noise at the same noise level and therefore the impact thresholds for groundborne noise typically are lower than those for airborne noise (Caltrans 2020).

The potential for damage to structures is expressed in peak particle velocity (PPV). PPV often is used in construction vibration monitoring because it is related to the stresses that are experienced by buildings and is not used to evaluate human response. PPV usually is expressed in inches/second (in/sec) in the United States (Caltrans 2020).

Human response to vibration is difficult to quantify. Vibration can be felt or heard well below a level that would result in damage to a structure. Except for long-term occupational exposure, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that can affect concentration or disturb sleep. People may tolerate infrequent, short-duration vibration levels, but human annoyance to vibration becomes more pronounced if the vibration is continuous or occurs frequently. Human response to vibration often is described as the root-mean-square (RMS) velocity level and is denoted in the vibration decibel scale, or VdB. The typical background level in residential areas is about 50 VdB. Most people cannot detect levels below about 65 VdB and generally do not consider levels below 70 VdB (approximately 0.1 PPV) to be an annoyance. However, the duration of a vibration event affects human response, as does the frequency. Generally, as the duration of a vibration event increases, the potential for adverse human response increases, particularly if the vibration event disturbs sleep. While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration (Caltrans 2020). According to the Federal Transit Administration (FTA), a vibration level of 75 vibration decibels (VdB) is the approximate dividing line between barely perceptible and distinctly perceptible (FTA 2018b).

Vibration in buildings caused by construction activities may be perceived as motion of building surfaces or rattling of windows, items on shelves, and pictures hanging on walls. Vibration of building components can also take the form of an audible low-frequency rumbling noise, which is referred to as groundborne noise. Groundborne noise is usually only a problem when the originating vibration spectrum is dominated by frequencies in the upper end of the range of vibration frequencies (i.e., 60 to 200 Hertz); when the structure and the construction activity are connected by foundations or utilities, such as sewer and water pipes; or when the airborne noise path is blocked, such as during tunneling activities (Caltrans 2020).

Existing Noise Environment

The ambient noise environment surrounding the Hinkley Compressor Station is characterized by the low background noise typical of rural desert areas. The dominant source of noise in the project vicinity is the compressor station itself, a large industrial facility that operates continuously. The compressor station includes unenclosed generators located within standard

3.13 NOISE AND VIBRATION

metal buildings that are not acoustically treated and often have large roll-up doors or other open penetrations.

On June 11, 2024, PG&E conducted an on-site sound level assessment at the Hinkley Compressor Station to document noise levels associated with active equipment. During the survey, two gas compressors and three generators were operating. Measurements were taken using a Type 2 Casella 24X Series sound level monitor, which was field-calibrated before and after use and operated per Cal/OSHA-approved procedures. The sound level meter recorded noise levels outside the compressor and generator buildings to reflect operational conditions. These measurements further confirmed the presence of high localized industrial noise levels within the compressor station, with results summarized in Table 3.13-2 (PG&E 2025).

Table 3.13-2 2024 Sound Levels at Hinkley Compressor Station

Measurement Location	Sound Level (dBA)
Exterior of Generator Building	76 to 96
Exterior of gas compressor building	77 to 100

Source: (Pacific Gas & Electric Company 2025)

Additional noise sources in the area include intermittent traffic along State Route (SR) 58, located approximately 1 mile north of the Project, and freight activity along the BNSF Railway, located approximately 1.6 miles north of the Project. The Barstow Gun Club, located south of the Hinkley Compressor Station contributes sporadic recreational firearm noise. Agricultural operations east of the compressor station generate localized noise, though these activities are infrequent and seasonal.

In support of the 2019 San Bernardino Countywide Plan Update, short-term noise monitoring was conducted at a rural residential location in Lenwood, approximately 3 miles southeast of the Hinkley Compressor Station . On June 13, 2018, monitoring results ranged from 37.2 dBA (L_{min}) to 71.1 dBA (L_{max}), with an average L_{eq} of 51.1 dBA, providing a representative baseline for the rural communities in the area (County of San Bernardino 2022).

Airports and Airstrips

The Project is not located within an airport land use plan or within 2 miles of a public airport or private airstrip. The nearest public-use airport is the Barstow-Daggett Airport, located approximately 20 miles southeast of the Project. The closest known private airstrip is located approximately 6 miles west of the Project.

Sensitive Receptors

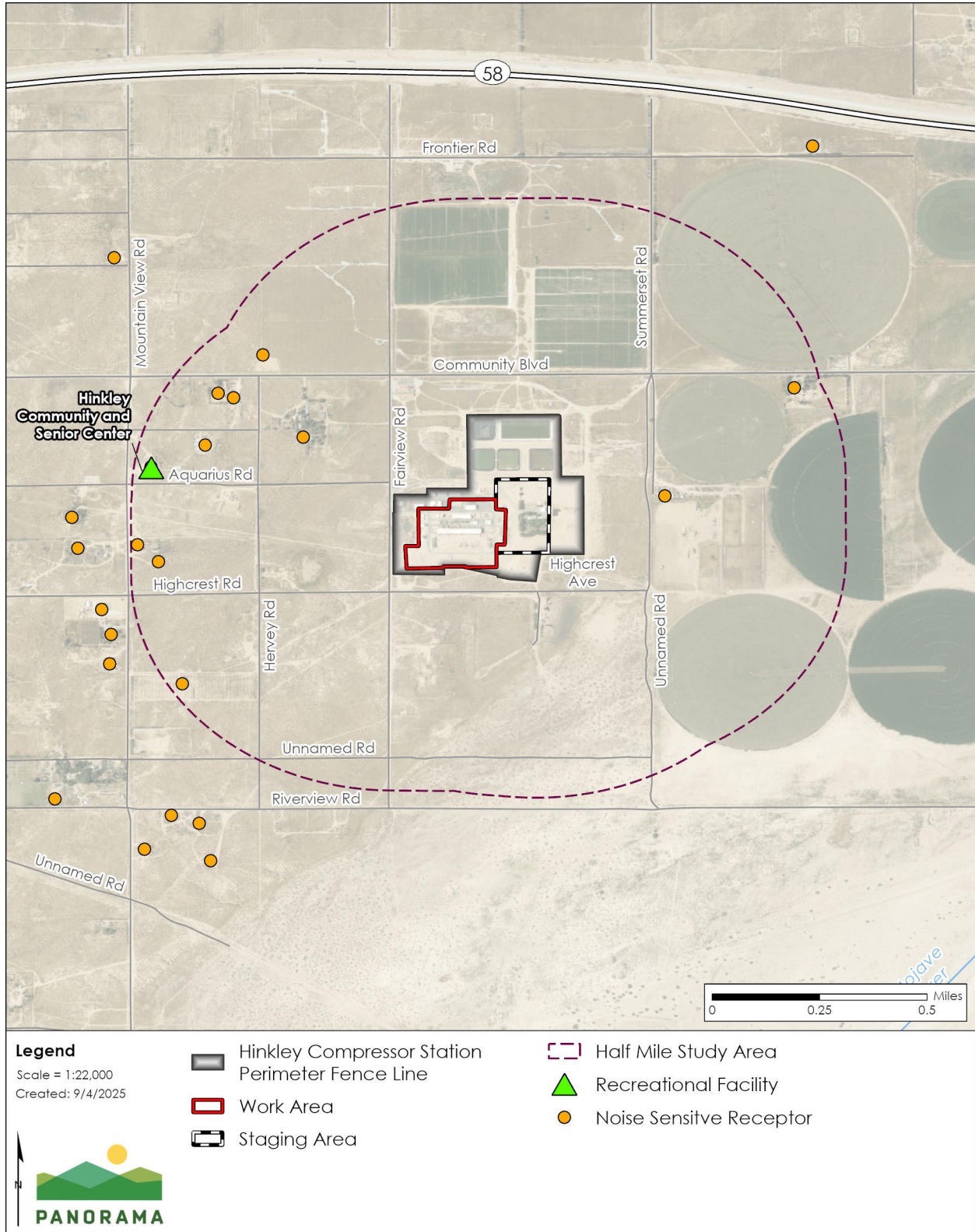
The Project is located in a remote, rural area of unincorporated San Bernardino County, surrounded by open desert and low-density development. No sensitive land uses were identified within 1,000 feet of the Project. The nearest residence is located approximately 1,455 feet northwest of the nearest Project work area, and another is located 1,140 feet east of a Project staging area. The Hinkley Community and Senior Center is located approximately 2,700 feet west of the nearest Project work area. Agricultural uses are present to the north and east of the

3.13 NOISE AND VIBRATION

Project, while land to the south and west consists primarily of open desert and low-density rural residential development. No schools, hospitals, or places of worship are located within the immediate vicinity of the Project (San Benito County 2025). The locations of these sensitive receptors are shown in Figure 3.13-1.

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Figure 3.13-1 Sensitive Receptors Near the Project Site



Source: (San Bernardino County 2024; San Benito County 2025)

3.13 NOISE AND VIBRATION

3.13.2 Regulatory Setting

Federal

There are no federal noise standards that are applicable to the Project.

State

California General Plan

The Noise Element of the California General Plan Guidelines provides standards for noise levels near schools. For spoken conversation to be heard and understood, background noise levels inside classrooms should not exceed 45 dBA. Additionally, the guidance recommends a community noise exposure of up to 70 dB, L_{dn} as a “conditionally acceptable” outdoor noise level for schools and buildings with windows closed typically providing noise attenuation of approximately 20 to 25 dB (Governor’s Office of Planning and Research 2017).

Local

San Bernardino County Development Code

Daytime construction activities are exempt from the noise limits established in San Bernardino County Ordinance 83.01.080 if they occur between 7:00 a.m. and 7:00 p.m., except for Sundays and federal holidays (San Bernardino County 2014). The noise standard for emanations from a stationary industrial source as it affects adjacent properties, is 70 dBA L_{eq} for both daytime and nighttime. The exterior noise standard for residential uses, as measured in private yards single-family residential land uses, is 60 dBA.

San Bernardino Countywide Plan

The San Bernardino Countywide Plan is a collection of planning tools to guide future decisions, investments, and improvements within the County (San Bernardino County 2022). The Hazards Element of the San Bernardino Countywide Plan provides direction to address risks to residents, businesses, workers, and visitors. The following goals and policies are relevant to noise and are included for informational purposes:

Hazards Element

Goal HZ-2: Human Generated Hazards. People and the natural environment are protected from exposure to hazardous materials, excessive noise, and other human-generated hazards.

Policy HZ-2.8: Proximity to noise generating uses. We limit or restrict new noise sensitive land uses in proximity to existing conforming noise generating uses and planned industrial areas.

Policy HZ-2.9: Control Sound at the Source. We prioritize noise mitigation measures that control sound at the source before buffers, soundwalls, and other perimeter measures.

3.13 NOISE AND VIBRATION

3.13.3 Applicant Proposed Measures

Applicant Proposed Measures

PG&E has proposed APMs for the purpose of reducing environmental effects. APMs are listed in Table 2.6-9 of the Project Description and are considered part of the Project for the purpose of analysis. PG&E has proposed the following APMs (see Table 3.13-3) to address impacts relevant to noise.

Table 3.13-3 APMs Relevant to Noise

Proposed APMs
APM NOI-1: General Construction Noise Management PG&E will employ standard noise-reducing construction practices such as the following: • Comply with manufacturer’s muffler requirements on all construction equipment engines and ensure exhaust mufflers are in good condition. • Turn off construction equipment when not in use, where applicable. • Include noise control requirements for construction equipment and tools in specifications provided to construction contractors to the maximum extent practicable, including performing all work in a manner that minimizes noise.
APM NOI-2: Noise Minimization with Portable Barriers Portable air compressors and other small stationary equipment used during construction of PG&E Project components will be shielded with portable barriers if appropriate and in response to a noise complaint.
APM NOI-3: Noise Minimization with Quiet Equipment Quiet equipment will be used during construction of PG&E Project components whenever possible (for example, equipment that incorporates noise-control elements into the design, such as quiet model compressors or generators [75 dBA at 20 feet], can be specified).
APM NOI-4: Noise Minimization through Direction of Exhaust When in proximity to noise-sensitive uses, equipment exhaust stacks and vents will be directed away from those noise-sensitive uses where feasible.
APM NOI-5: Nighttime Noise Disruption Minimization through Sensitive Receptor Notification In the event that nighttime construction is necessary – for instance, if certain activities need to continue to completion and the noise of the construction equipment expected to be in use is audible at the station fence line over the ambient noise of the station operation – sensitive receptors within 0.5 mile of the work area will be notified in advance by mail, personal visit, phone call, or door hanger and will be informed of the expected work schedule.
APM NOI-6: Noise Minimization Equipment Specification PG&E will specify general construction noise reduction measures that require the contractor to ensure that all equipment is in good working order, adequately muffled, and maintained in accordance with the manufacturers’ recommendations and that stationary equipment such as the temporary generators be in sound-reducing acoustic enclosures that limit noise, for example, to 75 dBA at 20 feet.

3.13.4 Environmental Impacts

Impact Analysis Methodology

The following impact analysis considers the potential impacts related to noise from construction of the Project. The analysis considers anticipated noise and vibration from construction equipment, which were evaluated using counting noise standards and characterizing the existing noise environment which are discussed below.

3.13 NOISE AND VIBRATION

Construction Noise

Noise levels from typical construction equipment were estimated using data from the Federal Highway Administration (FHWA) Roadway Construction Noise Model User's Guide and the FTA Transit Noise and Vibration Impact Assessment Manual which provide standardized noise levels based on equipment type and distance from the source (Federal Highway Administration 2006; Federal Transit Administration 2018a). Sound attenuation was calculated using a standard geometric spreading loss of 6 dBA per doubling of distance, assuming no significant shielding or topography. Construction activity will only occur during permitted hours (7:00 a.m. to 7:00 p.m., Monday through Saturday), consistent with San Bernardino County standards. Table 3.13-4 summarizes the construction equipment noise levels for Project construction equipment.

Table 3.13-4 Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Specified L_{max} @ 50 ft (dBA)	Actual Measured L_{max} @ 50 ft (dBA)	Actual Data Samples (number)
Backhoe	20	85	84	36
Compactor (ground)	20	93	87	4
Compressor (air)	20	80	83	57
Concrete Mixer Truck	15	83	—	0
Concrete Pump Truck	40	85	79	40
Concrete Saw	20	82	81	30
Dump Truck	50	80	80	1
Front End Loader	40	84	74	4
Generator (>25 kVA)	50	80	79	96
Generator (<25 kVA, misc. signs)	50	82	81	19
Pickup Truck	40	55	75	1
Pneumatic Tools	50	85	85	90
Tractor	50	80	—	0
Vacuum Excavator (Vac-Truck)	40	84	—	0
Welder or Torch	5	85	83	12

Source: (Federal Highway Administration 2006)

A review of the equipment noise levels presented in Table 3.13-4 indicates that the loudest construction equipment typically emits noise levels ranging from 80 to 93 dBA at 50 feet. Noise at any specific sensitive receptor is primarily influenced by the closest and loudest piece of equipment operating at that time. Since equipment use varies by location, phase, and task, noise impacts are dynamic and temporary in nature.

3.13 NOISE AND VIBRATION

To estimate typical construction noise levels, a conservative modeling scenario was used that assumes five pieces of construction equipment operating simultaneously near each other within the work area. The scenario was constructed as follows:

- One piece of equipment operating at 85 dBA at 50 feet (e.g., jackhammer, concrete saw) at the edge of the active work area
- Two additional pieces of 85 dBA-rated equipment located 50 feet away from the active work area
- Two more pieces of similar equipment are located 100 feet away from the active work area

Using logarithmic sound level addition, the cumulative noise level from five pieces of equipment was calculated at various distances from the source to reflect a typical active construction area. These levels account for attenuation with distance, but do not include shielding or terrain effects, making this a conservative worst-case estimate.

Vibration

Vibration is the transmission of energy through the ground, typically diminishing with distance from the source as energy dissipates. Human sensitivity to vibration varies depending on individual perception and environmental context. According to the Caltrans Vibration Guidance Manual, human response to short-term or transient vibration generally occurs at the PPV levels illustrated in Table 3.13-5 (Caltrans 2020).

Table 3.13-5 Human Response to Transient Vibration

Human Response	Peak Particle Velocity
Severe	2.0
Strongly Perceptible	0.9
Distinctly Perceptible	0.24
Barely Perceptible	0.035

Source (Caltrans 2020)

Construction activities associated with the Project would include operation of heavy equipment such as dozers, backhoes, trucks, and other machinery that can generate groundborne vibration. While construction vibration is typically not a source of structural damage at distances beyond 25 feet, it may be perceptible to people if sensitive receptors are located nearby. No pile driving or blasting, which are the most vibration-intensive construction methods, would occur as part of the Project.

To evaluate potential vibration impacts, reference vibration levels for typical construction equipment were used based on PPV at 25 feet, as provided by the FTA. These levels are summarized in the Table 3.13-6 below:

3.13 NOISE AND VIBRATION

Table 3.13-6 Typical Construction Equipment Vibration Levels

Equipment	PPV at 25 feet (in/sec)
Large Bulldozer	0.089
Trucks	0.760
Jackhammer	0.035
Small Bulldozer	0.003

Source: (Federal Transit Administration 2018a)

Direct and Indirect Effects

- a) **Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Construction

Construction of the Project is expected to begin around October 2026 and continue through July 2028, with demobilization completed by August 2028. Construction would include daytime activities such as excavation, trenching, equipment installation, and staging. Equipment expected to be used is listed in Section 2-7 of the Project Description and includes vacuum trucks, backhoes, pickup trucks, small generators, and various handheld tools. Based on the FHWA Roadway Construction Noise Model, noise levels for typical construction equipment range from 55 to 93 dBA at 50 feet. Table 3.13-7 presents the modeled average noise levels associated with this equipment configuration at representative distances from the construction activity.

Table 3.13-7 Average Equipment Noise Levels Versus Distance

Distance from Activity (feet)	Average Noise Level (dBA)
50	87
100	83
200	78
400	73
800	67
1,600	62
3,200	56

Source: (Federal Transit Administration 2018a)

The nearest residential receptor to the Project is located approximately 1,455 feet northwest of the active work area, and approximately 1,140 feet from the staging area. Applying conservative attenuation modeling, combined noise exposure at the closest receptor from both sources is estimated to be approximately 65 dBA. The Hinkley Compressor Station currently operates 12 compressors and four generators, which are the primary contributors to baseline operational

3.13 NOISE AND VIBRATION

noise. The noise level from existing compressor station operation at the nearest residence, approximately 1,455 feet away, is estimated to be around 65 dBA due to the 99 dB noise level measured at 3 feet from the noise source. The noise levels generated during construction would therefore be comparable to the existing ambient noise levels in the area due to the existing compressor station operations and would not represent a substantial increase in noise levels. In addition, PG&E has proposed APM NOI-1, use standard noise minimization practices, APM NOI-2, noise shielding of air compressors, APM NOI -3, use of quiet compressors or generators, and APM NOI-6, locating generators in sound reducing equipment enclosures. Implementation of these APMs would further reduce noise levels generated during construction.

San Bernardino County Ordinance 83.01.080 exempts construction noise during the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday. The Project construction schedule involves construction during daylight hours for 10 hours per day, 5 days per week, Monday through Friday, with an occasional weekend day. While the Project construction hours are not specifically within the defined construction hours in the local noise ordinance, the construction noise levels would be equivalent to existing noise levels generated during operation of the Hinkley Compressor Station and construction would not result in a substantial temporary or permanent increase in noise levels.

Operation and Maintenance

The Project involves upgrades to the electrical equipment at the Hinkley Compressor Station and would not introduce any new long-term stationary noise sources. Routine maintenance activities associated with the Project would be consistent with existing facility maintenance and would not involve any new or louder noise sources. Operation and maintenance of the Project would not result in an increase in ambient noise levels. No impact would occur

b) Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction

Construction activities such as trenching and foundation excavation would utilize handheld tools and a vacuum truck. As shown in Table 3.13-6 the highest vibration levels would be generated by equipment such as bulldozers, producing PPVs of up to 0.089 in/sec at 25 feet. These values are well below the FTA's 2.0 in/sec threshold for building damage and 0.24 in/sec threshold for human annoyance. At the nearest receptor distance of 1,455 feet, these vibrations would attenuate to levels far below perceptibility. Based on Table 3.13-5, even "barely perceptible" vibration would not be felt beyond 25 feet. Given the distance to receptors and the low vibration levels generated by anticipated equipment, impacts from groundborne vibration or groundborne noise would be less than significant.

Operation and Maintenance

Operation of the proposed electrical upgrades would not involve any new sources of groundborne vibration or groundborne noise. Maintenance activities would be equivalent to maintenance activities for the existing electrical equipment at the compressor station. Operation

3.13 NOISE AND VIBRATION

and maintenance of the Project would not generate groundborne vibration or groundborne noise. No impact would occur.

- c) **For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?**

The Project is not located within 2 miles of a public airport or public use airport, nor is it within the boundaries of an airport land use plan. The nearest public airport is the Barstow-Daggett Airport, located approximately 20 miles southeast of the Project. The nearest known private airstrip is located approximately 6 miles west of the compressor station. Due to the remote location of the Project and the substantial distance from any airport, the Project would not expose workers to excessive noise levels associated with aircraft operations. Therefore, no impact would occur.

3.13.5 References

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- Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment Manual. Available: <https://www.transit.dot.gov/research-innovation/transit-noise-and-vibration-impact-assessment-manual-report-0123>.
- Governor's Office of Planning and Research. 2017. "Noise Element of the California General Plan Guidelines."
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3.14 Population and Housing

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
14. POPULATION AND HOUSING. Would the Project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Environmental Setting

Population

According to the U.S. Census Bureau, the population of San Bernardino County in 2020 was 2,181,654 (U.S. Census Bureau 2020b). Barstow, the nearest incorporated city, had a population of 25,415 in 2020 (U.S. Census Bureau 2020a). San Bernardino County projects an 8 percent growth in population between 2020 and 2045 (County of San Bernardino 2025).

Housing

San Bernardino County had 666,362 housing units in 2020, with the unincorporated area containing 98,783 households (County of San Bernardino 2022b). The County's Housing Element, adopted in September 2022, projects the number of households in the County to increase to 749,286 (a 12 percent growth), and 104,540 (a 6 percent growth) for the unincorporated area of the County by 2030 (County of San Bernardino 2022b). Barstow had 9,170 households in 2023 (U.S. Census Bureau 2023).

Existing Housing

Approximately 373 housing units are in Hinkley (Point2Homes 2023). Of them, 257 are occupied by residents (Point2Homes 2023).

Approved Housing Developments

No proposed housing developments have been identified within 1 mile of the Project site.

3.14.2 Regulatory Setting

Federal

No federal regulations related to population or housing would apply to the Project.

3.14 POPULATION AND HOUSING

State

No State regulations related to population or housing would apply to the Project.

Local

San Bernardino Countywide Plan

The 2022 Housing Element of the San Bernardino Countywide Plan (County of San Bernardino 2022a) contains goals, policies, and programs to address housing production and supply, development regulations, housing and neighborhood quality, affordable housing assistance, and equal housing opportunities. The 2022 Housing Element does not contain any population or housing policies relevant to the Project.

3.14.3 Applicant Proposed Measures

PG&E has proposed APMs for reducing environmental effects. The APMs are listed in Table 2.6-9 of the Project Description and are considered part of the Project for the analysis. PG&E has not proposed any APMs that would be applicable to population and housing.

3.14.4 Environmental Impacts

Methodology and Assumptions

To evaluate potential effects on population and housing resources, the housing elements of the San Bernardino County Policy Plan, associated environmental review documents, hotel vacancy data (PG&E 2025), and State and federal demographic data were reviewed. The population and growth data and the Project purpose and need were reviewed for use in evaluating whether the Project would indirectly induce growth or displace housing or people. The population and housing study area was defined as the Project site and a 1-mile buffer. This section evaluates potential impacts from both the Project construction and O&M phases.

Direct and Indirect Effects

- a) **Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?**

The Project upgrades to the compressor station's electrical equipment would be within the boundaries of the existing station. Up to 18 construction workers would be needed to complete construction. These construction workers would be hired from the local labor force and would commute to the Project site daily. No temporary housing would be required to house Project construction workers.

When the Project is completed, the station would continue to be operated by existing staff. No additional staff would be hired because of the Project. The upgrades to the station are to replace aging infrastructure and address safety issues and system reliability and maintainability. The upgrades would not increase the supply of gas in the service area. No expansion of operations would occur that would support or encourage population growth. The Project would not cause any direct or indirect effects on population growth in the Project area. No impact would occur.

3.14 POPULATION AND HOUSING

b) Would the Project displace substantial numbers of people or housing, necessitating construction of replacement housing elsewhere?

The Project upgrades to the compressor station's electrical equipment would be within the boundaries of the existing station. No housing or residential areas are in the Project area. Therefore, housing would not be relocated. No person or housing would be displaced by the Project. No impact would occur.

3.14.5 References

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3.15 Public Services

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

3.15.1 Environmental Setting

Fire Protection

The San Bernardino County Fire Protection District (SBCFPD) is an all-hazard emergency services provider serving people in approximately 19,200 square miles in the county, including all unincorporated areas (San Bernardino County Fire Protection District, n.d.). The SBCFPD employs 308 firefighters and 18 paid-call firefighters and has a fleet of 100 fire engine vehicles (SBCFPD 2023). The SBCFPD is divided into regional service zones. The Project site is in the North Desert Regional Service Zone (County of San Bernardino 2020b). Station 56 is the nearest County fire station, at 37284 Flower Road in Hinkley, approximately 3 miles from the Project site.

The Barstow Fire Protection District (BFPD) provides emergency medical, fire, hazardous materials, rescue, and disaster response services in Barstow (City of Barstow, n.d.-b). The BFPD currently employs 18 staff and has two fire engines (Barstow Fire Protection District, n.d.). Barstow Fire District Station 363 is the nearest BFPD fire station to the Project site, approximately 4.5 miles to the southeast at 2600 Main Street in Barstow.

3.15 PUBLIC SERVICES

Police Services

The San Bernardino County Sheriff's Department (SBSD) provides law enforcement services to all unincorporated areas of the county, including the Project site. Currently, the SBSB has 2,094 sworn personnel (San Bernardino County Sheriff's Department, n.d.). The nearest Sheriff's Office to the Project site is at 225 East Mountain View Street in Barstow, approximately 7.3 miles east of the Project site.

The City of Barstow Police Department has a sworn force of 40 officers that serve approximately 60,000 people over 40 square miles (City of Barstow, n.d.-a). The closest station to the Project site is at 220 East Mountain View Street in Barstow, approximately 7.4 miles east of the Project site.

Schools

The school district nearest the Project site is the Barstow Unified School District (BUSD), which has seven elementary schools, two middle schools, three high schools, and one adult school (BUSD 2025). In addition, several daycare facilities and several charter and private schools, including the Mojave River Academy and Concordia Christian School, are in Barstow. The nearest school to the Project site is Lenwood Elementary School, approximately 3 miles to the southeast.

Libraries

No libraries are within 1 mile of the Project site. The closest is the Barstow Library, approximately 7.5 miles east of the Project area.

Parks

As discussed in Section 3.16, Recreation, no parks are within 1 mile of the Project site. Several State park facilities are in San Bernardino County, none of which is in the Project area. The San Bernardino County Regional Parks District (SBCRPD) operates nine regional parks, one regional trail, and one preserve (County of San Bernardino, n.d.), none of which is in the Project area. The City of Barstow owns and operates several parks and recreational facilities within city limits. The nearest of these is Jasper Park, approximately 3 miles from the Project site (City of Barstow Parks & Recreation, n.d.).

Emergency Medical Services

The Barstow Community Hospital is approximately 7.8 miles east of the Project site and has a 24-hour emergency room (Anderson 2021).

3.15.2 Regulatory Setting

Federal

No federal regulations would be applicable to public services.

3.15 PUBLIC SERVICES

State

California Fire Code

Title 24, Part 9 of the CCR is known as the California Fire Code. This code includes provisions for planning, precautions, and preparations for fire safety and fire protection during various activities. This includes construction, demolition, building requirements, and guidelines for working with flammable chemicals and materials (International Code Council, Inc. 2022, 9).

Local

San Bernardino County General Plan, Personal and Property Protection Element

The San Bernardino County General Plan's Personal and Property Protection Element provides policy direction and coordination strategies to address safety and emergency services, and promotes the improvement of public safety (County of San Bernardino 2020a). The goals of the Element include law enforcement, law and justice, fire and emergency medical, emergency and preparedness, and recovery. The following policies related to public services would be relevant to the Project:

Policy PP-3.1, Fire and Emergency Medical Services. We maintain a sufficient number and distribution of fire stations, up-to-date equipment, and fully-trained staff to respond effectively to emergencies.

Policy PP-3.4, Fire Prevention Services. We proactively mitigate or reduce the negative effects of fire, hazardous materials release, and structural collapse by implementing the California Fire Code, adopted with County amendments.

Policy PP-3.9, Street and Premise Signage. We require adequate street signage and premise identification be provided and maintained to ensure emergency services can quickly and efficiently respond.

3.15.3 Applicant Proposed Measures

PG&E has proposed APMs for reducing environmental effects. The APMs are listed in Table 2.6-9 of the Project Description and are considered part of the Project for the analysis. PG&E has not proposed any APMs that would be applicable to public services.

3.15.4 Environmental Impacts

Methodology and Assumptions

This section was prepared based on reviews of the San Bernardino Countywide Plan (County of San Bernardino 2022) and the City of Barstow General Plan (City of Barstow Planning Department 2015). Online maps and websites were reviewed to identify and collect information on police protection services, fire protection services, schools, parks, libraries, and emergency medical services in the Project vicinity.

3.15 PUBLIC SERVICES

Direct and Indirect Effects

- a) **Would the Project cause 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, to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection, police services, schools, parks, and other public facilities?**

Police Protection

The Project would not require road closures during construction. Therefore, it would have no impact on law enforcement protection response times. Furthermore, as described for fire protection, no increase in population would occur because of the Project that would create the need for increased or upgraded police facilities. No impact would occur.

Fire Protection

The Project would not require road closures during construction. Therefore, it would have no impact on fire protection service response times. Emergency access on adjacent roadways would not be restricted or interrupted by the Project. The Project would have up to 18 workers during construction who would commute from surrounding areas, and they would not increase the local population. After its completion, the Project would be operated and maintained by the existing workforce at the Hinkley Compressor Station. Therefore, the Project would not cause the need for new or altered fire protection facilities that could result in environmental impacts. No impact would occur.

Schools

The Project would not include development of new residential units or services. The Project would not cause an increase in population. Therefore, nearby schools would not be required to increase or upgrade their facilities to accommodate an expansion of use. No impact would occur.

Parks

The Project would not cause an increase of population in the surrounding community. No new or altered park facilities would be required because of the Project. No impact would occur.

Libraries

The Project would not introduce new population to the surrounding communities. No new or altered libraries would be required because of the Project. No impact would occur.

Emergency Medical Services

The nearest hospital to the Project site is the Barstow Community Hospital, approximately 7.8 miles to the east. No new or altered hospitals would be needed to serve workers during Project construction, because of the limited number of workers (18), short duration of Project construction, and low likelihood of accidents requiring emergency medical services. The Project would not cause a population increase and would not result in associated demand for medical

3.15 PUBLIC SERVICES

services. No road closures would be required for the Project. Therefore, emergency routes for hospital personnel would not be restricted because of the Project. No impact would occur.

3.15.5 References

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3.15 PUBLIC SERVICES

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3.16 Recreation

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
16. RECREATION.				
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☒	☐	☐	☒
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Environmental Setting

Recreational opportunities in San Bernardino County include regional and local parks and recreation areas, federal land administered by the BLM, OHV areas, open space lands, and other opportunities for hiking, camping, and sightseeing. The Project site is in an unincorporated area of northwestern San Bernardino County, approximately 1 mile west of the city of Barstow and approximately 2.5 miles southeast of the unincorporated community of Hinkley. The land immediately surrounding the Project area consists of privately owned rural residential and agricultural land with minimal recreation opportunities. No designated recreational resources are in the Project area (PG&E 2025).

Federal Recreation Resources

No federal recreational facilities or resources overlap the Project area. Federal recreational resources within 5 miles of the Project area are primarily on land administered by the BLM Barstow Field Office. The Stoddard/Johnson Special RMA is approximately 5.5 miles southeast of the Project area and consists of the Stoddard OHV and Johnson OHV areas. These OHV areas provide users with opportunities for OHV recreation and motorized use (BLM 2025b; 2025d; 2025c).

The Superior–Cronese ACEC is approximately 5 miles west, north, and northeast of the Project area. ACECs areas are specially managed areas to protect important values, such as important resources and unique scenic landscapes, or to protect people and property from hazards. Although the Superior–Cronese ACEC is primarily managed for desert tortoise habitat, it also provides recreational opportunities, such as camping and hiking (BLM 2025b; 2025a; 2015).

Several small, checkerboarded parcels of BLM administered land are within 5 miles of the Project site, including one parcel along the Mojave River. These smaller parcels are not designated formally as recreational facilities or management areas but are public lands which

3.16 RECREATION

may be used for informal recreational opportunities. None of these lands are directly adjacent to the Project site (BLM 2025b).

State Recreation Resources

No State parks or recreational areas within 5 miles of the Project site (California State Parks 2025).

Local Recreation Resources

Several local recreational opportunities, including community parks, are near the Project area. The closest local recreational facility is the Barstow Gun Club, approximately 800 feet south of the Project area and owned by PG&E (PG&E 2025). Other recreational facilities include:

- The Hinkley Community and Senior Center, owned by San Bernardino County, approximately 0.5 mile west of the Project area
- Elks Community Playground, approximately 1.5 miles north of the Project area

Formal local recreational resources also are in Barstow, including Dana Park, Barstow Skate Park, and cultural attractions such as the Western America Railroad Museum and the Route 66 Mother Road Museum (San Bernardino County 2025).

3.16.2 Regulatory Setting

Federal

No federal regulations would be applicable to recreation for the Project.

State

No State regulations would be applicable to recreation for the Project.

Local

The 2020 San Bernardino Countywide Plan's Natural Resources Element (San Bernardino County 2020) outlines a comprehensive vision for recreation, emphasizing development and maintenance of parks, trails, and open spaces to enhance residents' quality of life and attract visitors. This vision is articulated in the Natural Resources Element primarily under Goal NR-3, Open Space, Parks, and Recreation. Because the Project would not involve a change in land use or expansion of the Hinkley Compressor Station, the policies regarding recreation (i.e., NR-3.1, NR-3.6, and NR-3.7) would not be applicable.

3.16.3 Applicant Proposed Measures

PG&E has proposed APMs for reducing environmental effects. The APMs are listed in Table 2.6-9 of the Project Description and are considered part of the Project for the analysis. PG&E has not proposed any APMs that would be applicable to recreation.

3.16.4 Environmental Impacts

Methodology and Assumptions

The analysis of recreational resources evaluated increased use of recreational facilities, requirements of expanded or new recreational facilities, and damage to existing recreational resources. The analysis was based on information from a review of applicable State, local, and regional parks, recreational facilities, and areas. The evaluation considered parks and recreational facilities within 0.5 mile of the Project site.

Direct and Indirect Effects

- a) **Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities so that substantial physical deterioration of the facility would occur or be accelerated?**

The Project would implement upgrades to the Hinkley Compressor Station's electrical system, within the existing facility. The Project would not increase the use of existing neighborhood and regional parks or other recreational facilities. The Project would require up to 18 workers for construction, supplied from the existing workforce in the surrounding areas, and would not create any new jobs during O&M because the electrical upgrades would be maintained by current workers at the station. The Project would not directly or indirectly increase the population. Thus, the Project would not increase demand for parks or recreational amenities. Furthermore, Project construction and O&M would not impede access or use of existing recreation facilities. No impact would occur.

- b) **Would the Project include recreational facilities or require construction or expansion of recreational facilities that may have an adverse physical effect on the environment?**

The Project would not require construction or expansion of recreational facilities. The Project would include electrical upgrades to the Hinkley Compressor Station, but this would not increase the local population. Because the Project would not cause construction or expansion of any recreational facilities, no adverse physical effects on the environment would be associated with the Project. No impact would occur.

3.16 RECREATION

3.16.5 References

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3.17 Transportation

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

3.17.1 Environmental Setting

Roadway Network

The Project area is in a rural area of unincorporated San Bernardino County, approximately 1 mile south of State Route (SR) 58 and 1 mile west of the city of Barstow. The Project site is accessed from Fairview Road, a paved, two-lane local roadway with no striping, shoulders, or pedestrian infrastructure. Regional access is provided by SR 58, a major east to west arterial that connects the Barstow area with Bakersfield and the Central Valley to the west and Interstate (I)15 to the east.

Key local roads in the vicinity include Community Boulevard, Hinkley Road, and Lenwood Road, all of which connect to SR 58 and provide access to the Project site via Fairview Road. These roads are primarily rural in character, serving residential properties, agricultural land, and infrastructure facilities in the surrounding area. The intersection of SR 58 and Lenwood Road northeast of the Project area experiences an annual average daily traffic (AADT) volume of approximately 15,200 vehicles (Caltrans 2023). The intersection of SR 58 and Main Street southeast of the Project area experiences an AADT volume of approximately 17,000 vehicles (Caltrans 2023). Local roadways and state highways are shown on Figure 3.17-1.

Transit and Rail Services

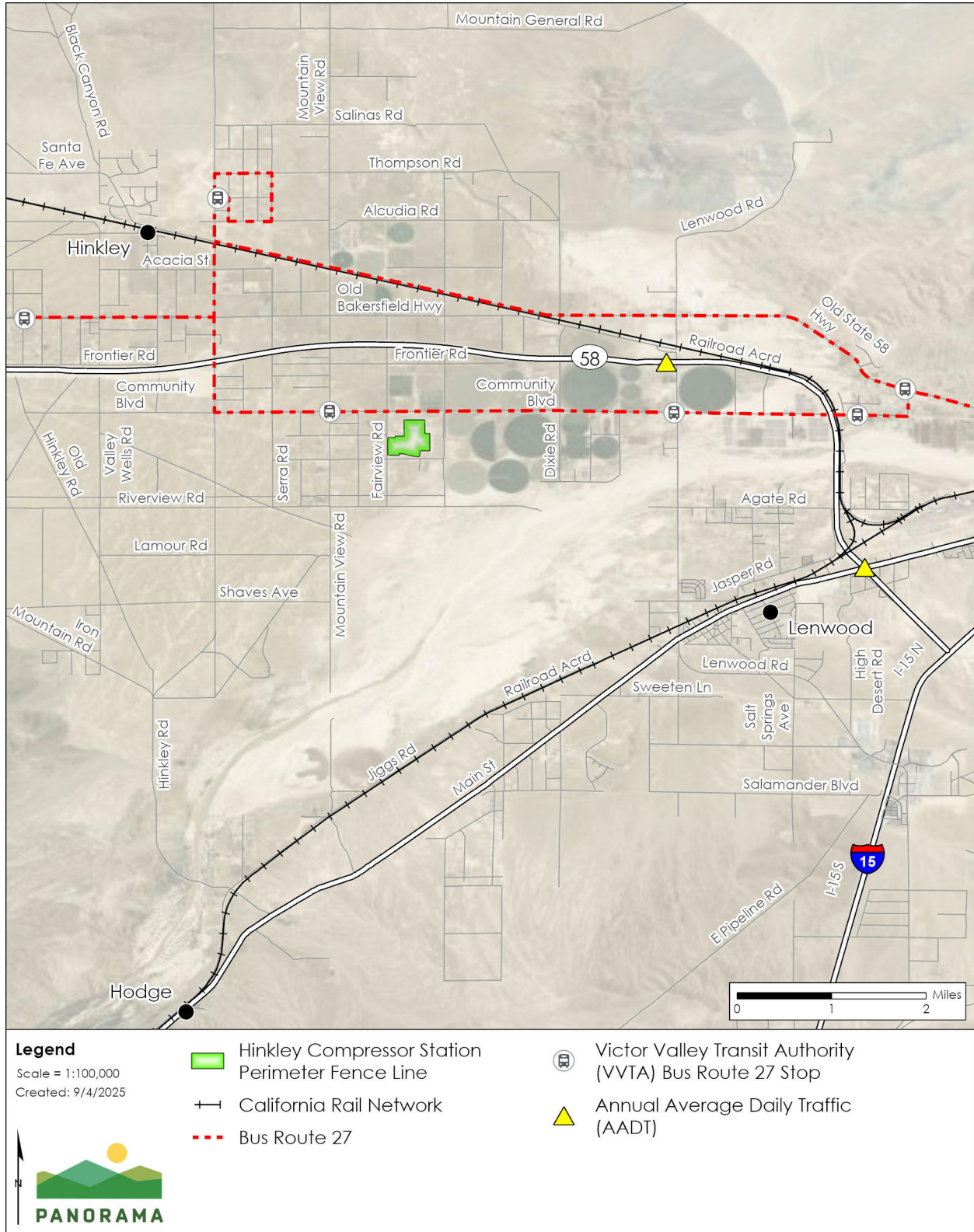
There are no pedestrian sidewalks, bike lanes, or designated bicycle routes within or adjacent to the Project site. The area lacks curb and gutter infrastructure, street lighting, and urban design elements that typically support active transportation modes. Bus Route 27 (Barstow-Hinkley-Helendale) provides transit service to the area surrounding the Project site (VFTA 2025). The

3.17 TRANSPORTATION

closest bus stop to the Project site is located approximately 0.6 miles northwest of the Project site at the intersection of Community Boulevard and Mountain View Road (Caltrans 2025b). No passenger or freight rail lines cross are adjacent to the Project site and the nearest rail infrastructure is located approximately 1.6 miles north of the Project site (Caltrans 2024b). The local roadway network, transit routes, and transit stops in the areas surrounding the Project site are shown on Figure 3.17-1.

3.17 TRANSPORTATION

Figure 3.17-1 Transportation and Transit



Source: (Caltrans 2025b; 2025a; 2024a; 2024b; San Bernardino County 2024)

3.17 TRANSPORTATION

3.17.2 Regulatory Setting

Federal

There are no federal transportation regulations applicable to the Project.

State

California Senate Bill 743/California Environmental Quality Act

Senate Bill (SB) 743, which became effective in September 2013, initiated changes to section 15064.3 of the State California Environmental Quality Act (CEQA) Guidelines to establish new criteria for determining the significance of transportation impacts. Specifically, SB 743 replaced automobile delays described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion—with vehicle miles traveled (VMT) as the recommended metric for determining the significance of transportation impacts. The intent of the change was to help achieve statewide goals related to infill development, the promotion of public health through active transportation, and the reduction of greenhouse gas (GHG) emissions.

To assist with implementation of the VMT metric, the California Governor's Office of Planning and Research (OPR) prepared a Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018). OPR's Technical Advisory recommends that for land use projects, a per capita or per employee VMT that is 15 percent below that of existing development may be a reasonable threshold. In making this recommendation, OPR recognized that land use development projects (i.e., those involving residential, office, and retail proposals) tend to have the greatest influence on VMT. For other types of projects, lead agencies should consider the purposes in section 21099(b)(1) of the Public Resources Code (PRC) (i.e., promote reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses) in applying a threshold of significance. Qualitative analyses are acceptable when methods do not exist for undertaking a quantitative analysis.

Caltrans District 8 Active Transportation Plan

The Caltrans District 8 Active Transportation Plan 2022 by Caltrans outlines strategies to improve walking and biking infrastructure within San Bernadino County (Caltrans 2022). This summary report highlights efforts to enhance safety, accessibility, and connectivity for non-motorized transportation throughout District 8. Although the Project is in a rural area without pedestrian or bicycle facilities, the ATP provides policy context for assessing potential impacts on active modes of travel.

Local

San Bernardino County Countywide Plan

The San Bernardino Countywide Plan is a collection of planning tools to guide future decisions, investments, and improvements within the County. The Countywide Plan contains three main components: Policy Plan, Business Plan, and Community Action Guides.

The Policy Plan contains long-term goals and policies that guide decisions in the county and serves as the County General Plan for the unincorporated areas, including the Project site (San

3.17 TRANSPORTATION

Bernardino County 2020). No goals and policies from the County Policy Plan are relevant to transportation for the Project.

3.17.3 Applicant Proposed Measures

PG&E has proposed APMs for the purpose of reducing environmental effects. APMs are listed in Table 2.6-9 of the Project Description and are considered part of the Project for the purpose of analysis. PG&E has not proposed any APMs applicable to transportation.

3.17.4 Environmental Impacts

Methodology and Assumptions

The impact analysis for transportation evaluates the potential for construction and operation of the Project to cause adverse effects on transportation. The analysis considers anticipated vehicle trips during construction for worker commutes, equipment and materials deliveries, as well as potential access routes via existing roads. Traffic data and other transportation system information were obtained from existing documentation including maps, a countywide traffic study, literature searches, local transit information, and aerial photographs.

Direct and Indirect Effects

- a) **Would the Project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?**

Construction

Construction of the Project would result in temporary increases in vehicle traffic associated with the transportation of equipment and materials to and from the Project site, as well as daily commuting by construction workers. Construction activities would occur entirely within the Project site, with access provided via the existing paved entrance on Fairview Road. No new access roads or modifications to public roadways are proposed.

Construction activities are expected to span approximately 23 months, with peak daily workforce levels at approximately 18 workers. Worker trips are expected to originate from the surrounding region, including Barstow and other parts of San Bernardino County. Daily construction traffic would also include light-duty vendor trips and occasional deliveries using heavy-duty trucks. Based on Project estimates, worker and vendor trips would result in approximately 20 miles of round-trip travel per vehicle per day, with the total daily construction traffic being minimal relative to existing roadway capacity.

Construction would not require road closures, lane reductions, or temporary easements outside the Project site. No detours would be needed, and emergency access routes would always remain unobstructed. As all construction activities would occur within the existing compressor station facility, construction would not impact existing roadway, bicycle or pedestrian facilities. The temporary and minor traffic generated during construction would not affect the circulation system. Construction of the Project would thus not conflict with a transportation plan, policy, or

3.17 TRANSPORTATION

program addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. No impact would occur.

Operation and Maintenance

Operation of the Project electrical equipment would not generate new permanent employees or daily vehicle trips. Routine inspection and maintenance of the new equipment would occur at similar frequency and intensity as existing electrical equipment maintenance. Operation and maintenance (O&M) would thus not generate traffic and would not involve any activities on roadways. O&M of the Project would have no conflict with a transportation plan, policy, or program addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. No impact would occur.

b) Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Construction of the Project would involve a temporary increase in vehicle trips associated with worker commutes and equipment and material deliveries. Construction activities would occur over approximately 23 months, with a peak of up to 18 workers onsite at any given time. These activities would generate an estimated 36 worker trips and two vendor or delivery trips per day. The total number of daily automobile trips would remain well below the 110-trip screening threshold identified in the OPR's Technical Advisory on Evaluating Transportation Impacts in CEQA which indicates that Projects generating fewer than 110 daily trips are presumed to result in less-than-significant VMT impacts (OPR 2018). Furthermore, these trips would be temporary during the 23-month construction period and would cease at the end of construction.

Once construction is complete, the Project would not result in any new staff, increased maintenance frequency, or any measurable operational trip generation. The upgraded electrical equipment would be maintained according to existing practices at the compressor station. The Project-generated VMT would be minimal, temporary, and limited to the construction phase and the Project would not conflict with CEQA Guidelines Section 15064.3(b). The impacts would be less than significant.

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

The Project would not involve the construction or modification of any public roads or intersections. All construction activities would occur within the Project site. Construction vehicles, including large trucks and equipment transport vehicles, would use established regional routes, such as SR 58 and Hinkley Road, to access the Project site via Fairview Road. While large trucks would be present during construction, their use would be temporary and in compliance with State and federal laws for vehicle operation (e.g., speed limits, weight limits, etc.).

All Project vehicle travel would occur on existing roads and within the Project site. The Project consists of electrical upgrades to the compressor station and does not introduce new land use. The Project would not introduce hazardous roadway conditions or incompatible land use. No

3.17 TRANSPORTATION

impact related to increased hazards due to a geometric design feature or incompatible uses would occur.

d) Would the Project result in inadequate emergency access?

The Project would not require closure of any roads during construction or operation. All construction activities would occur within the Project site and construction would not impact public roads. Construction of the Project would not require any detours or lane closures. The Project would not introduce physical barriers to emergency access or alter existing circulation that would restrict emergency vehicle movement. The proposed electrical upgrades would be operated and maintained within the Project site. Project construction and O&M would not affect public roads or emergency access. No impact would occur.

3.17.5 References

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VVTA. 2025. "Public Transit for Victor Valley." <https://vvta.org/>.

3.18 Tribal Cultural Resources

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

3.18.1 Environmental Setting

A detailed summary of the prehistoric and ethnographic context of the Project site and the cultural resources studies that were completed for the Project are presented in Section 3.5 Cultural Resources.

Panorama submitted a Sacred Lands File request to the NAHC on April 18, 2025. The NAHC responded on the same day with a list of 13 representatives from five tribes that are culturally affiliated with the Project area. Panorama sent notification letters in compliance with AB 52 to the tribal representatives on June 10, 2025 (refer to Appendix D for the NAHC list of tribes and the AB 52 letters). The Yuhaaviatam of San Manuel Nation and the Twenty-Nine Palms Band of Mission Indians responded to the notification letter. Yuhaaviatam of San Manuel Nation requested additional information about the Project before determining whether it would request consultation. The CPUC provided the requested information, and the tribe did not request consultation with the CPUC under AB 52. Twenty-Nine Palms Band of Mission Indians indicated that the Project site is within the Chemehuevi Traditional Use Area. Although no

3.18 TRIBAL CULTURAL RESOURCES

known cultural resources are within the Project APE, the possibility of finding surface and/or buried archaeological materials may occur. The tribe requests to be notified if any findings are discovered. Panorama sent an email to the representative of Twenty-Nine Palms Band of Mission Indians on July 9, 2025, to verify whether the tribe was requesting AB 52 consultation. No response was received. Panorama called the representative of Twenty-Nine Palms Band of Mission Indians on August 26, 2025, and the tribe requested additional information about the Project. The CPUC provided the requested information, and the tribe did not request AB 52 consultation.

3.18.2 Regulatory Setting

Federal

No federal regulation related to tribal cultural resources would be applicable to the Project.

State

Assembly Bill 52

AB 52 established that tribal cultural resources must be considered by the lead agency under CEQA. AB 52 includes Native American consultation requirements to be undertaken by the lead agency. A *tribal cultural resource* is a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American Tribe, which is:

- Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in Section 5020.1(k) of the PRC
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant, pursuant to criteria set forth in Section 5024.1, subdivision (c) of the PRC

In applying this criteria, the lead agency must consider the significance of the resource to any California Native American tribe.

California Health and Safety Code and Public Resources Code

Broad provisions for the protection of Native American cultural resources are contained in the California Health and Safety Code, Division 7, Part 2, Chapter 5 (Sections 8010 through 8030). Several provisions of the PRC also govern archaeological findings of human remains and associated objects.

Procedures are detailed in Sections 5097.98 through 5097.996 of the PRC 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 the authority of the law is guilty of a misdemeanor, except as provided in Section 5097.99 of the PRC. Any person removing human remains without the authority of the law or written permission of the person(s) having the right to control the remains under Section 7100 of the PRC has committed a public offense that is punishable by imprisonment.

3.18 TRIBAL CULTURAL RESOURCES

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

3.18.3 Applicant Proposed Measures

PG&E has proposed APMs for reducing environmental effects. The APMs are listed in Table 2.6-9 of the Project Description and are considered part of the Project for the analysis. PG&E has proposed the APMs, listed in Table 3.18-1 below, to address impacts relevant to tribal cultural resources.

Table 3.18-1 Proposed APMs for Tribal Cultural Resources

Proposed APMs
APM TCR-1: Undiscovered Potential Tribal Cultural Resources. After stopping work and following the procedure for determining eligibility in APM CUL-2, if a prehistoric or protohistoric site is identified and cannot be avoided, PG&E will contact the CPUC and NAHC to identify an appropriate tribe with whom to consult on treatment. If no agreement can be reached for mitigation after discussions with the California Native American Tribe(s), or after determining that a tribe's preferred mitigation is not feasible, PG&E will implement one of the example mitigation measures listed in Section 21084.3(b) of the PRC or other feasible mitigation.

3.18.4 Environmental Impacts

Methodology and Assumptions

The impact analysis for tribal cultural resources evaluated the potential for the Project to cause adverse effects on tribal cultural resources. The analysis was based on the cultural resources records search, outreach with Native Americans, and a buried site sensitivity review. Additional information on the cultural resources record search and sensitivity analysis is presented in Section 3.5: Cultural Resources.

3.18 TRIBAL CULTURAL RESOURCES

Direct and Indirect Effects

- a) **Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Section 21074 of the PRC as a site, feature, place, or cultural landscape that is defined geographically in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**
 - (i) **Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in Section 5020.1(k) of the PRC.**
 - (ii) **A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Section 5024.1, subdivision (c) of the PRC. In applying this criterion, the lead agency must consider the significance of the resource to a California Native American tribe:**

No tribal cultural resources that are listed or eligible for listing in the CRHR has been identified within the Project APE/API or has been reported by any Native Americans during AB 52 consultation efforts. Although the potential for encountering subsurface cultural resources would be low, the Project would involve excavation to a depth of 5 feet at the foundations and trenches. Thus, the potential would exist for tribal cultural resources to be found in excavations during Project construction.

PG&E has proposed implementation of APM CUL-1, which would require worker training, and implementation of APM CUL-2, which would require halting construction activities within 100 feet of the discovery, contacting the Project Environmental Inspector and the PG&E Cultural Resource Specialist, and having qualified personnel evaluate the significance of the discovery following procedures for determining eligibility. In the event that tribal cultural resources are discovered, the protocol described in APM TCR-1 would be followed, including the procedure for determining eligibility of a resource. The impact would be less than significant.

Although the APMs would reduce the likelihood of impact on tribal cultural resources because construction workers would be engaged in construction and not actively observing cultural or tribal cultural resources, the potential would remain to disturb a tribal cultural resource. Thus, PG&E also has proposed implementing Mitigation Measure Culutral-1, which would require inviting a tribal monitor from one tribe to inspect for potential archaeological deposits or tribal cultural resources during trenching and excavation activities. In the event of discovery of archaeological deposits, the archaeologist would have the authority to halt work within 100 feet of the discovery, and the CPUC would be notified within 48 hours of the discovery. All procedures in APM CUL-2 would be implemented during investigation of the resource.

PG&E would implement APM CUL-1, APM CUL-2, APM TCR-1, and Mitigation Measure Culutral-1, to reduce the impact on the tribal cultural resource. The impact would be less than significant with mitigation incorporated.

3.19 UTILITIES AND SERVICE SYSTEMS

3.19 Utilities and Service Systems

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
19. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

3.19.1 Environmental Setting

Water Services

Domestic water sources for the unincorporated areas of San Bernardino County generally are supplied through local and imported water, with approximately 85 percent of the domestic water supplied by local groundwater sources and the remaining 15 percent supplied by imported purchased water (CRWQCB 2013). Imported water is purchased primarily by several regional water wholesalers from the Metropolitan Water District through the State Water Project as a supplemental source to local groundwater supplies. Multiple retail and private water purveyors manage most of the groundwater pumping and distribution.

3.19 UTILITIES AND SERVICE SYSTEMS

The water purveyor for Barstow and some surrounding communities is the Golden State Water Company (GSWC) (County of San Bernardino 2022). GSWC has served Barstow since 1929 and currently serves approximately 8,800 customers (Golden State Water Company, n.d.).

The Hinkley Compressor Station is outside the GSWC service area. Water at the station is obtained from offsite wells that supply water for domestic (such as sinks and toilets) and industrial (primarily operation of cooling towers to cool compressed natural gas heated by friction) uses.

Wastewater Services

Barstow provides domestic and industrial wastewater collection and treatment for Barstow and a portion of its sphere of influence. The city owns and operates the Barstow Wastewater Treatment Plant (Barstow WWTP), located just north of Interstate 40 on the eastern edge of the city. As of 2015, the Barstow WWTP had a capacity of 4.5 million gallons per day (mgd), with an average daily flow of 2.1 mgd. The Barstow WWTP facilities include eight percolation ponds along the south side of the Mojave River to dispose of secondary treated effluent (CRWQCB 2019). The Project site is outside the Barstow WWTP service area and is on a private septic system to manage wastewater.

Stormwater

The Project site is in the San Bernardino County Flood Control District (Flood District) Zone 4, which includes the Mojave River (County of San Bernardino 2022). The Flood District was established in 1939 in response to severe flooding in 1938. The Flood District has developed an extensive system of facilities, including dams, conservation basins, channels, and storm drains, to intercept and convey flood flows through and away from the major developed areas of the county to protect property and ensure public safety.

No existing stormwater facilities were identified on or near the Project site. The Project site is located on a flat area; therefore, most of the stormwater drainage would likely evaporate or infiltrate into surface soils rather than being transported as sheet flow (CRWQCB 2013).

Solid Waste and Recycling Services

San Bernardino County Public Works holds franchise agreements with private trash hauling companies to collect solid waste from unincorporated areas of the county (San Bernardino County 2019). Burrtec Waste Industries provides waste collection and recycling in the area around the Project site, including Barstow, the community of Hinkley, and surrounding unincorporated San Bernardino County (San Bernardino County 2019).

1. San Bernardino County Public Works includes the Solid Waste Management Division (SWMD), which is responsible for the management and operation of the county's solid waste disposal system. This system consists of five regional landfills and nine transfer stations (San Bernardino County, n.d.). These five landfills can accept waste from the project and are listed with their capacities and estimated closure dates in Table 3.19-1. San Bernardino County Public Works publishes the *Construction & Demolition Waste Recycling Guide* (2024), which includes a list of

3.19 UTILITIES AND SERVICE SYSTEMS

recycling facilities in the county that accept construction and demolition waste for recycling, as listed in Table 3.19-1 (San Bernardino County 2023). Contaminated soil or hazardous materials are expected to be taken to the Kettleman Hills facility, as listed in Table 3.19-2.

Table 3.19-1 Recycling and Construction Waste Facilities in Proximity to the Project

Landfill Name	Remaining Total Landfill Capacity (cubic yards)	Landfill Average Daily Volume or Capacity	Estimated Closure Date	Takes Construction Waste?
Barstow Landfill	71,481,660	1,500	2071	Yes
Landers Landfill	11,148,100	1,200	2072	Yes
Victorville Landfill	79,400,000	3,000	2047	Yes
Mid-Valley Landfill	54,219,377	7,500	2045	Yes
San Timoteo Landfill	12,360,396	2,000	2039	Yes

Table 3.19-2 Landfills in Proximity to the Project

Recycling Facility Name	Remaining Total Landfill Capacity (cubic yards)	Landfill Average Daily Volume or Capacity	Estimated Closure Date	Takes Construction Waste?
Emery Materials (recycling)	Not Available	Not Available	Not Available	Yes (asphalt and concrete)
Vulcan Materials Company (recycling)	Not Available	Not Available	Not Available	Yes (asphalt and concrete)
SA Recycling	Not Available	Not Available	Not Available	Yes (metals)
Kettleman Hills Industrial Waste Codisposal Facility	15,600,000	9,000	2040	Yes (Class I hazardous and Class II designated waste)

Source: (California Department of Resources Recycling and Recovery, n.d.)

Gas and Electrical

The service area around the Project site is supplied with natural gas by Southwest Gas Corporation. Southwest Gas Corporation serves over 2 million customers throughout Arizona, Nevada, and portions of California including the Project vicinity in San Bernardino County (Southwest Gas, n.d.). Southwest Gas Corporation does not serve Hinkley Compressor Station.

Hinkley Compressor Station is on the Pacific Gas and Electric (PG&E) Baja Path gas transmission system, which transports natural gas to millions of customers within California with interconnections to other utilities. The station receives natural gas from Topock Compressor Station (approximately 152 miles east at the state border between California and Arizona). Hinkley Compressor Station compresses gas from Topock Compressor Station to

3.19 UTILITIES AND SERVICE SYSTEMS

transport it through the Tehachapi Mountains to Kettleman Compressor Station (approximately 200 miles northwest).

Hinkley Compressor Station uses four natural gas engine-driven generators using gas from the PG&E gas transmission system to supply electric power for most of the station operation including the natural gas compression at the station. Utility agreements prevent PG&E from using the power generated at the station outside the immediate area of the station.

Southern California Edison (SCE) provides electricity to the Project site and vicinity. SCE has a service territory of approximately 50,000 square miles and serves approximately 15 million people in central, coastal and southern California (Southern California Edison, n.d.).

Telecommunications

Cell phone infrastructure and service are provided in the Barstow area by Verizon, T-Mobile, and AT&T Wireless; other companies that use their networks to provide services include Mint Mobile, Cricket, Boost, and Visible. Internet providers (both cable and satellite) include Spectrum, Verizon, T-Mobile 5G Home Internet, ISP.net, Dish, DirecTV, and Viasat (BestNeighborhood.org, n.d.)

3.19.2 Regulatory Setting

The following subsections identify any applicable federal, state, or local laws or regulations for utilities that apply to the Project.

Federal

There are no federal laws or regulations for utilities and service systems that are applicable to the Project.

State

California Government Code

Section 4216 of the California Government Code protects underground structures during excavation. Under this law, excavators must contact a regional notification center at least two days before excavation of any subsurface installations. For the Project, DigAlert is the regional notification center for Southern California. DigAlert notifies utility providers with buried lines within 1,000 feet of the excavation, and those providers must mark the specific location of their facilities before excavation. The code also requires excavators to probe for and expose existing utilities, in accordance with state law, before using power equipment.

California Water Code

California Water Code Division 6, Part 2.10, Sections 10910 to 10915 requires a city or county that is undertaking California Environmental Quality Act (CEQA) review for a project identifies public water systems that may supply water to the project. If such a public water system is not identified, the city or county must complete a water supply assessment.

Per Section 10912, this requirement applies to residential and commercial projects larger than a certain size and to proposed industrial, manufacturing, or processing plants or industrial parks

3.19 UTILITIES AND SERVICE SYSTEMS

planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area. The requirement also applies to other projects that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project. If the city or county does not have an adopted urban water management plan, the water supply assessment must analyze whether the public water system's total projected water supplies available for normal, single dry, and multiple dry water years during a 20-year projection would meet the projected water demand associated with the Project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses. California Water Code Division 7 lays out the requirements for a statewide program for the control of the quality of all the waters of the state. Section 13140 of Division 7 states that the State Water Resources Control Board (SWRCB) will formulate and adopt state policy for water quality control. Section 13172 of Division 7 includes requirements for waste management facilities, both hazardous and nonhazardous, as defined in Section 13173, to protect water quality.

Assembly Bill 341

California's Commercial Recycling Bill (AB 341) went into effect July 1, 2012, and set a recycling goal of 75 percent diversion by 2020. The bill is intended to reduce greenhouse gas (GHG) emissions by diverting recyclable materials and to expand the opportunity for increased economic activity and green industry job creation.

California Code of Regulations (Title 27)

Title 27 (Environmental Protection) of the California Code of Regulations (CCR) defines regulations for the treatment, storage, processing, and disposal of solid waste. The SWRCB maintains and regulates compliance with Title 27 (Environmental Protection) of the CCR.

State Water Resources Control Board General Permit

On September 8, 2022, the SWRCB adopted the General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order No. 2022-0057-DWQ, NPDES No. CAS000002) (General Permit), which reissued the Order 2009-0009-DWQ and previous Order 99-08-DWQ for projects disturbing 1 or more acre of land, or that are part of a common plan of development or sale that disturbs more than 1 acre of land. The new permit became effective on September 1, 2023, and all new dischargers are required to obtain coverage under the new permit by submitting Permit Registration Documents.

The General Permit requires the implementation of a Storm Water Pollution Prevention Plan (SWPPP), which must be prepared before construction begins and kept on site throughout the construction process. In accordance with the General Permit, the SWPPP must include the following:

- Identification of pollutant sources and non-storm water discharges associated with construction activities
- Specifications for best management practices (BMPs) that will be implemented during Project construction to minimize the potential for accidental releases and

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runoff from the construction areas, including temporary construction yards, pull sites, and other temporary work areas

- Calculations and design details, as well as BMP controls for site run-on
- BMPs used to eliminate or reduce pollutants after construction is complete; and
- Certification from a Qualified SWPPP Developer (QSD).

Local

San Bernardino Countywide Plan

The San Bernardino Countywide Plan includes policies for efficient waste diversion and collection for unincorporated areas (County of San Bernardino 2022). These policies include the following:

Policy III-4.3 Waste diversion. We shall meet or exceed state waste diversion requirements, augment future landfill capacity, and reduce GHG emissions and use of natural resources through the reduction, reuse, or recycling of solid waste.

3.19.3 Applicant Proposed Measures

PG&E has proposed Applicant Proposed Measures (APMs) for the purpose of reducing environmental effects. APMs are listed in Table 2.6-9 of the Project Description and are considered part of the Project for the purpose of analysis. PG&E has proposed the APMs outlined in Table 3.19-3.

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Table 3.19-3 APMs Relevant to Utilities and Service Systems

Proposed APMs
APM GHG-1: PG&E Minimize GHG Emissions PG&E will implement the following measures to minimize GHG emissions consistent with the recommendations provided in the California Public Utilities Commission (CPUC) Draft Environmental Measures: • Encourage construction workers to carpool to the job site if suitable park-and-ride facilities are available in the Project vicinity. • Develop a carpool program to the job site. • Maintain on-road and off-road vehicle tire pressures to manufacturer specifications. Check and reinflate tires at regular intervals. • Recycle demolition debris for re-use to the greatest extent feasible. • Maintain construction equipment per manufacturer’s specifications. • Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time will depend on the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following startup that limit their availability for use following startup. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles 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 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction supervisors will include briefings to crews on vehicle use as part of preconstruction conferences. Those briefings will include discussion of a “common sense” approach to vehicle use. • Register portable diesel-fueled construction equipment with engines 50 horsepower or larger and manufactured in 2000 or later under the CARB’s statewide Portable Equipment Registration Program.

3.19.4 Environmental Impacts

Methodology and Assumptions

The impact analysis for utilities and service systems evaluates the potential for the Project to cause adverse effects on existing utility providers and associated infrastructure. The analysis considers the capacity and location of existing wastewater treatment systems, available water supply, stormwater drainage, solid waste disposal, telecommunications, electricity, and natural gas service providers.

The analysis is based on a review of San Bernardino County plans, Central Valley Regional Water Quality Control Board (CRWQCB) information, and utility provider websites. The evaluation considers the current capacity and locations of existing utilities and anticipated needs. Impacts are characterized by whether the Project would significantly increase or exceed the demand or capacity of these facilities.

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Direct and Indirect Effects

- a) **Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

The Project would replace aging electrical infrastructure and address safety issues and system reliability and maintainability. The electrical upgrades would not increase the supply of gas in the PG&E service area but would maintain the current supply from the Hinkley Compressor Station. The Project would not provide electrical service outside of the Hinkley Compressor Station.

Construction would require approximately 18 construction workers. These construction workers would be hired from the local labor force. Project operation and maintenance would be conducted by existing staff at the Hinkley Compressor Station; therefore, the Project would not directly or indirectly induce demand for new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities.

All electrical upgrades would be located within the existing Hinkley Compressor Station facility and would not require relocation of utilities or facilities outside the station. Prior to construction, PG&E would obtain emergency contact information for utilities that may be in proximity or require monitoring during construction of the Project duct bank trenching or foundation excavation. In case of accidental service interruption to another utility, PG&E would immediately contact the affected utility to coordinate actions to restore service in a safe and timely manner. As required by state law, PG&E would notify other utility companies (via USA) to locate and mark existing underground structures prior to any excavation or trenching activities.

Because the Project construction, operation, and maintenance would not require the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, no impact related to construction or expansion of such utilities would occur.

- b) **Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?**

During construction, the Project would require water for dust control and concrete. Water would be obtained from existing PG&E wells that already supply the Hinkley Compressor Station. The Mojave River Groundwater Basin is adjudicated, and the court-appointed Mojave Basin Area Watermaster administers pumping through each producer's Free Production Allowance (FPA) and requires that any production above FPA be offset through leases/transfers or replacement assessments. Because construction water for dust control and minor concrete work would be supplied from existing PG&E wells and accounted for under PG&E's adjudicated rights in the Centro Subarea, PG&E would have sufficient water supplies for

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construction during normal, dry, and multiple dry years. The impact on water supplies during the 23-month construction period would be less than significant.

Operation and maintenance of the Project would not create a demand for water. As a result, there would be no impact on water supplies during operation and maintenance.

c) Would the Project result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

Approximately 18 construction workers would be onsite at peak construction periods. Construction workers would use existing onsite toilets and sinks that discharge to the existing wastewater treatment system. This temporary and short-term use would not require expansion of existing wastewater treatment facilities or construction of new facilities. Therefore, no impact would occur.

d) Would the Project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Construction of the Project would generate approximately 35 tons of solid waste with approximately 75 percent of the waste being metal. The Project construction workers (up to 18 daily) would generate minimal food, glass, paper, plastic, and packing waste. Waste materials generated during construction would be reused, recycled, or salvaged where reasonably feasible. Removed electrical equipment would be managed as e-waste, with metal components sorted for recycling or disposal. Concrete debris from the motor control center (MCC) foundation removal would be gathered for recycling. Construction debris would be picked up regularly from the work area and stored in approved onsite containers. At the construction staging area, crews would gather and sort recyclable and salvageable materials into bins for recycling, e-waste, or disposal. Debris would be hauled away for recycling or disposal periodically during construction. Salvageable items (such as wire or metal that can be reused) would be taken to recycling facilities or sold through available markets. Some examples of items that may be recycled include copper wire or metal equipment housing, cable reels, pallets, and broken hardware. Materials, including clean soil, would be taken to facilities such as those in Table 3.19-1 for recycling or disposal. The landfills and recycling facilities serving the area have sufficient capacity for waste that would be generated by Project construction. In addition the Project recycling would be consistent with California solid waste reduction goals for construction and demolition waste; therefore, impacts from generation of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals would be less than significant.

e) Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

PG&E would manage solid waste generated during construction and maintenance and operation by hauling to appropriate landfills with sufficient capacity as described in response to d) above. PG&E would reuse and recycle construction and demolition waste to divert debris

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from landfill disposal when reasonably feasible. PG&E or its designated and licensed hauler would apply for an Industrial Waste Hauler Permit as needed. PG&E would comply with all applicable federal, state, and local management and reduction statutes and regulations related to solid waste; therefore, no impact would occur.

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3.20 Wildfire

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
20. WILDFIRE. If located in or near State Responsibility Areas or lands classified as very high fire hazard severity zones, would the Project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

3.20.1 Environmental Setting

Fire Hazard Severity Zone Designations

CALFIRE has published FHSZ maps for lands in LRAs, State Responsibility Areas (SRAs), and Federal Responsibility Areas (FRAs). Fire hazard severity maps evaluate hazards (not risks) based on physical conditions that contribute to the likelihood and expected fire behavior over a 30 to 50-year period, without considering hardening, recent wildfires, or fuel reduction efforts. CALFIRE has primary legal and financial responsibility for the prevention and suppression of wildland fires in SRAs. LRAs consist of incorporated cities and more densely populated areas, where fire protection typically is provided by city fire departments, fire protection districts, or counties, and/or through joint agreements with CALFIRE (CALFIRE 2025). The Project area is entirely within an LRA. No SRAs are within 5 miles of the Project site. Several FRAs are less than 5 miles from the Project site, on lands administered by the BLM (CALFIRE, n.d.). The State Fire Marshal is responsible for identifying moderate, high, and very high FHSZs, based on consistent statewide criteria, the severity of the expected fire hazard, and recommendations from CALFIRE for LRAs. The Project site and surrounding area is considered a moderate FHSZ (CALFIRE 2025).

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California Public Utilities Commission-Designated Wildfire Hazard Zones

The CPUC High Fire Threat Map designates fire threat areas that require enhanced fire safety. The map defines areas in three classifications: Tier 1 (High Hazard Zones) from the U.S. Forest Service/CALFIRE tree-mortality map, Tier 2 (Elevated Risk), and Tier 3 (Extreme Risk) areas, identified by the CPUC based on utility-related wildfire ignition potential. The Project site is outside the CPUC high fire hazard threat district and does not overlap any Tier 1, 2, or 3 threat areas (CPUC, n.d.).

Wildland Urban Interface

The Wildland Urban Interface (WUI) is the zone of transition between unoccupied land and human development that overlaps undeveloped wildland or vegetative fuels. Communities adjacent to and surrounded by wildland are at varying degrees of risk from wildfires. The Project area is not within a designated WUI (U.S. Forest Service 2020). The nearest designated WUI intermix is approximately 0.25 mile west of the Project site, with housing interspersed in an area dominated by wildland vegetation, subject to wildfire (U.S. Forest Service 2020).

Fire Environment

CALFIRE's incident reports were reviewed for the most recent 10-year period (2015–2025), to assess the Project's wildfire risk. No wildfire incidents that have been reported within 5 miles of the Project site have been greater than 300 acres. Wildfire fuel modeling and digital elevation models were not prepared because the Project site is not in a high fire risk area.

The Project area is surrounded by agricultural fields and areas of sparse desert vegetation, and it is designated as a non-WUI vegetated area with very low housing density in the surrounding area (PG&E 2025b). Furthermore, the BLM National Fire Risk Assessment web map indicates that the Project area is in an area of low fire risk (BLM 2019).

Annual temperatures for the area surrounding the Project site vary greatly, with maximum temperatures equaling or exceeding 90°F an average of 131 times per year, and minimum temperatures equaling or dropping below 32°F an average of 38 times per year. The annual average January temperatures are 35°F (low) and 61°F (high), and the average July temperatures are 69°F (low) and 102°F (high). The annual average precipitation is 5.1 inches. The predominant wind direction at the Barstow–Daggett Airport, approximately 21 miles east–southeast of the Project site, is from the west at approximately 11.3 mph (CRWQCB 2013).

Topography can strongly influence fire behavior, including the speed at which a fire moves through an area. Fire typically travels uphill more quickly than downhill or across flat terrain (Bennett et al. 2010). The Hinkley Compressor Station site sits at an elevation of approximately 2100 feet above sea level, and the topography is relatively flat (PG&E 2025b). The Mojave River is approximately 1 mile south of the Project site and sits at a similar elevation to the Hinkley Compressor Station.

The area surrounding the Hinkley Compressor Station is primarily farmland and sparsely vegetated open space, with scattered rural residences. The nearest residences are approximately 1,455 and 1,600 feet from the Project site (PG&E 2025b).

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CALFIRE has evaluated communities at risk from potential wildfire based on high fuel hazard, fire probability, and proximity of intermingled wildland fuels and urban environments. The San Bernardino Countywide Plan Draft Safety Background Report (San Bernardino County 2018) summarizes values at risk from fire hazards, and the communities of Barstow and Hinkley are not included in the list of communities at risk from wildfire.

3.20.2 Regulatory Setting

Federal

Uniform Building Code and Uniform Fire Code

The Uniform Building Code and the Uniform Fire Code provide codes for fire protection at the federal level. To minimize potential fire risk and damage to structures, the Uniform Building Code provides requirements to which building construction, materials, and other elements or construction practices must adhere. The Uniform Fire Code provides design measures for installation of fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards and safety measures, hazardous material storage and use, and other general and specialized requirements pertaining to fire safety and prevention.

Federal Wildland Fire Management Policy

The Federal Wildland Fire Management Policy was developed in 1995 and updated in 2001 by the National Wildfire Coordinating Group, which establishes consistent and coordinated fire management policy across multiple federal jurisdictions. An important component of the Federal Wildland Fire Management Policy is the acknowledgment of the essential role of fire in maintaining natural ecosystems. The policy and its implementation include the following guiding principles: risk management is a foundation for all fire management activities; fire management plans and activities are based on the best available science; and standardization of policies and procedures among federal agencies is an ongoing objective.

National Fire Plan

Managing the Impacts of Wildfire on Communities and the Environment: A Report to the President in Response to the Wildfires of 2000 (National Fire Plan) is a comprehensive, long-term strategy to reduce fire impacts on rural communities and assure sufficient firefighting capacity in the future. The National Fire Plan is organized into major topic areas including firefighting preparedness and capacity, rehabilitation, and restoration to restore landscapes and protect communities from post-fire damage, hazardous fuels reduction, forest health management, rural and community assistance, accountability, and research and development (U.S. Department of the Interior (DOI) and USDA Forest Service 2000).

State

California Department of Forestry and Fire Protection

Pursuant to Sections 4201 to 4204 of the PRC and Sections 51175 to 51189 of the Government Code, CALFIRE created FHSZ maps for the state that identify areas for preventing or suppressing fires that are within SRAs or LRAs. These maps identify areas of significant fire

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hazards based on fuels, terrain, weather, and other relevant factors. The FHSZ zones define the application of various mitigation strategies to reduce risks associated with wildland fires. The financial responsibility of preventing and suppressing fires in SRAs has been determined to be primarily to be the State's (PRC Section 4201), and the financial responsibility of preventing and suppressing fires in LRAs is primarily to be local agencies, including cities and counties (Government Code Sections 51175–51189).

Within SRAs, the Director of CALFIRE has designated areas as moderate, high, and very high fire hazard severity zones (PRC Section 4202.) Within LRAs, the Director of CALFIRE was charged with recommending the locations of very high FHSZs (Government Code Section 51178.) These recommendations were to be reviewed and adopted in ordinances by local agencies (Government Code Section 51179), although not all local agencies have complied.

Fire Prevention and Firefighting Equipment

Sections 4427, 4428, and 4431 of the PRC stipulate requisite firefighting equipment and flammable material clearance distances for activities that may create a spark, fire, or flame when burn permits are required, and where the activity is on or near any forest-covered land, brush-covered land, or grass-covered land, or within 25 feet of any flammable material.

California Fire Code

The CFC is contained under Title 24, Chapter 9 of the CCR (and also is referred to as the California Building Standards Code). The purpose of the CFC is to establish the minimum requirements consistent with nationally recognized good practices, to safeguard the public health, safety, and general welfare from the hazards of fire, explosions, or dangerous conditions in new and existing buildings structures and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. This code establishes regulations affecting or related to buildings, structures, processes, premises, and a reasonable degree of life and property safeguards regarding fire hazards, fire suppression, or alarm systems, and conditions affecting the safety of emergency responders.

Strategic Fire Plan for California

The CALFIRE Strategic Plan 2024 is the State's roadmap for reducing the risk of wildfire, and it focuses on fire prevention and suppression activities to protect lives, property, ecosystem services, and natural resource management. The CALFIRE Strategic Plan's vision is for a natural environment that is more fire resilient; buildings and infrastructure that are more fire resistant; and a society that is more aware of and responsive to the benefits and threats of wildland fire—all achieved through local, State, federal, tribal, and private partnerships (CALFIRE 2024).

Local

San Bernardino County Ordinance 4489

On June 10, 2025, the San Bernardino County Board of Supervisors, acting as the governing body of the San Bernardino County Fire Protection District, adopted Ordinance No. 4489 designating the FHSZs in the LRAs of the San Bernardino County Fire Protection District, in

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accordance with Sections 51178, 51179, and 51177(e) of the Government Code, which was introduced on May 20, 2025, Item No. 109 (San Bernardino County Fire Protection District 2025).

San Bernardino County Multi-Jurisdictional Hazard Mitigation Plan

San Bernadino County adopted its Multi-Jurisdictional Hazard Mitigation Plan (San Bernardino County 2022a) in December 2022. This plan presents updated information regarding hazards being faced by the County, the San Bernardino County Fire Protection District, the San Bernardino County Flood Control District, and Board-governed Special Districts administered by the San Bernardino County Special Districts Department. It is a “living document” that is to be reviewed, monitored, and updated every 5 years, to reflect changing conditions and new information. The goal of the plan is to reduce or eliminate long-term risks to people and property from natural and human-made hazards, including flooding, wildfire, and earthquakes. It includes a risk assessment to identify and analyze potential hazards; mitigation strategies to reduce the effects of hazards; and an implementation approach to carry out and maintain mitigation strategies (San Bernardino County 2022a).

San Bernardino Countywide Plan Hazards Element

The Hazard Element of the San Bernardino Countywide Plan (San Bernardino County 2022b) includes the following policies to address risk from hazards, including wildland fires:

Policy HZ-1.14, Long-term fire hazard reduction and abatement: This policy requires proactive vegetation management/hazard abatement to reduce fire hazards on existing private properties, along roadsides of evacuation routes out of wildfire prone areas, and other private/public land where applicable.

Policy HZ-1.15, Evacuation route adequacy: This policy calls for coordination with CALFIRE, California’s Office of Emergency Services, and other local fire districts to identify strategies to ensure the maintenance and reliability of evacuation routes potentially compromised by wildfire, including emergency evacuation and supply transportation routes.

PG&E Wildfire Mitigation Plan

PG&E developed a Wildfire Mitigation Plan, designed to reduce wildfire ignition potential, enhance wildfire situational awareness, and reduce impacts of public safety power shutoff (PSPS) events. An annual implementation report and an annual plan update are submitted to the CPUC. The 2026–2028 Wildfire Mitigation Plan (revision 0) continues many of the actions undertaken in previous plans. It includes a comprehensive strategy to reduce ignitions and reduce the likelihood of catastrophic wildfire while maintaining electrical systems and limiting disruptions to customers (PG&E 2025a).

PG&E implements its plan through standards and requirements that are communicated internally to employees and its suppliers, contractors, and third-party employees to follow when traveling to, performing work at, or operating outdoors on any forest, brush, or grass-covered land. PG&E’s wildfire prevention contract requirements are based on its utility standard, Preventing and Mitigating Fires while Performing PG&E Work (PG&E 2024b), which

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complies with Sections 4427, 4428 and 4431 of the PRC. PG&E's current wildfire prevention standards and requirements may be superseded in the future, following revisions to published standards and requirements.

3.20.3 Applicant Proposed Measures

PG&E has proposed APMs for reducing environmental effects. The APMs are listed in Table 2.6-9 of the Project Description and are considered part of the Project for the analysis. PG&E has not proposed any APMs that would be applicable to wildfire.

3.20.4 Environmental Impacts

Methodology and Assumptions

The analysis of wildfire evaluated whether the Project site is in or near an SRA or very high fire hazard severity zone. If it is within an SRA or very high fire hazard severity zone, the potential for the Project to impair emergency plans, exacerbate fire risks, or cause impacts on the environment is to be assessed. For activities that are not in or near an SRA or very high fire hazard severity zone, no impact would occur as the underlying conditions for analysis would not exist.

Direct and Indirect Effects

a) Would the Project impact an adopted emergency response plan or emergency evacuation plan?

The Project site is not within or near an SRA or areas classified as being in a very high FHSZ. Project construction would occur within the existing station and would not require closure of any roads or lanes, nor would it impair or interfere with an adopted emergency response plan or evacuation plan. No impact would occur.

b) Because of slope, prevailing winds, and other factors, would the Project exacerbate wildfire risks and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The Project site is not within or near an SRA or areas classified as very high FHSZ. The Project area by the existing Hinkley Compressor Station generally is flat and unvegetated/developed; vegetation is sparse and is in an area with relatively low wildfire risk. Therefore, the Project would not exacerbate wildfire risks and thereby expose Project occupants to pollutant concentrations from wildfire or the uncontrolled spread of wildfire. No impact would occur.

c) Would the Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The Project site is not within or near an SRA or areas classified as very high FHSZ. Project construction and staging would occur within the Hinkley Compressor Station and would use existing infrastructure, such as roads and fire hydrants. Electric power would be supplied by temporary generators on site, which would be removed on completion of construction. The Project would include improvements to the existing electrical facility components and would

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not require the installation or maintenance of infrastructure that may exacerbate fire risk. No impact would occur.

d) Would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, because of runoff, post-fire slope instability, or drainage changes?

The Project site is not within or near an SRA or areas classified as very high FHSZ. The Project area is generally flat and unvegetated; vegetation is sparse and is in an area with relatively low wildfire risk. Therefore, the Project would not expose people or structures to significant risk, including downslope or downstream flooding on lands from runoff, post-fire slope instability, or drainage changes. No impact would occur.

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3.21 Mandatory Findings of Significance

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

3.21.1 Impact Discussion

- a) **Would the proposed 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?**

Fish and Wildlife Habitats

As discussed in Section 3.4, Biological Resources, the Project site is developed or disturbed and does not contain aquatic habitats, wetlands, riparian habitat, or wildlife movement corridors, nor does the Project site contain any sensitive natural communities. Construction would be conducted within the existing Hinkley Compressor Station and would have no impact to fish and wildlife habitats.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

Fish and Wildlife Populations

The proposed upgrades to the existing Hinkley Compressor Station would occur in upland areas. There are no streams within or adjacent to the Project area that support fish, therefore the Project would have no impact on fish populations. Construction equipment and equipment access may cause mortality or injury of individual wildlife if wildlife occurs in the work or staging area during construction. The electrical upgrades would not occur in areas containing suitable habitats for wildlife; however, some suitable habitat (e.g., trees) and potentially ground squirrel burrows occur in the staging area. While it is unlikely for wildlife to occur within the Project area during construction, the impact on special status species populations would be significant if the project affected breeding for special status species or resulted in collapse of a burrow containing a special status species. APMs BIO-1 through BIO-4 would reduce impacts on wildlife populations by requiring pre-construction surveys, worker training, and avoidance of bird nests. While the APMs would reduce the impacts, the impact on wildlife populations would remain potentially significant as the APMs do not specify procedures for avoidance of special status species and the project could indirectly affect plant and wildlife populations through introduction of noxious invasive weeds. Mitigation Measure BIO-1 through BIO-4 defines procedures including no disturbance buffers to protect special status wildlife that may occur in the Project area and require that equipment enters the site free of weed seed. The impact on wildlife population levels, including special status wildlife, would be less than significant with mitigation.

Plant and Animal Communities

Impacts on plant and animal communities are discussed in Section 3.4: Biological Resources. Construction impacts would be isolated to the work and staging area within the existing Hinkley Compressor Station and would not eliminate an entire plant or animal community due to the small area of disturbance. The potential impacts on individual plants or animals would not eliminate or threaten to eliminate an entire plant or animal population or community. The impact would be less than significant.

Rare or Endangered Plants and Animal Numbers and Range

Range of Rare and Endangered Species

The Project is located within the range of rare and endangered species as discussed in Section 3.4: Biological Resources. The Project would not impact habitat for rare and endangered species as construction would be conducted within the existing Hinkley Compressor Station, and the Project would not create an additional barrier to species movement. The Project would have no additional impact on the range of any rare or endangered plant or animal species. The impact on the range of rare or endangered species would be less than significant.

Numbers of Rare and Endangered Plants

No rare or endangered plant species are known to occur within the Project area although some suitable habitat occurs in proximity to the Project site. Construction would be conducted within the existing Hinkley Compressor Station and would not directly impact any rare or endangered plants. However, construction equipment could introduce invasive weeds to the area through

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construction equipment, which could indirectly impact rare and endangered plants. To prevent indirect impacts from the spread of invasive plants to the surrounding area, Mitigation Measure BIO-4 requires cleaning construction equipment and vehicles prior to entering the Project site to prevent the spread of invasive plants. The impact on the range of rare or endangered species would be less than significant with mitigation.

Numbers of Rare or Endangered Wildlife

The Project has the potential to impact rare or endangered wildlife as discussed in Section 3.4:Biological Resources. Construction activities could injure or kill rare or endangered wildlife individuals if one were to occur in the Project area at the time of construction, resulting in a reduction in the number of rare or endangered wildlife species. Construction activities would also result in noise impacts, which could affect wildlife breeding behavior or cause nest abandonment and, therefore, cause a reduction in rare or endangered species numbers, which would be a significant impact. APM BIO-1 through BIO-4 would reduce impacts on rare or endangered wildlife through pre-construction surveys, buffers for nesting birds, and worker environmental awareness training; however, the APMs do not specify procedures to avoid all rare or endangered species that could occur in the Project area; therefore, the impact on rare or endangered wildlife would remain significant. Mitigation Measure BIO-1 through BIO-4 define procedures for avoidance of desert tortoise, Mohave ground squirrel, burrowing owl, and desert kit fox as well as avoiding introduction of invasive weeds. Potential impacts on rare and endangered wildlife species would be less than significant with mitigation.

California History or Prehistory

As discussed in Section 3.5:Cultural Resources, although there are no known archaeological resources within the Project's area, the Project could result in inadvertent discovery of buried archaeological resources including examples of the major periods of California history or prehistory during ground disturbing construction activities. Implementation of APM-CUL 1 and APM CUL-2 would reduce impacts on example of California history or prehistory by requiring worker training and defining avoidance buffers in the event of discovery of a resource; however, the potential to damage or destroy an example of major periods of California history or prehistory would remain as workers would not be inspecting excavations for cultural resources and the impact would be significant. Mitigation Measure CUL-1 requires an archaeologist and tribal monitor to monitor trenches and foundation excavations to avoid damage to example of major periods of California history or prehistory. The resulting impact would be less than significant with mitigation.

b) Would the proposed project have impacts that are individually limited, but cumulatively considerable?

Introduction

The CEQA Guidelines (section 15130) require a discussion of the cumulative impacts of a project. Cumulative impact analysis accounts for the combined impacts associated with two or more projects in a given area. The following cumulative analysis evaluates the potential

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cumulative impacts from the Project in combination with other past, present, and probable future projects in the area.

Approach to Cumulative Impact Analysis

CEQA Guidelines Section 15130(b) presents two approaches for analyzing cumulative impacts, using either:

- A list of past, present, and probable future projects producing related or cumulative impacts, including those projects outside the control of the agency; or
- A summary of projections contained in an adopted local, regional, or statewide plan, or related planning document that describes or evaluates conditions contributing to the cumulative effect.

A list approach is used in this IS/MND.

Area of Analysis

The analysis of potential cumulative impacts is generally limited to projects occurring within an approximately 10-mile-wide radius from the Project site. The analysis area represents the physical extent of the limits in which indirect impacts of the Project may occur. For these reasons, the approximately 10-mile buffer is an appropriate distance to determine the potential for other probable future projects to be cumulatively considerable.

Data Collection

Projects were identified through review of county and agency websites (Caltrans, CPUC, and County of San Bernardino), as well as reviewing the Governor’s Office of Planning & Research’s CEQAnet database of the State Clearinghouse (SCH).

Cumulative Projects List

Table 3.21-1 includes a list of present (i.e., under construction) and probable future projects considered in this cumulative analysis. The table lists the project name, project type, and a description of the project, its location and status. The locations of cumulative projects in relation to the Project are shown on Figure 3.21-1. Each project in Table 3.21-1 has an assigned number that is keyed to Figure 3.21-1.

Table 3.21-1 Cumulative Projects List

Number	Project Name/Project Type	Project Components	Location	Status
1	Brightline West High-Speed Rail	Construction of high-speed passenger rail service.	4.9 miles southeast	Active
2	Southern California Ivanpah-Control Project transmission line replacement	Demolition and replacement of some or all of Southern California Edison’s transmission lines between the Ivanpah and Control Substations.	0.4 mile south	Awaiting approval

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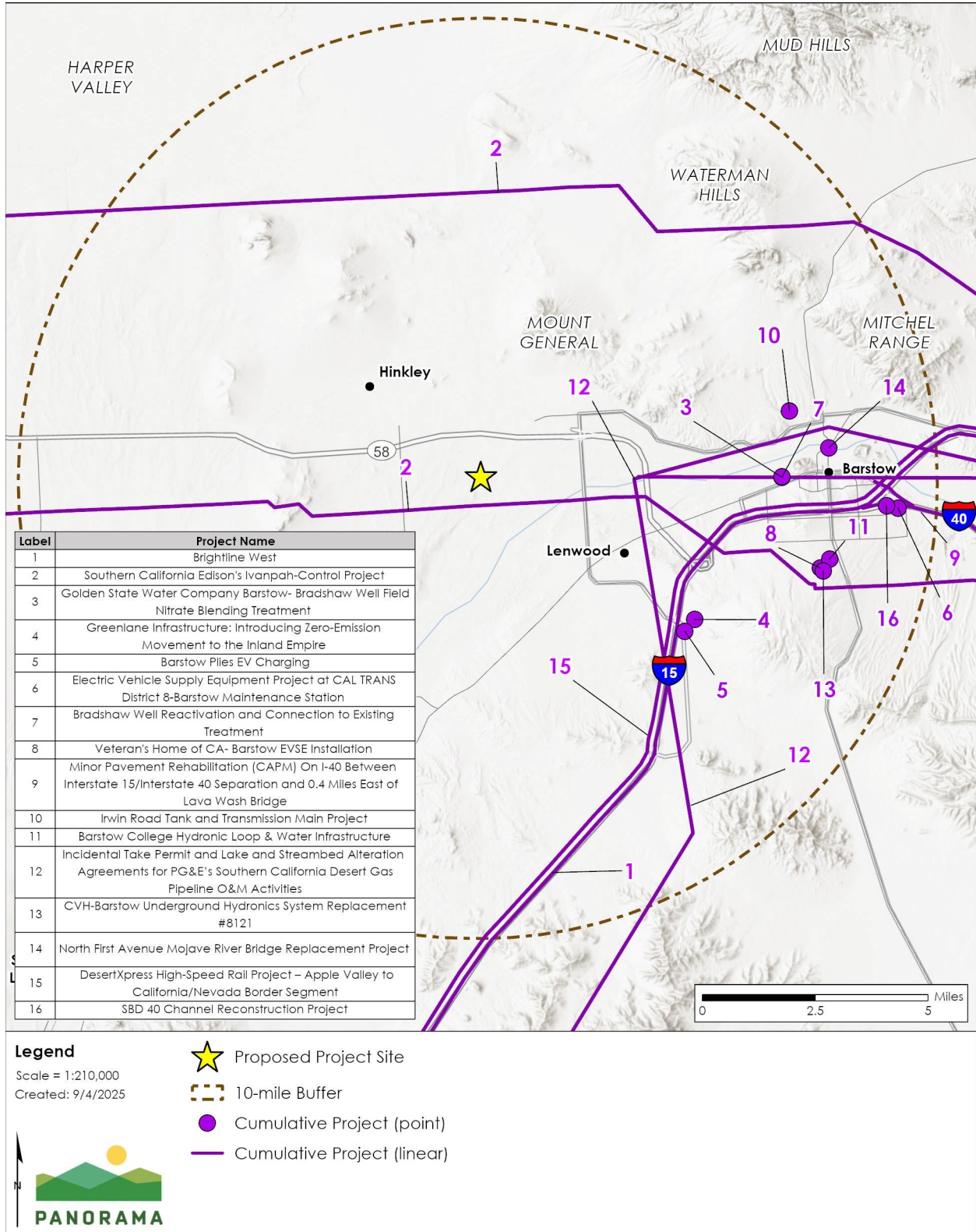
Number	Project Name/Project Type	Project Components	Location	Status
3	Golden State Water Company Barstow- Bradshaw Well Field Nitrate Blending Treatment	Operation of a nitrate blending plant at an existing well field and treatment site.	6.6 miles east	Active
4	Greenlane Infrastructure: Introducing Zero-Emission Movement to the Inland Empire	Installation of public charging infrastructure, three small facilities, and two parking lots.	5.5 miles southeast	Notice of Exemption (NOE) posted November 2024. Construction status unknown.
5	Barstow Plies EV Charging	Construction and operation of an EV charging site for electric semi-trucks.	5.5 miles southeast	NOE posted August 2024. Construction status unknown.
6	Electric Vehicle Supply Equipment Project at Caltrans District 8-Barstow Maintenance Station	Installation of electric vehicle supply equipment (EVSE) within Barstow Maintenance Station's fleet parking lot.	9.1 miles southeast	NOE posted July 2023. Construction status unknown.
7	Bradshaw Well Reactivation and Connection to Existing Treatment	Reactivation of existing wells for reconnection with existing nitrate treatment plant on-site.	6.6 miles east	NOE filed November 2022, construction status unknown.
8	Veteran's Home of CA-Barstow EVSE Installation	Installation of EVSE at staff parking spaces.	7.6 miles southeast	NOE filed July 2022. Construction status unknown.
9	Minor Pavement Rehabilitation (CAPM) On I-40 Between Interstate 15/Interstate 40 Separation and 0.4 Miles East of Lava Wash Bridge	Pavement rehabilitation work and additional upgrades.	8.4 miles southeast	Complete
10	Irwin Road Tank and Transmission Main Project	Construction and operation of a welded steel water reservoir and ductile iron water transmission pipeline.	6.9 miles northeast	Construction Complete

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Number	Project Name/Project Type	Project Components	Location	Status
11	Barstow College Hydronic Loop & Water Infrastructure	Replacement of existing domestic water system and hydronic loop chilled water system.	7.8 miles southeast	NOE posted April 2021. Construction schedule unknown.
12	Incidental Take Permit and Lake and Streambed Alteration Agreements for PG&E's Southern California Desert Gas Pipeline O&M Activities	Authorization of take and Lake and Streambed Alteration Agreements for PG&E's desert gas pipeline operation and maintenance activities.	3.3 miles east	Notice of Completion filed in August 2022. Project status unknown.
13	CVH-Barstow Underground Hydronics System Replacement	Removal and replacement of existing underground hydronic loop at the Barstow Veterans Home.	7.7 miles southeast	NOE posted in December 2020. Construction status unknown.
14	North First Avenue Mojave River Bridge Replacement Project	Replacement of two existing bridges along North First Avenue in Barstow.	7.6 miles northeast	Bridge Construction Complete; Demolition of old bridge underway
15	DesertXpress High-Speed Rail Project – Apple Valley to California/Nevada Border Segment	Execution of a right-of-way use agreement between Caltrans and XpressWest for a high-speed rail system.	4.9 miles southeast	NOE posted June 2020. Project status unknown.
16-	SBD 40 Channel Reconstruction Project	Conversion of a partially lined channel to a fully concrete lined channel to prevent further channel deterioration.	8.9 miles southeast	Completed

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Figure 3.21-1 Cumulative Projects within 10 Miles of the Project



3.21 MANDATORY FINDINGS OF SIGNIFICANCE

Cumulative Impacts

Introduction

The cumulative impact analysis for the Project is provided for each of the environmental resource topics analyzed in this IS/MND.

Resources not considered further because they would have no cumulative impacts include the following:

- **Agriculture and Forestry:** The Project would not conflict with zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production. The Project would not contribute to cumulative impacts on these resources.
- **Energy:** The Project would replace existing electrical distribution equipment and would not increase the use of energy. The energy utilized during the Project's construction would require short-term consumption of a limited amount of fossil fuel resources and would not contribute to cumulative impacts on energy use.
- **Land use and planning:** The Project would have no impact pertaining to the physical division of an established community, nor would it conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the Project would not cause or contribute to any cumulative impact related to Land Use and Planning.
- **Mineral resources:** The Project area is not located within a locally important mineral resource recovery site delineated on any local land use plans. Therefore, the Project would not cause or contribute to any cumulative impact related to mineral resources.
- **Public services:** The Project would have no impact associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools, parks, or other public facilities. Therefore, the Project would not cause or contribute to any cumulative impact related to these considerations.
- **Population and housing:** The Project would not result in an increase in population and, therefore, would not necessitate the construction of new housing. The Project would continue to serve the existing service area and would not service additional areas or provide additional energy.
- **Recreation:** The Project would have no impact associated with existing recreational facilities or facilitate the need for expanded recreational facilities. Therefore, the project would not cause or contribute to any cumulative impact related to these considerations.
- **Wildfire:** The Project is not within or near an SRA or areas classified as very high FHSZ. The Project site has very sparse vegetation, thus the fire risk is low. Therefore, the project would not cause or contribute to any cumulative impacts related to wildfires.

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Aesthetics

Geographic Extent

The geographic extent for the analysis of cumulative impacts to aesthetic resources includes both local and regional viewsheds. The local viewshed includes projects, activities, and landscapes visible within the same field of view as the Project. Regional cumulative effects occur when viewers perceive that the general visual quality or landscape character of a regional area is diminished by the proliferation of visible similar structures or construction effects even if the changes are not within the same field of view as existing or known future structures or facilities. The result is a perceived “industrialization” or “urbanization” of the existing landscape character. Cumulative aesthetic impacts would occur within 1 mile or less of the Project. Beyond 1 mile, structures become less distinct or not visible if they blend in sufficiently with background forms, colors, and textures. Additionally, beyond 1 mile it is likely that sightlines would become impaired or blocked by intervening terrain and vegetation.

Impacts Avoided by the Project

The Project would have no impact on scenic vistas and would not contribute to a cumulative impact on scenic vistas.

Potential Cumulative Impacts

As described in Section 3.1:Aesthetics, the impacts pertaining to aesthetics would occur during construction as the presence of equipment and materials would present temporary visual intrusions during construction and during operation when MCCs, which are 9.5 feet tall and approximately 2 feet taller than the existing MCCs. Although an increase in the height of certain compressor equipment would occur, the Project would be consistent with the scenic landscape of the existing compressor station. The only cumulative project that is potentially within the same viewshed as the Project is the Ivanpah-Control Project. The Ivanpah-Control Project would similarly replace existing electrical lines with new electrical lines that would be taller. Given the distance between the two projects and the fact that the Project’s MCC’s would not be noticeably different within the context of the Hinkley Compressor Station, the cumulative impact would be less than significant.

Air Quality

Geographic Extent

Air quality is a regional resource and is neither defined nor limited by jurisdictional boundaries, political boundaries, or project boundaries. The cumulative study area for air quality encompasses activities within the Mojave Desert Air Basin (MDAB) which is under the jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD). The Project would not conflict with or obstruct implementation of the applicable air quality plan or result in other emissions such as those leading to odors. Therefore, the Project would not cause or contribute to any cumulative impacts from conflicts with an air quality plan or emissions of odors.

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Potential Cumulative Impacts

Regional Air Quality

Regional air quality is affected by all activities that occur within an air basin. The MDAB is classified as nonattainment for state and national standard for ozone and PM₁₀. The Project area is within either an unclassified, nonattainment, or attainment area for all other State and federally regulated air pollutants. See Table 3.3-1 for the current attainment status of the study area. The cumulative impact from past, present, and probable future projects on existing air quality violations in the MDAB, and criteria pollutants for which they are in nonattainment, would be significant.

Cumulative impacts on regional air quality are addressed by the air districts thresholds of significance for criteria pollutant emissions in the respective air basins. MDAQMD considered all past, present, and probable future projects when they set air quality thresholds. The construction thresholds represent the levels at which a project's individual combustion emissions of criteria air pollutants and precursors would result in a cumulatively considerable contribution to the existing nonattainment designations. If a project's emissions exceed the numerical thresholds in their respective air basins, or if the project generates uncontrolled fugitive dust, the project would considerably contribute to the cumulatively significant air quality impact in the MDAB. Emissions generated during construction activities of the Project would not exceed the MDAQMD significance thresholds for criteria air pollutants with controlled emissions (refer to Section 3.3: Air Quality Impact b)). Emissions of criteria pollutants would not exceed MDAQMD numeric thresholds, and the Project would not contribute considerably to a significant impact from generation of criteria air pollutants. In addition,

PG&E would implement APM AIR-1 to reduce fugitive dust generated by the project. The Project would thus not contribute considerably to a significant cumulative air quality impact.

Local Air Quality

Carbon monoxide hotspots, fugitive dust emissions, or diesel emissions have the potential to result in localized impacts due to the toxic air contaminants (TACs) capable of causing short-term and long-term adverse human health effects. Diesel and equipment exhaust would be emitted from heavy equipment and vehicles operating at the Project site and the Project's ground disturbing activities would generate fugitive dust. Health effects from TACs are typically framed in terms of incremental cancer risk.

Construction vehicles and equipment used during construction of the cumulative projects would generate localized diesel and fugitive dust emissions. Adjacent cumulative projects could affect the same sensitive receptors (sensitive receptors within 1,000 feet of cumulative project) if the construction occurs at the same time. None of the cumulative projects are located within 1,000 feet of the Project. As a result, construction of the Project and cumulative projects would not involve activities within 1,000 feet of receptors and the cumulative impact on sensitive receptors from air toxins would be less than significant.

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Biological Resources

Geographic Extent

The geographic extent for the biological resources cumulative analysis includes vegetation and wildlife communities and special status species habitats within 5 miles of the Project area. This geographic extent is appropriate because it accounts for the cumulative degradation or loss of a particular vegetation community or special status species population from cumulative projects that have impacted, or would impact, vegetation communities of concern or special status species and that could result in cumulative habitat degradation or fragmentation.

Impacts Avoided by the Project

The Project would not impact special status fish, riparian areas or sensitive natural communities, wetlands, interfere with the movement of migratory fish or wildlife species, conflict with any local policies or ordinances protecting biological resources, or with any habitat conservation plan or natural community conservation plan. The Project would not contribute to cumulative impacts on these resources.

Potential Cumulative Impacts

Many of the cumulative projects listed in Table 3.21-1 are in developed areas that do not provide suitable habitat for and would not impact special-status plants, amphibians, reptiles, or mammals. The Southern California Edison's (SCE) Ivanpah Control Project, Desert Xpress, and PG&E's Desert Gas Pipeline HCP are the only cumulative projects located within 5 miles of the Project area that could impact similar special status species to the Project. The cumulative impacts on desert tortoise, Mohave ground squirrel, burrowing owl, and migratory birds could be significant. The Project construction could disturb special-status bird nesting behavior or result in impacts on dens or nests of special status species in a burrow in or near a staging area. The Project contribution to the cumulative impact would thus be significant. APMs BIO-1 and BIO-4 define avoidance procedures for nesting birds and Mitigation Measure BIO-1 through BIO-4 define procedures for avoidance of other special status species and avoidance of introduction of noxious invasive weeds. The Project contribution to a cumulative impact on special status species would be less than significant with mitigation.

Cultural Resources

Geographic Extent

The geographic extent for the cultural resources cumulative analysis includes a 10-mile area surrounding the Project. This geographic scope is appropriate because cultural resources are usually associated with both a particular tribe or historic settlement and a particular time period. The Project is not located in a historic or archaeological district.

Potential Cumulative Impacts

The loss of several resources from a particular tribe or representing one particular time could result in significant impacts to the information that those resources possess. If any of the cumulative projects could each impact resources with similar information about a particular tribe or timeframe, a cumulatively significant impact could occur. All the cumulative projects

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listed in Table 3.21-1 have the potential to impact cultural resources that are of a similar nature to the Project. The cumulative impact on cultural resources would be significant and the Project would contribute considerably to that impact due to trenching and foundation excavation activities, which could damage or destroy cultural resources.

APM CUL-1, APM CUL-2 and APM CUL-3 require procedures to train workers, procedures to address unanticipated cultural resource discovery, as well as procedures to follow upon discovery of human remains. While the APMs would reduce impact on cultural resources trenching and excavation activities could still contribute considerably to the cumulative impact as workers may not be aware of the resources within the excavation area. Mitigation Measure CUL-1 requires an archaeologist and tribal monitor to inspect trenching and excavation activities to avoid cultural resources. With implementation of Mitigation Measure CUL-1, the Project's contribution to cumulative impacts historic and archaeological resources would be less than significant.

Geology, Soils and Paleontological Resources

Geographic Extent

The geographic extent for the analysis of cumulative impacts associated with geology, soils, and paleontological resources includes projects within 0.5 miles of the Project site because nearby projects could contribute to slope instability or geologic hazards.

The geographic extent for cumulative paleontological impacts includes geological units surrounding the Project site with the potential for high paleontological sensitivity. This geographic extent is appropriate because these geologic units could contain similar paleontological resources that would contain the same research potential as resources found within the Project study area.

Impacts Avoided by the Project

The Project would not be located on expansive soils or require the use of septic tanks or alternative wastewater disposal systems. The Project would not contribute to cumulative impacts on these resources.

Potential Cumulative Impacts

Active faults are in the Project site. The risk of seismic hazards to the public would be localized and would not combine cumulatively. Thus, no cumulative impact from seismicity would occur.

All cumulative projects that exceed 1 acre in ground disturbance and the Project would be required to obtain coverage under the California Stormwater General Permit and prepare a SWPPP. Due to Project and cumulative project compliance with the California Stormwater General Permit requirements, the cumulative impact on soil loss would be less than significant.

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Due to the flat terrain at the Project site and in the cumulative project area, destabilization of soils or geologic units is unlikely and would not create a cumulative impact. No cumulative impact from geologic instability would occur.

The geologic units underlying the Project area have a high potential to contain significant paleontological resources. Some of the cumulative projects listed in Table 3.21-1 are located in areas adjacent to the Project site and would have similar high or very high paleontological sensitivity. Ground-disturbing activities for the Project and cumulative projects could result in cumulative significant impacts on paleontological resources. PG&E has proposed APMs PAL-1, PAL-2, PAL-3, and PAL-4 to reduce impacts on paleontological resources. APM PAL-1 would require a Paleontological Principal Investigator to be retained to ensure all APMs related to paleontological resources are adhered to. APM PAL-2 requires Worker Environmental Awareness Training focusing on paleontological resources that require all construction personnel to be trained regarding the recognition of possible buried paleontological resources (i.e., fossils) and protection of all paleontological resources during construction. APM PAL-3 would require paleontological monitoring to be conducted by a qualified paleontologist familiar with the types of resources that could occur within the Project area during ground disturbing activities. APM PAL-4 provides guidance for unanticipated discovery of paleontological resources. With implementation of these APMs the Project's contribution to a cumulative impact on paleontological resources would be less than considerable.

Greenhouse Gas Emissions

Geographic Extent

Greenhouse gases (GHGs) are global pollutants and have long atmospheric lifetimes of 1 year to several thousand years, which permits dispersal of GHGs around the globe. In contrast to air quality, which generally is a regional or local concern, human-caused emissions of GHGs have been linked to climate change on a global scale. The geographic extent for the GHG emissions cumulative analysis is therefore considered global.

Potential Cumulative Impacts

GHG emissions and climate change are inherently cumulative impacts. Past, present, and probable future projects worldwide contribute or would contribute to the cumulative conditions for GHG emissions. The cumulative impact of GHG emissions and climate change is significant.

Cumulative impacts from GHG emissions are addressed by MDAQMD, which is the air districts in which the Project and cumulative projects are located. MDAQMD thresholds of significance per year represent the levels at which a project's individual emissions of criteria air pollutants and precursors would result in a cumulatively considerable contribution to GHGs.

The use of heavy equipment, and construction-related vehicles during construction of the Project would generate GHG emissions. Once constructed, the project would not result in new criteria air pollutant emissions during operation. GHG emissions generated by construction and

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operation of the Project would not exceed the MDAQMD GHG emissions threshold. The Project's contribution to GHG emissions would thus be less than cumulatively considerable.

Hazards and Hazardous Materials

Geographic Extent

The geographic extent for the analysis of cumulative impacts associated with hazards and hazardous materials is the area within approximately 0.25 mile of the Project. This geographic extent is appropriate given the small volume of hazardous materials that would be used for construction of the Project and the potential hazardous material to be transported during upset or accident conditions.

Potential Cumulative Impacts

There are no projects listed within 0.25 miles of the Project.

Routine Transport, Use, and Disposal of Hazardous Materials and Accidental Releases

Construction and operation of the Project and cumulative projects would use equipment and vehicles that could leak hazardous materials including gasoline and diesel fuel, engine oil, coolant, lubricants, solvents and grease. Hazardous materials, particularly fuel, may be transported to and from Project sites, which would increase the risk of accident and release. The hazard to the public from fuel leaks from the cumulative projects would be highly localized due to the small amount of hazardous materials that typical construction activities would use and would not overlap or compound. The Project would implement APM HAZ-1 which would include the development and implementation of hazardous material and emergency response procedures. In addition, APM HAZ-2 would ensure that materials would be available at the Project site to properly contain and address the spill of hazardous materials. APM HAZ-3 would require workers on the Project to be trained in hazard prevention during WEAP training. Because the Project would implement APM HAZ-1, APM HAZ-2, and APM HAZ-3, the cumulative impact from routine use of hazardous materials would be less than significant.

Hazardous Materials Sites

A review of hazardous material investigation and cleanup site databases provided information regarding hazardous material sites is Section 3.9: Hazards and Hazardous Materials. The cumulative projects would not disturb a hazardous materials site within 0.25 mile of the Project. No cumulative impact from accidental releases of hazardous materials from a known hazardous site would occur.

Air Traffic Hazards

Construction of the cumulative projects would not increase air traffic in the region. No cumulative impact would occur.

Hydrology and Water Quality

Geographic Extent

The geographic extent for this cumulative analysis is defined as the watershed where the Project site is located, the Hinkley Valley Watershed. This watershed represents both the hydrologic

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and administrative units for water quality control and protection of beneficial uses for water resources in the Project area.

Impacts Avoided by the Project

The Project would not construct houses or structures within a 100-year flood hazard area. The Project would not contribute to cumulative impacts from flooding on housing or structures.

Potential Cumulative Impacts

Only the SCE Edison's Ivanpah-Control Project is located within the Hinkley Valley watershed.

Water Quality Standards, Waste Discharge Requirements, Erosion, and Polluted Runoff

The Project would involve ground-disturbing activities that could increase erosion and siltation. Ground-disturbing activities required to construct cumulative projects could result in soil erosion and sediment deposition into local water features. In addition, construction and operation of the Project and cumulative projects would require the use of hazardous materials such as diesel fuel and gasoline. Spilled materials and sedimentation from earth-moving activities could potentially be transported to waterways and adversely impact water quality in the watersheds. Due to compliance with State laws for protection of water quality including requirements for preparation of a HMBP and HMMP as well as compliance with the Construction Stormwater General Permit, the cumulative impact from spills of hazardous materials or sedimentation would be less than significant.

Groundwater

The Project would have a negligible increase in impervious areas and would not contribute considerably to any cumulative impact on groundwater recharge.

The Project is in an adjudicated basin where groundwater supplies are limited, and cumulative projects would have a cumulative impact on groundwater supplies. Construction of the Project would require water for dust control and compaction. The Project would not require long-term water use and would not contribute to long-term impacts on groundwater resources. The Project would not contribute considerably to a significant cumulative impact on groundwater supplies.

Drainage Pattern Alterations

The Project would not alter drainage patterns of the area and thus would not contribute to cumulative impacts on drainage patterns.

Noise

Geographic Extent

The geographic extent for the analysis of cumulative impacts associated with noise is limited to areas within 0.5 mile of the Project site. This geographic extent is appropriate because noise levels attenuate rapidly with distance, and the noise generated by activities greater than 0.5 mile from the Project would not have the potential to combine with the noise generated by Project construction. Cumulative projects located within 0.5 mile of the Project include the SCE

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Edison's Ivanpah-Control Project. The Project would contribute to a cumulative noise impact along with this project only if their construction schedules coincide or overlap. Due to the localized nature of vibration, no cumulative projects would generate vibration that could combine with the Project. The cumulative impact on vibration would be less than significant.

Impacts Avoided by the Project

The Project would not generate noise that would be located within an airport land use plan or within 2 miles of a private airstrip. The Project would not contribute to cumulative impacts from conflict with noise standards or proximity to an airport.

Ambient Noise

Construction activities and equipment use associated with construction of the cumulative projects have the potential to generate substantial noise. The noise from construction of the cumulative projects could temporarily increase ambient noise levels. At this time, the construction schedules for the nearby cumulative projects are not known. However, with the distance of the projects in relation to the Project site and the short-term noise increases from the Project, noise generated from these projects would not combine to cause a cumulative noise impact because of the distances between the project sites. The cumulative impact on noise-sensitive receptors from temporary or periodic noise increases would be less than significant.

Transportation and Traffic

Geographic Extent

The geographic extent for the transportation and traffic cumulative analysis includes the local and regional roadways and highways adjacent to the Project or utilized for transportation of Project materials. The extent of the analysis specifically includes all projects within 5 miles of the Project alignment because these projects are expected to use the same roads for access. In general, the Project's transportation and traffic impacts, such as increased traffic volume, would be minimal.

Impacts Avoided by the Project

All work would be conducted within the fenced Hinkley Compressor Station facility. Construction and operation of the Project would not affect emergency access, public transit, or bicycle or pedestrian facilities. The Project would not contribute to any cumulative impacts on emergency access, public transit, or bicycle or pedestrian facilities.

Potential Cumulative Impacts

The Project and cumulative projects listed in Table 3.21-1 that involve construction vehicle trips or add permanent vehicle traffic to roadways would contribute to the cumulative scenario for traffic. Currently, the construction schedules for cumulative projects are not known.

Conflicts with Traffic Standards

Construction worker vehicles and haul trucks used during construction of the cumulative projects would use highways and local roadways to access work sites. Most of the cumulative projects are located near Barstow, and many may use the same highways as the Project for

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

access or transportation of materials. However, at this time, the construction schedule for the cumulative projects is not known. The cumulative projects have the potential to generate traffic that would conflict with the standards for operation of the transportation system. The project would require a maximum of 18 workers per day. Given the low volume of traffic generated by the Project and all work would occur within the fenced compressor station, the Project would not contribute considerably to a cumulative impact on the transportation system.

Air Traffic Patterns

The cumulative projects would not generate air traffic that could affect air traffic patterns. No cumulative impact on air traffic would occur.

Traffic Hazards

Construction of the cumulative projects would increase truck traffic to and from work sites and could require temporary lane closures. Cumulative projects may use the same highways as the Project, such as I-15. The cumulative project construction could overlap with the Project and create a significant impact from increased traffic hazards due to slow truck turning and stopping. The Project would require approximately 1 truck delivery per day and would not contribute considerably to the cumulative traffic hazard.

Utilities and Service Systems

Geographic Extent

The geographic extent for the analysis of cumulative impacts associated with utilities and public services is the service area of the cities and counties near the Project, including unincorporated San Bernardino County and Barstow.

Impacts Avoided by the Project

Construction of the Project would not exceed wastewater treatment requirements; require or result in the construction of new or expanded water or wastewater facilities; require or result in the construction of new or expanded storm water drainage facilities; or conflict with federal, State, or local statutes and regulations related to solid waste. The Project would not contribute to cumulative impacts on these resources.

Potential Cumulative Impacts

Water Supplies and Facilities

Construction of the cumulative projects would require varying quantities of water for dust control.

The Project would use water obtained from existing PG&E wells that already supply the Hinkley Compressor Station. The Project's short-term demand for water would be minimal compared to overall water demand for San Bernardino, and the Project would use water from existing PG&E wells. The Project would not use water from a source that any of the cumulative projects would utilize. Additionally, the comparatively small quantity of water required during construction of the Project would not significantly impact existing water supplies. The cumulative impact on water supplies and facilities would be less than significant.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

Landfills

The landfills that serve the Project and cumulative projects have approximately 229 million cubic yards of capacity. The Project would generate approximately 35 tons of solid waste. The cumulative projects would not result in waste generation in excess of the available landfill capacity. The cumulative impact on landfill capacity would be less than significant.

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

The following sections of this IS/MND discuss various types of impacts that could have potentially adverse effects on human beings:

- Dust and air pollutants emitted during Project construction activities (refer to Section 3.3:Air Quality)
- Potential increase in GHG emissions during Project construction activities (refer to Section 3.8:Greenhouse Gas Emissions)
- Potential release of gasoline, diesel fuel, oil, and lubricants associated with construction equipment and other vehicles and shock hazards (refer to Section 3.9:Hazards and Hazardous Materials)
- Noise generated by Project construction (refer to Section 3.13:Noise and Vibration)

The potential impacts on human beings are all temporary impacts that could occur during Project construction activities. Each type of impact with the potential to cause substantial adverse effects on human beings has been evaluated. The potential health impact from air pollutants generated during construction would be less than significant. The hazard to the public from increased risk of the release of hazardous materials would be less than significant with implementation of APM HAZ-1 and APM HAZ-2. APM HAZ-3 would inform workers of potential shock hazards. The effect from temporary noise increases on sensitive receptors would be less than significant with implementation of APM NOI-1, APM NOI-2, APM NOI-3, APM NOI-4, APM NOI-5, and APM NOI-6.

The potential impact on human beings would thus be less than significant.

3.21.2 References

SCE. 2019. "Southern California Edison's CE Ivanpah-Control Project: Home." Application A. 19-07-015. <https://ia.cpuc.ca.gov/environment/info/aspen/ivanpah-control/ivanpah-control.htm>.

4 Report Preparation Personnel

4.1 List of Preparers

4.1.1 Lead and Participating Agencies

This section lists the individuals who either prepared or participated in the preparation of this IS/MND. The CPUC is serving as the CEQA Lead Agency for preparation of this IS/MND.

California Public Utilities Commission

John Forsythe, Project Manager at the CPUC, directed the preparation of this document.

Consultant Team

This IS/MND was prepared by Panorama Environmental, Inc., of San Francisco, California, under the direction of the CPUC. Table 4.1-1 identifies staff that contributed to this document.

Table 4.1-1 Consultant Team

Contributor	Title	Role/Resource Section
Susanne Heim	Project Director	Project oversight; Quality Control/Document Review
Colleen Lavery	Project Manager	Project management; Quality Control/Document Review; Project Description; Cultural Resources; Tribal Cultural Resources
Brandon Carroll	Environmental Planner III	Geology and Soils, Hazards and Hazardous Materials, and Mineral Resources
Nicole Higgins	Environmental Planner II	Biological Resources, Wildfire, Land Use, Recreation
Abby Matanis	Environmental Planner II	Agriculture and Forestry, Noise, Transportation, Public Services, Utilities and Service Systems, Land Use, Wildfire, Recreation
Brent Rosenthal	Environmental Planner II	Project Description, Noise, Transportation

4-REPORT PREPARATION PERSONNEL

Contributor	Title	Role/Resource Section
Cassidy Cunningham	Environmental Planner I	Agriculture and Forestry, Aesthetics, Energy, Population and Housing, Public Services, Utilities and Service Systems; Mandatory Findings of Significance; AB52 Coordination
Beth Duffey	Technical Editor	Technical editing
Nayelli Guzman	GIS Analyst	GIS support

Subcontractor Authors

Table 4.1-2 identifies subconsultants that contributed to the preparation of the document.

Table 4.1-2 Subcontractor Teams

Contributor	Firm	Resource section
Patrick Sutton	Baseline Environmental Consulting, California	Air Quality, Greenhouse Gas Emissions, Noise
Yilin Tian	Baseline Environmental Consulting, California	Air Quality, Greenhouse Gas Emissions, Noise

5 Mitigation Monitoring and Reporting Plan

The purpose of this Mitigation Monitoring and Reporting Plan (MMRP) is to ensure effective implementation of each mitigation measure identified in this IS/MND and imposed by the CPUC as part of project approval. As the CEQA Lead Agency, the CPUC would be responsible for ensuring monitoring and reporting on required mitigation if the Proposed Project is approved. PG&E, as the Applicant and project proponent, would be responsible for implementing all applicable measures, including the adopted mitigation measures, conditions of project approval, and conditions imposed in any permits or regulations administered by other responsible agencies.

The MMRP is presented in Table 5.1-1. Table 5.1-1 is organized first by environmental topic and subsequently by mitigation measure. Table 5.1-1 includes:

- Mitigation measures that PG&E must implement as part of the Proposed Project
- Monitoring and reporting requirements
- Effectiveness criteria
- Timing and location of implementation for each measure

The CPUC will use this MMRP as the framework for a Mitigation Monitoring and Compliance Reporting Program (MMCRP) if the Proposed Project is approved. The MMCRP would be the basis for the CPUC's environmental monitoring and reporting activities throughout project construction, including during site rehabilitation and restoration after construction is completed. The MMCRP would detail how and when the mitigation measures would be implemented and would identify duties and responsibilities of the various parties, communication protocols to follow, and record management requirements. The MMCRP would be prepared and instituted prior to any notice to proceed (NTP) being issued or the initiation of any construction.

5.1 Authority for Mitigation Monitoring

5.1.1 California Public Utilities Commission

The California Public Utilities Code confers authority upon the CPUC to regulate the terms of service and the safety, practices, and equipment of utilities subject to its jurisdiction. It is CPUC practice, pursuant to its statutory responsibility, to protect the environment and to require that mitigation measures stipulated as conditions of approval be properly implemented, monitored, and reported on. This requirement is codified statewide as PRC section 21081.6, which requires a public agency to adopt a mitigation monitoring or reporting program when the agency approves a project that is subject to preparation of an IS/MND and where the IS/MND for the project identifies significant environmental effects. CEQA Guidelines section 15097 describes agency requirements for mitigation monitoring or reporting.

The CPUC would address its responsibilities under PRC section 21081.6 when it takes action on PG&E's application for a Permit to Construct. If the Commission approves the Proposed Project, it will also adopt an MMRP and include the mitigation measures as a condition of approval. The MMRP would be incorporated into the MMCRP.

The purpose of an MMCRP is to ensure that the measures adopted to mitigate or avoid significant impacts of a project are implemented and to report on their implementation. The CPUC views the MMCRP as a working guide to facilitate implementation of mitigation measures imposed by the approving agencies measures and any measures proposed by the project proponent and to provide for the monitoring, compliance, and reporting activities of the CPUC and its designated monitors.

5.2 Content and Organization of the MMCRP

If the Proposed Project is approved, the CPUC will compile the Final MMRP and include it in the Final MND, as adopted. Based on the MMRP, the MMCRP would be prepared and would serve as a self-contained guide for implementing the MMRP throughout project construction.

The Final MMCRP would contain a concise overview and description of the approved project, outline its physical locations and geographic limits, and, to the extent known, provide the project schedule. It would include all adopted mitigation measures and

5 MITIGATION MONITORING AND REPORTING PLAN

would specify the master reference document(s) that the monitors and PG&E would use in carrying out the MMRP (i.e., the Final MND, detailed working maps and plans, issued permits, etc.). The APMs to which PG&E has committed would be incorporated to the extent they have not been superseded by specific mitigation measures in the MND.

The MMCRP would include a list of the agencies having jurisdiction over various aspects of the project, and a description of where these respective jurisdictions occur. For example, the MMCRP would state which CDFW regional office has jurisdiction and provide contact information, including the designated representative's name, address, email, and telephone and fax numbers.

The MMCRP would also include definition of the manner in which PG&E's monitoring team would interact with the CPUC staff and consultants. In addition, the MMCRP would define PG&E's required submittals to the agencies and protocol for interactions among agency and PG&E team members.

The MMCRP would be structured as follows:

1. Introduction

- a. Authority and Purpose of the MMCRP
- b. Jurisdictional Agencies
- c. Project Description
- d. Organization of the MMCRP

2. Roles and Responsibilities

- a. Monitoring Responsibility
- b. Enforcement Responsibility
- c. Mitigation Compliance Responsibility
- d. Communications
- e. Dispute Resolution
- f. PG&E Roles
 - i. Identification of the qualified PG&E team members who would verify that all adopted measures and conditions have been successfully implemented.

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- ii. Organization of the PG&E team, including specifying duties, roles, and responsibilities.
 - iii. Identification of primary PG&E contacts for CPUC environmental monitoring staff liaison.
3. General Monitoring and Compliance Procedures
- a. Environmental Monitors
 - b. Construction Personnel
 - c. General Reporting Requirements
 - i. PG&E Compliance Levels for internal reporting
 - ii. PG&E Daily Incident Summary format and protocol
 - iii. PG&E Weekly Monitoring Report format and content
 - iv. PG&E Annual Monitoring Report format and content
 - d. Records Management and Public Access to Records
4. Mitigation Measure Tables

5.3 Roles and Responsibilities

Responsibility for implementing the adopted measures rests with PG&E unless otherwise specified in the measure.

As Lead Agency under CEQA, the CPUC is responsible for monitoring an approved project to ensure that required mitigation measures and APMs are implemented. The required MMRP would be implemented through the MMCRP. The purpose of the MMRP is to document that the mitigation measures required by the CPUC are implemented and that mitigated environmental impacts are reduced to the level identified in the MND.

The CPUC may delegate duties and responsibilities for monitoring to environmental monitors or consultants working on behalf of the CPUC. Additionally, some monitoring responsibilities may be assumed by responsible agencies where areas or resources under their jurisdiction are potentially affected or involved.

PG&E would deploy its own monitors for its own purposes to ensure implementation of its commitments and execution of its responsibilities. The number of PG&E construction monitors assigned to the Proposed Project would be determined by the

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utility and would depend on the number of concurrent construction activities underway, their locations, and the types of resources potentially affected. The CPUC would ensure that persons assigned monitoring duties by PG&E are qualified to undertake those duties.

When a mitigation measure requires that a study or plan be developed during the design or pre-construction phase of the project, PG&E must submit the final study or plan to CPUC for review and approval. Any study or plan that requires approval of the CPUC must allow at least 60 days for adequate review unless noted otherwise in the mitigation measure. Other agencies and jurisdictions with authority over aspects of the Proposed Project or particular resources may require additional review time. The CPUC environmental monitoring team would be responsible for confirming that appropriate agency reviews have occurred and required approvals were obtained by PG&E.

During the course of construction, circumstances may arise that require deviations from the Proposed Project as approved. The CPUC, along with their environmental monitors, would evaluate any proposed deviations from the approved project to ensure they are consistent with CEQA requirements. Depending on its nature, a requested deviation would be processed as a Minor Project Refinement (MPR) or be the subject of a Petition for Modification (PFM) submitted by the Applicant.

MPRs would be strictly limited to minor project changes that do not trigger additional permit requirements, do not increase the severity of an impact or create a new impact, and are within the geographic scope of the MND.

If a project change would create or have the potential to create a new significant impact, increase the severity of an impact, or occur outside the geographic area evaluated in the MND, PG&E would be required to submit a PFM. The CPUC would evaluate the PFM under CEQA, as appropriate, to determine what form of supplemental environmental review would be required.

5.3.1 Enforcement Responsibility

The CPUC would be responsible for monitoring implementation of the MMCRP and enforcing the procedures adopted. Generally, this would be done through the Environmental Monitors assigned by the permitting agencies. In addition, if the permitting agencies' Environmental Monitors note conditions or situations falling

within the purview of other agencies, they may notify the appropriate agencies or individuals about any problems and report these to the CPUC.

As the State's regulator of investor-owned utilities, CPUC has the authority to halt any construction, operation, or maintenance activity associated with the project if the activity is determined to be a deviation from the approved project or the adopted mitigation measures.

5.3.2 Compliance Responsibility

PG&E would be responsible for successfully implementing all the adopted mitigation measures in the MMCRP. The MMCRP would contain criteria that define whether mitigation is successful. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Additional mitigation success thresholds may be established through the review and approval of specific plans required under mitigation measures. Other requirements may be stipulated by another agency with applicable jurisdiction during that agency's permitting process. PG&E would inform CPUC and the Environmental Monitors in writing of any mitigation measures that are not or cannot be successfully implemented and provide alternative approaches for successful mitigation implementation. The CPUC, in coordination with their Environmental Monitors, would review the alternative approach to determine if it is adequate and whether an MPR or PFM would apply.

5.4 Dispute Resolution

It is expected that the Final MMCRP would greatly reduce or eliminate potential disputes. However, even with the best preparation, disputes may occur. In such an event, the following procedure would be observed:

- **Step 1.** Disputes and complaints (including those from the public) should be directed first to the CPUC Project Manager or designee, as appropriate, for resolution. The Project Manager or designee would attempt to resolve the dispute.

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- **Step 2.** Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address deviations from the approved project or adopted MMRP.

The following steps apply to the CPUC only:

- **Step 3.** If a dispute or complaint regarding the implementation or evaluation of the MMRP or the mitigation measures cannot be resolved informally or through enforcement or compliance action by the CPUC, any affected participant in the dispute or complaint may file a written “notice of dispute” with the CPUC’s Executive Director. This notice should be filed expeditiously in order to resolve the dispute in a timely manner, with copies concurrently served on other affected participants. Within 10 days of receipt, the Executive Director or designee(s) shall meet or confer with the filer and other affected participants for purposes of resolving the dispute. The Executive Director shall issue an Executive Resolution describing his/her decision and serve it on the filer and other affected participants.
- **Step 4.** If one or more of the affected parties is not satisfied with the decision as described in the Resolution, they may appeal it to the Commission via a procedure to be specified by the Commission.

Parties may also seek review by the Commission through existing procedures specified in the Commission’s Rules of Practice and Procedure for formal and expedited dispute resolution although a good faith effort should be made to use the foregoing procedure first.

5.5 General Monitoring Procedures

5.5.1 Environmental Monitoring

Many of the monitoring procedures would be conducted during the construction phase of the project. The CPUC and Environmental Monitors are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with PG&E. To oversee the monitoring procedures and to ensure success, the Environmental Monitors assigned must be on site during any construction activity for which mitigation

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is required. The Environmental Monitors are responsible for ensuring that all procedures specified in the MMCRP are followed.

5.5.2 Construction Personnel

A key element in the success of mitigation and mitigation monitoring is the full cooperation of construction personnel and supervisors. Successful implementation of many of the mitigation measures requires specific actions and behaviors on the part of the construction supervisors or crews. To ensure success, the following actions, detailed in specific mitigation measures included in the MMCRP, would be taken:

- Procedures to be followed by construction companies engaged to do the work would be written into their contracts with PG&E. Procedures to be followed by construction crews would be written into a separate agreement that all construction personnel would be asked to sign, denoting consent to the procedures.
- As specified by mitigation, a Safety and Environmental Awareness Program (SEAP) would be conducted to inform and train construction personnel regarding the requirements of the monitoring program (as detailed in the MMCRP). The CPUC Environmental Monitors would verify that each crew member receives the required training.
- A written summary of mitigation monitoring procedures would be provided to construction supervisors for all mitigation measures requiring their attention.

5.5.3 Reporting Procedures

Detailed weekly reports would be prepared and submitted by the CPUC environmental monitoring team. These would include detailed information on construction activities, compliance activities observed by the Environmental Monitors and others documented by PG&E, any issues and their resolution, and photographs of relevant activities and conditions.

PG&E is required to have its own monitors for particular resources, depending on project needs and activities. These monitors provide daily reports/surveys that are entered into PG&E's Field Record Environmental Database (FRED) system. It is assumed that FRED or a similar database would be employed on this project. CPUC

5 MITIGATION MONITORING AND REPORTING PLAN

Environmental Monitors would have access to the reports. Construction is not allowed to start in a particular area until the required pre-construction surveys and flagging/staking are completed per the MMCRP, the CPUC environmental monitor has validated compliance, and the CPUC has issued a Notice to Proceed.

PG&E is required to provide the CPUC with written weekly and annual reports of the project, which shall include progress of construction, resulting impacts, mitigation implemented, and all other noteworthy elements of the project.

5.5.4 Public Access to Records

The public is allowed access to records and reports used to track the monitoring program.

Monitoring records and reports would be made available for public inspection by the CPUC on request. The CPUC and PG&E would develop a filing and tracking system. For additional information on mitigation monitoring and reporting for the project, the Energy Division of the CPUC would maintain an Internet website, accessible at:

<https://ia.cpuc.ca.gov/environment/info/panoramaenv/Hinkley/index.html>

To facilitate the public's awareness, the CPUC would make weekly reports available on the website.

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Table 5.1-1 Mitigation Monitoring and Reporting Program

Applicant Proposed Measure (APM) / Mitigation Measure (MM)	Applicable Location	Requirements and Timing
AIR QUALITY		
APM AIR-1: Dust Control during Construction PG&E will control fugitive dust by using the following BMPs: • Water or cover all exposed surfaces with the potential to generate dust with coarse rock, to reduce the potential for airborne dust to leave the Project site. • Limit the simultaneous occurrence of more than two ground-disturbing construction phases on the same area at any one time. Phase activities to reduce the amount of disturbed surfaces at any one time. • Cover all haul trucks entering/leaving the site and trim their loads, as necessary. • Use wet power vacuum street sweepers to sweep all paved access roads, parking areas, staging areas, and public roads adjacent to the Project site daily (at minimum) during construction. Do not use dry power sweeping. • Wash off all trucks and equipment, including their tires, before they leave the Project site. • Apply gravel or non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas on the Project site. • Water and/or cover soil stockpiles daily. • Plant vegetative ground cover in disturbed areas as soon as possible, and water it appropriately until the vegetation is established. • Limit all vehicle speeds to 15 miles per hour (mph) or less on unpaved areas. • Implement dust monitoring in compliance with the standards of the MDAQMD.	All Project areas	Before Construction: N/A During Construction: Workers and contractor to implement dust control measures. After Construction: N/A

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Applicant Proposed Measure (APM) / Mitigation Measure (MM)	Applicable Location	Requirements and Timing
Halt construction during any periods when wind speeds exceed 50 mph.		
APM AIR-2: Minimize Construction Equipment Exhaust In accordance with APM GHG-1, PG&E will minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible and by minimizing idling time. In particular, cranes, off-highway trucks, and tractors/loaders/backhoes used during Project construction will comply with Tier 4 emissions standards.	All Project areas	Before Construction: N/A During Construction: Workers would minimize vehicle and equipment exhaust during construction. After Construction: N/A
BIOLOGICAL RESOURCES		
APM BIO-1: Protect Nesting Birds For any construction scheduled during the typical migratory bird or raptor nesting season (March 1 through August 15), preconstruction migratory bird and raptor nesting surveys would be performed by a qualified biologist. Surveys would occur in publicly accessible areas and/or where PG&E has existing access. Private property would not be used for access. If active nests containing eggs or young are found, an appropriate nest exclusion zone would be established to prevent disturbance to the nest. Migratory bird and raptor nesting preconstruction surveys and avoidance measures would be performed in accordance with PG&E's Nesting Bird Management Plan.	All Project areas	Before Construction: The training material is submitted to the CPUC at least 30 days before construction During Construction: Workers receive the CPUC-approved training prior to working on the site. After Construction: N/A
APM BIO-2: Protect Wildlife Trapped in Trenches or Steep-walled Holes All excavated holes/trenches that are not filled at the end of a workday would be covered, or a wildlife escape ramp would be installed to prevent the inadvertent entrapment of wildlife species. Excavated holes/trenches left overnight would be inspected prior to the onset of work. If wildlife is found, work would pause until the PG&E biologist is able to remove and relocate the animal.	All Project areas	Before Construction: N/A During Construction: Covering or filling excavated holes and trenches at end of each workday. After Construction: N/A

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Applicant Proposed Measure (APM) / Mitigation Measure (MM)	Applicable Location	Requirements and Timing
APM BIO-3: Preconstruction Surveys Preconstruction biological clearance surveys would be completed by a qualified biologist prior to the onset of construction activities to minimize impacts on wildlife.	All Project areas	Before Construction: A pre-construction clearance survey is performed. During Construction: N/A After Construction: N/A
APM BIO-4. Worker Environmental Awareness Program – Biological Resources Portion A Worker Environmental Awareness Program (WEAP) would be prepared for the project and implemented to educate construction and O&M workers on site-specific biological and non-biological resources and proper work practices to avoid harming wildlife during construction or O&M. The WEAP would include training which addresses the requirements for protecting wildlife from entrapment in open trenches or steep-walled holes and nesting birds. A copy of the training sign-in sheets would be provided to the CPUC.	All Project areas	Before Construction: The training material is submitted to the CPUC at least 30 days before construction During Construction: Workers receive the CPUC-approved training prior to working on the site. After Construction: N/A
Mitigation Measure BIO 1: Desert Tortoise and Mohave Ground Squirrel Preconstruction clearance surveys for any burrows potentially containing desert tortoise or Mohave ground squirrel burrows shall be completed by a qualified biologist within 500 meters (approximately 1,600 feet) of the project footprint prior to the onset of construction activities. If the burrow has any sign of recent use by a desert tortoise or Mohave ground squirrel, the burrow shall be monitored by a qualified biologist for signs of activity. No construction activity shall be allowed within 200 meters (approximately 656 feet) of a burrow containing desert tortoise or Mohave ground squirrel without obtaining approval from CDFW. All project activities within 500 meters (approximately 1,600 feet) of an occupied desert tortoise or Mohave ground squirrel burrow shall be monitored by a qualified biologist to ensure avoidance of the species. Reduced monitoring may be	All Project areas (work area and staging area)	Before Construction: A pre-construction clearance survey is performed. During Construction: (1) Work restriction buffers are implemented, and (2) Construction activities near active burrows are monitored. After Construction: N/A

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Applicant Proposed Measure (APM) / Mitigation Measure (MM)	Applicable Location	Requirements and Timing
authorized by CPUC in the event of existing barriers to species entry to a work area (e.g., existing fence with no breaks or potential for species entrance would preclude the individuals from entering a work area). No relocation of desert tortoise or Mohave ground squirrel may occur without first obtaining the necessary incidental take permit(s) from USFWS and CDFW, as applicable.		
Mitigation Measure BIO-2 Desert Kit Fox Preconstruction clearance surveys for burrows within the project footprint that could be used as desert kit fox dens shall be completed by a qualified biologist prior to the onset of construction activities. If an active, non-natal den is detected within the project footprint, then a 50-meters (approximately 165 feet) construction exclusion zone will be established, and passive relocation techniques may be used as determined by the qualified biologist. The buffer area will be maintained until passive relocation is successfully completed. If an active natal den is detected within the project footprint a 200-meters (approximately 656 feet) construction exclusion zone will be established, and passive relocation will not be implemented until monitoring confirms that the den is no longer in active use as a natal den. If the qualified biologist proposes a reduced buffer due to site specific circumstances (existing barriers to entry to a work area) the reduced buffer must be approved by CPUC.	Where active desert kit fox dens are present within 50 feet of the Project footprint (work area and staging area)	Before Construction: A pre-construction clearance survey is performed. During Construction: (1) Work restriction buffers are implemented, and (2) Construction activities near active dens are monitored. After Construction: N/A
Mitigation Measure BIO-3 Burrowing Owl Preconstruction clearance surveys for active burrowing owl burrows shall be completed by a qualified biologist prior to the onset of construction activities to minimize impacts from construction. Surveys shall be conducted according to CDFW guidelines ((California Department of Fish and Game (CDFG) 2012) or updated guidelines should they become	Where active burrowing owl nesting sites are present within 500 meters of work/staging area	Before Construction: A pre-construction clearance survey is performed. During Construction: (1) Work restriction buffers are implemented, and (2) Construction activities near active burrows are monitored. After Construction: N/A

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Applicant Proposed Measure (APM) / Mitigation Measure (MM)	Applicable Location	Requirements and Timing
available). If burrows are located, avoidance buffers shall be determined in coordination with CDFW and based on the recommendations below: 1. From April 1-August 15, buffers shall be 200 meters (approximately 656 feet) for low levels of disturbance (i.e., vehicles, worker presence), and 500 meters (approximately 1,600 feet) for moderate to high levels of disturbance (i.e., trenching, demolition, etc.) 2. From August 16-October 15, buffers shall be 200 meters (approximately 656 feet) for low and moderate levels of disturbance and 500 meters (approximately 1,600 feet) for high levels of disturbance. 3. From October 16-March 31, buffers shall be 50 meters (approximately 165 feet) for low levels of disturbance; be 200 meters (approximately 656 feet) for moderate levels of disturbance, and 500 meters (approximately 1,600 feet) for high levels of disturbance. 4. Binocular surveys may be substituted for protocol field surveys on private lands adjacent to the project site only when PG&E has made reasonable attempts to obtain permission to enter the property for survey work but was unable to obtain such permission. 5. Reduced buffers may be requested by the qualified biologist due to existing noise and disturbance levels at the compressor station. Buffer reductions would require CDFW approval. No burrowing owl may be relocated without first obtaining a CDFW incidental take permit.		
Mitigation Measure BIO-4 Invasive Species Any ground- or vegetation-disturbing equipment and tools will be cleaned free of mud, soil, and plant material before entering the project site, and		

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Applicant Proposed Measure (APM) / Mitigation Measure (MM)	Applicable Location	Requirements and Timing
any time after driving off pavement outside the project site. Cleaning can be through car washes, compressed air, pressure washes, brushes, or similar equipment.		
CULTURAL RESOURCES		
APM CUL-1: Worker Environmental Awareness Training Program – Cultural Resources Portion A worker environmental awareness training program (WEAP) will be prepared to communicate environmental issues and appropriate work practices specific to the project to all construction field personnel before they begin work on the project performing excavation or trenching activities. This training will be administered by a qualified cultural resource professional either as a standalone training or as part of the overall environmental awareness training required by the project and may be recorded for use in subsequent training sessions. The WEAP program will be provided separately to CPUC staff prior to construction. The WEAP will address, among other topics, at a minimum: • A review of archaeology, history, precontact, and Native American cultures associated with historical resources near the project • A review of applicable local, state, and federal ordinances, laws, and regulations pertaining to historic preservation • A discussion of procedures to be followed if unanticipated cultural resources are discovered during implementation of the project • A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and PG&E policies A statement by the construction company or applicable employer agreeing to abide by the Worker Education Program, PG&E policies, and other applicable laws and regulations.	Environmentally Sensitive Areas	Before Construction: The cultural resource training material is submitted to the CPUC at least 30 days before construction During Construction: Workers receive the CPUC-approved cultural resource training prior to working on the site. After Construction: N/A

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Applicant Proposed Measure (APM) / Mitigation Measure (MM)	Applicable Location	Requirements and Timing
APM CUL-2: Inadvertent Cultural Resource Discoveries If unanticipated cultural resources are identified during construction, the following procedures will be initiated: • All ground-disturbing construction activities within 100 feet of the discovery will halt immediately. • The construction crew will protect the discovery from further disturbance until a qualified archaeologist has assessed it. • The construction supervisor will immediately contact the project environmental inspector and the PG&E cultural resource specialist. The PG&E cultural resources specialist will coordinate with the CPUC and NAHC, as appropriate. If the discovery can be avoided or protected and no further impacts will occur, then the resource will be documented on DPR 523 forms, and no further effort will be required. If the resource cannot be avoided and may be subjected to further impacts, qualified personnel will evaluate the significance of the discovery in accordance with the state laws outlined previously; personnel will implement data recovery or other appropriate treatment measures, if warranted. A qualified historical archaeologist will complete an evaluation of historic period resources, while evaluation of precontact resources will be completed by a qualified archaeologist specializing in California prehistoric archaeology. Evaluations may include archival research, oral interviews, and/or field excavations to determine the full depth, extent, nature, and integrity of the deposit.	All project areas	Before Construction: N/A During Construction: (1) Work within 100 feet of discovered resources stops, (2) The required personnel and agencies are notified, (3) Adequate reporting and documentation occurs, (4) Significant resources are completely avoided or mitigated from impacts, and (5) Work only resumes near the resource after required procedures are complete, to the satisfaction of CPUC. After Construction: N/A
APM CUL-3: Unanticipated Discovery of Human Remains If human remains or suspected human remains are discovered during PG&E construction, work within 100 feet of the find will stop immediately and the construction supervisor will contact the PG&E cultural resources	All project areas	Before Construction: Training of Personnel on procedures for discovery of human remains During Construction: (1) Work within 100 feet of discovered resources stops, (2) The required

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specialist who meets the Secretary of Interior's Standards for archaeology. Upon discovery, the Specialized Investigations Division of the San Bernardino County Sheriff's Department will be contacted for identification of human remains. The Coroner has 2 working days to examine the remains after being notified. If the remains are Native American, the Coroner must notify the NAHC about the discovery within 24 hours. The NAHC then will identify and contact a Most Likely Descendant (MLD). The MLD may make recommendations to the landowner or representative for the treatment or disposition, with proper dignity, of the remains and grave goods. When proper consultation has occurred, a procedure that may include the preservation, excavation, analysis, and curation of artifacts and/or reburial of those remains and associated artifacts will be formulated and implemented. If the remains are not Native American, the Coroner will consult with the archaeological research team and the lead agency to develop a procedure for the proper study, documentation, and ultimate disposition of the remains. If a determination can be made as to the likely identity – either as an individual or as a member of a group – of the remains, an attempt should be made to identify and contact any living descendants or representatives of the descendant community. As interested parties, these descendants may make recommendations to the owner or representative for the treatment or disposition, with proper dignity, of the remains and grave goods. Final disposition of any human remains or associated funerary objects will be determined in consultation between the landowner and the Most Likely Descendant (MLD).		personnel and agencies are notified, (3) Adequate reporting and documentation occurs, (4) Significant resources are completely avoided or mitigated from impacts, and (5) Work only resumes near the resource after required procedures are complete, to the satisfaction of CPUC. After Construction: N/A
Mitigation Measure Cultural- 1: Archaeological Monitoring	Environmentally Sensitive Areas	Before Construction: Personnel Training

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During trenching and excavation activities in soil or sediment that is not imported or not previously disturbed, a tribal monitor from one tribe to be identified by the lead agency, shall be invited to be retained by PG&E to inspect for potential archaeological deposits or Tribal cultural resources. In the event of the discovery of archaeological deposits or Tribal cultural resources, a tribal representative shall have the authority to halt work within 100 feet of the discovery, and CPUC shall be notified within 48 hours of the discovery. All procedures in APM CUL-2 shall be implemented during investigation of the resource.		During Construction: Tribal monitor is invited to inspect. After Construction: N/A
GEOLOGICAL, SOIL, AND PALEONTOLOGICAL RESOURCES		
APM PAL-1: Retain a Qualified Paleontological Principal Investigator A Paleontological Principal Investigator who meets the standards set forth by the Society of Vertebrate Paleontology will be retained to ensure that all APMs related to paleontological resources are properly implemented during construction. The Paleontological Principal Investigator will have a master's degree or Ph.D. in geology or paleontology, have knowledge of the local paleontology, and be familiar with paleontological procedures and techniques.	All project areas	Before Construction: Retain a Qualified Paleontological Principal Investigator. During Construction: Archaeological monitoring and reporting. After Construction: N/A
APM PAL-2: Worker Environmental Awareness Program Training – Paleontological Portion A Worker Environmental Awareness Program (WEAP) will be prepared to communicate environmental issues and appropriate work practices specific to the project to all construction field personnel before they begin work on the project performing excavation or trenching activities. The WEAP will address, among other topics, paleontological resources protection. Training may be provided by PG&E as stand-alone training, or it may be included as part of the overall environmental awareness training as	All project areas	Before Construction: Personnel Training During Construction: N/A After Construction: N/A

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required by the project. The WEAP will be provided separately to CPUC staff prior to construction. The paleontological training portion will include the following: • The types of fossils that could occur at the project site. • The types of lithologies in which fossils could be preserved. • The procedures that should be taken in the event of a fossil discovery. Penalties for disturbing paleontological resources.		
APM PAL-3: Paleontological Resource Monitoring for Project Excavation or Trenching Activities A paleontological monitor will be present to monitor paleontological resources where excavation or trenching occurs. Monitoring is not required if this work occurs in soil or sediment that is imported or previously disturbed. The paleontological monitor will be able to: (1) recognize fossils and paleontological deposits and deposits that may be paleontologically sensitive; (2) take accurate and detailed field notes, photographs, and locality coordinates; and (3) document project-related ground-disturbing activities, their locations, and other relevant information, including a photographic record. The qualified paleontologist will be responsible for a weekly reassessment of paleontological sensitivity after reviewing monitoring reports, which may result in reducing or increasing the amount of monitoring required.	All project areas	Before Construction: N/A During Construction: Archaeological monitoring and reporting. After Construction: N/A
AMP PAL-4: Unanticipated Paleontological Discovery If significant paleontological resources are discovered during PG&E's excavation and trenching activities, the following procedures will be followed: • Stop work immediately within 100 feet of the fossil find.	All project areas	Before Construction: Training of Personnel on procedures for discovery of paleontological resources. During Construction: (1) Work within 100 feet of discovered resources stops, (2) The required personnel and agencies are notified, (3) Adequate

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- Contact the designated project inspector and PG&E Cultural Resource Specialist (CRS) immediately. - Protect the site from further impacts, including looting erosion, or other human or natural damage. - Arrange for a qualified paleontologist to evaluate the discovery. If the discovery is determined to be significant, PG&E will implement measures to protect and document the paleontological resource. Work may not resume within 100 feet of the find until approved by the paleontologist and CRS. Collect and curate fossils only when it is safe for the qualified paleontologist to be in the project work area. Collect fossils only when the collection activity will not damage the resource further than not collecting it, as determined by the qualified paleontologist. Curate all fossils discovered in an appropriate repository.		reporting and documentation occurs, (4) Significant resources are completely avoided or mitigated from impacts, and (5) Work only resumes near the resource after required procedures are complete, to the satisfaction of CPUC. After Construction: N/A
GREENHOUSE GAS EMISSIONS		
APM GHG-1: PG&E Minimize GHG Emissions PG&E will implement the following measures to minimize GHG emissions, consistent with the recommendations provided in the CPUC's Draft Environmental Measures: - Encourage construction workers to carpool to the job site if suitable park-and-ride facilities are available in the Project vicinity. - Develop a carpool program to the job site. - Maintain on-road and off-road vehicle tire pressures to manufacturer specifications. Check and reinflate tires at regular intervals. - Recycle demolition debris for re-use to the greatest extent feasible. - Maintain construction equipment per manufacturer's specifications.	All Project areas	Before Construction: Register portable diesel-fueled construction equipment with engines 50 horsepower or larger and manufactured in 2000 or later under the CARB's statewide Portable Equipment Registration Program. During Construction: Implement GHG minimization measures in adherence with CPUC's Draft Environmental Measures. After Construction: N/A

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Applicant Proposed Measure (APM) / Mitigation Measure (MM)	Applicable Location	Requirements and Timing
- Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time will depend on the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following startup that limit their availability for use following startup. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles 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 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction supervisors will include briefings to crews on vehicle use as part of preconstruction briefings. These briefings will include discussion of a “common sense” approach to vehicle use. - Register portable diesel-fueled construction equipment with engines 50 horsepower or larger and manufactured in 2000 or later under the CARB’s statewide Portable Equipment Registration Program.		
HAZARDS AND HAZARDOUS MATERIALS		
APM HAZ-1: Development and Implementation of Hazardous Material and Emergency Response Procedures PG&E will implement construction controls, training, and communication to minimize the potential exposure of the public and site workers to potential hazardous materials during all phases of project construction. Construction procedures that will be implemented include worker training appropriate to the worker’s role, and PG&E containment and spill control practices.	All project areas	Before Construction: Hazardous Materials Management Plan is submitted to the CPUC for review and approval at least 30 days prior to construction During Construction: (1) Workers receive hazardous materials management training, and (2) BMPs maintained on-site After Construction: N/A
APM HAZ-2: Emergency Spill Supplies and Equipment	All project areas	Before Construction: N/A

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Materials will be available on the project site during construction to contain, collect, and dispose of any minor spill. Oil-absorbent material, tarps, and storage drums will be available on the project site during construction and will be used to contain and control any minor releases of oil. If excess water and liquid concrete escape during pouring, they will be directed to lined and berm areas within the staging area, where the concrete will dry and then be transported for disposal per applicable regulations.		During Construction: Materials will be available on the project site during construction to contain, collect, and dispose of any minor spill. After Construction: N/A
APM HAZ-3: Shock Hazard Safety Measures All authorized personnel working onsite during either construction or O&M will be trained according to PG&E shock hazard safety standards.	All project areas	Before Construction: Personnel training During Construction: N/A After Construction: N/A
APM HAZ-4: Worker Environmental Awareness Program – Hazards Portion A WEAP will be prepared to communicate environmental issues and appropriate work practices specific to the project to all construction field personnel before they begin work on the project. The WEAP will address, among other topics, hazards and hazardous materials. The training program will emphasize site-specific physical conditions to improve hazard prevention and will include a review of spill response and proper BMP implementation. The WEAP program will be provided separately to CPUC staff prior to construction.	All project areas	Before Construction: Training material is submitted to the CPUC at least 30 days before construction During Construction: Workers receive training prior to working on the site. After Construction: N/A
APM HAZ-5: Potentially Contaminated Soil Where existing data are not available and a known potential of contaminated soil exists in the trenching or excavation area, crews will be before the start of earth-moving activities in that area. Excavation or trenching areas either within or directly adjacent to locations of known or suspected contaminated soil will be evaluated by PG&E's Remediation and	In Areas with a Known Potential of Contaminated Soil	Before Construction: Prior to soil disturbance, suspected contaminated soil will be evaluated by PG&E's Remediation and Industrial Hygiene departments. During Construction: Contaminated soil will be segregated, stockpiled, secured, and tested. Soil

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Applicant Proposed Measure (APM) / Mitigation Measure (MM)	Applicable Location	Requirements and Timing
Industrial Hygiene departments before soil disturbance, so that soil-disturbing activities will be supervised and conducted by appropriately trained and qualified individuals. In accordance with standard protocol for any soil-disturbing activities at PG&E facilities, soil showing visual, olfactory, or other evidence of contamination will be stockpiled and managed separately. Soil that is known or suspected of being contaminated (based on existing analytical data or visual, olfactory, or other evidence) and is removed during trenching or excavation activities will be segregated and stockpiled on top of one layer of 20-mil polyethylene sheeting (or equivalent). When the stockpiled material is not being handled, top sheeting will be secured adequately, or equivalent soil stabilization methods will be employed so that all surface areas are covered or equivalently prevented from dispersion or mixing with nearby soils. The stockpiled soil will have a temporary berm placed around the stockpile to prevent runoff from leaving the area, and it will not be positioned near storm drains. Soil sampling and testing will be conducted for each stockpile, the purpose of which will be to characterize the chemical quality of the soil for potential re-use, disposal, and assess worker health and safety risks. The location, distribution, and frequency of the sampling locations where a known or suspected contaminated soil exists in a trenching or excavation area will be determined by a qualified environmental scientist, based on the quantity of excavated material, so that the analytical data adequately characterize the material with the intent to provide adequate representation of the conditions in the construction area. All soil intended for disposal will be tested in accordance with landfill requirements, regardless of known or suspected contamination being present. Appropriate handling, transportation, and disposal locations for soil will be determined based on results of the analyses. If the soil is		will be disposed in accordance with landfill requirements. After Construction: N/A

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contaminated at concentrations greater than State or federal hazardous waste levels, it will be contained and disposed off-site at a licensed hazardous waste facility. In addition, the results will be provided to contractors and construction crews, to inform them about soil conditions and potential hazards.		
HYDROLOGY AND WATER QUALITY		
APM HYD-1: Worker Environmental Awareness Program – Water Quality Portion A WEAP will be prepared for the project to communicate environmental issues and appropriate work practices specific to the project to all construction field personnel before they begin work on the project. The WEAP will include, among other topics, spill prevention and response measures and proper BMP implementation. A copy of the training materials and training sign-in sheets documenting participation in the training will be provided to the CPUC.	All project areas	Before Construction: Training material is submitted to the CPUC at least 30 days before construction During Construction: Workers receive training prior to working on the site. After Construction: N/A
NOISE AND VIBRATION		
APM NOI-1: General Construction Noise Management A Paleontological Principal Investigator who meets the standards set forth by the Society of Vertebrate Paleontology will be retained to ensure that all APMs related to paleontological resources are properly implemented during construction. The Paleontological Principal Investigator will have a master's degree or Ph.D. in geology or paleontology, have knowledge of the local paleontology, and be familiar with paleontological procedures and techniques. PG&E will employ standard noise-reducing construction practices such as the following: • Comply with manufacturer's muffler requirements on all construction equipment engines and ensure exhaust mufflers are in good condition.	All project areas	Before Construction: Retain a Qualified Paleontological Principal Investigator. During Construction: Archaeological monitoring and reporting. After Construction: N/A

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• Turn off construction equipment when not in use, where applicable. • Include noise control requirements for construction equipment and tools in specifications provided to construction contractors to the maximum extent practicable, including performing all work in a manner that minimizes noise.		
APM NOI-2: Noise Minimization with Portable Barriers Portable air compressors and other small stationary equipment used during construction of PG&E project components will be shielded with portable barriers if appropriate and in response to a noise complaint.	All project areas	Before Construction: N/A During Construction: Placing portable barriers After Construction: N/A
APM NOI-3: Noise Minimization with Quiet Equipment Quiet equipment will be used during construction of PG&E project components whenever possible (for example, equipment that incorporates noise-control elements into the design, such as quiet model compressors or generators [75 dBA at 20 feet], can be specified).	All project areas	Before Construction: N/A During Construction: Quiet equipment will be used during construction of PG&E project components whenever possible. After Construction: N/A
APM NOI-4: Noise Minimization through Direction of Exhaust When in proximity to noise-sensitive uses, equipment exhaust stacks and vents will be directed away from those noise-sensitive uses where feasible.	All Project areas	Before Construction: N/A During Construction: When in proximity to noise-sensitive uses, equipment exhaust stacks and vents will be directed away from those noise-sensitive uses where feasible. After Construction: N/A
APM NOI-5: Nighttime Noise Disruption Minimization through Sensitive Receptor Notification In the event that nighttime construction is necessary – for instance, if certain activities need to continue to completion and the noise of the construction equipment expected to be in use is audible at the station fence line over the ambient noise of the station operation – sensitive	All Project areas	Before Construction: N/A During Construction: In the event that nighttime construction is necessary and the noise of the construction equipment expected to be in use is audible at the station fence line over the ambient noise of the station operation, sensitive receptors

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receptors within 0.5 mile of the work area will be notified in advance by mail, personal visit, phone call, or door hanger and will be informed of the expected work schedule.		within 0.5 mile of the work area will be notified in advance. After Construction: N/A
APM NOI-6: Noise Minimization Equipment Specification PG&E will specify general construction noise reduction measures that require the contractor to ensure that all equipment is in good working order, adequately muffled, and maintained in accordance with the manufacturers' recommendations and that stationary equipment such as the temporary generators be in sound-reducing acoustic enclosures that limit noise, for example, to 75 dBA at 20 feet.	All Project areas	Before Construction: N/A During Construction: General noise reduction measures will be required. After Construction: N/A
TRIBAL CULTURAL RESOURCES		
APMTCR-1: Undiscovered Potential Tribal Cultural Resources After stopping work and following the procedure for determining eligibility in APM CUL-2, if a prehistoric or protohistoric site is identified and cannot be avoided, PG&E will contact the CPUC and NAHC to identify an appropriate tribe with whom to consult on treatment. If no agreement can be reached for mitigation after discussions with the California Native American Tribe(s) or after determining that a tribe's preferred mitigation is not feasible, PG&E will implement one of the example mitigation measures listed in Section 21084.3(b) of the PRC or other feasible mitigation.	All Project areas	Before Construction: N/A During Construction: PG&E to contact the CPUC and NAHC to identify an appropriate tribe with whom to consult on treatment. After Construction: N/A