DRAFT

Initial Study/Mitigated Negative Declaration

Lugo-Victorville Remedial Action Scheme Project

DECEMBER 2023

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
ACEC	Area of Critical Environmental Concern
ADSS	all-dielectric self-supporting
APE	Area of Potential Effects
APLIC	Avian Power Line Interaction Committee
APM	applicant proposed measure
Artemis	Artemis Environmental Services, Inc.
AQMP	Air Quality Management Plan
BAT	best available technology economically achievable
BCT	best conventional pollutant control technology
BGEPA	federal Bald and Golden Eagle Protection Act
BNSF	Burlington Northern Santa Fe
BRC	BioResource Consultants, Inc.
BLM	Bureau of Land Management
BLMS	species designated as Sensitive by the BLM
BMP	best management practices
BSA	Biological Study Area
BWPC	Nevada Bureau of Water Pollution Control
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building Standards Code
CCH	California Consortium of Herbaria
CCMSHCP	Clark County Multiple Species Habitat Conservation Plan
CCR	California Code of Regulations
CDCA	California Desert Conservation Area
CDFW	California Department of Fish and Wildlife
CDNCL	California Desert National Conservation Lands
CDNPA	California Desert Native Plants Act
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CEC	California Energy Commission
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CHP	California Highway Patrol
CHU	Critical Habitat Units

Acronym/Abbreviation	Definition
CMA	Conservation and Management Actions
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRMP	Cultural Resource Management Plan
CRPR	California Rare Plant Rank
CWA	federal Clean Water Act
DAG	Barstow-Daggett Airport
dB	decibel
DNL	Day-Night Average Level
DOC	California Department of Conservation
DOD	Department of Defense
DOI	Department of the Interior
DPM	diesel particulate matter
DRECP	Desert Renewable Energy Conservation Plan
DTSC	California Department of Toxic Substances Control
DWMA	Desert Wildlife Management Area
DWR	California Department of Water Resources
ECA	Essential Connectivity Area
EI	Environmental Intelligence, LLC
EIR	Environmental Impact Report
ELM	Eldorado-Lugo-Mohave Series Capacitor
EO	Executive Order
ERMA	Extensive Recreation Management Area
ESA	Environmentally Sensitive Area
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FESA	federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
FHWA	Federal Highway Administration
FICC	Federal Interagency Communication Center
FLPMA	Federal Land Policy and Management Act
FP	Fully Protected
FTA	Federal Transit Administration
GANDA	Garcia and Associates
GHG	greenhouse gas
GIS	geographic information system
GO	General Order
GWP	global warming potential

Acronym/Abbreviation	Definition
HCP	Habitat Conservation Plan
HRRP	Habitat Restoration and Revegetation Plan
IPMP	Invasive Plant Management Plan
Insignia	Insignia Environmental
IPaC	Information for Planning and Consultation
Jacobs	Jacobs Engineering Group, Inc.
kV	kilovolt
LST	lattice steel tower
LUPA	Land Use Plan Amendment
LVMPD	Las Vegas Metropolitan Police Department
LVRAS	Lugo-Victorville 500 kilovolt Transmission Line Remedial Action Scheme
MBTA	Migratory Bird Treaty Act
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
MNP	Mojave National Preserve
MRDG	Minimum Requirements Decision Guide
MWA	Mojave Water Agency
MRZ	Mineral Resource Zone
NAAQS	National Ambient Air Quality Standards
NAC	Nevada Administrative Code
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NBC	Nevada Building Code
NBMP	Nesting Bird Management Plan
NCCP	Natural Community Conservation Plan
NDEP	Nevada Division of Environmental Protection
NDOW	Nevada Department of Wildlife
NECO	Northern and Eastern Colorado Desert Coordinated Management Plan
NEHRP	National Earthquake Hazard Reduction Program
NEPA	National Environmental Policy Act
NHP	Nevada Highway Patrol
NHPA	National Historic Preservation Act
NISC	National Invasive Species Council
NLCS	National Landscape Conservation System
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NPS	National Park Service
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NRS	Nevada Revised Statutes
O&M	operation and maintenance

Acronym/Abbreviation	Definition
OFNR	optical fiber nonconducting riser
OPGW	optical ground wire
OPR	California Governor's Office of Planning and Research
Paleo Solutions	Paleo Solutions, Inc.
PFYC	federal Potential Fossil Yield Classification
$PM_{2.5}$	particulate matter 2.5 micrometers or less in diameter
PM_{10}	particulate matter 10 micrometers or less in diameter
PPV	peak particle velocity
PRC	California Public Resources Code
PRMMP	Paleontological Resources Mitigation and Monitoring Plan
PRPA	Paleontological Resources Preservation Act
Rincon	Rincon Consultants, Inc.
RMP	Las Vegas Resource Management Plan
RNA	Research Natural Area
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SBCFD	San Bernardino County Fire Department
SBCM	San Bernardino County Museum
SCAG	Southern California Association of Governments
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SGMA	Sustainable Groundwater Management Act
SHPO	State Historic Preservation Officer
SLC	State Lands Commission
SMARA	Surface Mining and Reclamation Act
SO_x	sulfur oxides
SRMA	Special Recreation Management Area
SSC	Species of Special Concern
SSPSRP	Special-Status Plant Salvage and Relocation Plan
SVP	Society of Vertebrate Paleontology
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	California State Water Resources Control Board
TAC	toxic air contaminants
TCR	Tribal Cultural Resources
TPH	total petroleum hydrocarbons
Urbana	Urbana Preservation & Planning, LLC
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
USEIA	United States Energy Information Administration

Acronym/Abbreviation	Definition
VMT	vehicle miles traveled
VOC	volatile organic compounds
VRM	Visual Resource Management
WDR	Waste Discharge Requirement
WEAP	Worker's Environmental Awareness Program
WEMO	West Mojave Plan
WL	Watch List
WSA	Wilderness Study Area

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1 Introduction

1.1 Project Overview

The proposed Project is required to reliably interconnect and integrate multiple renewable energy generation projects in the Eastern California and Southern Nevada area onto the California Independent System Operator controlled grid. The primary function of the proposed Project is to prevent thermal overloading of the existing Lugo-Victorville 500 kV Transmission Line, which is a major power transfer path between SCE and the Los Angeles Department of Water and Power. Thermal overloading results when the ampacity[1] of the transmission line exceeds the rating it was designed to operate at. As current increases across a transmission line, the temperature of the transmission line will increase such that it can exceed its thermal capability. Operating a transmission line beyond its thermal capability can result in ground clearance infractions, damage to the conductor, disruption of electrical service, and safety and reliability issues.

Thermal overloading of the Lugo-Victorville 500 kV Transmission Line could occur in the event that the existing Eldorado-Lugo 500 kV Transmission Line or both the Eldorado-Lugo 500 kV and Lugo-Mohave 500 kV Transmission Lines are removed from service as the result of an unplanned outage. During an outage, current that would normally flow through these lines is automatically redirected through the remainder of the transmission system including the Lugo-Victorville 500 kV Transmission Line, potentially exceeding the thermal capability of the Lugo-Victorville 500 kV Transmission Line. As a Transmission Owner, SCE is responsible for mitigating against adverse impacts on the Bulk Electric System in accordance with reliability standards and criteria including those outlined in the North American Reliability Corporation Reliability Standard TPL-001-5. The proposed Project would protect the Lugo-Victorville 500 kV Transmission Line by essentially reducing the amount of current that would flow through the transmission system when needed.

The proposed Project includes the installation of a new telecommunication path in the existing utility corridor, including the replacement of overhead ground wire (OHGW), optical fiber nonconducting riser (OFNR) cable, and/or all-dielectric self-supporting (ADSS) fiber-optic cable between the existing Eldorado Substation in Nevada, and Cima, Pisgah, and Gale Substations in California. The proposed Project will provide reliable communication with renewable energy generators so that they can be safely taken off-line in a timely manner to prevent thermal overload.

The Project will provide reliable communication with renewable energy generators so that they can be safely taken off-line in a timely manner to prevent thermal overload. The proposed telecommunication path would support the SCE communication system for the addition of renewable energy generation. This communication system is part of the larger SCE system that provides safe and reliable electrical service consistent with the North American Electric Reliability Corporation, Federal Energy Regulatory Commission, the California Independent System Operators, and SCE's planning design guidelines and criteria. Without the LVRAS Project, renewable generation would be at an increased risk of curtailment, causing potential cascading outages and widespread blackouts, and the delivery of renewable power into the load servicing areas could be reduced. As California moves toward increasing its renewable energy goals, the Project is required to safely and reliability integrate these renewable energy resources.

[1] The maximum current that a conductor can carry continuously without exceeding its temperature rating.

The telecommunication path would be designed consistent with the Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (APLIC 2006). The telecommunication path would also be evaluated for potential collision reduction devices in accordance with Reducing Avian Collisions with Power Lines: The State of Art in 2012 (APLIC 2012).

The proposed Project is divided into two segments, as generally described below.

Segment 1: Gale to Pisgah

Segment 1 includes the installation of approximately 29 miles of telecommunication ADSS cable line[2] on existing distribution poles located within SCE's existing ROW or within franchise, from SCE's Gale Substation (near the unincorporated community of Daggett) to SCE's Pisgah Substation (approximately 13 miles northwest of the unincorporated community of Ludlow) in San Bernardino County, California. The ADSS cable would be attached overhead on existing and new wood poles, with approximately 1.2 miles placed in underground conduit.

Segment 2: Pisgah to Nipton

Segment 2 includes the removal of one of two existing OHGW and replacement with a new telecommunication path consisting primarily of Optical Ground Wire (OPGW), but also including short lengths of OFNR and ADSS fiber optic cable. The OPGW portion of this path will be installed on approximately 84 miles of existing SCE Eldorado-Lugo 500 kV Transmission line structures between I-40 near Ludlow, California and Nipton Road in Clark County, Nevada, within the existing ROW between the Pisgah Substation in California and the Eldorado Substation in Nevada.

Table 1 provides a breakdown of new/replacement telecommunication fiber types for the existing Segment 1 (Gale to Pisgah) and Segment 2 (Pisgah to Nipton) alignments, based on land ownership.

Table 1. Linear Extent of Telecommunications Improvement

Cable Type	Land Ownership (linear miles)					Total
	BLM	DOD	NPS-MNP	SLC	Other[1]	
Segment 1						
ADSS Overhead	5.4	1	0	0.8	20.5	**27.7**
ADSS Underground	0.4	0	0	0.03	0.8	**1.23**
OFNR	0.1	0	0	0	0.1	**0.2**
Total	**5.9**	**1**	**0**	**0.83**	**21.4**	**29.13**
Segment 2						
OPGW	26.2	0	51.3	3.8	2.6	**83.9**
OFNR	0.7	0	0	0	0.1	**0.8**

[2] The ADSS cable is a type of optical fiber cable that is strong enough to support itself between structures without using conductive metals. It is an alternative to OPGW and optical attached cable with a lower installation cost. The ADSS is necessary to ensure adequate communication facilities are available to support multiple projects.

Table 1. Linear Extent of Telecommunications Improvement

Cable Type	Land Ownership (linear miles)					Total
	BLM	DOD	NPS-MNP	SLC	Other[1]	
ADSS Overhead	0.5	0	0	0	0	0.5
Total[2]	27.4	0	51.3	3.8	2.7	85.2

BLM = Bureau of Land Management, DOD = Department of Defense, NPS = National Park Service, MNP = Mojave National Preserve, SLC = State Lands Commission, ADSS = all-dielectric self-supporting, OPGW = optical ground wire, OFNR = optical fiber nonconducting riser

1 Includes privately owned and County-owned land.

2 Total cable length exceeds ROW length due to routing of OFNR and ADSS within and adjacent to substations.

1.2 California Environmental Quality Act Compliance

The California Department of Fish and Wildlife (CDFW) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) to provide the public, responsible agencies, and trustee agencies with information about the potential environmental effects of construction and operation of the proposed Lugo-Victorville Remedial Action Scheme Project (proposed Project or Project). This IS/MND has been prepared in accordance with the California Environmental Quality Act (CEQA); California Public Resources Code (PRC) Section 21000 et seq.; and the CEQA Guidelines, Title 14 California Code of Regulations (CCR) Section 15000 et seq.

Pursuant to CEQA (PRC Section 21000 et seq.), the lead agency must prepare an IS for discretionary projects such as the proposed Project to determine whether the proposed Project may have a significant adverse effect on the environment. The IS uses the significance criteria outlined in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). Article 6, Section 15070, Decision to Prepare a Negative Declaration or Mitigated Negative Declaration, of the CEQA Guidelines states the following:

> A public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration 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 (14 CCR 15070).

Based on the analysis in the IS, it has been determined that all Project -related environmental impacts would be reduced to a less-than-significant level with the incorporation of feasible mitigation measures. Therefore, adoption of a Mitigated Negative Declaration will satisfy the requirements of CEQA.

1.3 Lead Agency

The lead agency is the public agency with primary approval authority over the proposed Project. CEQA Guidelines Section 15051(b)(1) states that, "the lead agency will normally be the agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." The lead agency for the proposed Project is CDFW.

1.4 Purpose of this Document

The purpose of this document is to evaluate the potential environmental effects of the proposed Project and to present decision makers and the public the environmental consequences of implementing the proposed Project. The IS/MND is available for a 30-day public review period from December 22, 2023 to January 22, 2024.

Comments should be addressed to:

California Department of Fish and Wildlife
Inland Deserts Region
3602 Inland Empire Boulevard, Suite C-220
Ontario, California 91764
Attn: Heather Brashear, Senior Environmental Scientist (Supervisor)

The address for email comments is: Heather.Brashear@wildlife.ca.gov

Location of Documents Available for Public Review. The IS/MND may be viewed online at https://www.wildlife.ca.gov/Notices. In addition, copies of the IS/MND and appendices on CD are available for review at the locations listed in Table 2.

Table 2. Public Repository Sites

Site	Address	Telephone
CDFW Regional Office	3602 Inland Empire Boulevard, Suite C-220, Ontario, CA 91764	909.484.0167

After comments are received from the public and reviewing agencies, CDFW will consider those comments and may (1) adopt the IS/MND and mitigation monitoring program and approve the proposed Project, (2) undertake additional environmental studies, or (3) abandon the Project.

1.5 Document Organization

This IS/MND is organized to provide an analysis of the potentially significant environmental impacts and mitigation measures for the proposed Project. To describe the direct and indirect impacts, as well as mitigation measures for the proposed Project, this IS/MND is organized as follows:

Chapter 1, Introduction, serves as a foreword to the IS/MND, introducing the applicable environmental review procedures, intended uses of the IS/ environmental document, format of the IS/ environmental document, and summary of conclusions of the environmental analysis.

Chapter 2, Project Description, provides a description of the proposed Project components, including construction equipment and schedule.

Chapter 3, Initial Study Checklist, provides a description of the existing environmental setting and an analysis of the potentially significant environmental impacts identified for the proposed Project, as well as proposed mitigation measures to reduce or avoid any potentially significant impacts.

Chapter 4, References and Preparers, lists references used in preparation of the IS/MND and the members of the IS/MND team that contributed to the preparation of this document, as well as their primary IS/MND responsibility and qualifications.

Appendices include various information and technical studies prepared for the proposed Project, as listed in the table of contents.

1.6 Summary of Findings

The environmental checklist contains the analysis and discussion of potential environmental impacts of the proposed Project.

Based on the issues evaluated in the environmental checklist, it was determined that the proposed Project would have no impact or a less-than-significant impact on the following issue areas:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Cultural Impacts
- Energy
- Geology and Soils
- 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 Cultural Resources
- Utilities and Service Systems
- Wildfire

Implementation of the proposed Project would be less than significant with implementation of mitigation measures in the following issue areas:

- Biological Resources

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2 Project Description

2.1 Project Location

The LVRAS Project is located within an existing utility corridor starting at Southern California Edison's (SCE) Gale Substation in unincorporated San Bernardino County, California (approximately 1 mile east of Daggett), through SCE's Pisgah Substation (immediately north of Interstate 40 [I-40], approximately 13 miles northwest of Ludlow, California), and ending near Nipton Road (Nevada State Route 164) in Clark County, Nevada at transmission tower M152-T2 on the Eldorado-Lugo 500 kV line. The proposed Project includes two segments: Segment 1 (Gale to Pisgah), which extends for approximately 29 miles between SCE's Gale Substation and SCE's Pisgah Substation, and Segment 2 (Pisgah to Nipton), which continues from SCE's Pisgah Substation for approximately 85 miles to transmission tower M152-T2; approximately 1.8 miles of Segment 2 is located in Nevada. An overview map showing both Segment 1 and Segment 2 is provided in Figure 1.

Segment 1: Gale to Pisgah

Segment 1 crosses approximately 29 miles of public and private lands within SCE's existing right-of-way (ROW). The proposed Project will utilize existing structures on the Baroid 33 kV and Hector 12 kV distribution circuits. Approximately 5.7 miles of Segment 1 is located on Bureau of Land Management (BLM) lands, 1 mile on Department of Defense (DOD) lands, and 22 miles on private lands, of which 0.85 miles is adjacent to or near state lands. Approximately 1.3 miles of cable would be placed underground in five discrete sections along Segment 1, of which 0.45 miles is located on BLM lands and 0.85 miles on private lands. A map book showing all of the Project areas within Segment 1 is provided in Appendix B-1.

Segment 2: Pisgah to Nipton

Segment 2 crosses approximately 85 miles of public and private lands within SCE's existing ROW. The proposed Project will utilize existing structures on the Hector 12 kV Distribution Line and the Eldorado-Lugo 500 kV Transmission Line, which is jointly owned and a major power transfer path between SCE and the Los Angeles Department of Water and Power. Approximately 26 miles of Segment 2 is located on BLM lands, 51 miles on National Park Service (NPS) – Mojave National Preserve (MNP) lands, and 7 miles on California State Lands Commission (SLC) and private lands. A map book showing all of the Project areas within Segment 2 is provided in Appendix B-2.

2.2 Project Characteristics

Land Ownership

Table 3 provides a breakdown of the number of Segment 1 Project components by land ownership, and Table 4 provides a breakdown of temporary and permanent ground disturbance by Project component and land ownership.

Table 3. Segment 1 Project Components and Work Areas by Land Ownership

Project Component Types	Project Components Quantity by Land Ownership				
	BLM	DOD	SLC	Other[1]	Total
Existing Distribution Poles	70	0-	0	397	**467**
Replacement Distribution Poles	5	0-	0	29	**34**
New Telecommunications Poles	0-	1	0	16	**17**
Replacement Pole Risers	0-	0-	0	1	**1**
Existing Pole Risers	4	0-	0	4	**8**
New Anchors	5	0-	0	14	**19**
Existing Anchors	1	0-	0	5	**6**
Existing Manholes	1	0-	0	0	**1**
New Manholes	2	0-	0	7	**9**
Underground Conduit	0.46 mi	0-	0	0.91 mi	**1.37 mi**
Pulling, Stringing, Tensioning Sites[2]	13	0-	0	22	**32**
Structure Work Areas/General Work Areas	72	0	0	410	**482**

BLM = Bureau of Land Management, DOD = Department of Defense, SLC = State Lands Commission; ft = linear feet (all other values are quantities)

1 Located within the jurisdictions of San Bernardino County, Burlington Northern Santa Fe (BNSF) Railway, or private lands.

2 Total is less than sum of quantity for each landowner because some Project features span multiple landowners.

Table 4. Segment 1 Ground Disturbance by Component and Land Ownership

Impact Type/Project Component	Impacts by Land Ownership (acres)				Total
	BLM	DOD	SLC	Other[1]	
Permanent Impact Project Component					
New Anchor	0.00	0.00		0.00	0.00
New Pole		0.00		0.00	0.00
Remove and Replace Pole	0.00			0.00	0.00
New Manhole	0.00			0.00	0.00
Permanent Impact Subtotal	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Temporary Impact Project Component					
Pulling/Stringing/Tensioning Site	2.30			2.93	5.23
Structure Work Area	18.62			36.59	55.21
Underground Conduit Disturbance Area[2]	2.18			4.32	6.50
Temporary Impact Subtotal	*23.10*	*0*	*0*	*43.84*	*66.94*
Total[3]	**23.10**	**0**	**0**	**43.84**	**66.94**

BLM = Bureau of Land Management, DOD = Department of Defense, NPS = National Park Service, MNP = Mojave National Preserve, SLC = State Lands Commission

1 Includes privately owned and County-owned land.

2 Work areas for underground conduit installation.

3 Total impacts add permanent impacts to temporary disturbance, but permanent disturbances are included within temporary work areas.

Values of 0.00 are areas less than 0.005 acres; no values indicate no impacts

2.3 Project Construction and Phasing

The sections below describe construction activities associated with Segments 1 and 2 of the proposed Project.

Segment 1: Gale to Pisgah

Route and Activity Description

Segment 1 includes work at approximately 483 existing distribution pole locations. Approximately 5.7 miles of Segment 1 is located on BLM land, 1 mile on DOD land, and 22 miles on private land.

The new ADSS cable will be attached to the existing Baroid 33 kV and Hector 12 kV circuit distribution poles. The cable will be encased in non-reflective black plastic in spans of up to 1,000 feet. The cable will be installed on the existing 50-to-60-foot-tall wood poles, primarily 24 to 26 feet above ground level, depending on the terrain. The existing circuits are located approximately 40 feet above ground. Although most of the existing distribution poles are sufficiently strong and tall enough to withstand the extra load exerted by the additional fiber optic cable, some poles would require the installation span guy wire, or down guys to existing or new anchors. Riser poles would be required where underground conduit transitions to overhead fiber optic cable.

The new fiber optic cable associated with Segment 1 will begin at the Mechanical Electrical Equipment Room building located within Gale Substation. Fiber optic cable will proceed south out of Gale Substation, then east immediately adjacent to the National Trails Highway for approximately 3,515 feet within new underground conduit and manholes. At pole 429667S, a new riser will be installed, and the fiber optic cable will go up the riser and continue east adjacent to National Trails Highway approximately 4,200 feet as overhead fiber cable on existing overhead structures, to pole 1847675E. At pole 1847675E, the fiber optic cable will descend inside a new riser and will continue east for approximately 1,850 feet within new underground conduit and manholes.

At pole 1847686E, a new riser will be installed, and the fiber optic cable will go up and continue east adjacent to the National Trails Highway for approximately 7,705 feet as overhead fiber optic cable on existing overhead structures. At pole 1847710E the fiber optic cable continues south for approximately 90 feet on existing overhead distribution poles, crossing to pole 4045427E on the south side of National Trails Highway, before continuing east adjacent to the highway for approximately 34,678 feet on existing distribution poles.

At 27 locations along the alignment, existing distribution poles will be removed and replaced. At eight additional pole locations, existing distribution poles will be removed and replaced, and span guy wires to existing distribution poles and down guys to existing or new anchors will be required. At three locations, additional pole support is required, consisting of span guy wires to existing distribution poles and down guys to existing or new anchors. The affected poles are shown in Table 5 below.

Table 5. Distribution Poles Requiring Additional Support

Distribution Pole Number	Corresponding Pole with Anchor (Across National Trails Highway)
Distribution Pole Requiring Removal/Replacement Only	
1847662E	-
1847686E	-

Table 5. Distribution Poles Requiring Additional Support

Distribution Pole Number	Corresponding Pole with Anchor (Across National Trails Highway)
1847690E	-
4488301E	-
1847705E	-
1847707E	-
2347270E	-
4185402E	-
2361387E	-
2361372E	-
2347458E	-
4186054E	-
4185448E	-
4185421E	-
4185419E	-
229657S	-
4293688E	-
24151CIT	-
1730267E	-
228309S	-
2177368E	-
30657S	-
1729970E	-
1729961E	-
30690S	-
1700599E	-
429142S	-
Distribution Pole Requiring Both Removal/Replacement and Additional Support	
2313467E	2347262E
2313465E	2347260E
2361373E	4014497E
2344309E	2347452E
2347451E	2347550E
2347549E	2347548E
2347547E	2347546E
4169402E	2347263E

Table 5. Distribution Poles Requiring Additional Support

Distribution Pole Number	Corresponding Pole with Anchor (Across National Trails Highway)
Distribution Pole Requiring Additional Support Only	
2347261E	2313466E
2361374E	4014498E
2347545E	2344308E

West of Minneola Road, at poles 4792803E, 4792802E, 2361377E, and 2361376E, secondary voltage (i.e., 120 volt [V]/240V) conductor attachments require repositioning at a higher point on the poles to accommodate the new fiber optic cable installation and maintain proper clearances.

At pole 2347538E, the telecommunication path will cross northward over National Trails Highway approximately 110 feet to pole 2347539E and will continue east adjacent to Pioneer Road approximately 10,935 feet to existing distribution pole 4185401E on the east side of Newberry Road.

Fiber optic cable will diverge from Pioneer Road at pole 4185401E and continue south adjacent to Newberry Road approximately 1,800 feet, crossing I-40 on existing overhead distribution poles to pole 1730293E, and continuing east on existing overhead structures adjacent to National Trails Highway approximately 21,682 feet to pole 30607S.

Approximately 1.4 miles east of Newberry Road, at pole 228302S, secondary voltage conductor attachments will require repositioning at a higher point on the pole to accommodate the new fiber optic cable installation and maintain clearances.

At pole 30607S, the fiber optic cable will descend inside a new riser and will continue east within new underground conduit and a manhole adjacent to National Trails Highway for approximately 650 feet. At the end of the underground conduit, the ADSS cable would transition to overhead beginning with new pole Telecom-1.

A new riser would be installed along with new wood pole Telecom-1. A total of 18 new wood poles would be installed for approximately 5,100 feet between existing wood poles on the Hector circuit and National Trails Highway to carry overhead fiber optic cable. The overhead fiber optic cable would transition from new wood pole Telecom-18 to pole 30618S on the Hector circuit near the intersection of Stonehenge Road and National Trails Highway, then continue east approximately 10.6 miles on existing overhead distribution poles adjacent to National Trails Highway to pole 1700568E.

At pole 1700568E, the fiber optic cable will descend inside a new riser and continue east within new underground conduit and a manhole adjacent to National Trails Highway for approximately 655 feet to pole 1700565E. At pole 1700565E, a new riser will be installed, and the fiber optic cable will go up the riser and continue north, crossing I-40, for approximately 2,390 feet to pole 429143S. At pole 429143S, the fiber optic cable will descend inside a new riser and will travel east for approximately 410 feet, bringing new conduit and fiber optic cable into Pisgah Substation Mechanical Electrical Equipment Room Building.

Appendix B-1 provides a detailed representation of the telecommunication features included in Segment 1, including construction areas and land ownership.

Activities and Disturbance

Construction activities and disturbance associated with Segment 1 include the following:

Access

Access to work areas will be provided from existing surface streets and unimproved dirt and/or gravel roads to the greatest extent possible. In locations where access roads are not available, trucks would travel overland in designated work areas from existing roads to reach the poles as shown in Appendix B-1. At the conclusion of construction, all overland routes used for construction purposes where impacts occurred would be returned to preconstruction conditions. No new permanent roads are required for Segment 1.

Traffic Management

SCE will obtain California Department of Transportation (Caltrans) Encroachment Permits for road crossings and a San Bernardino County Road Excavation Permit for installation of the underground conduit, manholes, and poles within the . Traffic breaks will be limited to no more than 5 or 10 minutes in accordance with Caltrans permits and would be provided by the California Highway Patrol. Work hour restrictions would be at the discretion of the local jurisdiction. The majority of the truck traffic would use major streets and would be scheduled for off-peak traffic hours. Pursuant to applicant proposed measure (APM) TR-1 (Table 9), a Traffic Management Plan would be prepared for construction.

ADSS Installation on Poles

Overhead ADSS stringing would include all activities associated with the installation of cable onto cross arms on existing wood pole structures. Vibration dampeners and suspension and dead-end hardware assemblies would be installed. Light disturbance (primarily overland vehicle travel and equipment staging) would occur within an approximately 20-foot radius around each pole, although the shape of each disturbance area is dependent on topography and location.

Cable Pulling and Splicing

ADSS stringing includes all activities associated with the installation of fiber optic cables onto the overhead wood pole structures. Although stringing fiber is typically accomplished from trucks and equipment parked on existing access roads and work areas, some pulling site locations may be required in previously undisturbed areas. Typically, fiber optic cable pulling sites occur every 6,000 feet to 10,000 feet and at each line direction change. Fiber optic cable splices are required at the beginning and end of each cable pull. The dimensions of the area needed for stringing set-ups varies depending upon the terrain; however, a typical stringing set-up is approximately 60 feet by 100 feet. Where necessary due to suitable space limitations, crews can work from within a substantially smaller area. SCE anticipates being able to complete most pulling and splicing from existing roads.

ADSS Installation Crossing Dry Washes

A standard fiber optic cable installation for crossing of a dry wash would include pole framing[3] on the existing poles adjacent to either side of the dry wash; the installation of vibration dampeners, suspension, and dead-end hardware assemblies; stringing sheaves (rollers or travelers); and attachment of 3/8-inch nylon rope. At the wood pole adjacent to the dry wash, the rope is placed through the roller, which is attached to the wood cable arm and down the pole, and a crew person walks through the existing dry wash with the rope to the other adjacent pole across the wash and installs this rope through the roller on the pole. This rope would be connected to the existing rope that has been placed during the framing process. Crew members stage themselves at the selected points on either end of the pulling site and communicate with each other via two-way radios to start pulling fiber optic cable with the installed 3/8-inch rope that is installed on cable pulling equipment at the designated staged areas.

Locations with an existing bridge spanning a dry wash where the fiber optic cable is proposed to be installed underground, would instead attach the cable to the bridge over the wash and no ground disturbance would occur within the wash itself in these areas.

ADSS Installation in Underground Systems

ADSS installation in new underground conduit and underground structures uses a high-density polyethylene smoothwall innerduct that provides protection and identification for the fiber optic cable. The fiber optic cable would be installed in and throughout the length of the underground conduit structure (5-inch polyvinyl chloride) and underground manhole structures (4-foot width by 4-foot length by 6-foot depth). Nine new manhole structures would be installed within the road shoulder of National Trails Highway to provide access to the underground fiber optic cable. The trench for the underground conduit would be approximately 18 inches wide and 36 inches deep. The disturbance area for the trench would be repaved and/or restored following construction with the exception of the new manhole covers.

Wood Pole Replacement or Installation

Existing wood distribution line poles would be replaced with new wood poles where the pole does not meet wind load or ground clearance requirements with the addition of fiber optic cable and 17 new telecom poles (poles that carry only ADSS) will be installed. The dimensions of the area needed for pole replacement vary depending upon the terrain; however, an approximate 100-foot x 60-foot work area is required for the distribution pole replacements. A hole about 8 feet in depth would be drilled next to the existing pole, and a new pole would be erected. The conductor would be transferred from the existing pole to the new pole and the old pole would be cut below the ground level and removed. The waste materials may be used to backfill the existing holes or would be properly disposed of at an off-site facility. Installation of the 17 telecom poles will occur adjacent to the roadway shoulder in a connected disturbance area approximately 5,100 feet long and 40 feet wide. Telecom poles will be installed similar to the distribution poles. To the extent feasible, equipment will be positioned in areas of existing disturbance. Where equipment must be positioned in native vegetation, drive and crush and/or cut and mow methods will be used to the extent feasible.

[3] Pole framing is a suspension support block that is oriented vertically and attached to the wood cable arm to facilitate stringing new fiber optic cable or conductor.

Construction Yards

The existing developed Daggett Construction Yard (181 acres) and Gale and Pisgah Substations (1 and 1.6 acres, respectively) will be used as construction storage areas for all material and equipment associated with Segment 1 fiber optic cable installation. The construction yards will be used as reporting locations for workers, vehicle and equipment parking, and material storage. The yards may also have construction trailers for supervisory and clerical personnel. Existing night/security lighting at the Daggett Construction Yard and substations will be used as required. Normal maintenance and refueling of construction equipment will take place in these yards. All refueling and storage of fuels will be implemented in accordance with the existing Storm Water Pollution Plan (SWPPP) for each location.

Material will be stored inside the perimeter of the fenced substations and Daggett Yard in designated areas during construction. All construction debris will be placed in appropriate on-site containers and regularly disposed of in accordance with all applicable local jurisdiction regulations.

Materials commonly stored in the yards will include construction trailers, construction equipment, portable sanitation facilities, steel bundles, wood poles, ADSS cable reels, hardware, signage, consumables (such as fuel), waste materials for salvaging, recycling, or disposal, and BMP materials (straw wattles, gravel, and silt fences). Most materials associated with the construction efforts will be delivered by truck to these designated yards, while some materials may be delivered directly to the temporary telecommunications construction areas.

During the peak construction period, up to 37 private commuting vehicles and the construction vehicles/equipment will be parked at the construction yards. Crews will load materials onto work trucks and drive to the current construction location. At the end of each day, crews will return to the yard in their work vehicles and depart in their private vehicles.

Property and Easement Acquisitions

Updated ROW grants from BLM and DOD, acquiring permanent rights, and temporary rights from private property owners would be obtained, as needed.

Segment 2: Pisgah to Nipton

Route and Activity Description

Segment 2 involves the removal of one of the existing OHGWs and replacement with OPGW (and limited OFNR and ADSS) along approximately 84 miles of SCE's existing ROW between transmission tower M68-T3 near SCE's Pisgah Substation in San Bernardino County, California (near Ludlow, California) and transmission tower M152-T2 near Nipton Road (Nevada State Route 164; Appendix B-2), in Clark County, Nevada.

Segment 2 includes work at approximately 383 existing single-circuit 500 kV lattice steel towers (LST), 38 OPGW pulling/stringing/tensioning sites with LST work areas, structure work areas at all LSTs that aren't also pulling/stringing/tensioning sites, 11 distribution pole locations, 15 guard structures, 38 helicopter landing zones, 2 existing substations (Pisgah and Cima), and mobilization, marshalling, and storage activities at the existing Daggett Training and Storage Yard and Nipton Construction Yard. Construction of Segment 2 would occur primarily by helicopter using all disturbance areas except those as identified as structure work areas. However, the structure work areas around 356 LSTs on the Eldorado-Lugo 500 kV Transmission Line ("structure work areas")

are included in the event that helicopter construction is occasionally infeasible due to weather or other unforeseen conditions. These structure work areas would be utilized for ground-based construction during OPGW stringing, if required. Table 6 shows a breakdown of the Project components and work areas by land ownership.

Table 6. Segment 2 Project Components and Work Areas by Land Ownership

Project Component Types	BLM	MNP	SLC	Private	Total
California					
Existing LST	141	208	20	14	383
OPGW Pulling, Stringing, Tensioning Site/LST Work Area	17	16	2	3	38
Structure Work Area	130	186	23	11	348
Existing Distribution Pole[1]	9	0	0	0	9
New Distribution Pole[1]/Work Area	2	0	0	0	2
Replace and/or Remove Existing Distribution Pole/Work Area	4	0	0	0	4
Existing Manhole[1]/Work Area	2	0	0	0	2
New Manhole[1]/Work Area	4	0	0	2	6
Guard Structure[3]	5	7	0	2	14
Helicopter Landing Zone[2]	11	23	0	5	38
Underground Conduit[3]	2	0	0	1	3
Pisgah Substation	1	0	0	0	1
Cima Substation	0	0	0	1	1
Daggett Training and Storage Yard	0	0	0	1	1
Nipton Construction Yard	0	0	0	1	1
Nevada					
OPGW Pulling, Stringing, Tensioning Site/LST Work Area	1	0	0	0	1
Structure Work Area	6	0	0	0	6
Guard Structure	1	0	0	0	1

BLM = Bureau of Land Management, MNP = Mojave National Preserve (National Park Service); SLC = State Lands Commission; OPGW = optical ground wire; ft = linear feet (all other numerical values are quantities)

1 Distribution poles and manholes are associated with the locations where the telecommunications lines tie into substations and adjacent distribution lines.

2 Total is less than sum of quantity for each landowner because some Project features span multiple landowners.

3 Reflects disturbance for conduit placement inside and outside of existing access roads, and outside all substation fence lines.

Appendix B-2 provides a detailed representation of the telecommunication features included in Segment 2, including construction areas and land ownership.

The ADSS/OFNR fiber optic cable will run underground from Pisgah Substation to reach the existing Hector 12 kV distribution line, where it will rise above ground and attach to new distribution pole 429811S (approximately 100 feet northwest of Pisgah Substation) and travel north on new and existing distribution poles. The ADSS/OFNR fiber optic cable will cross the Burlington Northern Santa Fe (BNSF) ROW and reach new interset pole 4845502E. From the new interset pole, the fiber optic cable will run underground in new conduit for approximately 100 feet to LST M68-T3, where it will transition from ADSS/OFNR to OPGW. Four new distribution poles will be installed, and two will be removed (poles 429812S and 429148S).

For approximately 84 miles, the fiber optic cable will continue overhead as OPGW along the Eldorado-Lugo 500 kV transmission line route until it ends at M152-T2 near Nipton Road (Nevada State Route 164) in Clark County, Nevada. Midway through Segment 2, from transmission tower M127-T6, the OPGW would connect to an underground fiber optic cable running to SCE's Cima Substation, then underground for approximately 275 feet to connect from Cima Substation back to transmission tower M127-T6.

The OPGW will be installed on the LSTs at one of the ground wire peaks. At most locations where the end of one OPGW reel is spliced to the end of another, modifications to the LSTs are required. Table 7 lists 27 LSTs that require ground wire peak and/or body modification. To maintain structural integrity, seven of these LSTs will require steel member reinforcement at locations on the tower in addition to the ground wire peak. For these seven structures, existing steel sections will be reinforced to support the loading associated with the additional OPGW installation. The appearance of existing LSTs will not change significantly, as the reinforcement sections will be manufactured with dulled galvanized steel. Structural body modifications are not expected to change the heights of the existing structures. Structure body modification is required at LST M141-T3, where no splice is required. OPGW splices will also occur at towers M94-T6 and M152-T2, where no tower modifications are required.

Table 7. Segment 2 LST Modifications and Splicing Locations

Modification Location	Structure Type	Ground Wire Peak Modification	Body Modification[1]	Splicing Locations
M68-T3	ELT-1	X	–	X
M71-T3	ELT-1	X	–	X
M74-T4	ELT-1	X	–	X
M78-T1	ELT-1	X	–	X
M81-T3	ELT-2	X	–	X
M84-T6	ELT-1	X	–	X
M88-T2	ELT-1	X	–	X
M91-T4	ELT-3	X	–	X
M98-T2	ELA-2	X	–	X
M101-T5	ELT-2	X	–	X
M105-T1	ELT-2	X	–	X
M108-T2	EMT-1	X	X	X
M111-T5	ELT-1	X	–	X
M115-T1	ELT-2	X	–	X
M118-T1	EHT-1	X	–	X
M121-T1	ELT-2	X	–	X
M124-T3	ELT-2	X	–	X
M127-T6	ELT-1	X	–	X
M131-T1	EMT-3	X	X	X
M134-T2	EMT-2	X	X	X
M137-T3	EMT-3	X	–	X
M141-T1	EMT-3	X	–	X
M141-T3	EMT-3	–	X	–
M144-T2	EMT-3	X	X	X
M147-T4	EMT-2	X	X	X

Table 7. Segment 2 LST Modifications and Splicing Locations

Modification Location	Structure Type	Ground Wire Peak Modification	Body Modification[1]	Splicing Locations
M150-T1	EMT-3	X	X	X
M152-T2	EHT-S-2	–	–	X

[1] Body modifications include reinforcement of existing steel beams to support the loading associated with the additional OPGW installation.

All portions of Segment 2 located within California would be designed to meet at minimum General Order (GO) 95 standards. All portions of Segment 2 located within Nevada would be designed to meet at minimum National Electric Safety Code standards.

Table 8 provides a breakdown of temporary and permanent ground disturbance by Project component and land ownership.

Table 8. Segment 2 Ground Disturbance by Component and Land Ownership

Project Feature	Approximate Disturbance Size (L x W)	Acres Disturbed During Construction	Acres to be Restored	Acres Permanently Disturbed
BLM Lands – California				
OPGW Pulling, Stringing, Tensioning Site/LST Work Area1	600’ x 150’	15.88	15.88	0
Structure Work Area2	80’-100’ x 100’	29.25	29.25	0
Distribution Pole Work Area	40’ diameter circle	0.33	0.33	0
Guard Structure	50’ x 150’	1.70	1.70	0
Helicopter Landing Zone	Varies	1.48	1.48	0
Underground Conduit3	120’-136’ x 60’	0.33	0.33	0
Sub-total Estimated	*N/A*	*48.97*	*48.97*	*0*
BLM Lands – Nevada				
OPGW Pulling, Stringing, Tensioning Site/LST Work Area1	500’ x 150’	0.99	0.99	0
Structure Work Area2	80’-100’ x 100’	1.38	1.38	0
Distribution Pole Work Area	40’ diameter circle	0	0	0
Guard Structure	50’ x 150’	0.78	0.78	0
Helicopter Landing Zone	Varies	0	0	0
Underground Conduit3	120’-136’ x 60’	0	0	0

Table 8. Segment 2 Ground Disturbance by Component and Land Ownership

Project Feature	Approximate Disturbance Size (L x W)	Acres Disturbed During Construction	Acres to be Restored	Acres Permanently Disturbed
Sub-total Estimated	*N/A*	*3.15*	*3.15*	*0*
Mojave National Preserve				
OPGW Pulling, Stringing, Tensioning Site/LST Work Area1	500’ x 150’	35.65	35.65	0
Structure Work Area2	80’-100’ x 100’	42.93	42.93	0
Distribution Pole Work Area	40’ diameter circle	0.23	0.23	0
Guard Structure	50’ x 150’	3.80	3.80	0
Helicopter Landing Zone	Varies	2.77	2.77	0
Access spur	290’ x 18’	0.12	0.12	0
Sub-total Estimated		*85.50*	*85.50*	*0*
State Land Commission				
Structure Work Area2	80’-100’ x 100’	4.64	4.64	0
Sub-total Estimated		*4.64*	*4.64*	*0*
Private Lands				
OPGW Pulling, Stringing, Tensioning Site/LST Work Area1	500’ x 150’	5.78	5.78	0
Structure Work Area2	80’-100’ x 100’	2.69	2.69	0
Guard Structure	50’ x 150’	1.03	1.03	0
Helicopter Landing Zone	Varies	0.57	0.57	0
Cima Substation Work Area	Varies	1.43	1.43	0
Cima Underground Conduit	85’ x 300’	0.55	0.55	0
Sub-total Estimated		*12.05*	*12.05*	*0*
Disturbed Area – California (acres)4		151.17	151.17	0
Disturbed Area – Nevada (acres)4		3.15	3.15	0
Total Disturbed Area (acres)4		**154.32 (Temporary)**	**154.32 (Restored)**	**0 (Permanent)**

1 Number and spacing of disturbance areas based on approximate 19,000’ reel lengths, number of circuits, and route design; this area includes stringing sites, work areas for splicing, and work areas for tower modifications.

[2] It is SCE's intent to construct Segment 2 solely by helicopter; however, based on experience on other similar projects, up to 20% of the structure work areas may be utilized for ground-based construction in the event helicopter construction is temporarily infeasible. However, temporary impacts associated with all structure work areas have been included.
[3] Reflects disturbance for conduit placement inside and outside of existing access roads, and outside all substation fence lines.
[4] Disturbance table totals have been adjusted to account for overlapping disturbance areas. Any overlap due to disturbance areas that coincide with one another have been accounted for and are not double-counted.

Activities and Disturbance

Construction activities and disturbance areas associated with Segment 2 include the following:

Access

Installation of OPGW on existing transmission line structures will require access to each disturbance area shown in Table 8 for construction crews, materials, and equipment. Existing access roads will be used to the extent feasible for construction of the proposed Project; where needed, these roads will be maintained to allow the safe use of construction equipment. In locations where access roads are not available, trucks would travel overland to reach the poles in designated work areas. Nine segments of existing access roads that would be used are within the NPS MNP Mojave Wilderness Area. Potential impacts to access roads located within the Mojave Wilderness Area have been analyzed in the Minimum Requirements Decision Guide (MRDG) in compliance with the Wilderness Act (Appendix H). At one existing structure, M101-T5, a new temporary spur road will be required for access to the pulling, stringing, tensioning site.

At the end of Project construction, all roads utilized for construction purposes where impacts occurred would be left in a condition similar or better to the condition that existed prior to the start of construction. Loose rock and slide material would be removed, as feasible, from existing roads and used to construct road dikes, fill washouts, or flatten fill slopes. All washouts, ruts, and irregularities within the construction area would be filled or removed.

Traffic Management

During construction, traffic control measures such as signage and traffic control personnel would be implemented to maintain traffic flow on Project access roads. Guard sites[4] would be in place adjacent to roadways to protect the safety of workers and the public prior to initiation of wire-stringing activities. Any crossing or encroachment permits would be obtained as necessary and complied with during construction. The proposed Project would comply with goals and policies per the San Bernardino County Policy Plan's Infrastructure & Utilities and Transportation & Mobility Elements. Pursuant to APM TR-1 (Table 9), a Traffic Management Plan would be prepared for construction.

Wood Pole Replacement or Installation

Distribution line poles would be replaced or interset poles would be installed if the pole does not meet wind load or ground clearance requirements with the addition of fiber optic cable. An approximate 20-foot radius work area is required for the work. A hole about 8 feet in depth would be drilled next to the existing pole, and a new pole

[4] Guard sites are temporary wooden pole structures that are set up on either side of a crossing location (such as a dry wash, flood control channel, road, or other utility) to support a conductor during Project activities and to prevent it from dropping below a conventional stringing height.

would be erected. A conductor would be transferred from the existing pole to the new pole and the old pole would be cut or removed.

ADSS Installation on Poles

Overhead ADSS cable will be installed by attaching the fiber optic cable components onto cross arms on wood pole distribution structures. This activity includes the installation of vibration dampeners, and suspension and dead-end hardware assemblies. Light disturbance (primarily overland vehicle travel and equipment staging) would occur within an approximately 20-foot radius around each pole, although the shape of each disturbance area is dependent on topography and location.

ADSS Stringing

Stringing sheaves (rollers or travelers) are attached during the framing process. The wire stringing plan sequences the cable pulls and cable pulling equipment set-up positions, pulling locations, times, and safety protocols. Fiber optic cable splices are required at the ends of each cable pull. Fiber optic cable pulling sites are selected, where possible, based on availability of pulling equipment and designated dead-end structures at the ends of each pull, geometry of the line as affected by points of inflection, terrain, and suitability of fiber optic cable stringing and splicing equipment set ups. The dimensions of the area needed for stringing setups vary depending upon the terrain; however, a typical stringing set up is 40 feet by 80 feet. Where necessary due to space limitations, crews can work within a smaller area.

OPGW Installation on Towers

OPGW will be installed on the existing transmission LSTs. OPGW is typically installed in segments of up to 19,000 feet or less depending upon various factors including structure type, splice locations, line direction, inclination, and accessibility. Following installation of the OPGW, the strands in each segment are spliced together to form a continuous length from one end of the OPGW span line to the other. At a splice structure, the fiber cables are routed down a structure leg where splicing occurs. The splices are housed in a splice box (typically an approximate 3-foot by 3-foot by 1-foot metal enclosure) that is mounted to one of the structure legs some distance above the ground. At the towers at each end of the transmission line in Segment 2 as well as at the tower near Cima Substation, the overhead fiber will be spliced to another section of fiber optic cable that runs from the splice box to underground conduit leading into the communication room inside the adjacent substation. To support OPGW installation, tower modifications would be required, including tower retrofitting at M141-T3 (refer to Table 7).

Cable Pulling and Splicing

Stringing includes all activities associated with the installation of the OPGW onto the existing LSTs, including the installation of suspension and dead-end hardware assemblies. The dimensions of the area needed for the stringing setups associated with conductor installation will vary depending on structure height and terrain but should not extend beyond the limits of the SCE ROW and approved temporary construction areas. Vegetation may be removed where necessary to safely access the site and position the stringing equipment. To the extent possible, stringing setup sites will be located on level ground.

The following five steps describe the OPGW installation activities proposed by SCE:

Step 1. Setup

Develop a wire stringing plan to determine the sequence of wire pulls and the set-up locations for the pulling and tensioning equipment.

Step 2. Unclipping

Helicopters would fly personnel to each structure where they would unclip the existing wire from its hardware assembly and hang it in a wire traveler. Alternatively, if helicopters couldn't be used, personnel would utilize bucket trucks or cranes with a man basket to unclip the existing wire from its hardware assembly and hang it in a wire traveler.

Step 3. Pulling

The existing wire would be utilized to pull in a rope, which in turn would be used to pull in the pulling cable. The OPGW would be attached to the pulling cable using a specialized swivel to prevent damage to the wire and to allow the wire to rotate freely to prevent complications from twisting as the OPGW unwinds off the reel. Once the OPGW has been pulled in, it will be secured and prepped for dead-ending and the pulling and tensioning equipment can be staged for the next wire pull.

Step 4. Dead-Ending and Sagging

Once the OPGW has been pulled in, helicopters will fly personnel and their tools to the tower and commence the dead-ending process (making up the connections to secure the OPGW in place). When one end of the OPGW has been completed, a sag cat will be used to make the near final wire adjustments on the OPGW. Personnel will make the final adjustments to ensure the proper tensions were achieved, mark the wire where it will be clipped in, and makeup the other dead-end connection. Alternatively, if helicopters could not be used, personnel would utilize bucket trucks or cranes with a man basket to conduct this process.

Step 5. Clipping-In

After the OPGW has been securely dead-ended, the wire would be secured to all tangent structures. Helicopters will fly personnel and their tools to each structure where they would remove the traveler and place the OPGW into its shoe and secured. Alternatively, if helicopters could not be used, personnel would utilize bucket trucks or cranes with a man basket to conduct this process at each structure. Once clipped in, OPGW "tails" would be run down the tower leg and coiled up on a bracket for future splicing.

Stringing will be conducted in accordance with SCE's specifications, which are similar to process methods detailed in the Institute of Electrical and Electronic Engineers Standard 524-2003, Guide to the Installation of Overhead Transmission Line Conductors. To protect the safety of workers and the public, safety devices such as grounding, guard structures, and radio-equipped construction vehicles and equipment will be in place prior to initiation of wire-stringing activities.

OFNR Installation in Conduit

At locations where the OPGW connects to an underground fiber path, splices will be housed in a splice box (typically a 3-foot by 3-foot by 1-foot metal enclosure). The OPGW will be spliced to the OFNR cable in a splice

case placed inside the box. The OFNR cable will be installed between both ends of the tower structure splice box via riser conduit, manholes, and underground conduits. The 500 kV towers at both sides of the crossing will have a 5-inch riser conduit installed from the splice box to an underground manhole (4 feet x 4 feet x 6 feet) adjacent to the tower. Underground conduit will be installed within a trench roughly 4 feet deep and 2 feet wide to connect both tower and manholes. Two 5-inch conduits will be placed inside the trench. A layer of slurry will be poured over the conduit for additional protection, and the excavated soils will be used to backfill the trench. Additional manholes will be installed if the underground path is longer than 1,000 feet or the underground path has angled section that would cause damage to fiber optic cable if directly pulled through. To install a precast manhole, a hole of approximately 5 feet x 5 feet x 8 feet would be excavated, the manhole would be lowered into place then be connected to the conduits. A ground wire would be installed outside of the conduits within the slurry mix and connected to the structure's tower leg at both ends of crossing. An approximate 40-foot by 60-foot (2,400-square foot) work area will be required for pull and splice equipment, and a four-person crew will be required for the underground fiber optic cable installation.

Structure Work Areas

It is SCE's intent to construct Segment 2 solely by helicopter. However, based on SCE's experience on other similar projects, there are occasionally times when helicopters cannot be used as planned for construction, such as during times of high wind, high temperature, or unexpected maintenance issues. During these times, SCE would switch from helicopter construction for the cable stringing component of the Project to ground-based construction, at which time they would use the structure work areas. SCE estimates that up to 20% of the structure work areas may be utilized for ground-based construction during cable stringing in the event helicopter construction is temporarily infeasible.

Cable Pulling and Splicing, above, describes how ground-based construction would replace helicopter construction for Steps 2, 4, and 5 (unclipping, dead-ending and sagging, and clipping in) of the cable stringing activity. Because ground-based construction equipment for Step 3 (pulling) would already be present on the ROW, the same equipment could be used for Steps 2, 4, and 5. Consequently, no additional equipment or personnel beyond that needed for helicopter construction would be required to use the structure work areas.

Construction Yards and Helicopter Staging Locations

The construction yards will be used as a reporting location for workers, vehicle and equipment parking, and material storage. The construction yards will have offices for supervisory and administrative personnel. Maintenance of construction equipment will be conducted at these yards. Construction yards will range between 1 and 17 acres, depending on land availability and intended use. Construction yards serving Segment 2 include Nipton Construction Yard (approximately 3.6 acres) and two substations: Pisgah (approximately 1.6 acres) and Cima (approximately 1.2 acres).

Preparation of the construction yards for material delivery may include temporary perimeter fencing and depending on existing ground conditions at the site, include the application of gravel or crushed rock. The Nipton Construction Yard consists of hardscape/compacted soil with an asphalt helicopter pad. Temporary electrical and telephone connections at the construction yards would be arranged with local electrical and communication service providers, if available. Water would be provided by local vendors.

Materials commonly stored at the transmission and/or telecommunications construction staging yards would include, but not be limited to, construction trailers, construction equipment, portable sanitation facilities, steel bundles, wood poles, overhead OPGW reels, hardware, signage, consumables (such as fuel), waste materials for salvaging, recycling, or disposal, and BMP materials (straw wattles, gravel, and silt fences). A majority of materials associated with the construction efforts would be delivered by truck to designated staging yards, while some materials may be delivered directly to the temporary transmission and telecommunications construction areas. Project-related equipment and/or materials may be staged at or near each structure location, within SCE ROW or franchise.

Helicopters will take off and land at all construction yards to move materials and crew members to multiple helicopter landing zones along the proposed Project ROW. At night and during non-working days the helicopter(s) would be based at Hesperia Airport, Barstow-Daggett Airport (DAG), Baker Airport, and Jean Airport and staged at the construction yards (including the Daggett Construction Yard in Segment 1). Helicopter fueling will occur at staging areas, local airports, or helicopter landing zones. Fueling will use the helicopter contractor's fuel truck and will be supervised by the helicopter fuel service provider.

During stringing activities, preliminary helicopter operations/staging will be located at construction yards, and on previously disturbed areas adjacent to construction areas (including existing SCE ROW and spur roads). Any land that may be disturbed in staging areas will be restored to preconstruction conditions or to the landowner's requirements following the completion of construction.

During the peak construction period for Segment 2, up to 87 construction personnel commuting vehicles and construction vehicles/equipment will be parked at the construction yards. Crews will load materials onto work trucks and drive to the current construction location. At the end of each day, crews will return to the yard in their work vehicles and depart in their private vehicles.

Pisgah and Cima Substation Work

The existing Pisgah Substation is located on BLM land approximately 13 miles northwest of Ludlow, California. New telecommunication equipment will be routed to and installed in the existing communication room within Pisgah Substation. The existing Cima Substation is located on SCE-owned land approximately 15 miles south of Interstate 15 (I-15), in the town of Cima, California. New telecommunication equipment will be routed to and installed in the existing communication room at Cima Substation.

Connecting the OPGW with the substations will require several steps. About 25 feet of 4-inch vertical riser conduit would be installed from the transmission structure closest to the substation, to reach the splice box from the ground. A trench would be dug from the structure to the substation fence line. The trench would be approximately 3 feet deep and 1.5 feet wide. A 5-inch conduit would be placed inside the trench from the structure to the substation fence line. A layer of slurry would be poured over the conduit for additional protection. The spoils would be used to backfill the trench. At the substation fence line, the conduit would be connected to the conduit/trench inside the substation. OFNR cable would be pulled from the substation communication room through the substation trench/conduit to the last structure interface buried conduit, riser conduit, to the splice box on the structure.

Property and Easement Acquisitions

No additional property would be acquired. The Project will occur within an existing BLM ROW; Notice to Proceed from BLM is required. A new Construction Special Use Permit for the portion of Segment 2 located in the MNP would be obtained. Updated ROW Grants from BLM, authorization from SLC, and temporary rights from private property owners would be obtained, as needed.

Construction Schedule and Personnel

Segment 1 would be constructed over the course of approximately 115 working days, while Segment 2 would take approximately 262 working days, including approximately 14 days of survey activities, to complete. Segment 1 and Segment 2 construction activities would overlap, with total Project construction lasting approximately 1 year; however, specific construction activities along each segment that may occur simultaneously are not known at this time.

Construction crews would generally work Monday through Saturday for approximately 10 hours per day. Project construction activities would generally occur between 5:00 a.m. and 7:30 p.m., depending on time of year, including travel time. Crews may travel to and set up at sites before sunrise or clean up and travel from sites after sunset. Noise-generating construction activities on private land will occur between 7:00 a.m. and 7:00 p.m., consistent with the San Bernardino County Development Code. Nighttime construction work is not anticipated for the proposed Project; however, if temporary lighting is required, portable light standards would be placed along the perimeter of the work area as necessary. The light standards would be shielded, resulting in light being directed downward and inward (toward the work).

The start of construction is dependent on approved California Independent System Operator outages, with a target start of construction in Spring 2023. Up to 121 construction personnel may be present at any given time over the 1-year construction period between Segment 1 and Segment 2 combined.

Operation and Maintenance

Following construction, operation and maintenance (O&M) activities would be necessary to ensure reliable service, as well as the safety of utility workers and the general public. Maintenance activities would include repairing existing facilities, restringing lines, routine access road maintenance, periodic insulator washing, telecommunications equipment maintenance, and as-needed emergency repairs. These O&M activities are all currently implemented by SCE within the Lugo-Victorville Project ROW on the existing infrastructure, which would continue to be maintained on a similar schedule following implementation of the proposed Project.

2.4 Project Approvals

The proposed Project requires issuance of an Incidental Take Permit from CDFW (Appendix A), which is a discretionary approval requiring compliance with the California Environmental Quality Act (CEQA) (refer to California Public Resources Code [PRC], Section 21080[a]).

Because CDFW is the CEQA lead agency for the requested Incidental Take Permit, specifically, this Initial Study serves as the initial environmental analysis prepared under its CEQA-certified regulatory program for lead agency

Incidental Take Permit permitting under the California Endangered Species Act (14 California Code of Regulations [CCR] 783.3[b]; 14 CCR 783.5[d]; and 14 CCR 15251[o]; also refer to California PRC, Section 21080.5).

CEQA requires CDFW as a lead agency to consider the broader environmental consequences of approving the proposed Project as the whole of the action (refer to California PRC, Sections 21002.1[d] and 21100[b]; 14 CCR 783.3[b]; 14 CCR 15126). CDFW is the CEQA lead agency in this specific instance because there is no other state or local agency action subject to CEQA that is a necessary precondition to the proposed approval by CDFW under the California Fish and Game Code (CFGC) (14 CCR 783.3[b]; also refer to California PRC, Section 21067 and 14 CCR 15367).

The scope of CDFW's lead agency analysis of the potentially significant environmental effects that may result with issuance of the requested permits is guided by the concept of the "project" under CEQA. Pursuant to CEQA Guidelines Section 15378(a), a "project" is defined as the whole of the action that has the potential to result in either a direct physical change in the environment or a reasonably foreseeable indirect change in the environment; and is an activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies. CEQA Guidelines Section 15378(c) also describes a "project" for purposes of CEQA as the activity that is being approved and that may be subject to several discretionary approvals by governmental agencies, and not each separate governmental approval. These are important principles guiding CDFW's analysis and disclosure in this Initial Study of potential direct and reasonably foreseeable indirect environmental impacts that may result if CDFW issues the requested permits under the CFGC. These important principles also inform CDFW's lead agency consideration of, and its broader approval of, the proposed Project as the whole of the action under CEQA.

2.5 Applicant Proposed Measures

Applicant (SCE) proposed measures (or APMs) are project design features and standard practices proposed to minimize potential impacts to environmental resources. In the context of the environmental analysis presented in this Initial Study, APMs are considered part of the Project. The analysis presented in this Initial Study served to identify potential impacts and assess the significance thereof, and APMs were developed for incorporation into project design such that potential impacts of the proposed Project would be less than significant.

Table 9 provides a list of APMs specific to the proposed Project. SCE will implement these measures to avoid or substantially lessen potentially significant impacts to the extent feasible during construction and operation. Therefore, the APMs are considered part of the Project description.

The impact analysis in this Initial Study assumes implementation of all APMs listed in Table 9. Where impacts are identified that are not addressed by these APMs, or where the APMs are not adequate to reduce impacts to less than significant levels, the Initial Study recommends additional mitigation measures. Recommended mitigation measures are included in the respective resource section. All APMs and mitigation measures will be incorporated into CDFW's Mitigation Monitoring and Reporting Program developed for the proposed Project, and SCE will implement all monitoring and reporting obligations for the APMs as described in this Initial Study.

Table 9. Applicant Proposed Measures

APM	Description
AES-1	**Non-reflective Equipment**. SCE shall use conductors that are non-specular and non-reflective and insulators that are nonreflective and non-refractive. Steel modifications shall be of a dull finish.
AES-2	**Nighttime Lighting.** SCE shall eliminate all nonessential lighting throughout the Project area and avoid or limit the use of artificial light during the hours of dawn and dusk when many wildlife species are most active. SCE shall ensure that all lighting for Project is fully shielded, cast downward, reduced in intensity to the greatest extent, and does not result in lighting trespass including glare onto other properties or upward into the night sky (see the International Dark-Sky Association standards at http://darksky.org/). SCE shall ensure use of LED lighting with a correlated color temperature of 3,000 Kelvins or less, proper disposal of hazardous lighting waste, and recycling of lighting that contains toxic compounds with a qualified recycler. To ensure this, SCE shall implement the following general principles and specifications: ▪ When used, portable truck-mounted lighting shall point away from roads and from residences within 1,000 feet ▪ White lighting (metal halide) (a) shall only be used when necessitated by specific work tasks; and (b) shall be less than 3,000 Kelvin color temperature ▪ All lamp locations, orientations, and intensities shall be the minimum needed for safety and security. ▪ Light fixtures that could be visible from beyond Project facility boundaries shall have cutoff angles sufficient to prevent lamps and reflectors from being visible beyond the Project facility boundary. ▪ All temporary construction lighting, including at yards, and all permanent exterior lighting shall include (a) lamps and reflectors that are not visible from beyond the construction site or facility including any off-site security buffer areas; (b) lighting that does not cause excessive reflected glare; and (c) directed lighting that does not illuminate the nighttime sky, except for required FAA aircraft safety lighting, if required. ▪ Lighted nighttime maintenance is to be minimized or avoided as a routine practice and should occur only during emergencies.
AIR-1	**Fugitive Dust.** SCE shall prepare and implement a Dust Control Plan to control fugitive dust emissions. Prior to commencing earth-moving activity, SCE shall submit the Dust Control Plan to CDFW for review and approval. The plan shall describe the dust control measures that will be implemented for the Project, including, but not limited to the following: ▪ Surfaces disturbed by construction activities shall be covered or treated with a dust suppressant or water until the completion of activities at each site of disturbance. ▪ Inactive, disturbed (e.g., excavated or graded areas) soil and soil piles shall be sufficiently watered or sprayed with a soil stabilizer to create a surface crust, or would be covered. ▪ Drop heights from excavators and loaders shall be minimized to a distance of no more than 5 feet. Vehicles hauling soil and other loose material would be covered with tarps or maintain at least 6 inches of freeboard. ▪ Construction equipment shall be staged in designated material yards to decrease travel distance of such equipment to the Project alignment. ▪ Vehicle speeds on unpaved roadways, traffic areas, and parking areas shall be restricted to 20 miles per hour. ▪ Within Nevada, unpaved non-public traffic and parking areas designated for utilization during Project construction shall be effectively stabilized to control dust emissions (e.g., using water or chemical stabilizer/suppressant). In California, unpaved non-public traffic and parking areas designated for utilization during Project construction shall be effectively stabilized to control dust emissions with a chemical stabilizer/suppressant.

Table 9. Applicant Proposed Measures

APM	Description
	Unpaved non-public traffic and parking areas designated for utilization during Project construction shall be effectively stabilized to control dust emissions (e.g., using water or chemical stabilizer/suppressant).
AIR-2	**Construction Equipment Horsepower.** Tier 4 Final Construction Equipment: All construction equipment with rating between 100 and 750 horsepower (hp) will be required to use engines compliant with USEPA Tier 4 Final non-road engine standards. In the event a Tier 4 Final engine is not available for any off-road construction equipment with rating at or higher than 100 hp, that documentation of the unavailability will be provided.
AIR-3	**Idling.** Equipment would not be left idling in excess of 5 minutes, except when idling is required for the equipment to perform its task or has a California clean-idle sticker.
AIR-4	**Equipment Maintenance.** Diesel engines shall be maintained in good working order and according to manufacturer's specifications to reduce emissions.
AIR-5	**Ridesharing.** Workers shall be encouraged to carpool to work sites, and/or utilize public transportation for employee commutes.
CUL-1	**Develop a Cultural Resources Management Plan.** SCE shall prepare and submit for approval a Cultural Resource Management Plan (CRMP) to guide all cultural resource management activities during Project construction. Management of cultural resources shall follow all applicable federal and state standards and guidelines for the management of historic properties/historical resources. The CRMP shall be submitted to the BLM, MNP, DOD, and CDFW for review and approval at least 30 days prior to the start of construction. The CRMP shall be prepared by a qualified archaeologist who meets the Secretary of Interior's standards for archaeology and include, but not be limited to, the following sections: ▪ **Cultural Resources Management Plan.** The CRMP shall define and map all known National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) eligible properties in or within 100 feet (30.5 meters) of the Project Area of Potential Effects (APE)/Area of Potential Impacts. A cultural resources protection plan shall be included that details how NRHP- and CRHR-eligible properties will be avoided and protected during construction. Measures shall include, at a minimum, designation and marking of Environmentally Sensitive Areas (ESA), archaeological monitoring, personnel training, and reporting. The plan shall also detail which avoidance measures will be used, where and when they will be implemented, and how avoidance measures and enforcement of ESAs will be coordinated with construction personnel. ▪ **Cultural Resource Monitoring and Field Reporting.** The CRMP shall detail procedures for archaeological monitoring and Tribal participation, define the reporting matrix, and establish criteria for when the monitoring effort should increase or decrease if monitoring results indicate that a change is warranted. The CRMP shall also include guidelines for monitoring in areas of high sensitivity for the discovery of buried NRHP- and/or CRHR-eligible cultural resources, burials, cremations, tribal cultural resources, or sacred sites. ▪ **Unanticipated Discovery Protocol.** The CRMP shall detail procedures for temporarily halting construction, defining work stoppage zones (all work in the immediate vicinity of the discovery plus a 60-foot buffer), notifying stakeholders (e.g., agencies, Native Americans, utilities), and assessing NRHP and/or CRHR eligibility in the event unanticipated discoveries are encountered during construction. It shall include methods, timelines for assessing NRHP and/or CRHR eligibility, formulating mitigation plans, and implementing treatment. Mitigation and treatment plans for unanticipated discoveries shall be reviewed by tribal stakeholders and approved by CDFW, prior to implementation.

Table 9. Applicant Proposed Measures

APM	Description
	▪ **Data Analysis and Reporting.** The CRMP shall detail methods for data analysis in a regional context, reporting of results within [1 year] of completion of field studies, curation of artifacts and data (maps, field notes, archival materials, recordings, reports, photographs, and analysts' data) at a facility that is approved by BLM, MNP, DOD, and CDFW, and dissemination of reports to appropriate repositories.
CUL-2	**Train Construction Personnel.** Prior to initiating construction, all construction personnel shall be trained by a qualified archaeologist regarding the recognition of possible buried cultural resources (i.e., prehistoric and/or historical artifacts, objects, or features) and protection of these resources during construction. Training shall also inform all construction personnel of the procedures to be followed upon the discovery of cultural materials. All personnel shall be instructed that unauthorized removal or collection of artifacts is a violation of federal and state laws. Any excavation contract (or contracts for other activities that may have subsurface soil impacts) shall include clauses that require construction personnel to attend a WEAP. The WEAP will include the Project's potential for the post-discovery review of archaeological deposits, how to operate adjacent to and avoid all ESAs, and procedures to treat post-discovery reviews.
CUL-3	**Conduct Cultural Resources Construction Monitoring.** Archaeological monitoring shall occur as outlined in the CRMP. Monitoring shall occur for any work activities that occur within 50 ft of eight eligible or potentially eligible resources located within construction work areas for Segment 1 (P-36-000317, P-36-001908, P-36-003427, P-36-003757, P-36-005272, P-36-014632, P-36-025649, and P-36-002910). Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historic and prehistoric resources that could occur within the Project areas. The qualifications of the principal archaeologist and monitors shall be approved by BLM, MNP, DOD, and CDFW (when appropriate). Monitoring reports shall be submitted to BLM, MNP, DOD, and CDFW on a monthly basis. A Tribal Participant may be required at culturally sensitive locations in consultation with BLM, MNP, DOD, and CDFW and/or as outlined in the CRMP and APM TCR-1.
CUL-4	**Avoid Environmentally Sensitive Areas.** SCE shall perform cultural resource surveys for any portion of the proposed Project APE/Area of Potential Impacts not yet surveyed (e.g., new or modified staging areas, pull sites, or other work areas). Cultural resources discovered during surveys will be subject to APM CUL-1 (Develop CRMP). Where operationally feasible, all NRHP- and CRHR-eligible resources shall be protected from direct Project impacts by Project redesign (i.e., relocation of the line, ancillary facilities, or temporary facilities or work areas). In addition, all historic properties/historical resources shall be avoided by all Project construction, operation and maintenance, and restoration activities, where feasible. Avoidance measures shall include, but not be limited to, fencing off ESAs for the duration of the proposed Project, as outlined in the CRMP. Construction activities will not occur within 50-feet of known boundaries of non-built NRHP or State Register listed eligible resources.
CUL-5	**Avoidance of Historic Resources.** The Project shall avoid impacts to the three NRHP-eligible historic built environment resources that may be adversely impacted by the Project (P-36-007694, P-36-023423, and P-36-026483), as well as three NRHP-eligible archaeological resources (P-36-025649, P-36-031821, and P-36-031823),) and 7 unevaluated (P-36-003427, P-36-003757, P-36-005272, P-36-021414, P-36-014496, P-36-026483, and P-SBR-54) resources. The recommended avoidance options which have been presented to the lead federal agency include archaeological monitoring and/or the temporary installation of exclusionary fencing at each resource, and the Project redesign of helicopter landing zone 7 at P-36-031823 and helicopter landing zones 46-49 at P-SBR-54. The final avoidance measures for each resource shall be determined in consultation with the lead federal and state agencies and shall be described in the CRMP as detailed in APM CUL-1.

Table 9. Applicant Proposed Measures

APM	Description
CUL-6	**Historic Properties Treatment Plan.** If avoidance of NRHP- or CRHR-eligible resources is not feasible, SCE shall prepare and submit a Historic Properties Treatment Plan (HPTP) to BLM, MNP, DOD, and CDFW for review and approval. The HPTP will outline the treatment of eligible cultural resources that cannot be avoided. All treatment measures outlined in the HPTP would be implemented at least 60 days before the start of construction.
CUL-7	**Discovery of Previously Unknown Cultural Resources.** If previously unknown cultural resources are encountered during construction activity, SCE and/or its contractors shall halt work in the immediate vicinity of the find. The find shall be evaluated by a qualified archaeologist before construction activity may resume. If the qualified archaeologist determines that the find may be significant, and if avoidance of the find is determined to be infeasible, the archaeologist shall notify the lead agencies and shall follow the procedures for the treatment and mitigation of unanticipated discoveries established in the CRMP, in consultation with the lead federal and state agencies. SCE shall be responsible for the resultant mitigation costs.
CUL-8	**Properly Treat Human Remains.** SCE shall follow all federal and state laws, statutes, and regulations that govern the treatment of human remains. All work in the vicinity of a find will cease within a 200-foot radius of the remains, the area will be protected to ensure that no additional disturbance occurs. Should inadvertent discovery of human remains be made on federal lands, the BLM Field Office Archeologist, MNP, and/or DOD will be notified and County Coroner (California Health and Safety Code 7050.5(b)) shall be notified immediately. If the remains are determined to be Native American or if Native American cultural items pursuant to the Native American Graves Protection and Repatriation Act (NAGPRA) are uncovered, the remains shall be treated in accordance with the provisions of NAGPRA (43 Code of Federal Regulations [CFR] 10) and the Archaeological Resources Protection Act (43 CFR 7). If the remains are not on federal land, the BLM, MNP, DOD, CDFW, and County Coroner shall be notified immediately and the remains shall be treated in accordance with Health and Safety Code Section 7050.5, CEQA Section 15064.5(e), and PRC Section 5097.98. SCE shall assist and support the BLM, MNP, DOD, and CDFW, as appropriate, in all required NAGPRA and Section 106 actions, government to-government and consultations with Native Americans, agencies, and consulting parties as requested by the BLM, MNP, DOD, and CDFW. SCE shall comply with and implement all required actions and studies that result from such consultations.
PALEO-1	**Develop Paleontological Resource Mitigation and Monitoring Plan**. SCE shall prepare a Paleontological Resources Mitigation and Monitoring Plan (PRMMP) to guide all paleontological management activities during Project construction. The PRMMP shall be submitted to BLM, MNP, DOD, and CDFW for review and approval at least 90 days prior to the start of construction. The PRMMP shall be prepared by a qualified paleontologist, based on Society of Vertebrate Paleontology (SVP) 2010 guidelines, and meet all regulatory requirements. The qualified paleontologist shall have a Master's degree or Ph.D. in paleontology, have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The PRMMP will include, but not be limited to, the following sections: 1. **Paleontological Resource Monitoring and Reporting**: Detail monitoring procedures and methodologies, which shall require a qualified paleontological monitor for all construction-related ground disturbance that reaches approximate depths for significant paleontological resources in sediments with moderate (PFYC 3a) to very high (PFYC 5) sensitivity. Sediments of undetermined sensitivity shall be monitored on a part-time basis as outlined in the PRMMP. Sediments with very low or low sensitivity will not require monitoring. Paleontological monitors shall meet standard qualifications per the SVP (2010). 2. **Unanticipated Discovery Protocol**: Detail procedures for halting construction, defining work stoppage zones, notifying stakeholders, and assessing the paleontological find for scientific

Table 9. Applicant Proposed Measures

APM	Description
	significance. If indicators of potential mirovertebrate fossils are found, screening of a test sample shall be carried out as outlined in SVP 2010. 3. **Data Analysis and Reporting**: Detail methods for data recovery, analysis in a regional context, reporting of results within 1 year of completion of field studies, curation of all fossil specimens in an accredited museum repository approved by SCE and dissemination of reports to appropriate repositories.
PALEO-2	**Train Construction Personnel.** Prior to the initiation of construction, all construction personnel shall be trained regarding the recognition of possible buried paleontological resources (i.e., fossils) and protection of all paleontological resources during construction. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological materials. All personnel shall be instructed that unauthorized removal or collection of fossils is a violation of Federal and State laws. Any excavation contract (or contracts for other activities that may have subsurface soil impacts) shall include clauses that require construction personnel to attend a WEAP training. The WEAP will include the Project's potential for inadvertently exposing buried paleontological resources, how to operate adjacent to and avoid any potential Environmentally Sensitive Area, and procedures to treat unanticipated discoveries.
PALEO-3	**Conduct Paleontology Resources Construction Monitoring.** Paleontological monitoring shall be conducted by a qualified paleontologist familiar with the types of resources that could occur within the Project area. The qualifications of the principal paleontologist and monitors shall be approved by BLM, MNP, DOD, and CDFW (when appropriate). Monitoring reports shall be submitted to BLM, MNP, DOD, and CDFW on a monthly basis.
HAZ-1	**Hazardous Materials Management Plan.** SCE will prepare and implement a Hazardous Materials Management Plan/Hazardous Materials Business Plan during Project construction. The plan will outline proper hazardous materials handling, use, storage and disposal requirements, as well as hazardous waste management procedures. This plan will be developed to ensure that all hazardous materials and wastes will be handled and disposed of according to applicable rules and regulations. The plan will address the types of hazardous materials to be used during the Project, hazardous materials storage, employee training requirements, hazard recognition, hazardous materials release containment/control procedures, and release reporting requirements. It will also include fueling and maintenance procedures for helicopters and construction equipment.
HAZ-2	**Determination of No Hazard to Air Navigation.** SCE shall file a Notice of Proposed Construction or Alteration (Form 7460-1) with the Federal Aviation Administration (FAA) in accordance with Federal Aviation Regulation Part 77 at least 45 business days prior to the start of construction or alteration. Pertinent information about the Project must also be included with submission of the Notice, including but not limited to: ▪ Scaled drawing showing location of the object in relation to nearest active runways. (This may be a marked up-Airport Layout Plan or Terminal Area sheet.) ▪ Perpendicular distance of the proposed object to the nearest active runway center lines. ▪ Distance along center line (actual or extended) from runway end to the perpendicular intercept point ▪ Ground Elevation at the site of the proposed object ▪ Height of the proposed object including antennas or other appurtenances ▪ Accurate geodetic coordinates conforming to NAD 83 ▪ Sketches, drawings, etc. showing the type of construction or alteration being proposed

Table 9. Applicant Proposed Measures

APM	Description
	Construction shall not commence until SCE receives a Determination of No Hazard to Air Navigation from FAA.
HYD-1	**Prepare and Implement a Stormwater Pollution Prevention Plan.** SCE shall develop and submit a Stormwater Pollution Prevention Plan (SWPPP) to the CDFW for approval at least 30 days prior to construction. Soil disturbance at structures and access roads shall be minimized and designed to prevent long-term erosion. The SWPPP shall include: ▪ The location of all soil-disturbing activities, including but not limited to new and/or improved access and spur roads. ▪ The location of all streams and drainage structures that would be directly affected by soil disturbing activities (such as stream crossings or public storm drains by the right-of-way and access roads). ▪ BMPs to protect drainage structures, such as public storm drains, downstream of soil disturbance activities. ▪ Design features to be implemented to minimize erosion during construction. ▪ The location and type of BMPs that would be installed to prevent off-site sedimentation and to protect aquatic resources. ▪ Specifications for the implementation and maintenance of erosion control measures and a description of the erosion control practices, including appropriate design and installation details. ▪ Proposed schedule for inspection of erosion control/SWPPP measures and schedule for corrective actions/repairs, if required. Erosion control/SWPPP inspection reports shall be provided to the CDFW EM. ▪ Rain Event Action Plan that describes the actions to be taken when significant rainfall is forecasted that protects and minimizes the potential for exposed soils, material stockpiles, and equipment to release pollutants during runoff producing rain events. Locations requiring erosion control/SWPPP corrective actions/repairs shall be tracked, including dates of completion, and documented during inspections. Inspections and monitoring shall be performed in compliance with the Federal and California Construction General Permits, as applicable. The SWPPP and inspection reports shall be kept on site and made available on request to the Responsible Agencies. If on-site drainages are determined to be regulated as waters of the United States, coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity and Land Disturbance Activities (Construction General Permit, 2009-0009-DWQ [as amended] – General Permit No. CAS000002) shall be obtained prior to initiation of construction activities.
NOI-1	**Noise Reduction Measures.** SCE shall employ the following noise-control techniques, at a minimum, to reduce construction noise exposure at noise-sensitive receptors during construction: ▪ Within respective county jurisdictions, construction activities shall be confined to daytime, weekday and weekend hours established by Section 83.01.080(g) of the San Bernardino County Code, which restricts temporary construction noise to between 7:00 a.m. and 7:00 p.m. (excluding Sundays and federal holidays), and Section 30.68.020.h.1 of the Clark County Development Code which restricts temporary construction noise to daylight hours. In the event construction is required beyond those hours, SCE will notify the appropriate local agency or agencies regarding the description of the work, location, and anticipated construction hours. ▪ Construction equipment shall use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

Table 9. Applicant Proposed Measures

APM	Description
	▪ Stationary noise sources (e.g., generators, pumps) and staging areas shall be shielded by an enclosure, temporary sound walls, acoustic blankets, or other barrier where noise levels are above 80 dBA at sensitive receptor locations. Heights and specifications of noise barriers will be designed to reduce construction noise to below 80 dBA, which is the Federal Transit Administration (FTA) recommended daytime noise threshold for evaluating impacts to residential uses (FTA 2018). ▪ Construction traffic and helicopter flight shall be routed away from residences and schools. Unnecessary construction vehicle use and idling time shall be minimized. If a vehicle is not required for use immediately or continuously for construction activities, its engine shall be shut off.
NOI-2	**Helicopter Landing Zones.** Active helicopter operation at landing zones within 2,000 feet of occupied residences will be limited to daytime, weekday and weekend hours established by San Bernardino County and Clark County. Helicopter use may be extended if required to ensure that electrical service is maintained for customers or for safety reasons.
NOI-3	**Helicopter Use in Residential Areas.** Helicopters will be required to maintain a height of at least 1,000 feet when passing over residential areas, except at temporary construction areas or when actively assisting with conductor stringing. All helicopters will be required to maintain a lateral distance of at least 2,000 feet from all schools.
LU-1	**Work within Right-of-Way.** SCE shall conduct all activities associated with construction, operation, maintenance and termination of this Project within its authorized ROW limits.
LU-2	**Permit Acquisition.** Prior to initiation of Project construction, SCE shall obtain necessary ROW permits, subject to all valid existing rights.
TCR-1	**Tribal Monitoring.** An archaeological monitor, and tribal monitor that is culturally affiliated with the Project area, may be present for ground-disturbing activities within or directly adjacent to previously identified TCR(s). The archaeological and tribal monitors will consult the CRMP to determine when to increase or decrease the monitoring effort should the monitoring results indicate a change is warranted. Monitoring reports shall be prepared and submitted to the BLM, MNP, DOD, and CDFW on a monthly basis.
TCR-2	**Tribal Engagement Plan.** A tribal engagement plan shall be prepared, which will detail how Native American tribes will be engaged and informed throughout the proposed Project. The tribal engagement plan will be included in the CRMP (APM CUL-1).
TR-1	**Standard Traffic Safety Practices.** SCE shall prepare and implement a Traffic Management Plan subject to approval of the appropriate state agency and/or local government(s) prior to the commencement of construction activities. The plan shall: ▪ Include a discussion of work hours, haul routes, work area delineation, traffic control and flagging; ▪ Identify all access and parking restriction and signage requirements; ▪ Require workers to park personal vehicles at the approved staging area and take only necessary Project vehicles to the work sites; ▪ Lay out plans for notifications and a process for communication with affected residents and landowners prior to the start of construction. Advance public notification shall include posting of notices and appropriate signage of construction activities. The written notification shall include the construction schedule, the exact location and duration of activities within each street (i.e., which road/lanes and access point/driveways will be blocked on which days and for how long), and a toll-free telephone number for receiving questions or complaints;

Table 9. Applicant Proposed Measures

APM	Description
	▪ Include plans to coordinate all construction activities with emergency service providers in the area. Emergency service providers will be notified of the timing, location, and duration of construction activities. All roads will remain passable to emergency service vehicles at all times; ▪ Identify all roadway locations where special construction techniques (e.g., night construction) will be used to minimize impacts to traffic flow; and Construction activities completed within public street rights-of-way will require the use of a traffic control service, and all lane closures will be conducted in accordance with applicable requirements. These traffic control measures will be consistent with those published in the Manual on Uniform Traffic Control Devices, as written and amended by Caltrans for the state of California (CA MUTCD) and using standard templates from the California Temporary Traffic Control Handbook (California Inter-Utility Coordinating Committee 2018) as applicable.
UTIL-1	**Wood Waste.** SCE shall ensure that wood distribution poles are disposed of in a landfill approved by the RWQCB for the acceptance and disposal of utility wood waste and treated wood.
UTIL-2	**Waste Disposal.** All non-recyclable waste shall be disposed of at an SCE-approved waste disposal site such as those listed on the SCE Non-Hazardous Waste Disposal and Recycling Facilities Approved Vendors List. “Waste,” as used in this paragraph, shall mean all discarded matter of any kind.
WF-1	**Fire Prevention and Emergency Response Plan.** A Fire Prevention and Emergency Response Plan will be developed to ensure the health and safety of construction workers, SCE personnel, and the public during Project construction. The Plan shall cover: ▪ The purpose and applicability of the plan ▪ Responsibilities and duties ▪ Project areas where the plan applies ▪ Procedures for incorporating Red Flag Warnings, Fire Potential Index, Project Activity Level, and equivalent indicators in determining fire weather related work restrictions. Procedures for fire reporting, response, prevention, and evacuation routes ▪ Coordination procedures with federal and local fire officials ▪ Crew training, including fire safety practices and restrictions ▪ Fire suppression and communication equipment required to be on hand during construction ▪ Method for verification that Plan protocols and requirements are being followed ▪ Post-construction fire prevention and response measures The Project-specific Fire Prevention and Emergency Response Plan for construction of the Project shall be prepared by SCE and submitted to CDFW for review and comment at least 30 days prior to the initiation of construction. SCE shall address all comments received from reviewing agencies and provide the final Fire Prevention and Emergency Response Plan to reviewing agencies for approval prior to initiating construction activities.

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3 Initial Study Checklist

1. **Project title:**

   Lugo-Victorville Remedial Action Scheme Project

2. **Lead agency name and address:**

   California Department of Fish and Wildlife
   Inland Deserts Region
   3602 Inland Empire Boulevard, Suite C-220
   Ontario, California 91764

3. **Contact person and email address:**

   Heather Brashear, Senior Environmental Scientist (Supervisor)
   Heather.Brashear@wildlife.ca.gov

4. **Project location:**

   The LVRAS Project is located within an existing utility corridor starting at Southern California Edison's (SCE) Gale Substation in unincorporated San Bernardino County, California (approximately 1 mile east of Daggett), through SCE's Pisgah Substation (immediately north of Interstate 40 [I-40], approximately 13 miles northwest of Ludlow, California), and ending near Nipton Road (Nevada State Route 164) in Clark County, Nevada at transmission tower M152-T2 on the Eldorado-Lugo 500 kV line.

5. **Project sponsor's name and address:**

   Southern California Edison
   2244 Walnut Grove Avenue, GO-1, Quad 2C
   Rosemead, California 91770

6. **General plan designation:**

   The Land Use Element of the County of San Bernardino's Countywide Policy Plan (adopted October 2020) regulates land use in unincorporated portions of the County by designating broad Land Use Categories (County of San Bernardino 2020a).

   Segment 1 of the proposed Project spans the following Land Use Categories: Rural Living (RL), Resource/Land Management (RLM), Limited Industrial (LI), Commercial (C), and Public Facility (PF). The Daggett Construction Yard has a Land Use Category of General Industrial (GI). This segment of the proposed Project is also partially located within the Daggett and Newberry Springs Community Planning Areas.

   Segment 2 of the proposed Project spans the Open Space (OS) and Resource/Land Management (RLM) Land Use Categories within San Bernardino County.

The portion of Segment 2 located in Clark County, Nevada, has a Land Use Designation of Open Land (OL) under the South County Land Use Plan (Clark County Department of Comprehensive Planning 2013). The Nipton Construction Yard has a Land Use Category of Rural Living (RL).

7. Zoning:

The County of San Bernardino's Development Code designates Land Use Zoning Districts which implement development and design standards consistent with the broad Land Use Categories identified in the Countywide Policy Plan.

Segment 1 of the proposed Project spans the following Zoning Districts: Rural Living (RL), Rural Living – 5 Acre Minimum (RL-5), Resource Conservation (RC), Community Industrial (IC), General Commercial (CG), Multiple Residential (RM), Neighborhood Commercial (CN), Highway Commercial (CH), and Institutional (IN). The Daggett Construction Yard has a Zoning Designation of Regional Industrial (IR).

The portion of Segment 2 within San Bernardino County is located in the Resource Conservation (RC) zone.

The portion of Segment 2 located in Clark County, Nevada has a Zoning Designation of Rural Open Land, 0.5 units per acre (R-U). The Nipton Construction Yard has a Zoning Designation of Special Development – Residential (SD – RES).

8. Description of project. (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary):

The proposed Project is required to reliably interconnect and integrate multiple renewable generation projects in the Eastern California and Southern Nevada area onto the California Independent System Operator controlled grid. The primary function of the proposed Project is to prevent thermal overloading of the existing Lugo-Victorville 500 kV Transmission Line, which is a major power transfer path between SCE and the Los Angeles Department of Water and Power. Thermal overloading results when the ampacity[5] of the transmission line exceeds the rating it was designed to operate at. As current increases across a transmission line, the temperature of the transmission line will increase such that it can exceed its thermal capability. Operating a transmission line beyond its thermal capability can result in ground clearance infractions, damage to the conductor, disruption of electrical service, and safety and reliability issues.

Thermal overloading of the Lugo-Victorville 500 kV Transmission Line could occur in the event that the existing Eldorado-Lugo 500 kV Transmission Line or both the Eldorado-Lugo 500 kV and Lugo-Mohave 500 kV Transmission Lines are removed from service as the result of an unplanned outage. During an outage, current that would normally flow through these lines is automatically redirected through the remainder of the transmission system including the Lugo-Victorville 500 kV Transmission Line, potentially exceeding the thermal capability of the Lugo-Victorville 500 kV Transmission Line. As a Transmission Owner, SCE is responsible for mitigating against adverse impacts on the Bulk Electric System in accordance with reliability standards and criteria including those outlined in the North American

[5] The maximum current that a conductor can carry continuously without exceeding its temperature rating.

Reliability Corporation Reliability Standard TPL-001-5. The proposed Project would protect the Lugo-Victorville 500 kV Transmission Line by essentially reducing the amount of current that would flow through the transmission system when needed.

The proposed Project includes the installation of a new telecommunication path in the existing utility corridor, including the replacement of overhead ground wire (OHGW), optical fiber nonconducting riser (OFNR) cable, and/or all-dielectric self-supporting (ADSS) fiber-optic cable between the existing Eldorado Substation in Nevada, and Cima, Pisgah, and Gale Substations in California. The proposed Project will provide reliable communication with renewable energy generators so that they can be safely taken off-line in a timely manner to prevent thermal overload.

The Project will provide reliable communication with renewable energy generators so that they can be safely taken off-line in a timely manner to prevent thermal overload. The proposed telecommunication path would support the SCE communication system for the addition of renewable energy generation. This communication system is part of the larger SCE system that provides safe and reliable electrical service consistent with the North American Electric Reliability Corporation, Federal Energy Regulatory Commission, the California Independent System Operators, and SCE's planning design guidelines and criteria. Without the LVRAS Project, renewable generation would be at an increased risk of curtailment, causing potential cascading outages and widespread blackouts, and the delivery of renewable power into the load servicing areas could be reduced. As California moves toward increasing its renewable energy goals, the Project is required to safely and reliability integrate these renewable energy resources.

The telecommunication path would be designed consistent with the Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (Avian Power Line Interaction Committee [APLIC] 2006). The telecommunication path would also be evaluated for potential collision reduction devices in accordance with Reducing Avian Collisions with Power Lines: The State of Art in 2012 (APLIC 2012).

The proposed Project is divided into two segments, as generally described below.

Segment 1: Gale to Pisgah

Segment 1 includes the installation of approximately 29 miles of telecommunication ADSS cable line[6] on existing distribution poles located within SCE's existing ROW or within franchise, from SCE's Gale Substation (near the unincorporated community of Daggett) to SCE's Pisgah Substation (approximately 13 miles northwest of the unincorporated community of Ludlow) in San Bernardino County, California. The ADSS cable would be attached overhead on existing and new wood poles, with approximately 1.2 miles placed in underground conduit.

Segment 2: Pisgah to Nipton

Segment 2 includes the removal of one of two existing OHGW and replacement with a new telecommunication path consisting primarily of Optical Ground Wire (OPGW), but also including short lengths of OFNR and ADSS fiber optic cable. The OPGW portion of this path will be installed on

[6] The ADSS cable is a type of optical fiber cable that is strong enough to support itself between structures without using conductive metals. It is an alternative to OPGW and optical attached cable with a lower installation cost. The ADSS is necessary to ensure adequate communication facilities are available to support multiple projects.

approximately 84 miles of existing SCE Eldorado-Lugo 500 kV Transmission line structures between I-40 near Ludlow, California and Nipton Road in Clark County, Nevada, within the existing ROW between the Pisgah Substation in California and the Eldorado Substation in Nevada.

9. **Surrounding land uses and setting: Briefly describe the project's surroundings:**

Segment 1: Gale to Pisgah

Segment 1 of the proposed Project is in a sparsely developed area of the Mojave Desert in San Bernardino County, California. Lands crossed by Segment 1 are owned by the BLM, DOD, SLC, County, and private landowners. There are scattered residences along and near the SCE ROW, and the majority of the land is sparsely developed desert. Most of the Project alignment runs parallel with a historic route, National Trails Highway (Route 66). The Burlington Northern Santa Fe Railroad ROW runs to the north of the proposed Project, and I-40 extends to the south and north where the Project alignment crosses the freeway at Newberry Road. The unincorporated community of Daggett is approximately 1 mile to the west of SCE's Gale Substation and the DAG, a County-owned public use airport, is approximately 1,120 feet to the north of the closest portion of the alignment. Other existing SCE facilities nearby include Coolwater Substation, Solar Energy Generation Systems 2 Substation, and Cady Substation, located 0.5 miles, 0.8 miles, and 0.6 miles to the north, respectively.

Other land uses within 0.25 miles of the proposed Project alignment include agricultural land, industrial facilities, and commercial development along I-40 and National Trails Highway.

Segment 2: Pisgah to Nipton

Segment 2 of the proposed Project is located primarily within unincorporated San Bernardino County in California and Clark County, Nevada, within an existing SCE ROW. The majority of Segment 2 is located within undeveloped desert land under the jurisdiction of the BLM or in the MNP, with no development or very minimal development (i.e., residences) in proximity to the SCE ROW or proposed temporary construction areas. The nearest community to the Project alignment is the unincorporated community of Baker, approximately 17.5 miles northwest of Segment 2 near I-15. Aside from existing residential development in the unincorporated community of Baker, the nearest residential land uses straddle the I-15 freeway, south of the California-Nevada border.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

Approval (e.g., permits, financing approval, or participation agreement) from the following public agencies may be required:

- USFWS
- NPS – MNP
- BLM
- United States Army Corps of Engineers (USACE)
- DOD

- State Water Resources Control Board (SWRCB)/Lahontan Regional Water Quality Control Board
- State Historic Preservation Officer (SHPO)
- Caltrans
- Nevada Department of Wildlife (NDOW)
- Nevada Division of Environmental Protection (NDEP)
- San Bernardino County, California
- Nevada Department of Transportation
- Nevada Division of Environmental Protection
- Nevada State Fire Marshall
- Clark County, Nevada, Department of Air Quality and Environmental Management
- Mojave Desert Air Quality Management District

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

On June 15, 2020, CDFW reached out to traditionally and culturally affiliated California Native American tribes via letter describing the proposed Project and requesting Tribal input into the CEQA process. Three tribes responded: San Manuel Band of Mission Indians (SMBMI), Soboba Band of Luiseño Indians (Soboba) and Quechan Tribe of the Fort Yuma Reservation (Quechan). Quechan responded with deferment to more local tribes. SMBMI and Soboba requested formal consultation via letters attached to emails. SMBMI and Soboba also requested additional information regarding the Project. Pursuant to requests from the SMBMI and Soboba, CDFW provided copies of the cultural resources report in November 2020.

On April 24, 2023, CDFW provided a second notification of the Project under CEQA Section 21080.3.1 and CDFW's Tribal Communication and Consultation Policy to the 15 tribes identified by the NAHC. Three tribes responded: San Manuel Band of Mission Indians (SMBMI), Morongo Band of Mission Indians (Morongo) and Quechan Tribe of the Fort Yuma Reservation (Quechan). SMBMI and Morongo requested formal consultation via letters attached to emails. Quechan, SMBMI and Morongo also requested additional information regarding the Project. Pursuant to requests from the Quechan, SMBMI and Morongo tribes, CDFW provided copies of the cultural resources report in May 2023 (Quechan and SMBMI) and June 2023 (Morongo).

Consultation with the Soboba tribe is concluded; however, consultation with the Morongo and SMBMI tribes is in progress and will continue through the public review period with these tribes. CDFW is committed to open communication with Tribes under its Tribal Communication and Consultation Policy, which is available through CDFW's Tribal Affairs webpage at https://www.wildlife.ca.gov/General-Counsel/Tribal-Affairs.

Environmental Factors Potentially Affected

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

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology and Soils	☐ 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 Cultural Resources
☐ Utilities and Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

Determination (To be completed by the Lead Agency)

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 project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Freeburn, Kim@Wildlife

Digitally signed by Freeburn, Kim@Wildlife
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Signature

12/19/2023

Date

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a. the significance criteria or threshold, if any, used to evaluate each question; and
    b. the mitigation measure identified, if any, to reduce the impact to less than significance

3.1 Aesthetics

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**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 point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Introduction to Aesthetics/Visual Resources

Visual resources are generally defined as the sum of natural and built features in the visible landscape. Landforms, water, and vegetation are among the natural elements that define an area's visual character. Buildings, roads, and other structures reflect human modifications to the natural landscape. Natural and built features are visual resources that contribute to the public's experience and appreciation of a landscape. This section evaluates visual conditions at and near the LVRAS Project to determine how the proposed Project would affect the visual character of the existing landscape through the introduction of proposed Project elements into the landscape.

Existing Condition

Scenic Vistas

While there are no scenic vistas specifically designated in San Bernardino County's Natural Resources Element of the Countywide Plan, the presence of flat to rolling terrain and distant mountainous landforms in the Project area offers the potential for long and broad scenic views of the surrounding desert landscape.

Scenic Highways

The nearest state scenic highways to the Project alignment are I-40 and I-15. The Project alignment parallels I-40 (and is proposed within 0.5 miles or closer to the interstate) for approximately 27 miles (i.e., nearly the entire length of Segment 1). At its nearest point (i.e., at the western extent), the Project alignment is within 3.2 miles of I-15. Both I-40 and I-15 are eligible state scenic highways.

In addition to state scenic highways, the Project area is traversed by County scenic routes and federally managed Back County Byways. Specifically, Route 66 is a County scenic route and parallels the Project alignment for approximately 27 miles (I-40 is also a County scenic route). Located in the Mojave National Preserve (DOI 2016), the Wild Horse Canyon Scenic Backcountry Byway occurs near the community of Thomas Place and is more than 7 miles from the Project alignment.

Visual Character

The Project area is in the arid Mojave Desert of California and Nevada. The Mojave Desert environment consists of flat to rolling desert expanses separated by mountain ranges. With little rainfall, vegetation is relatively sparse and compact, and both land and vegetation coloration tend to be muted.

Much of the land traversed by the Project area is under the jurisdiction of the BLM, NPS, and the DOD. The Project area crosses flat desert and mountainous areas. Most of the surrounding land is undeveloped, with vegetation cover being primarily low-growing desert grasses and shrubs. Land uses near the Project area include undeveloped open space, national preserves, BLM-managed lands, recreation, roads, and energy infrastructure. Developed areas include electrical substations and the city of Barstow approximately 3 miles east of the Gale substation. With much of the surrounding land being undeveloped, existing transmission structures and access roads constitute dominant features in the landscape, along with I-40, which runs parallel between the Gale and Pisgah substations. Mountain ranges provide a visual background in much of the Project area.

Light and Glare

Sources of lighting and glare in the area are limited and include light from vehicles on roadways, dispersed residences, and lighting associated with existing electrical infrastructure and other utility facilities.

Regulatory Setting

Federal

- **Federal Land Policy and Management Act of 1976.** Under the Federal Land Policy and Management Act (FLPMA) of 1976 (43 United States Code [USC] Section 1701), land management agencies are required to manage federally owned public lands in a manner that protects the quality of resources, including scenic resources. The FLPMA provided a framework for the BLM to manage resources in perpetuity, which led to the development of the California Desert Conservation Area (CDCA) Plan, which acts as the BLM's land use guide for the management of public lands and resources. The Las Vegas Resource Management Plan, also established under the FLPMA, acts as the BLM's Visual Resources Management (VRM) guide relative to visual and aesthetic impacts on BLM lands.

- **Desert Renewable Energy Conservation Plan.** The Desert Renewable Energy Conservation Plan (DRECP) is a collaborative effort between the California Energy Commission, California Department of Fish and Wildlife, BLM, and U.S. Fish and Wildlife Service to advance federal and state natural resource conservation goals and other federal land management goals; meet the requirements of the federal Endangered Species Act (FESA), California Endangered Species Act (CESA), Natural Community Conservation Planning Act, and FLPMA; and facilitate the timely and streamlined permitting of renewable energy projects in the Mojave and Colorado/Sonoran desert regions of Southern California. The DRECP covers approximately 22.5 million acres in the desert regions of Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego Counties. The DRECP is being prepared in two phases. As part of Phase I, BLM has prepared a Record of Decision approving its Land Use Amendment to the California Desert Conservation Area Plan, and Bishop and Bakersfield Resource Management Plans. Phase II will consist of a General Conservation Plan for approximately 5.5 million acres of non-federal land and a Conceptual Plan-Wide Natural Community Conservation Plan (NCCP) that encompasses the entire DRECP plan area. The DRECP designates National Scenic and Historic Trail management corridors on federal lands within the Plan area.
- **Bureau of Land Management Land Use Plan Amendment.** The BLM Land Use Plan Amendment (LUPA) establishes management direction for the permitting of renewable energy and transmission development on approximately 10 million acres of BLM-managed lands in the DRECP plan area. The BLM LUPA amends the CDCA Plan and the Bakersfield and Bishop Resource Management Plans. The purpose of the LUPA is to conserve biological, environmental, cultural, recreation, scenic, and visual resources; respond to federal renewable energy goals and policies, including state-level renewable energy targets; and comply with the FLPMA. The BLM LUPA designates land use allocations, prescribes conservation management actions, and establishes VRM classes.
- **Mojave National Preserve General Management Plan.** The 2002 MNP General Management Plan identifies nearby pollution sources as vehicle traffic on I-40 and I-15, as well as other sources. “Local pollution sources in the desert consist primarily of particulate matter from off-road vehicles, windblown soil, mining operations, livestock grazing, and agricultural activities. These sources have left certain areas denuded or sparsely vegetated, allowing wind erosion to occur and air quality to suffer…” Under its Plan Actions, the MNP prepares guidelines for the built environment to establish visual consistency and themes in facility development, achieve visual compatibility with surrounding landscapes, and preserve night sky views.
- **NPS Management Policies 2006 – The Guide to Managing the National Park System.** Guidance to managing the National Park System relevant to visual resources addresses construction sites (Section 9.1.3.1) and utility lines (Section 9.1.5.3). These management policies apply to NPS practices but guidance to others working on NPS property as well. Construction sites are to be limited to the smallest feasible area and ground disturbance is to be carefully controlled to prevent undue damage and to minimize pollution. Visual intrusions are to be kept to a minimum. With regard to above ground utility lines and appurtenant structures, these are to be located and designed to minimize impacts on park resources and values. Where possible, they should share a common corridor and be combined with transportation corridor.

California

- **Caltrans State Scenic Highway Program.** A provision of Sections 260 through 263 of the Streets and Highways Code, the State Scenic Highway Program was established by the Legislature in 1963 to

preserve and enhance the natural beauty of California. The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or 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 adding routes with outstanding scenic elements to the list of eligible highways. However, State legislation is required. There is one Federal Byway (Route 66) adjacent to Segment 1 and one Eligible State Scenic Highway (Route 40) parallel to segment 1 and approximately 0.5 miles from structure M68-T2 of Segment 2 (Caltrans 2018).

- **San Bernardino County Countywide Plan.** The San Bernardino County Countywide Plan Natural Resources Element Goal NR-4 is established in order to protect scenic resources that highlight the natural environment and reinforce the identify of local communities and the county of San Bernardino. Policy NR-4.1 requires the consideration of 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-4.2 requires coordination with adjacent federal, state, local, and tribal agencies to protect scenic resources that extend beyond the County's land use authority and are important to countywide residents, businesses, and tourists. Policy NR-4.3 prohibits new off-site signage and encourages the removal of existing off-site signage along or within view of County Scenic Routes and State Scenic Highways.

Nevada

- **South Clark County Land Use Plan.** The South Clark County Land Use Plan Policy 54.8 states that since Highway 95 is a gateway to Clark County and the Las Vegas Valley, aesthetics and visual impact caused by any type of proposed or expanded development should be controlled.

Local

- **San Bernardino County Countywide Plan.** The San Bernardino County Countywide Plan Natural Resources Element Goal NR-4 is established in order to protect scenic resources that highlight the natural environment and reinforce the identify of local communities and the county of San Bernardino. Policy NR-4.1 requires the consideration of 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-4.2 requires coordination with adjacent federal, state, local, and tribal agencies to protect scenic resources that extend beyond the County's land use authority and are important to countywide residents, businesses, and tourists. Policy NR-4.3 prohibits new off-site signage and encourages the removal of existing off-site signage along or within view of County Scenic Routes and State Scenic Highways.

Impact Analysis

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

Less than Significant. The Project alignment crosses the sparsely developed and sparsely populated desert environment of the Mojave Desert, with the Mojave Valley to the north, and passes through the Cady Mountains, Bristol Mountains, and the MNP. The viewshed, or the area from which the Project alignment is visible, is approximately 5 miles, beyond which it is difficult for a person to notice changes or

views are blocked by large features such as mountains. Most of the alignment of Segment 1 is adjacent to historic Route 66, and portions are visible from I-40. Segment 2 goes through mostly undeveloped areas roughly parallel to I-15 but is offset by approximately 15 miles. The existing transmission structures to be utilized for the proposed Project are not visible from I-15. The Segment 2 telecommunication path would be mostly visible from nearby local roads that transect the SCE ROW, from spur roads in the SCE ROW, or Powerline Road that runs mostly adjacent to the utility corridor.

There are no scenic vistas specifically designated in San Bernardino County's Natural Resources Element of the Countywide Plan. However, both BLM and the NPS have compiled visual resource inventories for scenic areas under their jurisdiction. According to the BLM National Viewer (2021), the Project alignment crosses through areas with a Visual Resources Inventory (VRI) ranking of Class II (moderately high relative visual value) and Class III (moderate relative visual values) within the Cady Mountains and areas with a VRI ranking of Class 1 (high relative visual value) within the Kelso Peaks/Marl/Old Dad Mountains. The MNP consists of multiple scenic vistas such as sand dunes, mountains, dry lakes, lava flows, cinder cones, and Joshua trees, which are all protected within the Preserve lands (BLM 2015). A review of the NPS Visual Resources Inventory of the MNP indicates that the Project alignment is visible from the scenic viewpoint Connie's Place, located approximately 3 miles from the Project alignment. Connie's Place has a Scenic Inventory Value of 4 (low visual value) due to the lack of diversity of vegetation and existing structures that intrude in the view. The Project alignment is 1.3 miles from scenic viewpoint Ten Mile Tank, which has a Scenic Inventory Value of 3 (very high value) but the Project would not be visible, as available views at the viewpoint are focused away from the Project.

Construction of the Project would be temporary and would not have a substantial adverse effect on a scenic vista. The proposed Project would utilize existing and replacement distribution poles for ADSS installation in Segment 1 and existing LSTs for OPGW replacement in Segment 2.

Segment 1 primarily consists of installation of ADSS on existing distribution poles. Some poles would be replaced and 17 new telecommunication poles similar in size and appearance to the existing distribution poles would be installed. Although Segment 1 would be visible from Route 66 and I-40, overhead and underground attachment of fiber optic cable at Segment 1 would be visually similar to existing conditions and would not detract from or interrupt an existing scenic vista. In addition, the overhead fiber optic cable would be attached to the existing poles that currently occupy the viewshed. Occasional maintenance activities would also be visible from nearby roadways, but such activities would appear small or hidden by the facilities.

Figure 2 shows the existing Hector 12 kV/Baroid 66 kV distribution line adjacent to National Trails Highway (Segment 1). The new ADSS would be installed beneath the electrical conductor that is faintly visible overhead.

Figure 3 illustrates ADSS installation on a distribution pole.

Segment 2 primarily involves replacement of existing OHGW with OPGW on existing LSTs. Of the 409 LSTs involved, only 27 LSTs would require minor modifications, including ground wire peak modification on 25 structures and body reinforcement on 7 of the 27 structures. The modifications would include adding steel members to strengthen the body and peak of the towers to handle the load of the OPGW and would not change the overall appearance of the existing towers. The modifications would include the addition of

steel struts within the existing lattice of the structure bodies, above the "waist" of the structures, and the structure peak modifications would be within the existing lattice of the structure peaks.

The structural modifications described above would not change the heights of the existing structures. The additional struts would be within the existing lattice, within the overall visual profile of the structures. Steel with the same dulled grey galvanizing as the existing structural steel would be used. Therefore, the structural modifications would generally mirror existing conditions and would not result in a substantial adverse effect on a scenic vista either through view blockage, interruption, or degradation.

The installation of new poles (i.e., riser and telecommunication poles) or modifications to LSTs in the landscape would be limited such that their presence would not result in blockage or substantial interruption of scenic features. The ADSS and OPGW would integrate into the existing visual landscape and would not substantially interrupt or detract from existing views or existing scenic features in the landscape. Most of the Project area is distant from major roadways and as such, construction activities would generally be visible to a few residents and travelers near the Project area. Trucks, helicopters, and construction equipment would be visible while construction activities are in process; however, due to distance from public view locations, the temporary and dynamic nature of construction activities, and the general availability of long and broad views in the surrounding area, construction of the proposed Project would not have a substantial adverse effect a scenic vista.

Overall, the proposed Project would not result in substantial adverse effects on scenic vistas. Impacts on scenic vistas would be less than significant and no mitigation would be required.

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

Less than Significant. The proposed Project would generally utilize existing electrical infrastructure and would not require the removal of a significant number of trees or rock outcroppings. No historic buildings would be damaged or otherwise impacted as a result of construction and operation. As previously stated, the Project alignment parallels I-40 for approximately 27 miles. Due to distance, the Project alignment is not readily visible from I-15.

Segment 1 consists of overhead attachment and underground installation of a fiber optic cable, which would not be readily visible to travelers on Route 66 or I-40. In addition, the overhead fiber optic cable would be attached to existing and replacement poles that currently occupy the visual environment along Route 66. Segment 2 changes would not be visible from a County scenic route or an eligible or designated state scenic highway.

Other scenic resources within the vicinity of the Project include Troy Dry Lake, through which Segment 1 crosses, and a volcanic area associated with the Pisgah Crater, a volcanic cinder cone located several miles south-southeast of the Pisgah Substation. Segment 2 crosses through the Cady Mountains, Kelso Peaks/Marl/Old Dad Mountains, and the MNP, which contains scenic resources, including sand dunes, mountain ranges, dry lakebeds, lava flows, cinder cones, Joshua tree forest, and far-reaching vistas (these features are generally visible from public roads and trails within the MNP). The Project's telecommunication path would be installed on existing distribution and transmission structures, and the structure heights would not be increased as a result of the proposed Project. As such, the proposed

Project would not substantially change the existing visual environment or damage scenic resources. The proposed Project would not modify or adversely affect existing scenic resources. Therefore, the proposed Project would have a less than significant impact on scenic resources and no mitigation would be 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 point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?***

Less than Significant. While the Project is located in a non-urbanized setting/area, Project consistency with applicable local regulations governing scenic quality is considered herein. Specifically, Goal NR-4.1, Preservation of Scenic Resources, of the Natural Resources Element of the Countywide Plan requires San Bernardino County 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." The Countywide Plan also designates Route 66 and I-40 as County scenic routes.

A telecommunication cable and other components would be installed on existing distribution and transmission structures and the structure heights would not be increased as a result of the proposed Project. During construction, portions of the Project area's visual character would temporarily change due to construction work sites and the use of helicopters. Segment 1 includes trenching within an existing road shoulder for installation of underground cable, which would be returned to its existing condition when construction is complete. The Project includes minor vegetation removal and drive-and-crush activities for tower access during construction. Significant natural screening along Segment 2 would occur due to topography, vegetation, and structures. Construction activities would be transient and of short duration as construction progresses along the linear alignments of Segments 1 and 2. Once Project construction is completed, the Project areas would be restored to pre-Project conditions. Further, and as previously stated, Segment 1 consists of overhead and underground attachment of fiber optic cable (overhead attachment would occur onto existing or new wood poles in an established SCE ROW) and Segment 2 includes the removal of one OHGW and replacement with a new telecommunication path (the new "path" would be installed on existing SCE transmission line structures). Because new cables and telecommunication paths would be installed on existing transmission line structures (and because new poles would with located within established ROWs in close proximity to similar poles), the operational condition would be visually similar to existing conditions. As such, operation of the Project would not substantially degrade existing visual character and impacts would be less than significant.

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

Less than Significant. Project construction activities would generally occur between 5:00 a.m. and 7:30 p.m., depending on time of year, including travel time. Crews may travel to and set up at sites before sunrise or clean up and travel from sites after sunset. Nighttime construction work is not anticipated for the proposed Project; however, if temporary lighting is required, the proposed Project would adhere to the requirements of APM AES-2, which requires directing lighting away from roads and residences, installing cutoff angles for light fixtures that could be visible beyond the Project area, and setting standards for temporary construction lighting. The light standards would be shielded, resulting in light being directed

downward and inward (toward the work). The existing, developed Daggett Construction Yard, Nipton Construction Yard, and Gale and Pisgah Substations would be used as construction storage areas. No additional permanent night/security lighting would be required at the construction yards or substations (existing night/security lighting at the Daggett Construction Yard and substations would be used as required). During the daytime hours when construction activities are active, construction vehicles and equipment would be moving throughout the Project area. While these vehicles and equipment are composed of metallic material, these components would not be particularly reflective and would not create substantial glare. The Project as proposed would not introduce any new permanent sources of light and glare. No new lighting would be installed on existing or new transmission line poles. All conductors would be nonspecular and nonreflective, and insulators would be nonreflective and nonrefractive to minimize glare (refer to APM-AES-1 in Table 9). Therefore, impacts related to light and glare would be less than significant and no mitigation is required.

3.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. 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. 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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Existing Condition

Agriculture

The California Department of Conservation (DOC) established the Farmland Mapping and Monitoring Program in 1982 to assess the location, quantity, and quality of agricultural lands and conversion of these lands to other uses. The U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) classifies notable agricultural lands as follows:

- **Prime Farmland:** Land that has the best combination of physical and chemical properties for the production of crops.
- **Farmland of Statewide Importance:** Similar to Prime Farmland, but with minor shortcomings (e.g., steeper slopes, inability to hold water).
- **Unique Farmland:** Land of lesser quality soils, but recently used for the production of specific high economic value crops. Land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California.
- **Farmland of Local Importance:** Farmlands of Local Importance are considered vital to the local agricultural economy, as identified by each county's local advisory committee and board of supervisors.

The Project area is primarily unmapped by the DOC, and as such Prime Farmland, Farmland of Statewide Importance, or Unique Farmland (Farmland) is not present along the majority of the Project area. There are four locations of the Project site that are within 0.5 miles of farmland (DOC 2016):

- Unique farmland is located approximately 336 feet west of distribution pole 52005CTC on the Segment 1 alignment. Segment 1 is separated from the Unique Farmland by the National Trails Highway and Newberry Road.
- Unique Farmland, Prime Farmland, and Farmland of Statewide Importance is located approximately 0.25 miles north of distribution pole 2151065E on the Segment 1 alignment. Segment 1 is separated from the Unique Farmland, Prime Farmland, and Farmland of Statewide Importance by vacant land, the BNSF Railway, and Santa Fe Street.
- Prime Farmland is located approximately 0.5 miles north of distribution pole 4792802E on the Segment 1 alignment. Segment 1 is separated from the Prime Farmland by the BNSF Railway and vacant land.

- Prime Farmland and Farmland of Statewide Importance are located approximately 0.5 miles east of the eastern border of the Daggett materials yard laydown area. The laydown area is separated from the Prime Farmland and Farmland of Statewide Importance by existing solar development.

Other areas within and near the Project area consists of Urban and Built-Up Land, Grazing Land, and Other Land, as defined by the DOC (DOC 2016). Williamson Act Lands are not present along either Segment 1 or Segment 2.

Forestry

There are no forest lands or timberland within the vicinity of the Project area.

Regulatory Setting

California

- **California Land Conservation Act of 1965 (Williamson Act).** The Williamson Act preserves agricultural and open space lands from conversion to urban land uses by establishing a contract between local governments and private landowners to voluntarily restrict their landholdings to agricultural or open space use. In return, landowners receive property tax assessments based on farming or open space use. Williamson Act contracts are valid for a minimum of 10 years and, in the absence of a notice of nonrenewal, they are automatically renewed each year for an additional 10-year term.

  The Williamson Act also allows local governments to establish agricultural preserves, which must include a minimum of 100 acres (Cal. Govt. Code Section 51230). Government Code Section 51238 states, "notwithstanding any determination of compatible uses by the county or city pursuant to this article, unless the board or council after notice and hearing makes a finding to the contrary, the erection, construction, alteration, or maintenance of gas, electric, water, communication, or agricultural laborer housing facilities are hereby determined to be compatible uses within any agricultural preserve."

Local

- **San Bernardino County Countywide Plan.** The San Bernardino County Countywide Plan Natural Resources Element Goal NR-7 is established to maintain the ability of property owners, farmers, and ranchers to conduct sustainable and economically viable agricultural operations. Policy NR-7.1 emphasizes protection of agricultural lands from adverse effects of urban encroachment. Policy NR-7.2 requires project applicants seeking to develop 20 or more acres of Farmland to non-agricultural uses to prepare an agricultural resource evaluation prior to project approval.

Impact Analysis

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?***

No Impact. The Project area does not partially or fully intersect any farmland. While four locations in the Project area are within 0.5 miles of Farmland, these locations are separated from farmland by existing development, streets, the BNSF railway, solar development and vacant land. T Though the majority of the

Project alignment is not mapped by the DOC Farmland Mapping and Monitoring Program, the land uses surrounding Segment 1 include sparsely developed areas of the Mojave Desert and scattered residences, while the land uses surrounding Segment 2 include undeveloped desert land or are located in the MNP, with no development or very minimal development, which are non-agricultural uses (i.e., residences), in proximity to the SCE ROW or construction laydown yards. Furthermore, the land use zoning designations along Segment 1 include Rural Living (RL and RL-5), Resource Conservation (RC), Community Industrial (IC), General Commercial (CG), Multiple Residential (RM), Neighborhood Commercial (CN), Highway Commercial (CH), and Institutional (IN) (County of San Bernardino 2020a). Land use zoning designations for Segment 2 include RC, R-U (define), and SD-RES (Special Development).

The proposed Project involves installing a new telecommunications path consisting of OPGW, OFNR cable, and ADSS fiber optic cable in an existing SCE ROW on existing utility line structures. The proposed Project would not include construction of new infrastructure, or activities that could result in the conversion of agricultural land to other uses. Project activities would not occur within or otherwise disturb existing farmland, and features that separate the Project area from farmland preclude the Project activities from converting farmland to non-agricultural use. As such, the proposed Project would not convert land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and no impacts would occur.

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

No Impact. There are no lands zoned for agricultural use located along the Project alignment. Only land located within an agricultural preserve is eligible for a Williamson Act contract (DOC 2019). An agricultural preserve must consist of no less than 100 acres. Because there is minimal agricultural land within the vicinity of the Project alignment, the Project would not affect any lands under a Williamson Act Contract. No impacts would occur.

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

No Impact. There are no forest lands or timberland within the vicinity of the Project alignment. Therefore, there would be no conflict with existing zoning for forest land or timberland. No impacts would occur.

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

No Impact. The proposed Project would not cause the loss of or involve the conversion of forest land, as there are no forest lands or timberland within the vicinity of the Project alignment. No impacts would occur.

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

No Impact. The proposed Project consists of new telecommunication cable on existing distribution and transmission lines in an existing utility corridor. Therefore, no changes to the existing environment would

occur that could result in the conversion of Farmland to non-agricultural use or forest land to non-forest use due to implementation of the proposed Project. No impacts would occur.

3.3 Air Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. 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?	☐	☐	☒	☐

Existing Condition

The proposed Project is located in the San Bernardino County portion of the Mojave Desert Air Basin (MDAB), which is under the jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD), and in Clark County, Nevada, which is under the jurisdiction of the Clark County Division of Air Quality. Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Therefore, the majority of sensitive receptor locations are schools, hospitals, and residences. The proposed Project is located in a rural environment with few sensitive receptors within 1,000 feet of construction areas. For Segment 1, one residential property is located approximately 600 feet northeast of the Gale Substation, and scattered residential properties are located adjacent to the SCE ROW, primarily concentrated around the National Trails Highway and I-40 at approximately 50 to 100 feet from work areas. For Segment 2, no sensitive receptors were identified within 1,000 feet of the Pisgah Substation or the SCE ROW.

Under existing conditions, air pollutant emissions in the vicinity of Segments 1 and 2 are primarily generated by vehicular and rail traffic on transportation corridors, such as I-40 and the BNSF rail line, as well as natural sources, such as high winds mobilizing fugitive dust. SCE's existing routine O&M activities along the Project alignment contribute to existing air pollutant emissions through the use of personnel vehicle trips and heavy-duty equipment for repairing existing facilities, restringing lines, routine access road maintenance, periodic insulator washing, telecommunications equipment maintenance, and as-needed emergency repairs.

Regulatory Setting

The federal and State Clean Air Acts mandate the control and reduction of certain air pollutants. Under these laws, the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for "criteria pollutants" and other pollutants. Depending on whether the standards are met or exceeded, the MDAB and Clark County are classified as being in "attainment" or "nonattainment." In areas designated as nonattainment for one or more air pollutants, a cumulative air quality impact exists for those air pollutants, and the human health impacts associated with these pollutants are already occurring in that area as part of the environmental baseline condition. Under federal law, air quality management agencies are required to prepare a plan for air quality improvement for pollutants for which their jurisdiction is in non-compliance. The MDAB is designated a nonattainment area for the NAAQS and CAAQS for ozone (only in the southwest corner of the desert portion of San Bernardino County for the NAAQS), the NAAQS and CAAQS for PM_{10}, the CAAQS for $PM_{2.5}$ (only in San Bernardino County), and the CAAQS for hydrogen sulfide (only in the Searles Valley in the northwest corner of San Bernardino County) (MDAQMD 2021). The Las Vegas Valley portion of Clark County, Nevada, is designated nonattainment for the NAAQS for ozone (Clark County 2021). As the local air quality management agencies, the MDAQMD and the Clark County Division of Air Quality are required to monitor air pollutant levels to ensure that the NAAQS are met in both the California and Nevada portions of the Project alignment and the CAAQS are met in the California portion of the Project alignment. If they are not met, these agencies must develop strategies to meet the standards.

In furtherance of these efforts, the MDAQMD has adopted an Air Quality Management Plan (AQMP) related to ozone—the 2017 Federal 75 ppb (parts per billion) Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)—which outlines existing and proposed control measures and contingency measures to reduce ozone precursor emissions, as well as a vehicle miles traveled (VMT) offset demonstration for transportation control strategies and measures. The 2017 AQMP for ozone determines that, with implementation of the proposed control strategy, the MDAQMD can expect to reach attainment of the 8-hour ozone NAAQS (0.075 parts per million at the time of publication of the AQMP) in the Western Mojave Desert Nonattainment Area prior to the July 2027 attainment deadline (MDAQMD 2017). The MDAQMD has also adopted the 1995 Final Mojave Desert Planning Area Federal Particulate Matter (PM_{10}) Attainment Plan to reduce PM_{10} concentrations within its jurisdiction in an effort to achieve the NAAQS for PM_{10}. Similar to the 2017 AQMP for ozone, the 1995 AQMP for PM_{10} includes an outline of existing and proposed control measures and contingency measures for reducing PM_{10} emissions and determines that plan implementation would achieve attainment of the NAAQS for PM_{10} by the end of 1998. However, the MDAQMD has not yet achieved attainment of the NAAQS for PM_{10}.

The Clark County Division of Air Quality has also adopted air quality plans, rules, and regulations, including the Clark County State Implementation Plans, Maintenance Plans, and Transportation Conformity Plans, to address air pollution within its jurisdiction. These plans include the Redesignation Request and Maintenance Plan for Particulate Matter (PM_{10}) – Clark County, Nevada (Clark County Division of Air Quality 2012) and the Second 10-Year Carbon Monoxide Limited Maintenance Plan – Las Vegas Valley Maintenance Area – Clark County Nevada (Clark County Division of Air Quality 2019). The Clark County Division of Air Quality has not yet adopted a plan to achieve attainment of the NAAQS for ozone in the Las Vegas Valley.

Impact Analysis

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

Less than Significant. As discussed under Regulatory Setting, the applicable air quality plans in the Project area are the MDAQMD 1995 AQMP for PM_{10}, the MDAQMD 2017 AQMP for ozone, and the Clark County Division of Air Quality Maintenance Plans for carbon monoxide and PM_{10}. The MDAQMD states that a project would be consistent with the AQMPs if it complies with all applicable air district rules and regulations, complies with all proposed control measures not yet adopted from the AQMPs, and is consistent with the growth forecasts used in development of the AQMPs (MDAQMD 2020). The Project would be required to comply with all applicable rules and regulations established by the relevant air quality management authority, including MDAQMD Rule 203 (Permit to Operate) and MDAQMD Rule 403 (Fugitive Dust Control) and Clark County Division of Air Quality Section 41 (Fugitive Dust) and Section 94 (Permitting and Dust Control for Construction Activities) regulations. In addition, the MDAQMD 2017 AQMP for ozone does not include additional proposed control measures for direct ozone precursor reduction purposes, and the proposed control measures in the MDAQMD 1995 AQMP for PM_{10} have either been adopted as part of Rule 403 or are not applicable to the proposed Project. Furthermore, the proposed Project would only involve construction-related activities, which are short term and temporary in nature. The Project would not include construction of residences or require additional employees for long-term maintenance activities such that additional population growth in the region would be induced. Furthermore, the Project would not result in changes to land use or zoning designations. Therefore, the Project would be consistent with the growth forecasts used in development of the AQMPs. Accordingly, the Project would not conflict with or obstruct implementation of the MDAQMD 1995 AQMP for PM_{10}, the MDAQMD 2017 AQMP for ozone, or the Clark County Division of Air Quality Maintenance Plans for carbon monoxide and PM_{10}. This impact would be less than significant, and 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?

Less than Significant. As discussed above under Air Quality Standards and Attainment, the MDAB is designated a nonattainment area for the NAAQS and CAAQS for ozone (only in the southwest corner of the desert portion of San Bernardino County for the NAAQS), the NAAQS and CAAQS for PM_{10}, the CAAQS for $PM_{2.5}$ (only in San Bernardino County), and the CAAQS for hydrogen sulfide (only in the Searles Valley in the northwest corner of San Bernardino County) (MDAQMD 2021). The Las Vegas Valley portion of Clark County, Nevada is designated nonattainment for the ozone NAAQS (Clark County 2021). The following subsections discuss emissions associated with construction and operation of the proposed Project.

Project construction would generate temporary air pollutant emissions associated with fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust emissions from heavy construction equipment and construction vehicles (including helicopters). Emissions of VOC, NO_X, and carbon monoxide are primarily associated with mobile equipment exhaust, including off-road construction equipment and on-road motor vehicles. Fugitive particulate matter emissions are primarily associated with site preparation and vehicle travel on unpaved roads and vary as a function of parameters such as soil silt content, soil moisture, wind speed, acreage of disturbance area, and miles traveled by construction vehicles. Emissions would vary from day to day depending on the level of activity, the specific type of construction activity occurring, and, for fugitive dust, prevailing weather conditions.

Construction of Segment 1 would involve seven distinct activities comprising a total of 115 working days, and construction of Segment 2 would involve 14 distinct activities comprising a total of 262 working days. Segment 1 and Segment 2 construction activities would overlap; however, it is infeasible to accurately predict which individual activities may be occurring simultaneously on a given day. Segment 1 and Segment 2 construction activities would last approximately 1 year in total; therefore, this analysis summed all emissions generated by Segment 1 and Segment 2 construction activities and compared them to the MDAQMD annual significance thresholds.

Table 10 presents the estimated construction emissions by Project activity and in total and compares total emissions to the annual MDAQMD significance thresholds for criteria air pollutants. As shown, construction emissions associated with the proposed Project would not exceed the MDAQMD annual significance thresholds. Furthermore, in the event that helicopter construction is temporarily infeasible due to weather or other unforeseen conditions, air pollutant emissions generated during the removal of existing OHGW and installation of OPGW using ground-based construction equipment and vehicles within the structure work areas would be less than those estimated in Table 10 given that ground-based construction equipment and vehicles emit substantially fewer air pollutant emissions on an hourly basis than helicopters emit. Therefore, the proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under the applicable NAAQS and CAAQS. Construction impacts would be less than significant, and no mitigation is required.

Table 10. Estimated Air Pollutant Emissions during Construction[1]

Segment	Phase	VOC (tons)	NO_X (tons)	CO (tons)	SO_X (tons)	PM_{10} (tons)	$PM_{2.5}$ (tons)
1	Install Conduit Trench	0.004	0.036	0.141	<0.001	0.053	0.006
1	Install Underground Fiber Cable	0.001	0.005	0.037	<0.001	0.012	0.001
1	Install Overhead Fiber Cable	0.009	0.035	0.277	0.001	0.081	0.010
1	Wooden Pole Installation	0.006	0.045	0.168	<0.001	0.022	0.003
1	Manhole Installation	0.003	0.026	0.102	<0.001	0.039	0.004
1	Fiber Cable Splicing	0.002	0.013	0.038	<0.001	0.020	0.002
1	Remove/Install New Poles	0.008	0.044	0.190	<0.001	0.043	0.006
2	Staging/Material Yard	0.006	0.056	0.373	0.001	1.296	0.132
2	ROW Clearing	0.009	0.045	0.404	0.001	0.448	0.047
2	Install Conduit Trench	0.003	0.027	0.086	<0.001	0.231	0.024
2	LST Modifications	0.005	0.029	0.159	<0.001	0.486	0.050
2	Guard Structure Install/Removal	0.002	0.009	0.056	<0.001	0.116	0.001
2	Remove Existing OHGW and Install OPGW						
	Ground-Based Equipment	0.060	0.380	1.833	0.005	7.005	0.715
	Helicopters	1.820	16.630	12.990	1.240	2.020	2.010

Table 10. Estimated Air Pollutant Emissions during Construction[1]

Segment	Phase	VOC (tons)	NO_X (tons)	CO (tons)	SO_X (tons)	PM_{10} (tons)	$PM_{2.5}$ (tons)
2	Install Underground Fiber Cable	0.002	0.012	0.060	<0.001	0.173	0.018
2	Install Overhead Cable	0.001	0.004	0.020	<0.001	0.058	0.006
2	Install Manholes	0.002	0.024	0.075	<0.001	0.200	0.021
2	Install Fiber Cable	0.002	0.011	0.054	<0.001	0.154	0.016
2	Remove/Install New Distribution Poles	0.001	0.004	0.026	<0.001	0.039	0.004
2	Cable Splicing	0.007	0.044	0.227	0.001	0.647	0.066
2	Restoration	0.009	0.053	0.349	0.001	0.870	0.089
2	Splice Enclosure and Riser	<0.001	0.003	0.013	<0.001	0.046	0.005
Total		**1.964**	**17.535**	**17.676**	**1.252**	**14.058**	**3.236**
MDAQMD Annual Threshold of Significance[2]		25	25	100	25	15	12
Threshold Exceeded?		No	No	No	No	No	No

MDAQMD = Mojave Desert Air Quality Management District; VOC = volatile organic compounds; NOX = nitrogen oxides; CO = carbon monoxide; SOX = sulfur oxides; PM10 = particulate matter 10 micrometers or less in diameter; PM2.5 = particulate matter 2.5 micrometers or less in diameter

Note: Totals may not add due to rounding.

1 Of the total 113-mile Project alignment, approximately 1.8 miles of the alignment is located in Nevada. The remaining approximately 111.2 miles of the alignment is located in California. Emissions in Nevada have not been quantified as part of this CEQA analysis. This analysis assumes all criteria air pollutant emissions would occur in California and therefore are compared in total to the MDAQMD significance thresholds.

2 **Source**: MDAQMD 2020

Source: Appendix C, Air Quality and Greenhouse Gas Emissions.

After construction, ongoing maintenance-related activities are not expected to increase above existing conditions. Therefore, operation of the Project as proposed would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under the applicable NAAQS and CAAQS. Operational impacts would be less than significant, and no mitigation is required.

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

Less than Significant. As discussed under Existing Condition, the proposed Project is located in a rural environment with few sensitive receptors within 1,000 feet of construction areas. For Segment 1, one residential property is located approximately 600 feet northeast of the Gale Substation, and scattered residential properties are located adjacent to the SCE ROW, primarily concentrated around the National Trails Highway and I-40 at approximately 50 to 100 feet from work areas. For Segment 2, no sensitive receptors were identified within 1,000 feet of the Pisgah Substation or the SCE ROW. Localized air quality impacts to sensitive receptors typically result from carbon monoxide hotspots, toxic air contaminants (TAC), criteria air pollutants, and Valley Fever, each of which are discussed in the following subsections.

Carbon Monoxide Hotspots

Traffic-congested roadways and intersections have the potential to generate elevated localized carbon monoxide levels (i.e., carbon monoxide hotspots). In general, carbon monoxide hotspots occur in areas with poor circulation or areas with heavy traffic. The proposed Project would result in minor increases in construction-related vehicle traffic near each construction site as a result of worker vehicle trips, delivery of heavy-duty equipment and materials, and haul trips during construction activities. Because the Project alignment is not located in an area with poor circulation or heavy traffic and would generate minimal additional traffic, Project-related construction traffic would not cause or contribute to potential temporary carbon monoxide hotspots. Furthermore, after construction, ongoing maintenance-related activities are not expected to increase above existing conditions. Therefore, the Project would not expose sensitive receptors to substantial concentrations of carbon monoxide. Impacts would be less than significant, and no mitigation is required.

Toxic Air Contaminants

TACs are defined by California law as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. The following subsections discuss the Project's potential to result in impacts related to TAC emissions during construction and operation.

Construction-related activities would result in temporary Project-generated emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other construction activities. DPM was identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of DPM (discussed in the following paragraphs) outweighs the potential non-cancer health impacts and is therefore the focus of this analysis (CARB 2021).

The Office of Environmental Health Hazard Assessment developed a Guidance Manual for the Preparation of Health Risk Assessments. According to the Office of Environmental Health Hazard Assessment methodology, health effects from carcinogenic TACs are usually described in terms of individual cancer risk, which is based on a 30-year lifetime exposure to TACs. Construction of the proposed Project would not result in lifetime exposure to TACs because construction activities, including surveying, would occur over the course of approximately 115 working days for Segment 1 and approximately 262 working days for Segment 2. It is anticipated that there would be overlap in the construction schedules of Segment 1 and Segment 2, such that Project construction would occur within 1 year. The number of days that construction activities occur at the Gale Substation and at work areas along the Project alignment for Segment 1 within 1,000 feet of sensitive receptors would be even less than the total 115-working-day construction period for Segment 1. The construction activities and associated emissions would be temporary and restricted to relatively small areas where only a limited amount of construction equipment would be operating at any one time. Additionally, the use of construction equipment meeting Tier 4 Final emissions standards, per APM AIR-2, would minimize the potential exposure of sensitive receptors to DPM emissions. Therefore, DPM generated by Project construction would not likely create conditions where the probability is greater than 10 in one million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of non-carcinogenic TACs that exceed a Hazard Index greater than one for the Maximally Exposed Individual. Accordingly, Project construction would not

expose sensitive receptors to substantial TAC concentrations. Construction impacts would be less than significant, and no mitigation is required.

After construction, ongoing maintenance-related activities are not expected to increase above existing conditions with implementation of the proposed Project. Therefore, Project operation would not expose sensitive receptors to substantial concentrations of TACs. Thus, no impact would occur, and no mitigation is required.

Criteria Air Pollutants

Poor air quality associated with criteria air pollutant emissions can have adverse effects on human health when air pollutant emissions exceed significance thresholds. For instance, exposure to high concentrations of VOCs can interfere with oxygen uptake, and elevated ambient VOC concentrations are suspected to cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis. Nitrogen dioxide, a potential irritant at atmospheric concentrations, can worsen respiratory diseases, such as asthma, over short periods of exposure, which causes respiratory symptoms including coughing, wheezing, or difficulty breathing. Longer periods of exposure to high concentrations of nitrogen dioxide can contribute to the development of asthma and potentially increase susceptibility to respiratory infections. Carbon monoxide in high concentrations reduces the amount of oxygen transported in the blood stream to critical organs like the heart and brain and, at very high levels, can lead to dizziness, confusion, unconsciousness, and death (USEPA 2021a). Sulfur dioxide can result in temporary breathing impairment in asthmatic children and adults engaged in active outdoor activities. Lastly, when inhaled into the deepest part of the lungs, both PM_{10} and $PM_{2.5}$ cause health effects and, according to numerous scientific studies, have been linked to premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing (USEPA 2021a).

While these pollutants can cause potentially adverse health effects when they are emitted in substantial amounts, emissions generated during Project construction activities would not exceed the MDAQMD significance thresholds, as discussed under checklist item (b) above. Furthermore, emissions sources during construction would not be heavily concentrated in one specific location. Instead, it is likely that construction equipment would be operating sparsely in several locations along the Project alignment. Additionally, the use of construction equipment meeting Tier IV Final emissions standards, per APM AIR-2, would minimize the potential exposure of sensitive receptors to criteria air pollutant emissions. Additionally, implementation of APMs AIR-3, AIR-4, and AIR-5 would decrease emissions by reducing idling, ensuring equipment is properly maintained, and encouraging ridesharing. Moreover, after construction, ongoing maintenance-related activities are not expected to increase above existing conditions with implementation of the proposed Project. Therefore, the Project would not expose sensitive receptors to substantial concentrations of criteria air pollutants or the associated adverse health effects. Impacts would be less than significant, and no mitigation is required.

Valley Fever

San Joaquin Valley Fever (Valley Fever; formally known as Coccidioidomycosis) is an infectious disease caused by the fungus *Coccidioides immitis*. Valley Fever is a disease of concern in arid and semiarid areas of the western United States, including in the dry, inland regions of southern California. Infection is

caused by inhalation of *Coccidioides immitis* spores that become airborne when dry, dusty soil or dirt is disturbed by natural processes such as wind or earthquakes, or by human induced ground-disturbing activities such as construction, farming, or other activities (Ventura County Air Pollution Control District 2003). Inhalation of these spores can cause fever, chest pain, and coughing, among other signs and symptoms (California Department of Public Health 2021). The proposed Project has the potential to result in elevated levels of the incidence of Valley Fever cases resulting from uncontrolled fugitive dust during construction activities. However, the proposed Project is not expected to generate large amount of dust emissions because Project construction contractor(s) would control fugitive dust emissions during construction activities by complying with MDAQMD Rule 403 and Sections 41 and 94 of the Clark County Division of Air Quality regulations as well as by implementing APM AIR-1. The Project construction contractor(s) would also be required to comply with all applicable requirements related to respiratory protection as established by the California Division of Occupational Safety and Health, such as California Code of Regulations, Title 8, Sections 5141 and 5144, and the federal Occupational Safety and Health Administration, such as 29 Code of Federal Regulations Sections 1910.134 and 1926.103. Regulatory compliance, along with APM AIR-1, which is already build into the proposed Project, would minimize the Valley Fever-related effects of dust emissions. After construction, ongoing maintenance-related activities are not expected to increase above existing conditions with implementation of the proposed Project. Therefore, impacts associated with Valley Fever would be less than significant, and no mitigation is required.

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

Less than Significant. The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies. Project construction would generate oil and diesel fuel odors from heavy-duty equipment operating during construction activities. However, these odors would be localized, limited to the period of construction activities, and would dissipate rapidly with distance. After construction, ongoing maintenance-related activities are not expected to increase above existing conditions and would not introduce new odor sources. As a result, the proposed Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be less than significant, and no mitigation is required.

3.4 Biological Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. 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 Wildlife 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 Wildlife or U.S. 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?	☐	☐	☒	☐

Existing Condition

SCE conducted biological studies, including queries of, review of available literature, publicly available datasets, habitat assessments, reconnaissance surveys, and focused/protocol surveys, to determine the existing conditions with regard to biological resources. The following sections present the sources for the information provided herein and the existing conditions considered in the impact analysis that follows.

Biological Study Area

The Biological Study Area (BSA) includes the areas in which work will occur (e.g., wire setup sites, structure work areas, guard structure sites) and associated access roads, plus the areas in which direct and indirect impacts may occur. The size of the BSA varies for each taxa or biological resource, and typically corresponds to the area in which focused surveys for a given taxa or resource were conducted. In this document, the BSA includes the work areas plus a buffer ranging from 100 feet for special-status plants to 1 mile for golden eagle.

The current design of the Project assumes that wire stringing will be conducted with helicopters to the extent feasible, and that the work areas will be limited to those required for helicopter-based construction. However, to prepare for the possibility that helicopters cannot be used, SCE has included structure work areas at the existing structures in-between the wire setup sites (i.e., in-between wire "pulls") where ground-based construction may occur. For the purpose of the analyses documented in this Initial Study, the BSA includes all potential work areas, including the structure work areas, plus the resource-specific buffers described above. Where necessary, distinctions and comparisons are made between the impacts associated with the all-helicopter scenario and the scenario in which the structure work areas are used.

Literature Review, Database Queries, and Biological Studies

The proposed Project is effectively the combination of two projects, the Gale to Pisgah project (Segment 1) and the Pisgah to Nipton project (Segment 2; named the LVRAS project on reports). Additionally, the Project area overlaps or is located adjacent to other SCE and non-SCE projects. Therefore, the data that serve as the basis for the description of existing conditions and the impact analysis that follows are derived from several sources.

The following publicly available datasets and/or literature were queried and/or reviewed during the initial biological studies, and the queries have been repeated periodically during the Project review process:

- California Natural Diversity Database (CNDDB) (California Department of Fish and Wildlife [CDFW] 2022a)
- California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS 2022)
- California Consortium of Herbaria (CCH) (CCH 2022)
- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) (USFWS 2021)
- USFWS Critical Habitat Mapper (USFWS 2022a)
- CDFW Special Plants and Animals Lists (CDFW 2022b, 2022c)

In addition, literature, including biological survey reports, from the following projects were reviewed:

- SCE's Eldorado-Lugo-Mohave Series Capacitor Project
- SCE's Calcite Substation Project

Table 11 lists the technical reports contributing information to the existing conditions and impact analysis, which are appended to this Initial Study. Detailed methods and results for the technical studies can be found in the appended reports.

Regional Setting

The Project crosses largely undeveloped federal lands, including lands under the jurisdiction of the BLM, NPS, and DOD (Figure 1). The Project also crosses rural and low-density residential land uses on non-federal land in San Bernardino County, California, and Clark County, Nevada.

The Project is located in the Mojave Desert, a hot, dry desert region south of the Sierra Nevada Mountains and east-northeast of the Transverse Ranges. The terrain consists of widely scattered mountain ranges and plains (basins). Elevation in the Project area ranges from approximately 1,700 feet to 4,100 feet above sea level. Climate conditions are characterized by large fluctuations in daily temperature, low humidity, and seasonally strong winds. Summer temperatures in the Mojave Desert typically reach a daily maximum of 119 degrees Fahrenheit, while daily low temperatures in winter may be below 10 degrees Fahrenheit. The average annual precipitation is approximately 5 inches.

Vegetation Communities

Vegetation communities in Segment 1 were initially characterized using data collected for the Calcite Substation Project (BioResource Consultants, Inc. [BRC] 2016). The survey area for that project included all of Segment 1, and the vegetation mapping effort covered an area within 500 feet of the ROW centerline. Vegetation communities in Segment 2 were mapped during the project's Habitat and Resource Assessment (EI 2016a) within 250 feet of the centerline of the existing SCE ROW and within 200 feet of proposed disturbance areas. The vegetation mapping data in both segments were refined through subsequent field visits and desktop analysis.

Vegetation communities in both segments were described to the alliance level in accordance with A Manual of California Vegetation (Sawyer et al. 2009). The sensitivity of vegetation communities is ranked based on the NatureServe Conservation Status Assessments: Methodology for Assigning Ranks (Faber-Langendoen et al. 2012). Vegetation communities with state (S) ranks of S1 (very rare to threatened) to S3 (vulnerable) are considered sensitive and are to be addressed in the environmental review processes of CEQA and its equivalents.

A total of 24 vegetation communities and 3 land cover types (including 8 sensitive vegetation communities and 1 sensitive land cover type) were identified and mapped within the Project study area (Table 12; Appendix B-3, Figure 4).

Table 11. Relevant Biological Resources Technical Studies

Technical Study/ Report	Citation	Purpose/Target Resource	Segment	Survey Timing	Appendix
Biological Resources Technical Report	Environmental Intelligence (EI) 2017a	Habitat assessment Vegetation mapping Special-status plants Jurisdictional waters Mojave fringe-toed lizard Burrowing owl Desert tortoise	Segment 1	Apr-Aug 2017	D-1
Habitat and Resource Assessment Report	EI 2016a	Habitat assessment Vegetation mapping	Segment 2	Oct-Nov 2016	D-2

Table 11. Relevant Biological Resources Technical Studies

Technical Study/ Report	Citation	Purpose/Target Resource	Segment	Survey Timing	Appendix
		Desert tortoise			
Botanical Survey Report	EI 2017b	Special-status plants	Segment 1	Apr-May 2017	D-3
Botanical Survey Report	EI 2017c	Special-status plants	Segment 2	Apr-Jun 2017	D-4
Calcite Substation Project botanical surveys	BioResource Consultants, Inc. (BRC) 2016	Special-status plants	Segment 1	Apr-Jun 2016, Apr 2017	D-5
Eldorado-Lugo-Mohave Series Capacitor (ELM) Project botanical surveys	Insignia Environmental (Insignia) 2020	Special-status plants	Segment 2	Apr-May 2016, Mar-Apr 2017, Sep-Oct 2017, Mar-Apr 2019	D-6
Special-status plant survey report	Artemis Environmental Services, Inc. (Artemis) 2021a	Special-status plants	Segment 1, Segment 2	Mar-Apr 2021	D-7
Focused Survey for Desert Tortoise Report	EI 2016b	Desert tortoise	Segment 2	Oct 2016	D-8
Biological Assessment	EI 2019a	Desert tortoise	Segment 1, Segment 2	Oct 2016, May 2017, May 2019	D-9
Burrowing Owl Survey Report	EI 2017d	Burrowing owl	Segment 1	Apr-Jul 2017	D-10
Golden Eagle Survey Report	EnviroPlus Consulting 2021	Golden eagle	Segment 1, Segment 2	Mar 2021	D-11
Jurisdictional Delineation Report	EI 2019b	Jurisdictional waters	Segment 1, Segment 2	Jul-Aug 2017	D-12
Aquatic Resources Delineation Report	Artemis 2021b	Jurisdictional waters	Segment 1, Segment 2	Mar-Apr 2021	D-13
Invasive Plant and Noxious Weed Survey Report	Artemis 2022	Non-native and noxious weeds	Segment 1, Segment 2	April 2022	D-14

Table 12. Vegetation Communities

Vegetation Community/Land Cover Type[1]	Status	Project Work Areas (acres)[2]	Vegetation Mapping Survey Area[3] (acres)
Sensitive Vegetation Communities			
Chilopsis linearis – Psorothamnus spinosus (Desert willow – smoke tree wash woodland) Woodland Alliance (61.555.00)	G4/S3	1.08	28.37
Dicoria canescens – Abronia villosa – Panicum urvilleanum (Mojave-Sonoran desert dunes) Sparsely Vegetated Alliance (22.105.00)	G4/S3.2	0.23	62.78
Ericameria paniculata (Black-stem rabbitbrush scrub) Shrubland Alliance (35.340.00)	G4/S3	0.28	7.07
Pleuraphis rigida (Big galleta shrub-steppe) Herbaceous Alliance (41.030.00)	G3/S2.2	3.51	172.61
Prosopis glandulosa - Prosopis velutina – Prosopis pubescens (Mesquite thickets) Woodland Alliance (61.514.00)	G5/S3	–	14.55
Rhus trilobata – Crataegus rivularis – Forestiera pubescens (Basket brush – river hawthorn – desert olive patches) Shrubland Alliance (61.580.00)	G4/S3.2?	–	0.47
Suaeda moquinii (Bush seepweed scrub) Shrubland Alliance (36.200.00)	G4/S3	0.17	9.02
Yucca brevifolia (Joshua tree woodland) Alliance (33.170.00)	G4/S3.2	31.72	1,329.40
Total Sensitive Vegetation Communities		**36.99**	**1,624.27**
Non-sensitive Vegetation Communities			
Ambrosia dumosa (White bursage scrub) Shrubland Alliance (33.060.00)	G5/S5	0.10	1.01
Ambrosia salsola – Bebbia juncea (Cheesebush – sweetbush scrub) Shrubland Alliance (33.200.00)	G4/S4	0.96	82.36
Atriplex canescens (Fourwing saltbush scrub) Shrubland Alliance (36.310.00)	G5/S4	0.33	14.30
Atriplex confertifolia (Shadscale scrub) Shrubland Alliance (36.320.00)	G5/S4.2	0.94	30.77
Atriplex hymenelytra (Desert holly scrub) Shrubland Alliance (36.330.00)	G5/S4	–	1.10
Atriplex polycarpa (Allscale scrub) Shrubland Alliance (36.340.00)	G4/S4	23.81	375.95
Bromus (*diandrus*, *hordeaceus*) – *Brachypodium distachyon* (Annual brome grasslands) Herbaceous Semi-natural Stands (42.026.00)	None	1.96	55.78
Bromus rubens – Schismus (*arabicus*, *barbatus*) (Red brome or Mediterranean grass grasslands) Herbaceous Semi-natural Stands (42.024.00)	None	0.17	11.07

Table 12. Vegetation Communities

Vegetation Community/Land Cover Type[1]	Status	Project Work Areas (acres)[2]	Vegetation Mapping Survey Area[3] (acres)
Encelia farinosa (Brittle bush scrub) Shrubland Alliance (33.030.00)	G5/S4	1.11	27.26
Ephedra nevadensis – Lycium andersonii – Grayia spinosa (Nevada joint fir – Anderson's boxthorn – spiny hop sage scrub) Shrubland Alliance (33.185.00)	G5/S3S4	0.02	2.46
Larrea tridentata (Creosote bush scrub) Shrubland Alliance (33.010.00)	G5/S5	24.05	1,276.78
Larrea tridentata – Ambrosia dumosa (Creosote bush – white bursage scrub) Shrubland Alliance (33.140.00)	G5/S5	74.32	2,902.61
Prunus fasciculata – Salazaria mexicana (Desert almond – Mexican bladdersage scrub) Shrubland Alliance (33.315.00)	G4/S4	0.65	8.16
Senegalia greggii – Hyptis emoryi – Justicia californica (Catclaw acacia – desert lavender – chuparosa scrub) Shrubland Alliance (33.045.00)	G4/S4	1.95	16.61
Tamarix spp. (Tamarisk thickets) Shrubland Semi-Natural Alliance (63.810.00)	GNA/SNA4	0.04	23.80
Yucca schidigera (Mojave yucca scrub) Shrubland Alliance (33.070.00)	G4/S4	5.84	230.37
Total Non-sensitive Vegetation Communities		**136.25**	**5,060.39**
Sensitive Land Cover Type			
Alkali Playa Community	G4/S3.2	0.48	21.47
Total Sensitive Land Cover Type		0.48	21.47
Non-sensitive Land Cover Types			
Barren-Not Developed	None	0.15	0.22
Developed	None	47.19	695.80
Total Non-sensitive Land Cover Types		**47.34**	**696.02**
Total		**221.06**	**7,402.15**

1 Rarity and Global/State Ranks: One purpose of the vegetation classification is to assist in determining the level of rarity and imperilment of vegetation types. Ranking of alliances according to their degree of imperilment (as measured by rarity, trends, and threats) follows NatureServe's Heritage Methodology, in which all alliances are listed with a G (global) and S (state) rank. Alliances with State ranks of S1 (critically imperiled) to S3 (vulnerable) are considered to be sensitive.

2 Inclusive of structure work areas for ground-based construction.

3 Buffers of 250 feet from the centerline of the existing SCE ROW and 200 feet surrounding proposed disturbance areas in the current Project design. All structure work areas are located within the SCE ROW, typically on the centerline; therefore, they were included in the vegetation mapping effort.

4 GNA/SNA indicates that a conservation status rank is not applicable because the species or ecosystem is not a suitable target for conservation activities

Descriptions of the vegetation communities based on the A Manual of California Vegetation (Sawyer et al. 2009) and can be found in the habitat resource assessment reports (EI 2016a, 2017a). A land cover type originally mapped as dry lake is classified here as the sensitive land cover type alkali playa. Alkali playa is a rare land cover that is intermittently flooded or saturated. These areas are almost entirely devoid of vegetation. Examples include

dry lake beds and margins (e.g., the on-site Troy Dry Lake), hummocks, lagoon bars, old lake beds perched above current drainages, and seeps (Holland 1986).

Seventeen of the 24 mapped vegetation communities and all three of the mapped land cover types occur in the Project disturbance areas. Of the eight vegetation communities considered sensitive, six (desert willow – smoke tree wash woodland, Mojave-Sonoran desert dunes, black-stem rabbitbrush scrub, big galleta shrub-steppe, bush seepweed scrub, and Joshua tree woodland) occur in Project disturbance areas (36.99 acres in total). Alkali playa, the only sensitive non-vegetated land cover type, also occurs in Project disturbance areas (0.48 acres).

Non-native and Invasive Weeds

Weeds are typically characterized as non-native plants that aggressively colonize new areas and can grow to dominate native plant communities if uncontrolled. Weeds were identified during the habitat and resources assessment conducted in 2016 (EI 2016a) and botanical surveys conducted in 2017 (EI 2017b, 2017c) and a 2022 weed survey (Artemis 2022). A total of 15 species were observed in the BSA that are on lists of weeds maintained by the U.S. Department of Agriculture, California Department of Food and Agriculture, California Invasive Plant Council, MNP, and/or Mojave Weed Management Area. The most numerous and widespread include Saharan mustard (*Brassica tournefortii*), redstem filaree (*Erodium cicutarium*), Russian thistle (*Salsola tragus*), common Mediterranean grass (*Schismus barbatus*), and London rocket (*Sisymbrium irio*).

Special-Status Plants

Special-status plant species include species listed as threatened, endangered, or candidate by CDFW and/or USFWS under the FESA and/or California Endangered Species Act (CESA); species designated as Sensitive by BLM (BLMS); species identified as Focus or Planning Species under the Desert Renewable Energy Conservation Plan (DRECP); species that have a California Rare Plant Rank (CRPR) of 1, 2, 3, or 4 (defined below under Native Plant Protection Act); and species otherwise protected in California or Nevada.

Queries of publicly available datasets, such as the CNDDB (CDFW 2022a), the CNPS Online Inventory of Rare and Endangered Plants (2022), and the CCH (2022), and a literature review were completed to develop a list of special-status plants with potential to occur in the BSA. The queries were conducted in advance of focused special-status plant surveys and updated periodically through the Project review process.

Numerous focused special-status plant surveys have been conducted in the BSA, including both Project-related (EI 2017b, 2017c; Artemis 2021a) and non-Project surveys (BRC 2016; Insignia 2020). The surveys conducted for the Project covered survey areas of between 20 and 100 feet surrounding Project disturbance areas. Surveys were conducted by walking transects and followed the methods of the CDFW Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities (CDFW 2018a) and the CNPS Botanical Survey Guidelines (CNPS 2001). The timing of the surveys took into consideration the phenology for the target species and weather data. Botanists visited reference populations of target special-status species to ensure that these species had emerged and/or developed phenological traits (e.g., fruits, flowers) necessary for identification. In addition, incidental observations of special-status plant species were recorded during other survey efforts (e.g., jurisdictional delineation).

A total of 47 species were evaluated based on the results of the database queries and literature review (Appendix D-14). Of these, 15 special-status plant species have been detected in the BSA or were determined to be likely to

occur based on habitat conditions and historical records (Appendix B-3, Figure 5). Approximately 173.72 acres of natural vegetation communities and sensitive land cover types (alkali playa) occur in Project disturbance areas that could provide habitat for these special-status plant species (Table 12).

Federally or State Listed Plant Species

No plant species designated as rare, candidate, threatened, or endangered by the CDFW or USFWS under the FESA and/or CESA are known to occur or have the potential to occur in the BSA. The Joshua trees present in the BSA are the eastern Joshua tree (*Yucca jaegeriana*), which has no legal listing status or administrative designation. The Project is outside the range of the western Joshua tree (*Yucca brevifolia*), which is a Candidate for protection under CESA (CDFW 2020).

Non-listed Special-Status Plant Species

Non-listed special-status plant species are those that have CRPR ranks of 1, 2, 3, or 4 and those designated as Sensitive by BLM. Eleven of the 14 non-listed special-status plant species determined to have potential to occur in the BSA were observed during focused surveys and are listed below. For specific location information refer to the Lugo-Victorville 500 kV Transmission Line Remedial Action Scheme Project Special-Status Plant Salvage and Relocation Plan.

- **Small-flowered androstephium (*Androstephium breviflorum*; CRPR 2B.2).** Historical records of small-flowered androstephium have been documented in the vicinity of the Pisgah Substation (CDFW 2022a). Numerous individuals of small-flowered androstephium were observed during botanical surveys for SCE's Eldorado-Lugo-Mohave Series Capacitor (ELM) project in and adjacent to a proposed Project disturbance area associated with a wire pulling/stringing site spanning the Burlington-Northern/Santa Fe railroad (EI 2017b).
- **San Bernardino milk-vetch (*Astragalus bernardinus*; CRPR 1B.2).** San Bernardino milk-vetch was observed in Segment 2 within the proposed Project disturbance area and BSA at Towers M124-T4 and M127-T4 (Artemis 2021a).
- **Emory's crucifixion thorn (*Castela emoryi*; CRPR 2B.2).** Emory's crucifixion thorn has been detected in the region since 1990 (CDFW 2022a) and was observed during the 2017 botanical surveys. Specifically, Emory's crucifixion thorn was observed in the disturbance area at Tower M88-T2 and at eight additional locations outside disturbance areas along the Segment 2 ROW between the Cady and Bristol Mountains (EI 2017c).
- **Viviparous foxtail cactus (*Coryphantha vivipara* var*. rosea*; CRPR 2B.2).** During the 2021 botanical surveys, multiple individuals of viviparous foxtail cactus[7] were identified in and adjacent to disturbance areas between towers M120-T1 and M129-T4 in Segment 2 (Artemis 2021a).
- **Purplenerve springparsley (*Cymopterus multinervatus;* CRPR 2B.2).** Purplenerve springparsley was documented in disturbance areas in Segment 2 at the Cima Substation and Tower MM131-T1, M121-T1 (Artemis 2021a), LZ-22, and in a guard pole work area at the intersection of Powerline Road and Cima Road (Artemis 2021a). It was also identified in 10 locations along the Segment 2 ROW outside of disturbance areas.

[7] The 2021 surveyors noted that the identification of several individuals of *Coryphantha vivipara* var*. rosea* would require confirmation. Additionally, two individuals observed during the 2020 weed surveys were only identified to the genus *Coryphantha.*

- **Harwood's eriastrum (*Eriastrum harwoodii*; CRPR 1B.2, BLM Sensitive).** Two individuals of Harwood's eriastrum plants were observed in 2021 in the survey area associated with the structure work areas at tower M100-T3 in Segment 2. The species was not otherwise documented in the disturbance areas (Artemis 2021a).
- **Utah vine milkweed (*Funastrum utahense;* CRPR 4.2).** During Project botanical surveys in 2021 (Artemis 2021a) and surveys for the Calcite Substation Project surveys in 2016 (BRC 2016), multiple individuals of Utah vine milkweed were identified within the disturbance area between Pole 429141S and Pole 429142S near the Pisgah substation.
- **Matted cholla (*Grusonia parishii*; CRPR 2B.2).** Matted cholla was observed in Segment 2 in the proposed Project disturbance areas at Tower M127-T6 (EI 2017c) and Tower M124-T3 and at numerous other locations along the ROW in the area surveyed in 2021 southwest of Cima Road in the MNP (Artemis 2021a).
- **Ribbed cryptantha (*Johnstonella costata*; CRPR 4.3).** Individual Ribbed cryptantha were observed in the BSA and potential disturbance areas at Towers M96-T1, M99-T4, with population occurrences 006 near Tower M100-T1, occurrences 007 - 008 near M100-T2, occurrences 009- 011 near M100-T3, occurrences 012 - 014 near M151-T2, occurrence 015 near M103-T4, and occurrence 016 near M124-T3 (Artemis 2021a).
- **Curved-spine beavertail (*Opuntia curvispina*; CRPR 2B.2).** Curved-spine beavertail was observed in Segment 2 in the proposed Project disturbance areas at Tower M130-T3, and M151-T2 (Artemis 2021a).
- **Rusby's desert-mallow (*Sphaeralcea rusbyi* var*. eremicola*; CRPR 1B.2, BLM sensitive).** Rusby's desert-mallow was observed in 2021 in a helicopter landing zone disturbance area near Tower M116-T4. It was also identified along access roads between Towers M108-T5 and M124-T2 and at numerous other locations outside disturbance areas along the ROW (Artemis 2021a).

Three non-listed special-status plant species determined to have potential to occur in the BSA were not observed during surveys conducted for the Project or for other projects (Calcite Substation, ELM) with survey areas that included portions of the BSA:

- Black grama (*Bouteloua eriopoda*; CRPR 4.2)
- White-margined beardtongue (*Penstemon albomarginatus*; CRPR 1B.1)
- Desert portulaca (*Portulaca halimoides*; CRPR 4.2).

The fact that these species were not detected during the 2017 botanical surveys, which were conducted under optimal conditions in a year that experienced above average rainfall, suggests that they do not occur in the BSA. However, they have not been determined to be absent due to the length of time that has passed since those surveys, and because the 2021 botanical surveys covered a relatively small portion of the BSA and were conducted following a drought.

Special-Status Wildlife

Special-status wildlife species include species listed as threatened, endangered, or candidate by the CDFW and/or USFWS under the FESA and/or CESA; California Fully Protected (FP) species; species designated by CDFW as Species of Special Concern (SSC); CDFW Watch List species; species designated as Sensitive by BLM (BLMS);

species identified as Focus or Planning Species under the DRECP; and species otherwise protected in California or Nevada.

Queries of publicly available datasets, such as the CNDDB (CDFW 2022a) and the USFWS's IPaC tool (USFWS 2021) (Appendix D-15), and a literature review were completed to develop a list of special-status wildlife species with potential to occur in the BSA. The queries have been updated periodically during the Project review period. Habitat assessments and focused surveys for special-status wildlife species, including burrowing owl and desert tortoise were conducted for the Project:

- Protocol surveys for desert tortoise were conducted on Segment 2 in October 2016 (EI 2017a) and on Segment 1 in May 2017 (EI 2016b). The Segment 1 survey area was a buffer of 100 feet surrounding the Project alignment, construction laydown yards, and substations and the Segment 2 survey area included project disturbance areas plus a 200-foot buffer. The surveys utilized 10-meter belt transects in accordance with the 2010 Pre-project Field Survey Protocol for Potential Desert Tortoise Habitats (USFWS 2010).
- A burrowing owl habitat assessment and protocol surveys for burrowing owl were conducted on Segment 1 in between April and July of 2017 (EI 2017d). The surveys were conducted by walking transects in a 100-foot survey area buffer and followed the recommendations in the Staff Report on Burrowing Owl Mitigation (CDFW 2012).
- Surveys to identify suitable habitat for Mojave fringe-toed lizard were conducted on Segment 1 in April 2017 by walking transects in a 100-foot survey area buffer (EI 2017a).
- Helicopter-based surveys for golden eagles and evidence of golden eagle nesting were conducted in March 2021 in suitable nesting habitats within 2 miles of the Project alignment (EnviroPlus Consulting 2021). The surveys followed the recommendations of the USFWS Interim Golden Eagle Inventory and Monitoring Protocols (Pagel et al. 2010).

Data from surveys conducted for adjacent and/or overlapping projects (i.e., Calcite Substation Project [BRC 2016] and ELM [Insignia 2020]) were also reviewed.

A total of 17 special-status wildlife species were evaluated based on the results of the database queries and literature review (Appendix D-14). Thirteen special-status wildlife species have been detected in the BSA or were determined to be likely to occur based on current range, habitat conditions, and historic records (Appendix B-3, Figures 5a and 5b). A total of 173.72 acres of natural vegetation communities and sensitive land cover types that constitute suitable habitat to support special-status wildlife species occur in the Project disturbance areas.

Federally and State Listed Wildlife Species

The Project traverses the Mojave National Preserve and many miles of native habitat for the federally and state threatened desert tortoise (*Gopherus agassizii*), which is known to occur throughout Segment 2 (EI 2016b; CDFW 2022a). Two listed bird species, the state threatened tricolored blackbird (*Agelaius tricolor*) and the state endangered gilded flicker (*Colaptes chrysoides*) have potential to occur in the BSA. One state threatened species, the Swainson's hawk (*Buteo swainsoni*), was documented near the Project in 2010 (CDFW 2022a), but no suitable breeding or overwintering habitat for this species is present in the BSA, and no impacts to Swainson's hawk are anticipated to occur. Therefore, it is not discussed further.

Desert Tortoise (Federally Threatened, California Threatened, California Candidate Endangered, DRECP Focus Species)

The desert tortoise is a species of terrestrial desert turtle native to the Mojave Desert of the southwestern United States and northwestern Mexico. Desert tortoises occur throughout most of the Mojave Desert, typically in creosote bush scrub at elevations below 5,500 feet. Soils must be soft enough to permit the excavation of burrows but firm enough to prevent their collapse. Desert tortoise activity is seasonally variable, with most activity occurring from April through May and September through October. During active periods, desert tortoises feed on a wide variety of herbaceous plants including cactus, grasses, and annual flowers. Desert tortoises often retreat to burrows during the heat of the day and at night and remain dormant underground during the winter (USFWS 2011).

Desert tortoise is threatened by habitat loss and degradation due to urbanization, agricultural development, military training, recreation, mining, and livestock grazing. Individual tortoises are also vulnerable to increased predation by common ravens (*Corvus corax*) resulting from human activities, as well as collection by humans for pets or consumption, collisions with vehicles, and mortality resulting from diseases (USFWS 2011). In 1989 the species was listed as threatened under the CESA and federally listed as endangered in an emergency listing (USFWS 1989). Its federal status was changed to threatened in 1990 (UFWSF 1990). It is currently a candidate for listing as endangered under CESA.

Desert tortoises have been historically recorded throughout the BSA, most often in Sonoran and Mojavean desert scrub and desert woodland vegetation communities, with the highest density documented in the Ivanpah Valley north of the Cima Substation near Segment 2 (EI 2016b). Thirteen live desert tortoises and 29 active desert tortoise burrows were observed along Segment 2 during the 2016 protocol surveys (EI 2019a) (Appendix B-3, Figure 5b; pages 1, 9, 10, 24, 25, 32, 33, 53, 54, 98, 99, 136, 141, 144, 145, 149-151, 153, 156, 157, and 161). No desert tortoises or signs of the species were identified along Segment 1 during protocol surveys in 2017. The locations of desert tortoise observations are shown in the exhibits of the Draft Focused Survey for the Desert Tortoise Report (EI 2016b) and the Biological Assessment Report (EI 2019a). Desert tortoises are assumed to be present in the BSA along the Segment 2 Project alignment from north of the Cady Mountains to the Nevada state line. Although potentially suitable habitat is present in Segment 1, due to the degradation of the habitat and its proximity to development, the presence of multiple overlapping habitat barriers (e.g., roads, railroads), and the lack of recent reported observations, the species is unlikely to occur in Segment 1.

In 1994, the USFWS designated critical habitat for desert tortoise (USFWS 1994), including 6.4 million acres in the Mojave and Colorado Deserts, with California containing 4.8 million acres over eight Critical Habitat Units (CHU). Parts of the proposed Project alignment are located in the Ord-Rodman and Ivanpah Valley CHUs (Appendix B-3, Figures 5a and 5b). The Ord-Rodman CHU consists of 253,200 acres in the Western Mojave Recovery Unit and the Ivanpah Valley CHU consists of 632,400 acres in the Eastern Mojave Recovery Unit.

Tricolored Blackbird (California Threatened, BLM Sensitive [California], DRECP Focus Species)

Tricolored blackbird is a medium-sized, colonial-nesting passerine that is mostly endemic to California. Its range includes most low-elevation areas of the state, but the great majority of breeding adults are found in the Central Valley (USFWS 2022b). The species roosts and nests in large colonies in marsh vegetation, preferably dense cattails (*Typha* spp.) or tules (*Scirpus* spp.), near open fresh water. Nesting may also occur in non-native

vegetation such as Himalayan blackberry (*Rubus discolor*) and thistles (*Cirsium* spp.) or in agricultural grain fields. Tricolored blackbirds typically forage in grasslands or agricultural field with low-growing vegetation. Nesting typically begins in mid-March and is complete by early August (USFWS 2022). During the nesting season they require foraging habitat within several miles of the nesting colony site. In winter they range widely, often in large flocks with other blackbird species (Beedy et al. 2020).

It is estimated that the population of tricolored blackbird has decreased by between 75% and 90% since 1994 (CDFW 2018b). The principal threat to the species is the loss and degradation of habitat as a result of urbanization and agricultural development (Beedy et al. 2020). Tricolored blackbird was listed as threatened under the CESA on April 19, 2018.

The CNDDB contains historical occurrences of tricolored blackbird, including breeding records, in the vicinity of Segment 1, generally associated with artificial ponds and irrigated vegetation at private residences in the area. Two potentially extant nesting colonies were documented in 2014 within 1 mile of the alignment (CDFW 2022a):

- Northwest corner of Elkhorn Street and Spyrock Avenue in a cattail marsh associated with in artificial pond in the BSA approximately 400 feet north of the Project alignment.
- Northeast corner of Minneola Road and Swansea Street in a cattail marsh associated with in artificial pond approximately 0.6 miles north of the Project alignment. A nesting colony was reported at this site most recently in 2019 (eBird 2022).

Agricultural fields that may be utilized by the species as foraging habitat are also present in the BSA north of the alignment between Wildhorse Road and Condor Road. Additional agricultural fields are located within 1 mile of the alignment.

Tricolored blackbirds were not observed during surveys conducted for the proposed Project. Based on the presence of recently documented nesting colonies and potentially suitable foraging habitat in the BSA and vicinity, the species is likely to incidentally occur in the BSA. However, no potential breeding or foraging habitats are located in Project disturbance areas. The breeding occurrences described above and all potential foraging habitat in the BSA are located north of the alignment and on the opposite side of National Trails Highway and the Burlington-Northern railroad. For these reasons, any tricolored blackbirds that occur in Project disturbance areas are likely to be transient individuals that neither breed nor forage there.

Gilded Flicker (California Endangered, BLM Sensitive [California])

The gilded flicker is a large woodpecker that is a resident of the Sonoran Desert, primarily in Arizona and northwestern Mexico. Its range extends into southeastern California in the lower Colorado River valley. Although associated with saguaro (*Carnegiea gigantea*) and other giant cacti throughout most of its range, in California gilded flicker is primarily found in desert riparian, desert wash, and Joshua tree woodland habitats (Kucera 1997). The species nests in cavities in giant cacti, Joshua trees, cottonwood and willow trees and forages for insects in open habitats, often on the ground (Kucera 1997). It is a year-round resident of the areas where it occurs and is not known to be migratory. Nesting typically begins in March and is complete by early July (Lower Colorado River Multi-Species Conservation Program 2022).

The population of gilded flicker has declined in recent decades (Kucera 1997) but its current status and trend are not well known. The species is threatened by the loss and degradation of habitat, particularly in riparian areas, as

a result of development, recreation, water management, and invasion of non-native plants (Kucera 1997). Gilded flicker was listed as endangered under the CESA in 1988.

Gilded flicker is known to occur in the vicinity of Segment 2 in Mojave National Preserve (MNP) near Teutonia and Kessler peaks and near Cima and Kessler Springs (CDFW 2022a). Two historical occurrences are documented within 1 mile of the Project alignment, both of which overlap the BSA and the alignment (CDFW 2022a):

- North of Cima, encompassing Cima Road and Morning Star Mine Road where they cross the alignment. Documented in 2012. Numerous observations of gilded flicker in 2019 and 2020 are reported in the BSA at Cima Road (eBird 2022).
- Northeast of Kelbaker Road where it crosses the alignment. Documented in 2011.

The BSA in the vicinity of these occurrences contains Joshua tree woodland that is high quality nesting and foraging habitat for gilded flicker. The Joshua trees in the BSA are part of the Cima Dome Joshua tree woodland, which is the largest and densest in the world. In August of 2020, the Dome Fire burned a substantial portion of the Cima Dome woodland (NPS 2021a). However, intact Joshua tree woodland is still present in parts of the BSA and in Project disturbance areas, including inside the boundaries of the Cima Road occurrence of gilded flicker.

Although gilded flicker was not observed during surveys conducted for the proposed Project, the species is likely to occur in the BSA and in Project disturbance areas based on the location of documented occurrences and presence of suitable nesting and foraging habitat.

Non-listed Special-Status Wildlife Species

Three non-listed special-status wildlife species were detected in the BSA during Project-related surveys:

- Mojave fringe-toed lizard (*Uma scoparia)*
- Loggerhead shrike (*Lanius ludovicianus*)
- Desert kit fox (*Vulpes macrotis arsipus*)

The following seven special-status wildlife species are likely to occur in the BSA based on range, habitat conditions, and historic records, but were not observed during Project surveys:

- Golden eagle (*Aquila chrysaetos*) (foraging only)
- Burrowing owl (*Athene cunicularia*)
- Bendire's thrasher (*Toxostoma bendirei*)
- LeConte's thrasher (*Toxostoma lecontei*)
- Pallid bat (*Antrozous pallidus*)
- Desert bighorn sheep (*Ovis canadensis nelsoni*)
- American badger (*Taxidea taxus*).

Detailed discussions of each non-listed special-status wildlife species organized by taxonomic group are provided below.

Reptiles

Mojave Fringe-toed Lizard (SSC, BLMS, DRECP Focus Species)

Mojave fringe-toed lizard inhabits sparsely vegetated arid areas containing fine wind-blown sand, including dunes, flats with sandy hummocks formed around the bases of vegetation, and desert washes.

Current populations identified in the DRECP area occupy dune complexes in three major river drainages: Amargosa, Mojave, and Colorado (BLM et al. 2015). CNDDB occurrences from 1982 and 2008 were documented at the eastern end of the SCE ROW, with the nearest record (2008) approximately 0.75 miles north of the ROW (CDFW 2022a). The sand dunes in the BSA are dynamic systems, subject to change over time. Mojave fringe-toed lizards are cryptic and may occur in dune systems throughout the BSA.

On Segment 1, patches of suitable habitat were identified in the following locations (Appendix B-3, Figure 5a):

- Along Route 66 southeast of Condor Road, approximately 2.4 miles west of Newberry Springs in a system of sandy hummocks;
- Along Route 66 between Fremont Road and Ord Street in marginally suitable sand hummocks; and
- Along an approximately 2-mile stretch of Route 66 through the northwestern extent of the Pisgah Crater lava flow in 11 patches of suitable and marginally suitable sand deposits.

Four individuals were observed during the Segment 2 habitat assessment surveys along the SCE ROW throughout the Devil's Playground area in big galleta shrub-steppe and creosote bush – white bursage scrub near Towers M95-T4, M99-T1, and M102-T6 (EI 2016a) (Appendix B-3, Figure 5b; pages 67, 73, 75, and 79). Suitable fine windblown sand habitat occurs in areas near I-40 and Devil's Playground.

Birds

Loggerhead Shrike (SSC)

Loggerhead shrike is a year-round resident throughout the Mojave Desert region that breeds mainly in open desert scrub habitat. It requires tall shrubs or trees (fences or power lines are also used) for hunting perches, territorial advertisement, and pair maintenance; open areas of short grasses, forbs, or bare ground for hunting; and large shrubs or trees for nest placement. The species was observed during the Segment 2 habitat assessment near Tower M85-T4 in creosote bush scrub (EI 2016a). Suitable nesting and foraging habitats are present throughout the BSA.

Golden Eagle (FP, WL, BLMS, DRECP Focus Species)

Golden eagle is an uncommon permanent resident and migrant throughout most of California, ranging from sea level to 11,500 feet in elevation. Habitats for this species include rolling foothills, mountainous areas, sage-juniper flats, and desert. Suitable nesting habitat occurs in the various mountain ranges in the vicinity of the Project alignment. Additionally, BLM identified the nearby Newberry and Granite Mountains as a "Key Raptor Area" for golden eagles (Olendorff et al. 1989). Suitable foraging habitat is present throughout the BSA and surrounding vicinity.

An analysis of both the CNDDB (CDFW 2022a) and the golden eagle nest data maintained by BLM indicates that several historically documented nests are located within 5 miles of the Project area. Three golden eagle nesting territories containing a total of five nests were identified during the aerial survey conducted in March 2021 (Appendix D-11). All nests were associated with rocky cliff habitats; none were observed on transmission structures. Evidence of occupancy during the nesting season was observed in two of the three nesting territories. In the Newberry Mountains, an active but unoccupied nest was observed approximately 0.75 miles south of the Segment 1 alignment. At another nest, 2.55 miles south of the alignment, an adult female was observed incubating eggs of brooding young. In the Cady Mountains, an active nest with signs of recent use was observed 2.22 miles northwest of the alignment and an inactive, deteriorating nest was observed 2.31 miles northwest of the alignment. An inactive nest was also observed at Old Dad Mountain 1.15 miles north of the alignment. Four adult golden eagles were observed during the survey, including the one sitting on the occupied nest.

Burrowing Owl (SSC, BLMS, DRECP Focus Species)

Burrowing owl is a yearlong resident of open, dry grassland and desert habitats, and in open shrub stages of pinyon-juniper and ponderosa pine woodlands. This species was formerly common in suitable habitats throughout the state, excluding the humid northwest coastal forests and high mountains. No burrowing owls were observed during Project surveys; however, this species is likely to occur in the BSA based on the presence of open desert scrub habitat, sandy soils, and suitable-sized burrows, as well as a recent (2009) CNDDB record in the area (CDFW 2022a; EI 2016a, 2017d).

Bendire's Thrasher (SSC, BLMS, DRECP Focus Species)

Bendire's thrasher is found in a variety of desert habitats with fairly large shrubs or cacti and open ground, or in open woodland with scattered shrubs and trees. No Bendire's thrashers were identified during Project surveys. However, suitable nesting and foraging habitats are present throughout the BSA, and the species was documented within 1 mile in 2011 (CDFW 2022a).

LeConte's Thrasher (SSC, BLMS)

Le Conte's thrasher is a resident of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. No Le Conte's thrashers were observed during previous Project surveys and no recent records are documented within 1 mile in CNDDB (CDFW 2022a). However, suitable nesting and foraging habitats are present throughout the BSA.

Mammals

Desert Kit Fox (California protected fur-bearing mammal; DRECP Planning Species)

Desert kit fox is not given any special-status by USFWS or CDFW. However, it is protected in California as a "fur-bearing mammal" (14 CCR 460). The desert kit fox is also designated as a DRECP Planning Species.

Desert kit foxes inhabit open, level desert areas with loose-textured soils, scattered, shrubby vegetation, and little human disturbance. Historically, the species was broadly distributed across the California desert, relying on creosote scrub communities that support abundant rodent populations. Active desert kit fox dens were identified in Segment 1 at the Daggett Yard and near Pole 2347483E during Project surveys (EI 2017d) (Appendix D-1,

Exhibit 4, page 1 and 2). Suitable habitat and numerous potential dens were identified in Segment 2 (EI 2016a). Desert kit foxes likely forage and breed throughout the BSA.

Pallid Bat (SSC, BLMS, DRECP Focus Species)

Pallid bat prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Day roosts are in caves, crevices, mines, and occasionally hollow trees and buildings. Night roosts may be in more open sites, such as porches and open buildings. This species occupies a wide variety of habitats, including grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. The pallid bat is likely to occur based on the presence of suitable rocky areas that are present in the BSA, as well as a CNDDB record from 2003 (CDFW 2022a). Rock outcrops, cliffs, hollow trees, and large crevices along the SCE ROW could potentially support day roosts containing 20-200 individuals. Rock cliffs and overhangs in the BSA may also serve as night roosts.

Desert Bighorn Sheep (FP, BLMS, DRECP Focus Species)

Desert bighorn sheep occupy the dry, desert mountains of southeastern California. This species is a year-round resident in the region surrounding the BSA, inhabiting the North Bristol Mountains and Kelso Peaks/Marl/Old Dad Mountains, which the Project alignment passes through, as well as other adjacent mountain ranges. Desert bighorn sheep were not observed surveys for the proposed Project; however, they are considered likely to occur in Segment 2.

American Badger (SSC)

American badger is found in relatively dry grasslands, sagebrush meadows, valleys, and open forests. Badgers prefer open areas with little groundcover and enough soil to dig burrows. The species is likely to occur in the BSA based on the presence of open desert scrub habitat with sandy soils, and a recent CNDDB record from the area (CDFW 2022a). In addition, during the Segment 2 habitat assessment, potential American badger dens were identified in the SCE ROW (EI 2016a).

Jurisdictional Waters

A formal jurisdictional delineation was conducted to map the area, type, and location of all potential jurisdictional waters under the regulatory purview of the USACE, Regional Water Quality Control Board (RWQCB), CDFW, and NDEP (Artemis 2021b). Field delineation surveys were conducted in March and April 2021. The delineation survey area included all work areas plus a 25-foot buffer. Several jurisdictional areas were identified (Artemis 2021b):

- Approximately 56.33 acres of jurisdictional waters of the United States managed by the USACE, in the form of ditches, canals, and vegetated and unvegetated ephemeral streambeds.
- Approximately 83.18 acres of jurisdictional waters of the State managed by the RWQCB. In addition to the USACE jurisdictional features, RWQCB jurisdiction in the survey area includes connected basins and playas. Jurisdictional features in the survey area unique to RWQCB jurisdiction include isolated basins, diversion ditches, and roadside ditches.
- Approximately 92.99 acres of jurisdictional waters of the state of California managed by the CDFW. In additional to the streambeds, connected basins, and playas shared with USACE and/or RWQCB jurisdiction, CDFW jurisdiction in the survey area includes the vegetated and unvegetated banks of ephemeral streams.

- Approximately 2.43 acres of jurisdictional waters of state of Nevada managed by the NDEP, in the form of the vegetated and unvegetated beds and banks of ephemeral streams.

No wetlands or riparian vegetation were identified in the survey area. Dominant vegetation communities in jurisdictional areas include creosote bush scrub, allscale scrub, fourwing saltbush scrub, and Joshua tree woodland.

Wildlife Movement Corridors

Wildlife movement corridors are linear linkages that provide safe passage through urban or agricultural landscapes and connect fragmented patches of habitat. These connections promote gene flow between populations, which is essential for population persistence, and help maintain high biological diversity. Corridors can be used for movement associated with dispersal, seasonal migration, foraging, courtship and mating, or escaping catastrophic events. Types of wildlife corridors include those that exist naturally, such as riparian linkages, mountain ranges, and valleys, and those that are constructed, such as highway overpasses or underpasses. Depending on the landscape features, wildlife corridors may accommodate terrestrial or aquatic species. Several habitat features in the BSA, including large areas of open desert scrub, small desert washes, and mountain ridgelines and passes provide connectivity to other larger areas of similar habitat and may facilitate local movements of birds (e.g., gilded flicker), mammals (e.g., desert bighorn sheep), and reptiles (e.g., desert tortoise). Near the BSA, mountain ranges and underpasses beneath I-40 also provide corridors for wildlife movement.

The Project crosses three of the seven Essential Connectivity Areas (ECA) in the Mojave Desert Ecoregion, as defined by the California Essential Habitat Connectivity Project (Spencer et al. 2010):

- San Bernardino Mountains – Calico Mountains ECA
- Ord Mountains – Mid Hills/Ivanpah Valley/New York Mountains ECA
- Calico Mountains – Mid Hills/Ivanpah Valley/New York Mountains ECA

The Project is also located in several BLM-designated Areas of Critical Environmental Concern (ACEC) with the stated goals of maintaining landscape connectivity:

- Bristol Mountains ACEC, Cady Mountains Wilderness Study Area (WSA) ACEC
- Cady Mountains WSA ACEC
- Ord-Rodman Desert Wildlife Management Area (DWMA) ACEC
- Pisgah Research Natural Area (RNA) ACEC
- Piute-Eldorado Valley ACEC

Regulatory Setting

Federal Laws, Regulations, and Management Policies

National Environmental Policy Act

Title I of National Environmental Policy Act (NEPA) (42 USC Section 4321) requires federal agencies to incorporate environmental considerations in their planning and decision-making processes. Federal agencies are to prepare detailed statements, Environmental Impact Statements and Environmental Assessments, assessing the environmental impact of and alternatives to federal actions with the potential to significantly affecting the environment. Title II of NEPA established the Council on Environmental Quality (40 CFR Parts 1500–1508) to oversee NEPA implementation by ensuring that federal agencies meet their obligations under NEPA, overseeing federal agency implementation of the environmental impact assessment process, and issuing regulations and other guidance to federal agencies regarding NEPA compliance. Because SCE is requesting modification of an BLM ROW grant (Segment 1) and Notice to Proceed from BLM is required (Segments 1 and 2), the proposed Project is a federal action pursuant to the NEPA. BLM is the lead federal agency and, because a significant portion of Segment 2 traverses the MNP, it is expected that the NPS will be a cooperating agency. A final Environmental Assessment (Department of the Interior [DOI]-BLM-CA-D080-2020-0001-EA) and related Findings of No Significant Impact BLM and NPS for Segment 2 have been published in the Federal Register. Segment 1 is under review by BLM.

Federal Endangered Species Act

The FESA regulates actions that may result in the take of federally listed as threatened or endangered species. The FESA defines “take” as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The USFWS lists threatened or endangered species that are at risk of extinction and may also adopt recovery plans that identify specific areas that are essential to the conservation of a listed species. Section 9 of the FESA prohibits the take of listed animal species without authorization, which may be obtained either through Section 7 consultations (Biological Opinion), or through a Section 10(a) permit in conjunction with an approved Habitat Conservation Plan (HCP). Under provisions of Section 7(a)(2) of the FESA, a federal agency that permits, licenses, funds, or otherwise authorizes a project activity must consult with the USFWS to ensure that its actions would not jeopardize the continued existence of any listed species or destroy or adversely modify designated critical habitat. The USFWS may also designate critical habitat areas to provide special management considerations or protections for listed species. The BLM consulted with the USFWS pursuant to Section 7 of the FESA. The Project qualifies for take authorization for the desert tortoise under Programmatic Biological Opinions for the CDCA (FWS-KRN/SBD/INY/LA/IMP/RIV-17B0532-17F1029), MNP (FWS-SB-190068-19F0391), and BLM Southern District Nevada Office (84320-2010-F-0365).

Clean Water Act/Executive Order 11990

The federal Clean Water Act (CWA) and subsequent amendments establish the basic structure for regulating discharges of pollutants into the “waters of the United States” (33 CFR Part 328) and regulating water quality standards for surface waters, including lakes, rivers, and wetlands. The boundaries of waters not subject to the ebb and flow of the tide are defined by the Ordinary High Water Mark. “Wetlands” are defined in 33 CFR 328.3(b) as areas inundated or saturated by surface or ground water for a frequency and/or duration sufficient to support a prevalence of vegetation adapted to saturated soil conditions.

Section 404 – Wetlands and Waters of the United States

Under Section 404 of the Clean Water Act, USACE regulates the discharge of dredged or fill material into jurisdictional waters of the United States, which include those waters listed in 33 CFR 328.3 (Definitions). Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines and were developed by the USEPA in conjunction with the USACE (40 CFR Parts 230). The Guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts. SCE has provided a Preconstruction Notification for coverage of impacts to waters of the United States through the USACE's Nationwide Permit Program.

Executive Order 11990 – Wetlands

On May 24, 1977, President Carter signed Executive Order (EO) 11990, requiring federal agencies to avoid adverse impacts (both long and short term) to wetlands whenever there is a practicable alternative available. The order defines wetlands as areas that are inundated by surface or ground water with a frequency to support a prevalence of vegetative or aquatic life that require saturation or seasonally saturated soil conditions for growth and reproduction. The proposed Project is not expected to impact any wetlands.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA, 16 United States Code [USC] 703–712, as amended) governs take, possession, import, export, transport, selling, purchasing, or bartering of migratory birds, their eggs, parts and nests, except as authorized under a valid permit (50 CFR 21.11). The take of all migratory birds is governed by the MBTA's regulation of taking migratory birds for educational, scientific, and recreational purposes, and requiring harvests to be limited to levels that prevent over-utilization. Section 704 of the MBTA authorizes the Secretary of the Interior to determine if, and by what means, the take of migratory birds should be allowed and to adopt suitable regulations permitting and governing take but ensuring that take is compatible with the protection of the species.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act of 1940 (USC Title 16, Chapter 5A, Subchapter II, Section 668 a d), as subsequently amended, provides for the protection of the bald eagle (*Haliaeetus leucocephalus*) and the golden eagle (*Aquila chrysaetos*) by prohibiting, except under certain specified conditions, the taking, possession, and commerce of such birds. The 1972 amendments increased penalties for violating provisions of the Act or regulations issued pursuant thereto and strengthened other enforcement measures. Rewards are provided for information leading to arrest and conviction for violation of the Act. The 1978 amendment authorizes the Secretary of the Interior to permit the taking of golden eagle nests that interfere with resource development or recovery operations. (See also the MBTA and FESA.) A 1994 Memorandum (59 FR 22953, April 29, 1994) from President Clinton to the heads of Executive Agencies and Departments sets out the policy concerning collection and distribution of eagle feathers for Native American religious purposes.

Invasive Species – Executive Order 13112

On February 3, 1999, President Clinton signed EO 13112, requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as any species, including its

seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction causes or is likely to cause economic or environmental harm, or harm to human, animal, or plant health. Invasive plants and noxious weeds are managed on public lands by the BLM under the direction of the multi-agency NISC established in 1999. Under this EO, federal agencies whose actions may affect the status of invasive species shall: (1) identify such actions, (2) use relevant programs and authorities to prevent, control, monitor, and research such species, and (3) not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere. Additionally, federal agencies shall pursue these duties in consultation with the NISC, consistent with the Invasive Species Management Plan.

Bureau of Land Management Special-Status Species Management Manual

The BLM's Special-Status Species Management Manual 6840 (BLM 2008) identifies BLM special-status species as species listed or proposed for listing under the FESA and species recognized as requiring special management consideration to lessen the likelihood for future listing. According to Manual 6840, the BLM shall retain in federal ownership habitats that are essential for the conservation of any listed species, particularly those that are part of a broader, logical public land ownership management unit. If a BLM special-status species (i.e., designated as a BLM sensitive species), or any federal candidate species or proposed species, is delisted, it will be monitored for the 5 years following its delisting as a BLM sensitive species.

Federal Land Policy Management Act of 1976

In 1976, Congress passed the FLPMA, which governs the manner by which public lands administered by the BLM are managed. The FLPMA requires BLM to develop land use plans, also known as Resource Management Plans, to guide BLM's management of public land. The following sections discuss existing resource management plans that overlap the Project corridor.

California Desert Conservation Area Plan

Under the FLPMA the CDCA was established in 1980 with 12,000,000 acres of public lands administered by the BLM (BLM 1980). The CDCA plan consists of five recovery units: Upper Virgin River, Eastern Mojave, Northwestern Mojave, Western Mojave, and Colorado Desert. The CDCA gives preservation of endangered species the highest priority, and one of its goals is to provide a system of desert wildlife management areas in the recovery units. In 1994, the CDCA plan established strategies for the recovery of desert tortoise: maintain high survivorship of adult desert tortoises; protect existing populations and habitat; institute habitat restoration where necessary; and implement a formal adaptive management program. It provides developers of public and private projects with a streamlined program for compliance with CESA and FESA, reduces delays and expenses, eliminates uncertainty, and applies the costs of compensation and mitigation equitably to all agencies and parties. The entire Project area in California is located in the CDCA.

Northern and Eastern Colorado Desert Coordinated Management Plan

The Northern and Eastern Colorado Desert Coordinated Management Plan (NECO) is a landscape-scale, multiagency plan developed to protect and conserve natural resources while simultaneously balancing human uses of the California portion of the Sonoran Desert ecosystem (BLM 2001). NECO provides for the conservation and management of habitat for the desert tortoise, integrated ecosystem management for special-status species

and natural communities for all federal lands, and regional standards and guidelines for public land health for BLM lands. The planning area encompasses over 5 million acres within the larger CDCA and includes 60 sensitive plant and animal species. NECO amends the 1980 CDCA Plan. The eastern portion of Segment 2 in California is located in the NECO.

West Mojave Plan

The West Mojave Plan (WEMO) is a collaborative effort among cities, counties, and state and federal agencies having jurisdiction over lands in a 9.3-million-acre planning area located to the north of the Los Angeles metropolitan area (BLM et al. 2004). The planning area includes 3.3 million acres of BLM-administered public lands, 3.0 million acres of private lands, and 102,000 acres of lands administered by the State of California. The WEMO presents a comprehensive strategy to conserve and protect desert tortoise, Mohave ground squirrel (*Xerospermophilus mohavensis*), and nearly 100 other sensitive plants, animals, and associated natural communities. It also provides a streamlined program for complying with the requirements of CESA and FESA. WEMO amends the 1980 CDCA Plan and is associated with a multijurisdictional HCP. Because the HCP has not yet been adopted by local governments, the WEMO currently applies only on land administered by BLM. A Supplemental Final Environmental Impact Statement was issued by BLM in 2018 for a WEMO transportation and travel network that focused on transportation access for residents, other members of the public, and commercial users, and gave consideration to recreational uses, sensitive resource impacts, and livestock grazing management. Segment 1 and the western portion of Segment 2 fall within the WEMO area.

Desert Renewable Energy Conservation Plan (DRECP)

The DRECP is a collaborative effort between the California Energy Commission, CDFW, BLM, and USFWS to help provide effective protection and conservation of desert ecosystems while allowing for the appropriate development of renewable energy projects (BLM et al. 2015). The DRECP is focused on 22.5 million acres on public and private lands across Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego Counties. The DRECP amends the 1980 CDCA Plan and serves as an HCP under Section 10(a)(1)(B) of the FESA. The BLM has adopted Conservation and Management Actions (CMA) to protect biological and other resources as part of a Land Use Plan Amendment (LUPA). The entirety of the California portion of the Project falls within the DRECP area; however, only BLM lands are subject to its policies, as outlined in the LUPA (BLM 2016a). No state or local agency, including CDFW, has adopted or approved the DRECP. CDFW recognizes the DRECP under federal law as a land use plan for BLM. It is also a relevant regional plan for purposes of CDFW's lead agency review of the proposed Project under CEQA, including the DRECP's landscape-level focus on the conservation of, among other things, unique desert ecosystems in the plan area, which includes the proposed Project (BLM 2016a).

Las Vegas Resource Management Plan (RMP)

The Las Vegas RMP provides management guidance for approximately 3.3 million acres of public lands located in Clark County and southern Nye County, Nevada (BLM 1998). The Las Vegas RMP outlines a strategy to protect desert tortoise and conserve its habitat, as well as to provide public lands for both community development and mining activities consistent with all laws and regulations. The Las Vegas RMP also designated a network of corridors to address the increasing utility demands in the planning area. The Nevada portion of the Project falls entirely within the Las Vegas RMP area.

BLM Areas of Critical Environmental Concern

An ACEC is a special management area designated by BLM to protect significant historical, cultural, and scenic values, or fish and wildlife or other natural resources. ACECs may also have additional BLM designations, including WSA, DWMA, and RNA.

Bristol Mountains ACEC

The Bristol Mountains ACEC (214,190 acres), located in the Mojave Trails National Monument, links the Cady Mountain WSA and the Bristol Mountains, Kelso Dunes, Trilobite, and Clipper Mountains wilderness areas with MNP. This ACEC also connects to the Pisgah RNA on the west and the Chemehuevi ACEC on the east, creating a contiguous conservation area that encompasses a transition zone between the Mojave and Sonoran/Colorado Desert ecosystems. The majority of the Bristol Mountains ACEC falls within the California Desert National Conservation Lands (CDNCL), part of the National Landscape Conservation System (NLCS), and there is some overlap with Lava Hills Extensive Recreation Management Area (ERMA) and National Trails Special Recreation Management Area (SRMA). Approximately 35,602 acres of lands in the Bristol Mountains ACEC is managed to protect wilderness. The Bristol Mountains ACEC includes high-quality desert tortoise habitat as well as specialized dune habitat for Mojave fringe-toed lizard and roosting habitat for several bat species. The area attracts a variety of birds including sensitive species such as Bendire's thrasher and burrowing owl and is home to numerous rare and sensitive plants. The Bristol Mountains ACEC provides critical wildlife movement corridors that maintain connectivity for regional metapopulations.

Goals for the Bristol Mountains ACEC are to protect and enhance habitat for sensitive animal and plant species and maintain landscape connectivity while providing for compatible public uses. Priority wildlife species include desert tortoise, desert bighorn sheep, Mojave fringe-toed lizard, burrowing owl, and several bat species. The Bristol Mountains ACEC has a disturbance cap of 1%, although a small area at the eastern end of the ACEC has a disturbance cap of 0.5%. Project overlap with this ACEC occurs near the western terminus of Segment 2.

Cady Mountains WSA ACEC

The Cady Mountains WSA (101,380 acres) borders both the Bristol Mountains ACEC and the Pisgah Research Natural Area (RNA) to the south. As a WSA, the area is included in the NLCS. It partially overlaps the Afton Canyon SRMA and the Crucero Valley ERMA. Approximately 292 acres of this WSA are managed to protect wilderness. The Cady Mountains WSA serves as a regional habitat connection for desert bighorn sheep. Goals for the Cady Mountains WSA are to maintain landscape connectivity while providing for compatible public uses. The Cady Mountains WSA has a disturbance cap of 0.25%. Project overlap with the Cady Mountains WSA occurs near the western terminus of Segment 2.

Ord-Rodman DWMA ACEC

The boundaries of the Ord-Rodman DWMA (204,860 acres) correspond to the general boundaries of the Ord-Rodman Critical Habitat Unit (CHU) for desert tortoise identified by the Recovery Plan (USFWS 2011). The area was originally established under the WEMO in 2006, with a portion included in the CDNCL under the NLCS. The Ord-Rodman DWMA overlaps the Stoddard/Johnson SRMA and also includes 8,642 acres that are managed to protect wilderness character. In addition to providing critical desert tortoise habitat, the Ord-Rodman DWMA provides important linkages to adjacent ACECs and surrounding suitable habitat. The main objective of the Ord-Rodman

DWMA is the recovery of desert tortoise. Additional goals are to protect and enhance habitat for sensitive animal and plant species and maintain landscape connectivity while providing for compatible public uses. The majority of the Ord-Rodman DWMA has a disturbance cap of 0.5%, with a small area along the southeast boundary that has a 1% disturbance cap. Project overlap with this ACEC occurs in the eastern portion of Segment 1.

Pisgah RNA ACEC

The Pisgah RNA consists of 46,500 acres and is bordered by the Cady Mountains WSA, Bristol Mountains ACEC, and the Ord-Rodman DWMA to the north, east, and south, respectively. A large portion of the Pisgah RNA is included in the CDNCL under the NLCS. This area includes high quality desert tortoise habitat and provides a regionally important tortoise habitat linkage. In addition, stabilized sand dunes are an important geomorphic feature of the area. The Pisgah RNA is critical for bighorn sheep, golden eagles, Mojave fringed-toed lizards, and several other species and provides critical links for wildlife populations to the north and south of this linkage area. The Pisgah RNA also supports important populations of several BLMS plants and contains an unusual invertebrate assemblage associated with lava tubes – some species may not have been described yet by scientists.

Goals of the Pisgah RNA are to protect and enhance habitat for sensitive animal and plant species and maintain landscape connectivity while providing for compatible public uses. Priority wildlife species include desert tortoise, desert bighorn sheep, Mojave fringe-toed lizard, burrowing owl, and golden eagle. Priority plant species includes white-margined beardtongue and crucifixion thorn. The Pisgah RNA has a disturbance cap of 1%. Project overlap with this ACEC occurs near the western terminus of Segment 2 and also in the eastern portion of Segment 1.

Piute-Eldorado Valley ACEC

The Piute-Eldorado Valley ACEC, consisting of 329,440 acres, is located in unincorporated Clark County, Nevada, on BLM-managed lands to the west of the Colorado River, north and east of the California state line, and south of Boulder City, Nevada. The ACEC includes several parallel mountain ranges divided by valleys, dry lakes, and bajadas. In 1998, the BLM designated portions of the Piute and Eldorado valleys in southern Nevada as an ACEC to preserve critical habitat for desert tortoise and maintain functional desert tortoise corridors. The easternmost 3 miles of the Segment 2 alignment in Nevada overlap with the Piute-Eldorado Valley ACEC.

California Laws, Regulations, and Management Policies

California Environmental Quality Act

CEQA (PRC Section 15000, et seq.) requires identification of significant environmental effects of proposed projects (including impacts on biological resources) and avoidance (where feasible) or mitigation of the significant effects. CEQA applies to “projects” proposed to be undertaken or requiring approval by state and/or local governmental agencies. “Projects” are activities that have the potential to have a physical impact on the environment (Section 21065). Pursuant to Section 15063 of Title 14 of the California Code of Regulations, if the Lead Agency determines that any aspect of the project, individually or cumulatively, may cause a significant environmental impact, an Environmental Impact Report (EIR) must be prepared. However, if the Lead Agency finds the project would not result in significant environmental impacts, either as proposed or modified to include mitigation measures identified in the Initial Study, a Negative Declaration or Mitigated Negative Declaration, as appropriate, will be prepared instead.

California Fish and Game Code

The CFGC includes mandates for persons in the State of California who tamper with, affect, or alter environmental resources. The following sections illustrate the sections of the CFGC that pertain to the Project.

California Endangered Species Act (CFGC Sections 2050–2116)

The California Endangered Species Act is administered by the CDFW and prohibits the take of plant and animal species identified as either threatened or endangered in the State of California by the Fish and Game Commission. Under the CESA, "take" means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill, and does not include the harm or harassment provisions in the FESA definition. However, Sections 2081 and 2080.1 of the CESA allow the CDFW to authorize exceptions to the prohibition of take of the state listed threatened or endangered plant and animal species for purposes such as public and private development based on a determination that the project or action includes measures sufficient to "fully mitigate" impacts.

Fully Protected Species (CFGC Section 3511, 4700, 5050, and 5515)

CFGC Sections 3511, 4700, 5050, and 5515 list the bird, mammal, reptile, amphibian, and fish species that are identified as "fully protected." Fully protected wildlife may not be harmed, taken, or possessed. The classification of "fully protected" was California's initial effort to identify and provide additional protection to those wildlife species that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the fully protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations.

Migratory Birds (CFGC Sections 3500–3516, and 3800)

CFGC Section 3513 furthers the intent of the MBTA by prohibiting any take or possession of birds in California that are designated by the MBTA as migratory non-game birds, except as allowed by federal rules and regulations promulgated pursuant to the MBTA. In addition, CFGC Sections 3503, 3503.5, 3511, and 3800 further protect nesting birds and their parts, including passerine birds, raptors, and state "fully protected" birds. These regulations protect almost all native nesting birds, not just special-status birds.

Waters and Wetlands (CFGC Section 1600)

CFGC Sections 1600–1617 require consultation with CDFW if a proposed activity has the potential to detrimentally affect a stream, and thereby, wildlife resources that depend on a stream for continued viability. All streams present on a proposed Project site must be identified to characterize the potential for adverse Project-related impacts on the stream and associated wildlife. Under CFGC Section 1600 et seq., CDFW regulates activities that would result in (1) any potential detrimental impacts associated with the substantial diversion or the obstruction of the natural flow of a stream; (2) substantial changes to the bed, channel, or banks of a stream, or the use of any material from the bed, channel, or banks; and (3) the disposal of debris or waste materials that may pass into a stream. CDFW jurisdiction can only be applied once stream presence is identified, and a project design is developed to a level of detail adequate to perform impact analysis. In practice, the CDFW may assert its jurisdiction under CFGC Section 1600 et seq. over activities to the top of the bank (stream or lake), or to the outer edge of the riparian vegetation, whichever is wider.

Native Plant Protection Act (CFGC Sections 1900–1913)

The Native Plant Protection Act (NPPA) of 1977 gave the California Fish and Game Commission the authority to designate native plants as endangered or rare and to protect these plants from take. Species that are considered by CNPS to qualify for this status and meet the definitions of Section 1901, Chapter 10 (NPPA) or Sections 2062 and 2067 (CESA) of the CFGC are those designated with a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, and 2B. Section 1913(b) of the NPPA states, "Notwithstanding the provisions of Section 1911… the removal of endangered or rare native plants from a…right-of-way by the owner of the land or his agent… or the performance by a public agency or a publicly or privately owned public utility of its obligation to provide service to the public, shall not be restricted by this chapter because of the presence of rare or endangered plants…" However, these plants may be addressed in CEQA documents depending on specific site conditions. CRPR definitions are as follows (CNPS 2006):

- 1A: Plants presumed to be extinct because they have not been seen or collected in the wild in California for many years. This rank includes plants that are both presumed extinct in California, as well as those plants that are presumed extirpated in California. A plant is extinct in California if it no longer occurs in or outside of California. A plant that is extirpated from California has been eliminated from California but may still occur elsewhere in its range.
- 1B: Plants that are rare throughout their range with the majority of them endemic to California. Most of the plants of CRPR 1B have declined significantly over the last century.
- 2A: Plants presumed extirpated because they have not been observed or documented in California for many years. This list only includes plants that are presumed extirpated in California, but more common elsewhere in their range.
- 2B: Plants that are rare throughout their range in California but are common beyond the boundaries of California. CRPR 2B recognizes the importance of protecting the geographic range of widespread species.
- 3: A review list for plants for which there is inadequate information to assign them to one of the other lists or to reject them.
- 4: A watch list for plants that are of limited distribution or infrequent throughout a broader area in California and their vulnerability or susceptibility to threat appears relatively low at this time.

Protected Furbearers (California Code of Regulations Title 14 Section 460)

Specifies that several furbearing mammals, including desert kit fox, may not be taken at any time. The CDFW may permit capture or handing of these species for scientific research but does not issue Incidental Take Permits for other purposes.

California Desert Native Plant Act

The California Desert Native Plants Act (CDNPA) (California Food and Agriculture Code Section 80001–80201) protects certain species of California desert native plants from unlawful harvesting on both public and privately owned lands. The CDNPA only applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties. Within these counties, the CDNPA prohibits the harvest, transport, sale, or possession of specific native desert plants, or any parts thereof, unless a person has a valid permit or wood receipt, and the required tags and seals. The appropriate permits, tags and seals must be obtained from the sheriff or commissioner of the county where collecting will occur, and the county will charge a fee. The CDPNA

does not apply to a public agency or to a publicly or privately owned public utility when acting in the performance of its obligation to provide service to the public (Section 80117).

State and Regional Water Quality Control Board

The SWRCB has jurisdiction throughout California and protects water quality by setting statewide policy and coordinating the nine RWQCBs in California that exercise regulatory activities by basins.

Clean Water Act Section 401 Water Quality Certification

Typically, the areas subject to RWQCB jurisdiction coincide with those of the USACE (i.e., waters of the United States, including any wetlands), and the RWQCB is therefore responsible for the administration of Section 401 of the federal CWA.

Porter-Cologne Water Quality Control Act

The RWQCB also asserts authority over waters of the state under Waste Discharge Requirements (WDR) pursuant to the 1969 Porter-Cologne Water Quality Control Act (Porter-Cologne Act). Waters found to be isolated and not subject to CWA regulation are often still regulated by the RWQCB under Porter Cologne. If a CWA Section 404 permit is not required for an action, the RWQCB may still require a permit under Porter-Cologne. Section 13000 et seq. of the 1969 Porter-Cologne Act authorizes the RWQCB to regulate discharges of waste and fill material to waters of the state, including isolated waters and wetlands. The Porter-Cologne Act requires a "person discharging waste, or proposing to discharge waste, within any region that could affect the quality of waters of the State" (Cal Water Code Section 13260[a][1]) to file a waste discharge requirement, unless waived (Cal Water Code Section 13260[b]). "Waste" is broadly defined to include "sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal" (Cal Water Code Section 13050[d]). "Waters of the state" is also broadly defined to include "any surface water or groundwater, including saline waters, within the boundaries of the state" (Cal Water Code Section 13050[e]). Therefore, any discharge of dredged or fill materials is also required to obtain a WDR, or Waiver.

Pursuant to SWRCB Order No. 2003-0017-DWQ, discharges of dredged or fill material that have received 401 Certification are eligible for a Waiver of a WDR under Cal Water Code Section 13269. Projects that are not eligible for a 401 Certification must obtain an individual WDR or Waiver, unless a GO is applicable. For projects with impacts totaling less than 0.2 acres, SWRCB Order No. 2004-0004-DWQ allows a streamlined process for obtaining a WDR for dredged or fill discharges to waters deemed by the USACE to be outside of federal jurisdiction.

Wetland Riparian Area Protection Policy

On April 2, 2019, the SWRCB adopted the State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State (California Wetland Policy). The California Wetland Policy became effective May 28, 2020, and stipulates additional procedures and requirements for obtaining approval from waters boards for discharge of dredged or fill materials to state waters. These additional requirements may include a detailed compensatory mitigation plan that includes:

- A watershed profile
- An assessment of the overall condition of the aquatic resources proposed to be impacted and their stressors using a method approved by the permitting authority
- A description of how impacts and compensatory mitigation would not cause a net loss of aquatic resources based on the watershed profile
- Ecological performance standards, monitoring, and long-term protection and management
- Timetables for implementing compensatory mitigation
- An assessment of reasonably foreseeable impacts associated with climate change and measures to avoid and minimize those impacts if required by the permitting authority

However, discharges of dredged or fill materials to waters of the state that are regulated under a GO are not subject to the requirements of the California Wetland Policy and should follow instructions for applying under the applicable GO. RWQCB Region 7 will review and authorize the Project pursuant to the Porter-Cologne Act and the California Wetland Policy.

Nevada Laws, Regulations, and Management Policies

The NDOW is the state agency responsible for wildlife management in Nevada Revised Statutes (NRS Title 45 – Wildlife).

The Division of Forestry of the State Department of Conservation and Natural Resources (Division) is the state agency responsible for plant management on state and private lands in Nevada (NRS Title 47 – Forestry, Forestry Products and Flora).

The Nevada Department of Agriculture is the state agency responsible for control of noxious weeds in Nevada (NRS Title 49 – Agriculture).

The statutes that follow are provided for reference, as they were considered in this Initial Study. However, the Project work areas in Nevada are located exclusively on lands managed by the BLM, not State or private land.

Nevada Revised Statutes

NRS are the current codified laws of the State of Nevada as passed by the Nevada Legislature.

Chapter 527 (Protection and Preservation of Timbered Lands, Trees and Flora)

- **NRS 527.050.** Prohibits the modification or removal of any tree, shrub, plant, fern, wildflower, cactus, desert or montane flora, or parts thereof, from private lands without a written permit from the landowner or authorized agent. Modification or removal of flora on state lands under the jurisdiction of the Division requires compliance with Division regulations.
- **NRS 527.100**. Prohibits the modification or removal of any Christmas tree, cactus, yucca, or branches thereof, from lands owned by or under the jurisdiction of the State of Nevada or its counties, or on any reserved or unreserved lands owned by the United States, or from any privately owned lands without written permission from the landowner or authorized agent.

- However, this statute does not apply to necessary cutting or trimming of such plants if done for maintenance of electric power lines, telephone lines or other property of a public utility, or to a logging operation (527.100[3]).
- **NRS 527.270.** Prohibits the modification or removal of plants placed on the State of Nevada list of fully protected species from private lands without obtaining a special permit from the State Forester Fire warden. A fully protected species is a species or subspecies of native flora that is threatened with extinction and its survival requires assistance because of overexploitation, disease or other factors or because its habitat is threatened with destruction, drastic modification or severe curtailment, as determined by the State Forester Fire warden in consultation with competent authorities. No Nevada listed plants are potentially impacted by the Project.

Chapter 503 (Hunting, Fishing and Trapping; Miscellaneous Protective Measures)

- **NRS 503.584**. Provides for the creation of a list of threatened, endangered, and protected species, and requires permits for take of these species.
- **NRS 503.585.** Requires a special purpose permit from the NDOW for the capture, removal, or destruction of any State-listed wildlife species. The special purpose permit specifies the relocation methods required on a project site.
- **NRS 503.610.** Affirms in state law the protections provided under the federal Bald and Golden Eagle Protection Act (BGEPA) for bald and golden eagles, including their parts, eggs, and nests, and provides for permits to address nuisance eagles consistent with federal law.
- **NRS 503.620**. Affirms in state law the protections provided under the federal MBTA for migratory birds, including their parts, eggs, and nests.

Chapter 555 (Control of Insects, Pests, and Noxious Weeds)

- **NRS 555.150**. Requires that every landowner or occupier, whether private, city, county, or federal shall cut, destroy, or eradicate all noxious weeds. The State Quarantine Officer may serve notice to a landowner or occupier of the need to control weeds. If the landowner or occupier fails to do so, the county in which the land is located will proceed with weed control; the cost incurred will be a lien upon the land. The landowner, occupier, or any person in violation of weed control requirements is subject to a civil penalty (NRS 555.160–180, NRS 555.201)

Nevada Administrative Code

Chapter 503 (Hunting, Fishing and Trapping; Miscellaneous Protective Measures)

- **Nevada Administrative Code (NAC) 503.030.** Provides a list of mammal species that are protected or classified as threatened, endangered, or sensitive in Nevada.
- **NAC 503.050.** Defines all birds protected under the MBTA and BGEPA as protected in Nevada and lists bird species classified as endangered or sensitive.
- **NAC 503.055**. Specifies introduced species of birds that are not protected under state law in Nevada.

- **NAC 503.065**. Provides a list of fish species that are protected or classified as threatened, endangered, or sensitive in Nevada.
- **NAC 503.080**. Provides a list of reptile species that are protected or classified as threatened, endangered, or sensitive in Nevada.

Chapter 527 (Protection and Preservation of Timbered Lands, Trees and Flora)

- **NAC 527.010**. Provides a list of fully protected species of native flora, which is a list of critically endangered species of native flora that may not be removed or destroyed except pursuant to a permit issued by the State Forester. The Nevada Natural Heritage Program in the State Department of Conservation and Natural Resources is responsible for conducting scientific research and analysis on species of native flora, maintaining records and data related thereto, and making recommendations to the State Forester regarding native plants that are threatened with extinction for purposes of the program authorized by NRS 527.260 to 527.300. The Nevada Natural Heritage Program identifies rare plant ranks as follows:
  - **S1: Critically Imperiled** – At very high risk of extirpation in the jurisdiction due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.
  - **S2: Imperiled** – At high risk of extirpation in the jurisdiction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
  - **S3: Vulnerable** – At moderate risk of extirpation in the jurisdiction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
  - **S4: Apparently Secure** – At fairly low risk of extirpation in the jurisdiction due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
  - **S5: Secure** – At very low or no risk of extirpation in the jurisdiction due to a very extensive range, abundant populations or occurrences, with little to no concern from declines or threats.
- **NAC 527.250.** Requires a permit from the Division prior to the removal or destruction of plants placed on the State of Nevada list of fully protected species, or disturbance of plant management areas, except as otherwise provided for state lands under the jurisdiction of the Division by NRS 527.050 (see Section 1.2.3.1).
- **NAC 527.300**. Authorizes the submission of a mitigation plan approved by the BLM or other federal agency that addresses fully protected plant species as part of the permit application in lieu of the plan required pursuant to NAC 527.280.

Chapter 504 (Alteration of Stream System or Watershed)

- **NAC 504.520.** Requires written consent of NDOW for any activities that would obstruct, damage, or modify the natural shape of a stream system or watershed, or modify its vegetation, in a way that is detrimental to wildlife habitat.

Regional Conservation Plans

Habitat Conservation Plans

Section 10(a)(1)(B) of the FESA provides for the establishment of Habitat Conservation Plans (HCPs), partnerships with non-federal parties to conserve the ecosystems upon which listed species depend, ultimately contributing to their recovery.

The portion of the Project located in Nevada falls within the area covered by the Clark County Multiple Species Habitat Conservation Plan (CCMSHCP). The CCMSHCP serves as a comprehensive, multi-jurisdictional HCP focusing on the conservation of species and their associated habitats in the plan area (Clark County Department of Comprehensive Planning and USFWS 2000). The CCMSHCP provides coverage under Section 10(a) for desert tortoise and other CCMSHCP Covered Species on non-federal lands in Clark County, Nevada.

However, the CCMSHCP does not provide for incidental take occurring on federal lands or resulting from federal actions on non-federal lands. As the Nevada portion of the Project is located entirely on BLM land, the CCMSHCP is not applicable.

Natural Community Conservation Plans

The California Natural Community Conservation Planning Act allows for the development of broad-based ecosystem-level plans for the protection and perpetuation of biological diversity. The primary objective of NCCP prepared under the California Natural Community Conservation Planning Act is to conserve natural communities at the ecosystem level while accommodating compatible land use.

The Project is not located in any adopted NCCP areas.

Local Laws, Regulations, and Management Policies

San Bernardino County, California

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the proposed Project. Pursuant to CPUC GO 131-D (G.O. 131-D), Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters.” Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the county and cities’ regulations are not applicable as the county and cities do not have jurisdiction over the proposed Project. While not applicable, SCE does consider local laws, regulations, and management policies during the environmental review process.

San Bernardino County Policy Plan

Segment 1 and the majority of Segment 2 are located in San Bernardino County, California. San Bernardino County has developed a Countywide Plan, which includes the County Policy Plan (County of San Bernardino 2020a). Within the Natural Resources Element of the Policy Plan, the goal of the Biological Resources section (Goal NR-5) states the following:

An interconnected landscape of open spaces and habitat areas that promotes biodiversity and healthy ecosystems, both for their intrinsic value and for the value placed on them by residents and visitors.

The corresponding policies include the following:

- Policy NR-5.1 **Coordinated habitat planning.** We participate in landscape-scale habitat conservation planning and coordinate with existing or proposed habitat conservation and natural resource management plans for private and public lands to increase certainty for both the conservation of species, habitats, wildlife corridors, and other important biological resources and functions; and for land development and infrastructure permitting.
- Policy NR-5.2 **Capacity for resource protection and management.** We coordinate with public and nongovernmental agencies to seek funding and other resources to protect, restore, and maintain open space, habitat, and wildlife corridors for threatened, endangered, and other sensitive species.
- Policy NR-5.3 **Multiple-resource benefits.** We prioritize conservation actions that demonstrate multiple resource preservation benefits, such as biology, climate change adaptation and resiliency, hydrology, cultural, scenic, and community character.
- Policy NR-5.4 **Off-base recovery efforts.** We coordinate with military installations to facilitate off-base recovery of threatened and endangered species and landscape-scale conservation.
- Policy NR-5.5 **Mitigation and future responsibilities.** We require that new development satisfy habitat conservation responsibilities without shifting conservation responsibilities onto military property.
- Policy NR-5.6 **Mitigation banking.** We support the proactive assemblage of lands to protect biological resources and facilitate development through private or public mitigation banking. We require public and private conservation lands or mitigation banks to ensure that easement and fee title agreements provide funding methods sufficient to manage the land in perpetuity.
- Policy NR-5.7 **Development review, entitlement, and mitigation.** We comply with state and federal regulations regarding protected species of animals and vegetation through the development review, entitlement, and environmental clearance processes.
- Policy NR-5.8 **Invasive species.** We require the use of non-invasive plant species with new development and encourage the management of existing invasive plant species that degrade ecological function.

San Bernardino County Code of Ordinances

- **Section 88.01.051.** Mandates that specimen-sized Joshua trees proposed to be removed in the Desert Region will be transplanted or stockpiled for future transplanting. Specimen-sized Joshua trees are defined as meeting one of more of the following criteria:
  - A circumference equal to or greater than 50 inches measured at four and one-half feet above natural grade level
  - A total height of 15 feet or greater
  - Trees possessing a bark-like trunk surface
  - A cluster of 10 or more individual trees, of any size, growing in close proximity to each other
- **Section 88.01.060 – Desert Native Plant Protection.** States, "…(c) Regulated desert native plants. The following desert native plants or any part of them, except the fruit, shall not be removed except under a

Tree or Plant Removal Permit in compliance with Section 88.01.050… (1) The following desert native plants with stems two inches or greater in diameter or six feet or greater in height: (A) *Dalea spinoza* (smoketree). (B) All species of the genus *Prosopis* (mesquites). (2) All species of the family Agavaceae (century plants nolinas, yuccas). (3) Creosote Rings, 10 feet or greater in diameter. (4) All Joshua trees. (5) Any part of the following species, whether living or dead: (A) *Olneya tesota* (desert ironwood). (B) All Species of the genus *Prosopis* (mesquites). (C) All species of the genus *Cercidium* (palos verdes). (d) Compliance with Desert Native Plants Act. Removal actions of all plants regulated by the Desert Native Plants Act (Food and Agricultural Code Section 80001 et seq.) shall comply with provisions of the Act before the issuance of a development permit or approval of land use application."

- **Section 88.01.070 – Mountain Forest and Valley Tree Conservation.** States, "…(b) Regulated trees. The following trees shall only be removed with an approved Tree or Plant Removal Permit issues in compliance with Section 88.01.050… (1) Native trees. A living, native tree with a 6-inch diameter or 19 inches circumference measured 4.5 feet above natural grade level. (2) Palm trees. Three or more palm trees in linear plantings, which are 50 feet or greater in length within established windrows or parkway plantings shall be considered to be heritage trees and shall be subject to provisions of this Chapter regarding native trees."
- **Section 88.01.080 – Riparian Plant Conservation.** States, "…The provisions of this Section are intended to augment and coordinate with the responsibilities of the California Department of Fish and [Wildlife]… (a) Applicability. (1) Applicable areas. The provisions of this section shall apply to all riparian areas located on private lands in all zones within the unincorporated areas of the County and to riparian areas on public land owned by the County, unless exempt as specified by Section 88.01.030… (b) Regulated riparian plants. (1) Vegetation described. The removal of vegetation within 200 feet of the bank of a stream, or in an area indicated as a protected riparian area on an overlay map of a Specific Plan, shall require approval of a Tree or Plant Removal Permit… (2) Streams… include those shown on United States Geological Survey Quadrangle Topographical maps as perennial or intermittent, blue or brown lines (solid or dashed), and river wash areas…"
- **Section 88.01.030 – Exempt Activities**. Presents activities that are exempt from the permit requirements described by the Chapter, including, "…(c) Public Utilities. Removal by a public utility subject to jurisdiction of the Public Utilities Commission or any other constituted public agency, including franchised cable TV, where to establish or maintain safe operation of facilities under their jurisdiction, trees are pruned, topped, or braced…

Clark County, Nevada Comprehensive Master Plan

The Conservation Element of the Clark County Comprehensive Master Plan (Clark County Department of Comprehensive Planning 2017) provides policies to plan for conservation and natural resource management and protection in the context of projected growth and development. The following goal and policy apply to biological resources:

- **Goal 3:** Effectively protect against the effects of noxious weeds and other invasive species.
  - Policy 1: Encourage and/or require appropriate and available management methods to control noxious weeds and other invasive species in Clark County.

However, as the Nevada portion of the Project is located entirely on BLM-administered federal land, the Clark County Comprehensive Master Plan is not applicable.

Impact Analysis

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

Less than Significant with Mitigation.

Federally or State Listed Plant Species

No plant species designated as rare, candidate, threatened, or endangered by the CDFW and/or USFWS under FESA and/or CESA are known or expected to occur in the BSA. As described above, the Joshua trees present in the BSA are the unlisted eastern Joshua tree. Therefore, no impacts to listed plant species are anticipated.

Non-listed Special-Status Plant Species

Twelve non-listed special-status plants species were observed, and three additional non-listed special-status plant species were determined to have potential to occur in the BSA. If special-status plants are present in disturbance areas in a live, vegetative state when construction activities occur, and if avoidance is not feasible, they may experience temporary, direct impacts. These direct impacts may include crushing, trampling, and burying of plants by vehicles and construction equipment. Special-status plants in and adjacent to Project disturbance areas may also be subject to indirect impacts, which may include:

- **Soil compaction**—Where a seed bank exists, soil compaction may inhibit germination.
- **Erosion and siltation**—Excavation of foundations for temporary guard poles and minor grading of material staging sites may result in erosion and siltation. Erosion can remove topsoil necessary for plant growth. The eroded soil can be deposited as silt and alluvium in drainages, which can bury special-status plant seedlings.
- **Fugitive dust**—Minor grading and vehicle operations associated with the construction of the proposed Project may produce fugitive dust that can degrade vegetation by reducing leaf exposure to sunlight and inhibiting photosynthesis.
- **Invasive weeds**—The introduction of weedy invasive plants may adversely affect special-status plant species by impeding growth, dispersal, and recruitment as well as altering community structure.

A preliminary impact analysis has been conducted to quantify direct impacts to any special-status plant species known to occur in the BSA.

Each individual plant or group of individuals documented as a point or polygon during Project surveys was buffered by 25 feet to create a polygon representing occupied habitat, based on the assumption that the soils surrounding plants contain a viable seed bank. Occupied habitat polygons that overlapped were dissolved into a single polygon. A geographic information system (GIS) analysis was conducted to determine the distances between the occupied habitat polygons. Those polygons of a given species

separated from each other by no more than 0.25 miles were grouped together and considered a "local occurrence" of that species for the purpose of analysis. The occupied habitat polygons were then intersected with the permanent and temporary disturbance areas to determine which local occurrences may be impacted during construction.

Based on the current design, which assumes that helicopters will be used for wire stringing to the extent feasible (meaning that disturbance associated with wire stringing will occur only at wire setup sites and not in the structure work areas at the structures in-between), the Project has potential to result in impacts to one local occurrence of Wright's Beebrush, one local occurrence of small-flowered androstephium, one local occurrence of San Bernardino milk-vetch, one local occurrence of Emory's crucifixion thorn, one local occurrence of viviparous foxtail cactus, one occurrence of ribbed cryptantha, three local occurrences of purplenerve springparsley, one local occurrence of Utah vine milkweed, two local occurrence of matted cholla, and two local occurrences of Rusby's desert-mallow (Table 13).

Table 13. Potential Impacts to Special-Status Plant Species Based on Helicopter-Only Construction

Species[1]	Local Occurrence Unique Identifier	Occupied Habitat Unique Identifier	Segment	Feature ID
Aloysia wrightii Wright's Beebrush CRPR 4.3	ALOWRI-01	ALOWRI-002	2	M150-T1
Androstephium breviflorum Small-flowered androstephium CRPR 2B.2	ANDBREV-04	ANDBREV-038	1	4793955E
		ANDBREV-040	1	4793955E
		ANDBREV-049	2	M68-T3
		ANDBREV-050	2	M68-T3
		ANDBREV-051	2	M68-T3
		ANDBREV-053	2	M68-T3
Astragalus bernardinus San Bernardino milk-vetch CRPR 1B.2	ASTBER-03	ASTBER-012	2	M124-T4
Castela emoryi Emory's crucifixion thorn CRPR 2B.2	CASEMO-03	CASEMO-007	2	M88-T2
Coryphantha vivipara var. *rosea* Viviparous foxtail cactus CRPR 2B.2	CORVIV-03	CORVIV-033	2	M124-T3
		CORVIV-080	2	Cima Sub
		CORVIV-081	2	M127-T6
		CORVIV-082	2	M127-T6
Johnstonella costata Ribbed cryptantha CRPR 4.3	CRYCOS-04	CRYCOS-016	2	M124-T3
Cymopterus multinervatus Purplenerve springparsley CRPR 2B.2	CYMMUL-04	CYMMUL-005	2	M121-T1
	CYMMUL-06	CYMMUL-017	2	LZ 22
		CYMMUL-018	2	Cima Sub
	CYMMUL-07	CYMMUL-019	2	M131-T1

Table 13. Potential Impacts to Special-Status Plant Species Based on Helicopter-Only Construction

Species[1]	Local Occurrence Unique Identifier	Occupied Habitat Unique Identifier	Segment	Feature ID
Funastrum utahense Utah vine milkweed CRPR 4.2	FUNUTA-01	FUNUTA-001	2	429141S
Grusonia parishii Matted cholla CRPR 2B.2	GRUPAR-02	GRUPAR-005	2	M124-T3
	GRUPAR-05	GRUPAR-019	2	M127-T6
Sphaeralcea rusbyi var. *eremicola* Rusby's desert-mallow CRPR 1B.2	SPHRUS-02	SPHRUS-043	2	LZ_30
	SPHRUS-03	SPHRUS-075	2	M119-T4
		SPHRUS-076	2	M119-T4

In the event that use of helicopters for wire stringing is temporarily infeasible, SCE has included structure work areas at the existing structures between the wire setup sites where ground-based construction may occur. An analysis following the methods described above was conducted for the structure work areas. In the unlikely event that all structure work areas are used, additional impacts may occur; however, SCE anticipates that only up to 20% of these work areas will be used. Impacts to local occurrences that may occur through use of these structure work areas includes one local occurrence of San Bernardino milk-vetch, four local occurrences of viviparous foxtail cactus, three local occurrences of purplenerve springparsley, one occurrence of ribbed cryptantha, one occurrence of Harwood's eriastrum, two local occurrences of matted cholla, one occurrence of curved spine beavertail, and eight local occurrences of Rusby's desert-mallow (Table 14).

Table 14. Additional Local Occurrences of Special-Status Plants that May Be Impacted if All Structure Work Areas Are Used

Species[1]	Local Occurrence Unique Identifier	Occupied Habitat Unique Identifier	Segment	Feature ID
Astragalus bernardinus San Bernardino milk-vetch CRPR 1B.2	ASTBER-01	ASTBER-001	2	M124-T4
	ASTBER-03	ASTBER-006	2	M127-T4
Coryphantha vivipara var. *rosea* Viviparous foxtail cactus CRPR 2B.2	CORVIV-04	CORVIV-009	2	M124-T2
		CORVIV-014	2	M124-T5
	CORVIV-05	CORVIV-026	2	M127-T4
	CORVIV-06	CORVIV-033	2	M129-T3
	CORVIV-07	CORVIV-35	2	M130-T3
Cymopterus multinervatus Purplenerve springparsley CRPR 2B.2	CYMMUL-01	CYMMUL-001	2	M110-T5
	CYMMUL-03	CYMMUL-004	2	M118-T5
	CYMMUL-06	CYMMUL-007	2	M127-T4

Table 14. Additional Local Occurrences of Special-Status Plants that May Be Impacted if All Structure Work Areas Are Used

Species[1]	Local Occurrence Unique Identifier	Occupied Habitat Unique Identifier	Segment	Feature ID
Johnstonella costata Ribbed cryptantha CRPR 4.3	CRYCOS-02	CRYCOS-011	2	M100-T3
Eriastrum harwoodii Harwood's eriastrum CRPR 1B.2	ERIHAR-01	ERIHAR-004	2	M100-T3
Grusonia parishii Matted cholla CRPR 2B.2	GRUPAR-03	GRUPAR-005	2	M124-T4
	GRUPAR-04	GRUPAR-006	2	M126-T5
Opuntia curvospina Curved-spine beavertail CRPR 2B.2	OPUBAS-01	OPUBAS-001	2	M130-T3
Sphaeralcea rusbyi var. *eremicola* Rusby's desert-mallow CRPR 1B.2)	SPHRUS-01	SPHRUS-003	2	M112-T5
	SPHRUS-02	SPHRUS-004	2	M114-T2
		SPHRUS-006	2	M114-T4
		SPHRUS-007	2	M114-T4
		SPHRUS-012	2	M115-T2
		SPHRUS-013	2	M115-T3
		SPHRUS-014	2	M115-T4
		SPHRUS-018	2	M115-T5
		SPHRUS-019	2	M116-T1
		SPHRUS-020	2	M116-T1
		SPHRUS-023	2	M116-T2
		SPHRUS-025	2	M116-T2
		SPHRUS-029	2	M116-T3
		SPHRUS-032	2	M116-T3
		SPHRUS-046	2	M116-T5
		SPHRUS-049	2	M116-T5
		SPHRUS-054	2	M117-T1
	SPHRUS-03	SPHRUS-056	2	M118-T3
		SPHRUS-057	2	M118-T4
	SPHRUS-04	SPHRUS-059	2	M119-T2
		SPHRUS-060	2	M119-T3
		SPHRUS-067	2	M119-T4
		SPHRUS-070	2	M120-T2
		SPHRUS-073	2	M120-T3
	SPHRUS-05	SPHRUS-075	2	M122-T1
		SPHRUS-077	2	M122-T2
		SPHRUS-080	2	M122-T3

Table 14. Additional Local Occurrences of Special-Status Plants that May Be Impacted if All Structure Work Areas Are Used

Species[1]	Local Occurrence Unique Identifier	Occupied Habitat Unique Identifier	Segment	Feature ID
		SPHRUS-081	2	M122-T3
		SPHRUS-082	2	M122-T4
		SPHRUS-083	2	M122-T4
		SPHRUS-084	2	M122-T5
		SPHRUS-087	2	M123-T2
		SPHRUS-090	2	M123-T3
		SPHRUS-092	2	M123-T4
		SPHRUS-093	2	M123-T4
		SPHRUS-096	2	M124-T1
	SPHRUS-06	SPHRUS-097	2	M125-T4
		SPHRUS-098	2	M125-T4
	SPHRUS-07	SPHRUS-100	2	M126-T3
	SPHRUS-08	SPHRUS-103	2	M130-T1

The preliminary impact analysis assumes the entirety of each disturbance area will be impacted.

However, the Project design represents the maximum potential impact area and actual impacts are likely to be less. The ends and/or corners of disturbance areas are often not affected at all. Because helicopters will be utilized for wire stringing whenever possible, it is likely that few if any of the structure work areas will be used. Where ground-based construction activities do occur, the Project design gives the Construction Contractor flexibility to locate equipment in a manner that avoids impacts to special-status plants. This is especially true for succulents and perennial shrubs that tend to grow sparsely. Prior to the start of construction, a site visit will be conducted with the Construction Contractor to locate special-status plants in the disturbance areas and to determine if they can be avoided. The results of the site visit will inform an updated impact analysis.

Because the Project primarily involves replacement of telecommunications lines and minor modification of existing structures, no engineering grading is anticipated and the equipment used will be less impactful than that used for grading (i.e., generally lighter weight, rubber tires, etc.). In some cases, the nature of the disturbance may be such that special-status plants are not impacted. For example, if construction activities occur outside the growing season, when corms are dormant or annual species are only present in the seed bank, impacts to special-status plants may not occur. Where special-status plants are present in a vegetative state and impacts are unavoidable, “drive and crush” methods will be employed to the extent feasible to preserve the native seed bank and the root structure of native vegetation. This would minimize the impacts to special-status plants and increase the potential for successful restoration following construction.

Where avoidance of CRPR 1 or 2 plant species is not feasible and the impacts are greater than 10% of the local occurrence, either by number of individual plants (if possible, given available data) or by area of occupied habitat, SCE will prepare a Special-Status Plant Salvage and Relocation Plan describing the salvage and/or mitigation methods that will be implemented (MM-BIO-14).

Applicant Proposed Measures (APMs) and mitigation measures have been developed to avoid, minimize, and mitigate Project impacts to biological resources. The full text of the APMs is provided with the Project description (Table 9). The following APMs and mitigation measures will be implemented to avoid, minimize, and/or mitigate impacts to special-status plants to a less than significant level: MM-BIO-1, MM-BIO-2, MM-BIO-11, MM-BIO-12, MM-BIO-13, MM-BIO-14, MM-BIO-16, MM-BIO-21, APM-HYD-1, APM-AIR-1, APM-HAZ-1.

Special-Status Wildlife Species

Federal or State Listed Wildlife Species

Desert Tortoise

The Project is located within the range of the desert tortoise. While Segment 1 intersects USFWS-designated critical habitat for the desert tortoise and suitable habitat for the species occurs in Segment 1, the habitat quality is relatively degraded due to human development and habitat fragmentation, and no recent historic records were identified in the BSA. Therefore, the species has a low potential to occur in Segment 1. Segment 2 traverses the Mojave National Preserve, which features USFWS-designated Critical Habitat and high-quality suitable habitat. Based on historic records and Project survey data, desert tortoises are assumed to be present in the BSA in Segment 2.

Where desert tortoises are present during Project implementation, the following direct impacts may occur:

- **Vehicles and Equipment.** The primary threat to desert tortoises during Project implementation is collision with vehicles and equipment. Vehicles and equipment traveling on access roads and/or performing work in the work sites could strike and injure or kill tortoises. Increased watering of access roads and work areas to suppress dust could invite desert tortoises into access routes. If desert tortoises are undetected in burrows, the construction activities could crush the burrows along with tortoises or their eggs or entomb them inside the burrow.
- **Entrapment and Impediment**. While the excavations associated with most of the replacement structures would not remain open for more than a day, it is possible that desert tortoises could fall into the excavations and become trapped. Desert tortoises could also drown in unsecured water containment structures. Road berms on Project access roads could potentially impede desert tortoise movement.
- **Relocation Activities**. Tortoises relocated out of harm's way could be injured, killed, or affected by disease introduced by the handler.

The risk of direct impacts to desert tortoise is increased during the species' most active seasons, which are typically March 1 through June 15 and August 1 through October 15. In addition, hatchling and juvenile desert tortoises (i.e., measuring less than 160 millimeters) are at greater risk of direct mortality due to their small size and relative lack of detectability. Some hatchling and juvenile tortoises may be

missed during a pre-Project clearance survey and are at higher risk for mortality resulting from vehicle and equipment strikes. Hatchling and juvenile tortoises are nearly impossible to detect when they are below ground. In addition, smaller desert tortoises use abandoned rodent burrows, which are typically more fragile than the larger burrows constructed by adult desert tortoise. Therefore, hatchling and juvenile desert tortoises are more susceptible to injury and mortality in burrows than are adults (USFWS 2011).

In addition, the following indirect impacts may result from Project implementation:

- **Weeds.** Construction equipment and vehicles may spread weed species into and/or within the Project area. Non-native grasses especially can compete with native vegetation, thereby reducing habitat quality., and can alter wildfire regimes.
- **Fugitive Dust.** Fugitive dust generated during construction can coat nearby vegetation, thereby interrupting photosynthesis, which can interfere with the growth and persistence of native vegetation. This result, combined with infestation by weed species, can cause considerable long-term habitat impacts.
- **Wildfire.** Wildfire resulting from Project implementation construction (e.g., sparks from equipment without spark arrestors or vehicles parked in tall, dry grass) can destroy habitat for the species.
- **Hazardous Waste.** Equipment and vehicle fuel leaks and spills of hazardous materials during construction can seep into the soil, damaging nearby native vegetation and contaminating ground water, thereby diminishing habitat value.
- **Predators.** Human presence in otherwise isolated areas of the desert may attract opportunistic predators, such as ravens (*Corvus corax*), coyotes (*Canis latrans*), and feral dogs (*Canis familiaris*). Humans themselves also pose a risk to desert tortoises.

Based on SCE's intended construction methods, which assumes that helicopters will be used for wire stringing, the proposed Project is expected to result in temporary impacts to a total of 113.93 acres of desert tortoise habitat, including 37.81 acres of designated critical habitat. Table 15 shows the distribution of impacts based on the type of impact (temporary vs. permanent), state (California and Nevada), land management (BLM, NPS, other), and Project segment.

Table 15. Potential Impacts to Desert Tortoise Critical and Suitable Habitat Based on Helicopter-Only Construction

State	Segment	Ownership	USFWS- designated Desert Tortoise Critical Habitat		Suitable[1] Desert Tortoise Habitat (Non-critical)		Total
			Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)	
CA	1	BLM[2]	–	0.23	–	19.36	19.59
		DOD[3]	–	–	–	1.20	1.2
		State[4]	–	–	–	0.62	0.62
		Private	–	7.22	–	22.62	29.84
CA	2	BLM	–	–	–	16.67	16.67

Table 15. Potential Impacts to Desert Tortoise Critical and Suitable Habitat Based on Helicopter-Only Construction

State	Segment	Ownership	USFWS- designated Desert Tortoise Critical Habitat		Suitable[1] Desert Tortoise Habitat (Non-critical)		Total
			Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)	
		NPS[5]	–	26.99	–	10.55	37.54
		Private	–	3.37	–	3.73	7.1
NV	2	BLM[2]	–	0	–	1.37	1.37
		Total	–	**37.81**	–	**76.12**	**113.93**

1 Suitable habitat refers to habitat suitable for desert tortoise outside of USFWS-designated Critical Habitat. Approximately 26.02 acres of developed, disturbed, and/or active agricultural land (Appendix B-3, Figure 4), which do not include the physical and biological features essential to the recovery of the species, are not included among the suitable habitat or Critical Habitat impacts
2 Bureau of Land Management
3 Department of Defense
4 California State Lands Commission
5 National Park Service

In the unlikely event that all structure work areas are used for ground-based wire stringing, additional impacts may occur to 60.37 acres of desert tortoise habitat, including 27.20 acres of designated critical habitat (Table 16).

Table 16. Additional Impacts to Desert Tortoise Critical and Suitable Habitat that May Occur if All Structure Work Areas Are Used for Ground-Based Construction

State	Segment	Ownership	USFWS-designated Desert Tortoise Critical Habitat		Suitable[1] Desert Tortoise Habitat (Non-critical)		Total
			Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)	
CA	2	BLM	–	0	–	20.73	20.73
		NPS[5]	–	26.11	–	6.86	32.97
		State	–	0	–	3.58	3.58
		Private	–	1.09	–	0.87	1.96
NV	2	BLM[2]	–	0	–	1.13	1.13
		Total	–	**27.20**	–	**33.17**	**60.37**

1 Suitable habitat refers to habitat suitable for desert tortoise outside of USFWS-designated Critical Habitat. Approximately 20.29 acres of developed, disturbed, and/or active agricultural land (Appendix B-3, Figure 4), which do not include the physical and biological features essential to the recovery of the species, are not included among the suitable habitat or Critical Habitat impacts

Based on SCE's intended construction methods, which assumes that helicopters will be used for wire stringing, the Project would impact suitable desert tortoise critical habitat on approximately 7.45 acres (0.003%) of the Ord-Rodman CHU and approximately 30.01 acres (0.005%) of the Ivanpah CHU (Table 17).

Table 17. Impacts to Desert Tortoise Critical Habitat Units in Project Work Areas Based on Helicopter-Only Construction

	Eastern Mojave Recovery Unit (acres)		Western Mojave Recovery Unit (acres)		
	Critical Habitat: Ivanpah Unit	Not Critical Habitat	Critical Habitat: Ord-Rodman Unit	Not Critical Habitat	Total
Suitable Habitat	30.01	14.45	7.45	61.58	113.49
Not Suitable Habitat	4.28	3.94	0.38	18.29	26.90
Total	**34.29**	**18.39**	**7.83**	**79.87**	**140.39**

In the unlikely event that all structure work areas are used for ground-based wire stringing, additional impacts may occur to suitable desert tortoise critical habitat on approximately 27.20 acres (0.005%) of the Ivanpah CHU. No impacts to suitable critical habitat will occur in the Ord Rodman CHU. (Table 18).

Table 18. Additional Desert Tortoise Habitat in Project Work Areas if All Structure Work Areas Are Used for Ground-Based Construction

	Eastern Mojave Recovery Unit (acres)		Western Mojave Recovery Unit (acres)		
	Critical Habitat: Ivanpah Unit	Not Critical Habitat	Critical Habitat: Ord-Rodman Unit	Not Critical Habitat	Total
Suitable Habitat	27.20	10.25	–	22.91	60.37
Not Suitable Habitat	8.84	1.85	–	9.60	20.29
Total	**36.04**	**12.1**	**–**	**32.51**	**80.66**

At most, the proposed Project would result in impacts to 0.0001% of the 6.4 million acres of critical habitat that has been designated for the Mojave population of the desert tortoise. Impacts from construction would occur in existing and maintained SCE ROW alignments that lack the physical and biological features essential to the recovery of the species (also referred to as the Primary Constituent Elements of desert tortoise habitat). Because of the relatively small size of the impact area and its location in an existing transmission alignment, the impact would not appreciably diminish the value of the habitat conservation in the Western Mojave and Eastern Mojave Recovery Unit or the Ord-Rodman and Ivanpah CHUs. The impact would not cause the local population of desert tortoise to become unviable or preclude movement, dispersal, or gene flow within the population. Overall, the impact would not result in significant adverse effects to the species throughout its range.

The following APMs and mitigation measures will be implemented to avoid, minimize, and/or mitigate impacts to desert tortoise and desert tortoise habitat: MM-BIO-1, MM-BIO-2, MM-BIO-7, MM-BIO-11, MM-BIO-12, MM-BIO-16, MM-BIO-17, MM-BIO-18, MM-BIO-19, MM-BIO-20, MM-BIO-21, MM-BIO-22, APM-AES-2, APM-HYD-1, APM-AIR-1, APM-HAZ-1, and APM-WF-1. While the proposed Project has the potential to

cause direct and indirect impacts to desert tortoise and its habitat, implementation of these measures would reduce impacts to a less than significant level.

Tricolored Blackbird

Due to the presence of suitable nesting and foraging habitats in the vicinity of the Project (nesting habitat within 400 feet, foraging habitat within 300 feet), tricolored blackbird is likely to occur in the BSA. No nesting habitat occurs in Project disturbance areas; therefore, no direct impacts to nests or nesting habitat as a result of Project activities are anticipated. Likewise, no direct impacts to suitable foraging habitats are anticipated because no such habitats are present in disturbance areas. Tricolored blackbirds that may occur in disturbance areas are likely to do so transiently and would have the mobility to avoid impacts by leaving the area when disturbed.

All potential nesting and foraging habitats in the vicinity of the Project are located on the opposite side of National Trails Highway and the Burlington-Northern railroad. For this reason, any tricolored blackbirds nesting or foraging in those habitats are not expected to be disturbed by increased human presence, noise, and vibrations caused by Project activities, which would not represent a significant increase over the baseline levels in the area. Due to the distance between the Project and the nesting and foraging habitats, as well as the intervening highway and railroad, the habitats are not expected to experience indirect impacts from Project-related erosion, siltation, fugitive dust, or spread of invasive plants.

Although no significant impacts to tricolored blackbird are anticipated, implementation of the following mitigation measures and APMs would further reduce any potential for impacts: MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-BIO-16, MM-BIO-18, MM-BIO-19, MM-BIO-24, APM-AES-2, APM-HYD-1, APM-AIR-1, APM-HAZ-1.

Gilded Flicker

Direct impacts may occur to habitats that support gilded flicker during Project activities such as clearing, grubbing, and trimming of vegetation for equipment placement, helicopter landing zones, and/or construction laydown yards in occupied habitat. If Project implementation occurs during the nesting season (generally February 1 through August 31), such activities could potentially destroy active nests if they are present in disturbance areas. Nesting gilded flickers may also be disturbed by the noise of Project activities (e.g., helicopters, vegetation trimming, human presence). Project noise could cause nest abandonment in and adjacent to Project disturbance areas. Project activities may also decrease the quality of foraging and nesting habitats used by the species through indirect impacts including fugitive dust and spread of invasive plants.

In the Project area, suitable habitat for gilded flicker consists of Joshua tree woodland. Based on SCE's intended construction methods, which assumes that helicopters will be used for wire stringing, the Project may result in temporary impacts to 15.37 acres of suitable habitat for the species. If the full extent of all structure work areas is used, additional temporary impacts may occur to 16.35 acres of suitable habitat. No permanent impacts would occur under either scenario. The species may not be present in suitable habitat in all disturbance areas, and where suitable nesting or roosting habitat (e.g., mature Joshua trees) is present it may be avoidable. In addition, due to seasonal restrictions built into the Project schedule, construction activities in gilded flicker habitat may occur largely outside the nesting season.

The following mitigation measures and APMs are built into the Project to avoid and/or minimize impacts to gilded flicker: MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-BIO-6, MM-BIO-11, MM-BIO-12, MM-BIO-13, MM-BIO-16, MM-BIO-18, MM-BIO-19, MM-BIO-22, APM-AES-2, APM-HYD-1, APM-AIR-1, APM-HAZ-1. While the proposed Project has the potential to cause direct and indirect impacts to gilded flicker and its habitat, implementation of these measures would reduce impacts to a less than significant level.

Non-listed Special-status Wildlife Species

Ten non-listed special-status wildlife species were observed in the BSA or were determined to be likely to occur based on historic data and Project surveys. Discussions of the potential impacts to these non-listed special-status species are grouped together taxonomically as impacts to related species are likely to be similar in nature.

Reptiles

One non-listed special-status reptile species, Mojave fringe-toed lizard, is assumed to be present in the Project area and may be affected by the Project. Mojave fringe-toed lizards inhabit sand dune areas, including hummocks of wind-blown sand. The following impacts may result from Project implementation:

- **Vehicle and Equipment Use.** Direct impacts to Mojave fringe-toed lizard individuals may result from an increase in vehicle traffic and use of heavy equipment during Project implementation, as there is potential for lizards to be directly killed or injured if crushed by Project vehicles and equipment.
- **Noise and Vibration.** Lizards may be affected by noise and vibration from Project activities.
- **Soil Compaction and Habitat Impacts.** Temporary direct impacts to Mojave fringe-toed lizard habitat may occur through soil compaction and vegetation damage resulting from drive and crush activities. Soil compaction reduces the ability of these lizards to bury themselves in the soil for thermoregulation, and vegetation damage negatively affects the invertebrate species upon which they feed.
- **Invasive Species and Wildfire.** There is potential for permanent, indirect impacts to Mojave fringe-toed lizard from the introduction or spread of non-native weedy plant species, which may lead to decreased habitat quality and altered fire regimes.

The following mitigation measures and APMs will be implemented to avoid and/or minimize impacts to non-listed special-status reptile species such as Mojave fringe-toed lizard: MM-BIO-1, MM-BIO-2, MM-BIO-8, MM-BIO-11, MM-BIO-12, MM-BIO-13, MM-BIO-16, MM-BIO-17, MM-BIO-18, MM-BIO-19, MM-BIO-20, MM-BIO-21, APM-AES-2, APM-HYD-1, APM-AIR-1, APM-HAZ-1, and APM-WF-1. Any potential direct or indirect impacts to Mojave fringe-toed lizard would be less than significant level with the proposed mitigation measures and APMs.

Birds

Non-listed special-status bird species that may be affected by Project implementation include golden eagle, burrowing owl, loggerhead shrike, Bendire's thrasher, and LeConte's thrasher. Potential direct and indirect impacts to these species are similar to those described above for gilded flicker.

There is potential for temporary direct impacts during Project implementation to non-listed special-status bird species when crews work in vegetation communities that support them, regardless of the time of year. Vegetation trimming may decrease the quality of habitat for foraging and nesting through reduction of vegetative cover. Potential direct impacts to burrowing species such as burrowing owl may include collisions with Project vehicles and crushing of burrows. If Project implementation occurs during the nesting season (generally February 1 through August 31; as early as January 1 for raptors), increased disturbance at nests may occur from noise, vibration, human presence, and vegetation trimming. Project noise could cause nest abandonment in locations adjacent to Project disturbance areas. However, impacts from these activities would end with Project completion. No population-level impacts to any special-status bird species are anticipated.

The following mitigation measures and APMs will be implemented to avoid and/or minimize impacts to non-listed special-status bird species: MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, MM-BIO-11, MM-BIO-12, MM-BIO-13, MM-BIO-15, MM-BIO-16, MM-BIO-17, MM-BIO-18, MM-BIO-19, MM-BIO-20, MM-BIO-21, MM-BIO-22, APM-AEP-2, APM-HYD-1, APM-AIR-1, APM-HAZ-1. Direct and indirect impacts to golden eagle, burrowing owl, loggerhead shrike, Bendire's thrasher, and LeConte's thrasher would be reduced to a less than significant level through implementation of these mitigation measures and APMs.

Mammals

Desert kit fox is assumed to be present in the BSA. Three additional non-listed special-status mammal species, pallid bat, desert bighorn sheep, and American badger have the potential to occur. Direct and indirect impacts to these species may result from implementation of the Project.

Potential direct impacts to desert kit fox and American badger individuals may include injury or mortality due to collisions with Project vehicles; crushing of burrows; disturbance of foraging and breeding habitat; and disturbance from dust, noise, and vibration. Potential indirect impacts may include the spread of non-native weedy plant species, which may lead to decreased habitat quality. Additionally, soil compaction from Project equipment may impede the excavation of burrows, displacing individuals and resulting in a decrease in local abundance of the species.

Potential direct impacts to the desert bighorn sheep may include injury or mortality due to collisions with Project vehicles and the disturbance or loss of foraging and breeding habitat. The species may also be impacted by noise and visual disturbance while vehicles, personnel, and helicopters are present at Project disturbance areas. The presence of Project personnel and equipment may cause desert bighorn sheep to temporarily relocate to feeding areas farther from the Project. Direct impacts to lambs and ewes during the lambing period are not anticipated because the species' preferred lambing habitat is characterized by steeper and more inaccessible terrain than is present in the Project area (Bleich et al. 1997). Potential indirect impacts to desert bighorn sheep may result from the spread of invasive plant species, which may degrade the quality of foraging habitat.

Although no large rock outcrops will be removed during Project construction, direct impacts to pallid bat could occur if a day roosting site in a hollow tree is located in or near a Project disturbance area. Indirect impacts to pallid bat may include disturbance from dust, noise, vibration, and lighting from nearby construction activities (although no nighttime construction work is anticipated).

The following mitigation measures and APMs will be implemented to avoid and/or minimize impacts to non-listed special-status mammal species: MM-BIO-1, MM-BIO-2, MM-BIO-9, MM-BIO-10, MM-BIO-11, MM-BIO-12, MM-BIO-15, MM-BIO-16, MM-BIO-17, MM-BIO-18, MM-BIO-19, MM-BIO-20, MM-BIO-21, MM-BIO-22, MM-BIO-23, APM-AES-2, APM-HYD-1, APM-AIR-1, APM-HAZ-1, and APM-WF-1. Direct and indirect impacts to desert kit fox, pallid bat, desert bighorn sheep, and American badger would be reduced to a less than significant level through the implementation of mitigation measures, and APMs built into the proposed Project.

With implementation of the mitigation measures and APMs listed in the preceding sections, which are incorporated into the Project means and methods, impacts to any species identified as a candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by BLM, CDFW, or USFWS would be reduced to less than significant.

Mitigation Measures: MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, MM-BIO-7, MM-BIO-8, MM-BIO-9, MM-BIO-10, MM-BIO-11, MM-BIO-12, MM-BIO-13, MM-BIO-14, MM-BIO-15, MM-BIO-16, MM-BIO-17, MM-BIO-18, MM-BIO-19, MM-BIO-20, MM-BIO-21, MM-BIO-22, MM-BIO-23, APM-AES-2, APM-HYD-1, APM-AIR-1, APM-HAZ-1, and APM-WF-1

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

Less than Significant with mitigation.

Sensitive Vegetation Communities

Based on SCE's intended construction methods, which assumes that helicopters will be used for wire stringing, a total of 20 vegetation communities and land cover types, including four sensitive vegetation communities and one sensitive unvegetated land cover type, may be subject to impacts during construction. Temporary direct impacts would occur on approximately 140.38 acres, which includes approximately 19.34 acres of sensitive vegetation communities (desert willow – smoke tree wash woodland, big galleta shrub-steppe, bush seepweed scrub, and Joshua tree woodland) and 0.48 acres of the sensitive alkali playa land cover type. No sensitive vegetation communities or land cover types will be permanently impacted. Table 19 summarizes the extent of direct impacts to vegetation communities in Project disturbance areas.

Table 19. Summary of Impacts to Vegetation Communities and Land Cover Types Based on Helicopter-Only Construction

Vegetation Community/Land Cover Type[1]	Status	Impacts (acres)
Sensitive Vegetation Communities		
Chilopsis linearis – Psorothamnus spinosus (Desert willow – smoke tree wash woodland) Woodland Alliance (61.555.00)	G4/S3	1.08
Dicoria canescens – Abronia villosa – Panicum urvilleanum (Mojave-Sonoran desert dunes) Sparsely Vegetated Alliance (22.105.00)	G4/S3.2	–

Table 19. Summary of Impacts to Vegetation Communities and Land Cover Types Based on Helicopter-Only Construction

Vegetation Community/Land Cover Type[1]	Status	Impacts (acres)
Ericameria paniculata (Black-stem rabbitbrush scrub) Shrubland Alliance (35.340.00)	G4/S3	–
Pleuraphis rigida (Big galleta shrub-steppe) Herbaceous Alliance (41.030.00)	G3/S2	2.72
Prosopis glandulosa - Prosopis velutina – Prosopis pubescens (Mesquite thickets) Woodland Alliance (61.514.00)	G5/S3	–
Rhus trilobata – Crataegus rivularis – Forestiera pubescens (Basket brush – river hawthorn – desert olive patches) Shrubland Alliance (61.580.00)	G4/S3?	–
Suaeda moquinii (Bush seepweed scrub) Shrubland Alliance (36.200.00)	G4/S3	0.17
Yucca brevifolia (Joshua tree woodland) Alliance (33.170.00)	G4/S3	15.37
Total Sensitive Vegetation Communities		**19.34**
Non-sensitive Vegetation Communities		
Ambrosia dumosa (White bursage scrub) Shrubland Alliance (33.060.00)	G5/S5	0.10
Ambrosia salsola – Bebbia juncea (Cheesebush – sweetbush scrub) Shrubland Alliance (33.200.00)	G4/S4	0.56
Atriplex canescens (Fourwing saltbush scrub) Shrubland Alliance (36.310.00)	G5/S4	0.33
Atriplex confertifolia (Shadscale scrub) Shrubland Alliance (36.320.00)	G5/S4	0.94
Atriplex hymenelytra (Desert holly scrub) Shrubland Alliance (36.330.00)	G5/S4	–
Atriplex polycarpa (Allscale scrub) Shrubland Alliance (36.340.00)	G4/S4	23.81
Bromus (*diandrus*, *hordeaceus*) – *Brachypodium distachyon* (Annual brome grasslands) Herbaceous Semi-natural Stands (42.026.00)	None	1.96
Bromus rubens – Schismus (*arabicus*, *barbatus*) (Red brome or Mediterranean grass grasslands) Herbaceous Semi-natural Stands (42.024.00)	None	0.17
Encelia farinosa (Brittle bush scrub) Shrubland Alliance (33.030.00)	G5/S4	0.88
Ephedra nevadensis – Lycium andersonii – Grayia spinosa (Nevada joint fir – Anderson's boxthorn – spiny hop sage scrub) Shrubland Alliance (33.185.00)	G5/S3S4	–
Larrea tridentata (Creosote bush scrub) Shrubland Alliance (33.010.00)	G5/S5	15.45
Larrea tridentata – Ambrosia dumosa (Creosote bush – white bursage scrub) Shrubland Alliance (33.140.00)	G5/S5	44.49
Prunus fasciculata – Salazaria mexicana (Desert almond – Mexican bladdersage scrub) Shrubland Alliance (33.315.00)	G4/S4	0.64
Senegalia greggii – Hyptis emoryi – Justicia californica (Catclaw acacia – desert lavender – chuparosa scrub) Shrubland Alliance (33.045.00)	G4/S4	1.62
Tamarix spp. (Tamarisk thickets) Shrubland Semi-Natural Alliance (63.810.00)	GNA/SNA3	0.04
Yucca schidigera (Mojave yucca scrub) Shrubland Alliance (33.070.00)	G4/S4	2.52
Total Non-sensitive Vegetation Communities		**93.51**
Total Vegetation Communities Overall		**112.85**
Sensitive Land Cover Types		
Alkali Playa Community	G4/S3.2	0.48
Total Sensitive Land Cover Types		0.48

Table 19. Summary of Impacts to Vegetation Communities and Land Cover Types Based on Helicopter-Only Construction

Vegetation Community/Land Cover Type[1]	Status	Impacts (acres)
Non-sensitive Land Cover Types		
Barren-Not Developed	None	0.15
Developed	None	26.90
Total Non-sensitive Land Cover Types		**27.05**
Total Land Cover Types Overall		**27.53**
Total		**140.38**

1 Rarity and Global/State Ranks: One purpose of the vegetation classification is to assist in determining the level of rarity and imperilment of vegetation types. Ranking of alliances according to their degree of imperilment (as measured by rarity, trends, and threats) follows NatureServe's Heritage Methodology, in which all alliances are listed with a G (global) and S (state) rank. Alliances with State ranks of S1 (critically imperiled) to S3 (vulnerable) are considered to be sensitive.

2 GNA/SNA indicates that a conservation status rank is not applicable because the species or ecosystem is not a suitable target for conservation activities

In the unlikely event that all structure work areas are used for ground-based wire stringing, additional temporary direct impacts may occur on approximately 80.89 acres, which includes approximately 17.65 acres of sensitive vegetation communities (Mojave-Sonoran desert dunes, black-stem rabbitbrush scrub, big galleta shrub-steppe, and Joshua tree woodland). No additional permanent impacts would be needed. Table 20 summarizes the extent of potential additional direct impacts to vegetation communities in the ground-based construction scenario.

Table 20. Summary of Additional Impacts to Vegetation Communities and Land Cover Types if All Structure Work Areas Are Used for Ground-Based Construction

Vegetation Community/Land Cover Type[1]	Status	Structure Work Areas (acres)
Sensitive Vegetation Communities		
Dicoria canescens – Abronia villosa – Panicum urvilleanum (Mojave-Sonoran desert dunes) Sparsely Vegetated Alliance (22.105.00)	G4/S3.2	0.23
Ericameria paniculata (Black-stem rabbitbrush scrub) Shrubland Alliance (35.340.00)	G4/S3	0.28
Pleuraphis rigida (Big galleta shrub-steppe) Herbaceous Alliance (41.030.00)	G3/S2	0.79
Yucca brevifolia (Joshua tree woodland) Alliance (33.170.00)	G4/S3	16.35
Total Sensitive Vegetation Communities		**17.65**
Non-sensitive Vegetation Communities		
Ambrosia salsola – Bebbia juncea (Cheesebush – sweetbush scrub) Shrubland Alliance (33.200.00)	G4/S4	0.39
Encelia farinosa (Brittle bush scrub) Shrubland Alliance (33.030.00)	G5/S4	0.23
Ephedra nevadensis – Lycium andersonii – Grayia spinosa (Nevada joint fir – Anderson's boxthorn – spiny hop sage scrub) Shrubland Alliance (33.185.00)	G5/S3S4	0.02
Larrea tridentata (Creosote bush scrub) Shrubland Alliance (33.010.00)	G5/S5	8.82

Table 20. Summary of Additional Impacts to Vegetation Communities and Land Cover Types if All Structure Work Areas Are Used for Ground-Based Construction

Vegetation Community/Land Cover Type[1]	Status	Structure Work Areas (acres)
Larrea tridentata – Ambrosia dumosa (Creosote bush – white bursage scrub) Shrubland Alliance (33.140.00)	G5/S5	29.83
Prunus fasciculata – Salazaria mexicana (Desert almond – Mexican bladdersage scrub) Shrubland Alliance (33.315.00)	G4/S4	0.01
Senegalia greggii – Hyptis emoryi – Justicia californica (Catclaw acacia – desert lavender – chuparosa scrub) Shrubland Alliance (33.045.00)	G4/S4	0.33
Yucca schidigera (Mojave yucca scrub) Shrubland Alliance (33.070.00)	G4/S4	3.32
Total Non-sensitive Vegetation Communities		**42.95**
Total Vegetation Communities Overall		**60.60**
Non-sensitive Land Cover Types		
Developed	None	20.29
Total Non-sensitive Land Cover Types		**20.29**
Total		**80.89**

[1] Rarity and Global/State Ranks: One purpose of the vegetation classification is to assist in determining the level of rarity and imperilment of vegetation types. Ranking of alliances according to their degree of imperilment (as measured by rarity, trends, and threats) follows NatureServe's Heritage Methodology, in which all alliances are listed with a G (global) and S (state) rank. Alliances with State ranks of S1 (critically imperiled) to S3 (vulnerable) are considered to be sensitive.

Direct temporary impacts to sensitive vegetation communities may include vegetation removal and minor grading where sites require leveling to accommodate equipment. However, drive and crush methods will be implemented to the extent feasible to minimize impacts to native vegetation. While vegetation may be impacted at drive and crush sites, preserving the root structure and seed bank may accelerate revegetation efforts. Although minor vegetation trimming may be necessary to position Project equipment during activities such as wire set-up, the vegetation is anticipated to regrow.

Potential temporary indirect impacts to sensitive vegetation communities surrounding the Project disturbance areas may occur as a result of minor grading activities that generate fugitive dust and cause erosion and sedimentation, which can lead to diminished photosynthesis and the eventual death of vegetation that is buried. Indirect impacts to sensitive vegetation communities may also include soil compaction and the introduction and spread of non-native invasive plants.

The following mitigation measures and APMs will be implemented to avoid, minimize, and/or mitigate impacts to sensitive vegetation communities: MM-BIO-1, MM-BIO-2, MM-BIO-11, MM-BIO-12, MM-BIO-13, MM-BIO-14, MM-BIO-16, APM-HYD-1, APM-AIR-1, APM-HAZ-1, and APM-WF-1. Direct and indirect impacts to sensitive vegetation communities would be reduced to a less than significant level through implementation of these mitigation measures and APMs, which are incorporated into the Project means and methods.

Mitigation Measures: MM-BIO-1, MM-BIO-2, MM-BIO-11, MM-BIO-12, MM-BIO-13, MM-BIO-14, MM-BIO-16, APM-HYD-1, APM-AIR-1, APM-HAZ-1, and APM-WF-1

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?

Less than Significant with mitigation.

Jurisdictional Waters

Of the impacts to jurisdictional waters that would occur as a result of the Project, the majority would be temporary in nature. In the current design, the only permanent impact in a jurisdictional area is a single guy line anchor that would support a nearby distribution pole, which would result in a permanent impact of approximately 0.0000001 acres. Areas in which cable will be placed underground are not classified as permanent impacts, as the ground will be returned to its original contours and no structures will be installed on the surface. These underground disturbance areas would result in permanent impacts to 0.0000001 acres of CDFW, USACE, and RWQCB jurisdictions, respectively.

The proposed Project would require access to wire-setup or pulling locations that involves crossing waters under the jurisdiction of USACE, RWQCB, and/or CDFW and results in temporary impacts to these waters. Specifically, temporary direct impacts to jurisdictional waters may result from modifying existing distribution poles and transmission towers; establishing pull sites; installing temporary wood poles at guard structures; establishing helicopter landing sites; and installing temporary erosion control fencing, berms, and other erosion control measures to comply with SWPPP requirements. Based on SCE's intended construction methods, which assumes that helicopters will be used for wire stringing, Project activities would result in temporary impacts to approximately 11.45 acres of USACE jurisdiction; 19.18 acres of RWQCB jurisdiction, 21.78 acres of CDFW jurisdiction, and 1.88 acres of NDEP jurisdiction. No impacts are proposed to wetlands or riparian vegetation. Table 21 summarizes potential impacts to jurisdictional waters in Project disturbance areas.

Table 21. Summary of Impacts to Jurisdictional Waters Based on Helicopter-Only Construction

State	Segment	Ownership	USACE-jurisdictional Non-wetland Waters of the U.S. (acres)		RWQCB-jurisdictional Non-wetland Waters of the State (acres)		CDFW-jurisdictional (CA)/ NDEP-jurisdictional (NV) Streambeds (acres)	
			Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
CA	1	BLM	–	1.13	–	3.47	-	1.36
		DOD	0.0000001	0.85	0.0000001	0.91	0.0000001	0.85
		State	–	0.02	–	0.04	–	0.02
		Private	–	4.04	–	6.18	–	4.69
CA	2	BLM	–	0.29	–	1.71	–	3.31
		NPS	–	3.42	–	6.73	–	11.43

Table 21. Summary of Impacts to Jurisdictional Waters Based on Helicopter-Only Construction

State	Segment	Ownership	USACE-jurisdictional Non-wetland Waters of the U.S. (acres)		RWQCB-jurisdictional Non-wetland Waters of the State (acres)		CDFW-jurisdictional (CA)/ NDEP-jurisdictional (NV) Streambeds (acres)	
			Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
		State	–	0.08		0.06		0.09
		Private	–	0.02	–	0.02	–	0.03
NV	2	BLM	–	1.61[1]	N/A	N/A	–	1.88
Total			**0.0000001**	**11.45**	**0.0000001**	**19.18**	**0.0000001**	**23.66**

In the unlikely event that all structure work areas are used for ground-based wire stringing, additional temporary impacts may occur to approximately 10.54 acres of USACE jurisdiction; 15.74 acres of RWQCB jurisdiction, 24.03 acres of CDFW jurisdiction, and 2.43 acres of NDEP jurisdiction. The use of structure work areas would not result in any permanent impacts, and no impacts to wetlands or riparian vegetation. Table 22 summarizes potential additional impacts to jurisdictional waters assuming all structure work areas are used for the ground-based construction scenario.

Table 22. Summary of Impacts to Jurisdictional Waters if All Structure Work Areas Are Used for Ground-Based Construction

State	Segment	Ownership	USACE-jurisdictional Non-wetland Waters of the U.S. (acres)		RWQCB-jurisdictional Non-wetland Waters of the State (acres)		CDFW-jurisdictional (CA)/ NDEP-jurisdictional (NV) Streambeds (acres)	
			Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
CA	2	BLM	–	4.11	–	5.72	–	8.89
		DOD	–	2.86	–	7.99	–	13.25
		State	–	1.44	–	1.46	–	1.75
		Private	–	0.08	–	0.08	–	0.15
NV	2	BLM	–	2.04	N/A	N/A	–	2.43
Total			**–**	**10.54**	**–**	**15.74**	**–**	**26.46**

Adjacent jurisdictional waters may be indirectly impacted by the introduction or spread of invasive plant species and by altered water flow from runoff if contours in disturbance areas are appreciably changed.

The following APMs will be implemented to avoid, minimize, and/or mitigate impacts to jurisdictional waters: MM-BIO-1, MM-BIO-2, MM-BIO-11, MM-BIO-12, MM-BIO-15, MM-BIO-16, MM-BIO-20, APM-HYD-1, and APM-HAZ-1. Direct and indirect impacts to jurisdictional waters would be reduced to a less than significant level through implementation of these APMs, which are incorporated into the Project means and methods, and through compliance with permits issued by the USACE, RWQCB, and CDFW.

Mitigation Measures: MM-BIO-1, MM-BIO-2, MM-BIO-11, MM-BIO-12, MM-BIO-14, MM-BIO-15, MM-BIO-16, MM-BIO-20, APM-HYD-1, and APM-HAZ-1.

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?

Less than Significant with mitigation.

Once built, linear transmission and distribution infrastructure requires very limited human presence (humans are only present for inspections and O&M activities); does not create a barrier to wildlife movement or seed dispersal; does not alter hydrology, or impeded Aeolian or fluvial transport (wind and water flow through the infrastructure with little impedance); generates little noise; and features a relatively small permanent footprint in the context of a large natural open space such as the Mojave desert.

The proposed Project involves upgrade of existing transmission and distribution facilities. Existing disturbed areas have been incorporated into the Project to minimize temporary disturbance areas, and the Project will result in a negligeable net addition to the permanent footprint (0.0000001 acres). No new permanent roads, retaining walls, buildings, or other barriers to wildlife movement will be constructed. Rather, a network of existing access roads will be used to access the various temporary work areas associated with upgrade of the existing linear facilities. Above-ground features such as the structures telecommunications cables are similar in form and location to the existing facilities; the structure modifications require only the addition of a few struts within the existing lattice of the structures. The proposed Project is not expected to interfere with wildlife migration at the regional scale, nor will it result in permanent or long-term interference with local wildlife movement.

Temporary direct impacts to wildlife movement may occur during construction as a result of elevated noise, vibration, and increased human presence. Project activities may cause some resident wildlife species (e.g., desert tortoise) to avoid Project areas, avoid crossing access roads, or alter their behavior (e.g., foraging, courtship) while Project personnel, vehicles, equipment, and helicopters temporarily occupy the area during construction. If construction materials (e.g., pipes) are present and/or excavations left open, wildlife may become entrapped. Although temporary impacts to movement of resident wildlife are anticipated during Project implementation, these impacts would be of short duration, ceasing upon completion of construction, and isolated to the Project area, which is small relative to the abundant natural open space in the vicinity.

During seasonal migration periods, birds may pass north and south through the Project area. Although no areas that would attract large numbers of migratory birds (e.g., large bodies of water) have been identified in the Project area, some species may take refuge in the Project area during migration. Elevated

noise, vibration, and human presence may deter use of the Project area during migration. However, the region surrounding the Project area provides an abundance of natural open space. Because the Project alignment has a roughly east-west orientation, migratory birds may collide with the transmission lines since they will be primarily flying perpendicular to the lines. The Project will make minor modifications to existing transmission structures through the addition of steel struts within the existing profile of the steel lattice. In Segment 1, telecommunications cable will be added to the existing distribution lines below the array of existing electrical conductor and third-party telecommunications lines. In Segment 2, OPGW will replace OHGW, which is of a similar diameter and finish. Compared to the baseline, the proposed Project is not expected to result in an increased risk of avian collision.

Temporary indirect impacts to wildlife movement may include temporary impacts to native vegetation (habitat that may provide shelter to migrating and resident wildlife), increased risk of spreading invasive species, fugitive dust, and toxic substances, which also could result in degradation of native habitat and wildlife movement corridors in the Project area.

Because the proposed Project would modify existing infrastructure, create no new physical barriers, and result in minimal permanent impacts to wildlife habitats, no impacts to wildlife corridors are anticipated. Due to the extensive natural open space surrounding the Project and the temporary nature of disturbance associated with construction, impacts to wildlife movement would be less than significant. The potential for impacts to wildlife movement would be reduced further through implementation of the following mitigation measures and APMs: MM-BIO-1, MM-BIO-2, MM-BIO-11, MM-BIO-12, MM-BIO-16, MM-BIO-17, MM-BIO-18, MM-BIO-19, MM-BIO-20, APM-AES-2, APM-HAZ-1.

Mitigation Measures: MM-BIO-1, MM-BIO-2, MM-BIO-11, MM-BIO-12, MM-BIO-16, MM-BIO-17, MM-BIO-18, MM-BIO-19, MM-BIO-20

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

Less than Significant.

The CPUC has sole and exclusive state jurisdiction over the siting and design of the proposed Project. Per CPUC G.O. 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction…however, in locating such projects, the public utilities shall consult with local agencies regarding land use matters." SCE takes the policies and ordinances of local jurisdictions into consideration during the environmental review process. For the proposed Project, the San Bernardino County Policy Plan (County of San Bernardino 2020a), San Bernardino County Code of Ordinances, and Clark County Comprehensive Master Plan (Clark County Department of Comprehensive Planning 2017), which include goals and policies focused on natural resource management, protection, and conservation, were reviewed and taken into consideration in the development of the Project means and methods. The proposed Project involves the upgrade of existing distribution and transmission infrastructure in an existing utility corridor, conducted over a relatively short timeframe. Existing permanently disturbed areas have been incorporated into the design of the Project work areas, drive and crush methods will be used to the extent feasible, and temporarily disturbed areas will be revegetated upon completion of construction. Mitigation measures addressing potential impacts to

biological resources, including sensitive vegetation communities, special-status plants and wildlife, and aquatic resources, are incorporated into the Project means and methods. Therefore, the proposed Project does not conflict with any local policies or ordinances protecting biological resources, and implementation of the mitigation measures incorporated above would further minimize potential impacts to biological resources.

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?

Less than Significant.

The Project alignment is not within an area covered by an adopted Habitat Conservation Plan; Natural Community Conservation Plan; or other approved local or state habitat conservation plan. However, as described in the Regulatory Section, CDFW has determined the DRECP is, in an informal sense, an approved regional habitat conservation plan relevant to CDFW's lead agency review of the proposed Project under CEQA. The DRECP is relevant to CDFW's lead agency review of the proposed Project because information provided by SCE to CDFW regarding potential effects to biological resources is presented, in part, against the backdrop of the proposed Project's consistency with the DRECP. In addition, as noted in the Regulatory Section, BLM describes the DRECP as a landscape-level plan that conserves unique and valuable desert ecosystems and provides outdoor recreation opportunities. CDFW has determined for purposes of CEQA that the DRECP is an "other approved regional habitat conservation plan" relevant to its lead agency review of the LVRAS Project.

CDFW appreciates that portions of the Project alignment and surrounding public lands are managed by BLM under the DRECP LUPA, a federal land management plan. The BLM Environmental Assessment (BLM 2020) included review of each CMA to ensure the Project either complied with the CMA or the CMA is not applicable. BLM published the Environmental Assessment and the Applicability of DRECP Conservation and Management Actions for the LVRAS Project on its ePlanning website.[8] An approximately 1.8-mile section of Segment 2 is located in Clark County, Nevada, in the CCMSHCP planning area. However, the Project components, which comprise only 1.77 acres of temporary impact and no permanent impacts, are located in an existing BLM ROW on BLM land, where the CCMSHCP does not apply.

The proposed Project is a NEPA action, subject to review and approval by BLM (lead federal agency) and NPS (presumably as a cooperating agency). The Project is located in the BLM's CDCA, including the NECO and WEMO, and DRECP, the Las Vegas RMP, and associated ACECs (Bristol Mountains ACEC, Cady Mountains WSA, Ord-Rodman DWMA, Pisgah RNA, and Piute-Eldorado Valley ACEC), all land management actions descending from the FLPMA. With BLM's approval of the Project, they require NEPA Mitigation Measures and/or applicable DRECP CMAs to be implemented during construction. The APMs incorporated into the means and methods of the Project have been developed by SCE to be consistent with applicable BLM requirements.

As described above, the proposed Project involves the upgrade of existing distribution and transmission infrastructure in an existing utility corridor, conducted over a relatively short timeframe. Existing permanently disturbed areas have been incorporated into the design of the Project work areas, drive and

8 Lugo-Victorville 500 kV Remedial Action Scheme ePlanning webpage is https://eplanning.blm.gov/eplanning-ui/project/1502126/570.

crush methods will be used to the extent feasible, and temporarily disturbed areas will be revegetated upon completion of construction. APMs incorporated into the proposed Project help avoid and reduce potential impacts to biological resources, including sensitive vegetation communities, special-status plants and wildlife (typically, "Covered Species" in HCPs), and aquatic resources, are incorporated into the Project means and methods. Once built, linear transmission and distribution infrastructure does not interfere with essential ecological processes (e.g., wildlife movement, seed dispersal, hydrology, fluvial sediment movement, Aeolian processes) and features a relatively small footprint in the context of the surrounding natural open spaces.

BLM's land use determination regarding the proposed Project's consistency with the DRECP under federal law is entitled to deference. From a CEQA perspective, CDFW as a lead agency has not identified any inconsistency in its independent judgment between the proposed Project and the DRECP. Similarly, CDFW has not identified and is not aware of any conflict between the DRECP and the proposed Project that may cause a physical change to the environment not already considered. Therefore, issuance of the Permit specifically and approval of the Project under CEQA as the whole of the action would not result in significant impacts to the environment as a result of a conflict with an adopted Habitat Conservation Plan; Natural Community Conservation Plan; or other approved local, regional, or state habitat conservation plan.

Mitigation Measures

MM-BIO-1 **Worker's Environmental Awareness Training Program.** All workers on the Project site shall be required to attend a Worker's Environmental Awareness Training Program (WEAP). Training shall inform all construction personnel of the resource protection and avoidance measures as well as procedures to be followed upon the discovery of environmental resources. As part of the WEAP, a qualified biologist shall conduct a presentation that includes a discussion of the biology of the habitats and species that may be present at the site. The qualified biologist shall also include as part of the education program information about the distribution and habitat needs of any special status species that may be present, legal protections for those species, penalties for violations, and mitigation measures. The WEAP training will include, at a minimum, the following topics so crews will understand their obligations:

- Environmentally Sensitive Areas (ESA) boundaries, as well as the importance of ensuring that no refuse or pollution enters the streams or conservation areas and that encroachment into the streams and conservation areas is not permitted during construction or other Project activities.
- Protected species that have the potential to occur on the Project site including, but not limited to, rare and sensitive plants and vegetation communities, burrowing owl, desert tortoise, gilded flicker, tricolored blackbird, golden eagle, Mojave fringe-toed lizard, desert kit fox, American badger, bats, and nesting birds.
- Housekeeping (trash and equipment cleaning), including best practices for managing waste and reducing activities that can lead to increased occurrences of opportunistic species and the impacts these species can have on wildlife in the area.
- Safety
- Work stoppage

- Communication protocol
- Consequences of non-compliance

Interpretation shall be provided for any non-English-speaking workers, and the same instruction shall be provided for any new workers prior to their performing any work on-site.

MM-BIO-2 **Pre-construction Biological Clearance Surveys and Monitoring.** Pre-construction clearance surveys will be performed by a qualified biologist (i.e., a biologist with the requisite education and experience to address specific resources), approved by CDFW for this Project, to avoid or minimize impacts on special-status plants and wildlife species, habitat, nesting birds, and other sensitive biological resources in areas with the potential for resources to be present. The qualified biologist shall ensure that survey methods attain 100% visual coverage of the entirety of the potential impact areas and an appropriate buffer surrounding those areas. Survey results will be provided to CDFW prior to commencement of Project activities. Sensitive resources identified during the clearance survey will be either:

- Flagged for avoidance;
- Allowed to move outside impact areas: A qualified biologist shall be on-site prior to and during all ground- and habitat-disturbing activities to inspect the Project area prior to any Project activities. Individuals of any wildlife species found shall not be harassed and shall be allowed to leave the Project area unharmed. If needed, a qualified biologist may guide, handle, or capture an individual non-listed, non-special-status wildlife species to move it to a nearby safe location within nearby refugium, or it shall be allowed to leave the Project site of its own volition. Capture methods may include hand, dip net, lizard lasso, snake tongs, and snake hook. If the wildlife species is discovered or is caught in any pits, ditches, or other types of excavations, the qualified biologist shall release it into the most suitable habitat nearby the site of capture. Movement of wildlife out of harm's way should be limited to only those individuals that would otherwise by injured or killed, and individuals should be moved only as far a necessary to ensure their safety. Measures shall be taken to prevent wildlife from re-entering the Project site. Only biologists with appropriate authorization by CDFW shall move CESA-listed or other special-status species.
- Avoided by implementing procedures (e.g., exclusionary netting or fencing if appropriate, standard construction BMPs) to avoid impacts to individuals while impacting habitat (e.g., burrows, dens, etc.); or
- Documented based on permit authorizations.

Specific details on the pre-construction survey requirements may be found within measures for each individual species.

Where special-status species (e.g., reptiles, birds, mammals, and bat roosts) or unique resources (defined by regulations and local conservation plans) are known to occur and there is a potential for significant impacts, qualified biologists will monitor construction activities to ensure that impacts to special-status species, sensitive vegetation types, wildlife habitat, and unique resources are avoided and minimized.

MM-BIO-3 Nesting Bird Avoidance

Prepare Nesting Bird Management Plan. SCE will prepare and implement a Nesting Bird Management Plan to address nesting birds in collaboration with California Department and Fish and Wildlife Service (CDFW) and U.S. Fish and Wildlife Service (USFWS). The Plan will be an adaptive management plan that may be updated as needed if improvements are identified or conditions in the field change. The Plan will include the following:

- Nest management and avoidance;
- Field approach (survey methodology, reporting, and monitoring);
- Communication protocols; and
- The Project's avian biologist qualifications.

Prepare and implement a Nesting Bird Management Plan. SCE shall prepare a Nesting Bird Management Plan (NBMP) in coordination with CDFW and USFWS. The NBMP shall describe methods to minimize potential Project effects to nesting birds. Project-related disturbance including construction and pre-construction activities shall not proceed within 300 feet of active nests of common bird species or 500 feet of active nests of raptors or special-status bird species (except for golden eagle as described in MM-BIO-5) until approval of the NBMP by CDFW in consultation with USFWS. The following steps shall be followed to avoid impacts to nesting birds on the Project:

- Surveys shall cover all potential nesting habitat within the ROW or other work areas within 500 feet of these areas for raptors and 300 feet for non-raptors.
- Pre-construction surveys shall be conducted for each work area: Regardless of the time of year, nesting bird surveys shall be performed by a qualified avian biologist no more than 7 days prior to vegetation removal or ground-disturbing activities. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the pre-construction nesting bird surveys, a qualified biologist shall establish an appropriate nest buffer to be marked on the ground. Nest buffers are species specific and shall be at least 300 feet for passerines and 500 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Construction activities may not occur inside the established buffers, which shall remain on-site until a qualified biologist determines the young have fledged or the nest is no longer active. In areas where construction activities are taking place, including access routes, and a 500-foot buffer surrounding these areas, active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance.
- On the first day of construction at any given site, a qualified Avian Biologist will perform a pre-construction "sweep" to identify any bird nests or other resources that may have appeared since the 7-day survey. On each subsequent day of construction, the qualified Avian Biologist will first perform daily sweeps at each work site to look for resources, including nesting birds.

The daily sweeps will be conducted to identify new nests (partially built, active, or inactive) not detected during the preconstruction survey or clearance sweep and to also document the status (active or inactive) of known nests in a construction area. If nests are observed and it is unknown whether the nest is active or not, the nest will be monitored for a period of at least 1 hour for passerine nests and 4 hours for potential raptor nests.

- SCE shall provide the CDFW a report via the FRED system describing the findings of the pre-construction nest surveys, including the time, date, and duration of the survey; identity of the surveyor(s); a list of species observed; and electronic data identifying nest locations and the boundaries of buffer zones. The electronic data set will be updated following each preconstruction nest survey throughout the nesting season. The format and contents of this report will be described in the draft NBMP and will be subject to review and approval by CDFW.

Nest Buffers and Acceptable Activities. The NBMP shall specify measures to delineate buffers on the work site, to consist of clearly visible marking and signage. Buffer locations shall be communicated to the construction contractor and shall remain in effect until formally discontinued (when each nest is no longer active). In addition, the NBMP shall specify measures to ensure the buffers are observed, including a direct communication and decision protocol to stop work within buffer areas. In some cases, active nests may be found while work is underway. Therefore, the NBMP shall include a protocol for stopping ongoing work within the buffer area, securing the work site, and removing personnel and equipment from the buffer.

The NBMP shall describe proposed measures to avoid take or adverse effects to nests, such as buffer distances from active nests. These measures shall be based on the specific nature of the bird species and conservation status, and other pertinent factors. The NBMP will identify bird species (or groups of species) that are relatively tolerant or intolerant of human activities and specify smaller or larger buffer distances as appropriate for each species. If no information is available to specify a buffer distance for a species, then the NBMP shall specify 300 feet as a standard buffer distance, and 500 feet for raptors and special-status species. Nest management for listed threatened or endangered species will be prescribed in a USFWS Biological Opinion, CDFW Incidental Take Permit, or both. All applicable avoidance measures, including buffer distances, must be continued until nest monitoring (below) confirms that the nestlings have fledged and dispersed, or the nest is no longer active. For each special-status species potentially nesting within or near Project work areas, the NBMP shall specify applicable buffers and any additional nest protection measures, specialty monitoring, or restrictions on work activities, if needed.

The NBMP shall identify acceptable work activities within nest buffers (e.g., pedestrian access for inspection or BMP repair) including conditions and restrictions, and any monitoring required. The NBMP shall include pictorial representation showing buffer distances for ground buffers, vertical helicopter buffers, and horizontal helicopter buffers for nests near the ground and nests in towers.

Nest Buffer Modification or Reduction. At times, SCE or its contractor may propose buffer distances different from those approved in the NBMP. Buffer adjustments shall be reviewed and recommended by a qualified avian biologist, who has been approved by CDFW in consultation with the USFWS. The NBMP shall provide a procedure and timing requirements for notifying CDFW and

USFWS of any planned adjustments to nest buffers. Separate and distinct procedures will be provided for special-status birds. The NBMP will list the information to be included in buffer reduction notifications in a standardized format.

Nest Deterrents. The NBMP shall describe any proposed measures or deterrents to prevent or reduce bird nesting activity on Project equipment or facilities, such as buoys, visual or auditory hazing devices, bird repellents, securing of materials, and netting of materials, vehicles, and equipment. It shall also include timing for installation of nest deterrents and field confirmation to prevent effects to any active nest; guidance for the contractor to install, maintain, and remove nest deterrents according to product specifications; and periodic monitoring of nest deterrents to ensure proper installation and functioning and prevent injury or entrapment of birds or other animals. In the event that an active nest is located on Project facilities, materials or equipment, SCE will avoid disturbance or use of the facilities, materials or equipment (e.g., by red-tag) until the nest is no longer active.

Communication. The NBMP shall specify the responsibilities of construction monitors in regard to nests and nest issues, and specify a direct communication protocol to ensure that nest information and potential adverse impacts to nesting birds can be promptly communicated from nest monitors to construction monitors, so that any needed actions can be taken immediately. The NBMP shall specify a procedure to be implemented following accidental disturbance of nests, including wildlife rehabilitation options. It also shall describe any proposed measures, and applicable circumstances, to prevent take of precocial young of ground-nesting birds such as killdeer or quail. For example, chick fences may be used to prevent them from entering work areas and access roads.

Monitoring. SCE shall be responsible for monitoring the implementation, conformance, and efficacy of the avoidance measures (above). The NBMP shall include specific monitoring measures to track any active bird nest within or adjacent to Project work areas, bird nesting activity, Project-related disturbance, and outcome of each nest. For nests with reduced buffers, SCE shall monitor each nest until nestlings have fledged and dispersed or until the nest becomes inactive. Nests with default buffers do not require further monitoring once construction work is completed in the area. New nests discovered after work completion in an area will not require monitoring. In addition, monitoring shall include pre-construction surveys, daily sweeps of work areas and equipment, and any special monitoring requirements for particular activities (tree trimming, vegetation removal, etc.) or particular species (noise monitoring, etc.). Nest monitoring shall continue throughout the breeding season during each year of the Project's construction activities.

Reporting. Throughout the construction phase of the Project, nest locations, Project activities in the vicinity of nests (including helicopter traces), and any adjustments to buffer areas shall be updated and available to CDFW on a daily basis in the Field Reporting Environmental Database. All buffer reduction notifications and prompt notifications of nest-related non-compliance and corrective actions will be made via email to CDFW or via the FRED system. In addition, the NBMP shall specify the format and content of nest data to be provided in regular monitoring and compliance reports. At the end of each year's nest season, SCE will submit an annual NBMP report to the CDFW and USFWS.

MM-BIO-4 **Burrowing Owl. SCE shall ensure that impacts to burrowing owls and take of burrowing owls are** avoided through the implementation of focused surveys, preconstruction surveys, and ongoing monitoring. If impacts to burrowing habitat cannot be avoided, then Permittee shall implement required minimization and mitigation measures.

Focused Surveys. Suitable burrowing owl habitat has been confirmed on the site; therefore, focused burrowing owl surveys shall be conducted in accordance with the Staff Report on Burrowing Owl Mitigation (CDFG 2012 or most recent version). If burrowing owls are detected during the focused surveys, the qualified biologist and SCE shall prepare a Burrowing Owl Management Plan that shall be submitted to CDFW for review and approval prior to commencing Project activities. The Burrowing Owl Management Plan shall describe proposed avoidance, monitoring, relocation, minimization, and/or mitigation actions. The Burrowing Owl Management Plan shall include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures if avoidance is proposed. If impacts to occupied burrowing owl habitat or burrow cannot be avoided, the Burrowing Owl Management Plan shall also describe minimization and compensatory mitigation actions that will be implemented. Proposed implementation of burrow exclusion and closure should only be considered as a last resort, after all other options have been evaluated as exclusion is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take. The Burrowing Owl Management Plan shall identify compensatory mitigation for the temporary or permanent loss of occupied burrow(s) and habitat consistent with the "Mitigation Impacts" section of the 2012 Staff Report and shall implement CDFW-approved mitigation prior to initiation of Project activities. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls. If no suitable habitat is available nearby, details regarding the creation and funding of artificial burrows (numbers, location, and type of burrows) and management activities for relocated owls shall also be included in the Burrowing Owl Management Plan. The Permittee shall implement the Burrowing Owl Management Plan following CDFW and USFWS review and approval.

Pre-construction Surveys. Preconstruction burrowing owl surveys shall be conducted no less than 14 days prior to the start of Project-related activities and within 24 hours prior to ground disturbance, in accordance with the Staff Report on Burrowing Owl Mitigation (CDFG 2012 or most recent version). Preconstruction surveys should be performed by a qualified biologist following the recommendations and guidelines provided in the Staff Report on Burrowing Owl Mitigation. If the preconstruction surveys confirm occupied burrowing owl habitat, Project activities shall be immediately halted. The qualified biologist shall coordinate with CDFW and USFWS to conduct an impact assessment to develop avoidance, minimization, and mitigation measures to be approved by CDFW prior to commencing Project activities.

Compensatory Mitigation. SCE shall compensate for the temporary or permanent loss of occupied burrow(s) and habitat consistent with the "Mitigation Impacts" section of the Staff Report on Burrowing Owl Mitigation (CDFG 2012 or most recent version) and shall implement CDFW-approved mitigation prior to initiation of Project activities.

MM-BIO-5 **Golden Eagle.** SCE shall implement the following measures to document golden eagle occurrence in the Project area and surrounding mountains and to ensure that impacts to golden eagles resulting

from Project activities are avoided. Survey schedule and requirements will be as identified below unless otherwise authorized by CDFW.

- **Annual Nesting Season Surveys.** Beginning at least one year prior to the start of construction, and continuing throughout the construction phase of the Project, SCE shall contract with a qualified biologist to conduct nesting season surveys of golden eagle habitat use within a 2-mile radius of the portions of the Project area where work will occur during the breeding season (December 1 through July 31). Nesting season surveys will determine occupancy, productivity, and chronology of known or newly discovered nesting territories within the 2-mile radius. Survey methods for the inventory shall be either ground-based or helicopter-based, as described in the Golden Eagle Technical Guidance (Pagel et al. 2010) or more current guidance from the USFWS. Only one helicopter survey will occur, and additional surveys will be conducted via ground observations. If follow-up helicopter surveys are required to get closer to any potential or confirmed nests, SCE should contact CDFW about potentially issuing a Memorandum of Understanding (MOU).
  - The helicopter must remain above at least 200 meters from the ground or 200 meters away from any potential nest sites (i.e., cliffs, treetops, platforms, etc.).
  - If an active nest is discovered (i.e., living eagles are in or near the nest), do not approach closer than 200 meters.
  - If an active nest is discovered, do not stop for more than 5-10 seconds to determine status.
  - If an active nest is discovered, leave the area immediately following a 5-10 second status stop (if required). Contact Shannon Skalos at Shannon.Skalos@wildlife.ca.gov to report the nest within 24 hours of discovery.
- **Nesting Season Inventory Data.** At a minimum, data collected during the nesting season surveys shall include the following: territory status (unknown, vacant, occupied, breeding successful, breeding unsuccessful); nest location, nest elevation; age class of golden eagles observed; nesting chronology; number of young at each visit; photographs; and substrate upon which nest is placed.
- **Determination of Unoccupied Territory Status.** A nesting territory or inventoried habitat shall be considered unoccupied by golden eagles only after completing at least two full surveys in a single breeding season.
- **Nest Buffer.** If an occupied nest (as defined by Pagel et al. 2010) is detected within 2 miles of the Project, SCE shall implement a one mile line-of-sight and one-half mile no line-of-sight buffer to ensure that Project construction activities do not result in injury or disturbance to golden eagles. Triggers for adaptive management shall include any evidence of Project-related disturbance to nesting golden eagles, including but not limited to: agitation behavior (displacement, avoidance, and defense); increased vigilance behavior at nest sites; changes in foraging and feeding behavior, or nest site abandonment. Adaptive management actions include, but are not limited to, cessation of construction activities that are deemed by a qualified biologist to be the source of golden eagle disturbance.
- **Reporting.** Golden eagle survey data and, if applicable, nest activity monitoring results and any adaptive management actions taken, will be provided to CDFW in monthly monitoring

reports, as seasonal data becomes available and if specific nest monitoring or any adaptive management actions are taken, and summarized in annual Project monitoring reports.

- **Conservation Status.** If the conservation status of golden eagle changes during the life of the Project, SCE shall ensure that appropriate CESA authorization is obtained for potential impacts to this species.

MM-BIO-6 **Gilded Flicker.** Direct impacts to suitable gilded flicker habitat are anticipated and the species may nest within 500 feet of construction activities in Segment 2. Impacts to suitable gilded flicker breeding habitat will be avoided to the extent feasible. Compensation for impacts to gilded flicker habitat will be satisfied as described in the Habitat Compensation Plan (MM-BIO-21).

Designated Biologist(s). Southern California Edison (SCE) shall submit to CDFW in writing the name, qualifications, business address, and contact information of each Designated Biologist and Biological Monitor proposed to conduct surveys and monitoring for gilded flicker. SCE shall ensure that the Designated Biologist(s) and Biological Monitor(s) are knowledgeable and experienced in the biology, natural history, and identification of gilded flicker. The Designated Biologist(s) and Biological Monitor(s) shall be responsible for monitoring Project activities to help minimize and fully mitigate or avoid the incidental take of individual gilded flicker and to minimize disturbance of nests and habitat. SCE shall obtain CDFW's written approval of the Designated Biologist(s) and Biological Monitor(s)prior to the commencement of Project activities, including site preparation and staging, and shall also obtain approval in advance, in writing, if the Designated Biologist(s) or Biological Monitor(s) must be changed.

Seasonal Restriction. To the extent feasible, the permittee will schedule construction activities located within 500 feet of suitable nesting habitat for the gilded flicker to occur outside the peak breeding season of the species (March 1 through July 31).

Preconstruction Gilded Flicker Surveys/Sweeps. If Covered Activities must occur during the peak breeding season for gilded flicker, the Designated Biologist(s) will conduct preconstruction surveys for gilded flicker, no more than three days prior to initiating Project activities within 500 feet of work areas in suitable habitat for gilded flicker. A survey will consist of a pedestrian search by the Designated Biologist(s) for both direct and indirect evidence of gilded flicker nesting. Direct evidence would consist of the visual identification of an actual nest location. Indirect evidence may include observations of adult birds carrying nesting materials, food, or fecal sacks; engaging in breeding behavior such as copulation; displaying agitation; or exhibiting other characteristic behaviors that indicate the presence of an active nest. Every effort shall be made to avoid exposing nests to potential predation as a result of survey and/or monitoring activities. Following the initial preconstruction survey, a Designated Biologist will sweep the work area(s) plus a 500-foot buffer prior to the start of work each day in suitable gilded flicker habitat. Daily clearance sweeps during peak breeding season will follow the same methodology discussed above to ensure that all active gilded flicker nests are located prior to construction occurring in the vicinity.

Avoidance Buffers. If an active gilded flicker nest (i.e., a nest being built or a nest with eggs or young) is observed, a 500-foot avoidance buffer (vertical, horizontal, and for helicopters) will be established around the nest. The buffer will be conspicuously marked in the field using staking, fencing, or other means. Project activities will not be permitted inside the buffer until a

Designated Biologist determines that all chicks have fledged and are no longer reliant on the nest site. All nest visits will be conducted by a Designated Biologist and will last only as long as necessary to confirm the nesting stage or until circumstances necessitate departure (e.g., potential nest predator detected or sustained indications of stress by any protected bird). The Designated Biologist(s) will use binoculars to observe the nests to the extent feasible to limit proximity to the nest, avoiding direct disturbance and attracting predators. The Designated Biologist shall have the authority to stop work and increase the buffer distance if the birds are observed to be distressed. Observations of injury or mortality to the birds or nest failure shall be reported to CDFW immediately.

Buffer Reductions. Buffer reductions may be implemented in coordination with CDFW. Buffer reductions will require development of a site-specific Buffer Reduction Plan, which shall be submitted to CDFW at least 7 days prior to implementation of the reduced buffer. The baseline conditions at the nest location and the type, intensity, and duration of the proposed work will be taken into account in developing the Buffer Reduction Plan. In addition to monitoring of the nest(s), the Buffer Reduction Plan may stipulate other mitigation measures including limited construction activities, limited daily and/or weekly construction periods, noise monitoring, and erection of visual/acoustic barriers. During work inside buffer reduction areas, the Designated Biologist(s) will use binoculars to monitor the nest(s) from the greatest distance feasible to avoid direct disturbance and attracting predators. They will have the authority to stop work and revert the buffer to 500 feet if the gilded flickers are observed to be distressed. The results of buffer reduction and the outcome (e.g., fledged, failed, unknown) of any monitored nests shall be reported to CDFW upon completion of Project activities in the buffer reduction area(s). Observations of injury or mortality to the birds or nest failure shall be reported to CDFW immediately.

Cactus/Yucca Salvage. Construction activities will avoid impacts to suitable gilded flicker habitat, including Joshua trees, to the extent feasible. SCE will prepare and implement a Cactus and Yucca Salvage Plan addressing the potential salvage of cactus and yucca species impacted by construction. The plan will describe the following: (1) process for identifying the locations of cacti and yucca species; (2) criteria for determining if salvage is feasible; (3) approach for salvage and relocation of cacti and yucca; (4) methods and criteria for pre-transplant and posttransplant health assessments; (5) transplantation site selection criteria; (6) monitoring and maintenance schedule; (7) success criteria; and (8) reporting requirements. The plan will be provided to CDFW for review and approval no more than 30 days prior to impacts to gilded flicker habitat.

MM-BIO-7 Desert Tortoise

Authorized Biologist(s), Biological Monitor(s), and/or Veterinarian(s). Southern California Edison (SCE) shall submit to CDFW in writing the name, qualifications, business address, and contact information of each Authorized Biologist and Biological Monitor proposed to conduct biological surveys and/or monitoring for desert tortoise. SCE shall ensure that the Authorized Biologist(s) and Biological Monitor(s) are knowledgeable and experienced in the biology, natural history, identification, collecting, and handling of desert tortoise. The Authorized Biologist(s) and Biological Monitor(s) shall be responsible for monitoring Project activities to help minimize and fully mitigate or avoid the incidental take of individual desert tortoise and to minimize disturbance of desert

tortoise habitat. SCE shall obtain CDFW approval of the Authorized Biologist(s) and Biological Monitor(s) in writing before starting Project activities and shall also obtain approval in advance, in writing, if the Authorized Biologist(s) or Biological Monitor(s) must be changed. Additionally, prior to start of Project activities, SCE shall identify a veterinarian(s) and wildlife rehabilitation facility(ies) that can accept incidentally injured desert tortoise.

- **Authorized Biologist(s).** Authorized Biologist(s) shall have knowledge of the biology and natural history of desert tortoise through education, trainings, field experience, and/or experience as an Authorized Biologist on similar projects, and experience monitoring compliance of the conditions of approval within a state or federal ITP obtained for surface-disturbing projects in desert tortoise habitat. Additionally, the Authorized Biologist for desert tortoise shall have experience with excavating burrows; handling and temporarily holding desert tortoises; relocating/translocating desert tortoises; reconstructing desert tortoise burrows; unearthing and relocating desert tortoise eggs; conducting protocol level presence/absence and clearance surveys; locating, identifying, and recording all forms of desert tortoise sign; conducting health assessments; and attaching and removing transmitters. Authorized Biologists may serve as Biological Monitors.
- **Biological Monitor(s).** The Biological Monitor(s) will be responsible for monitoring Project activities to help minimize and fully mitigate or avoid the incidental take of desert tortoise and to minimize disturbance of desert tortoise habitat. Biological Monitor(s) shall have knowledge of the biology and natural history of desert tortoise through education, trainings, field experience, and/or experience as a Biological Monitor on similar projects and shall have experience conducting protocol level presence/absence surveys, locating, identifying, and recording all forms of desert tortoise sign, and monitoring compliance of the conditions of approval within a state or federal incidental take permit in desert tortoise habitat.
- **Veterinarian(s).** SCE shall identify a veterinarian(s) for desert tortoise. SCE shall obtain written confirmation before starting Project activities from the veterinarian(s) that they will accept injured desert tortoise for treatment. Written confirmation shall also contain the veterinarian's contact information. SCE shall provide a copy to CDFW for review and approval of the veterinarian and their facility in writing before starting Project activities and shall also obtain CDFW's approval in advance, in writing, if the veterinarian(s) must be changed. The contact information and location of the facilities shall be on site for the Authorized Biologist(s) during Project activities.
- **Wildlife Rehabilitation Facilities.** SCE shall identify wildlife rehabilitation facilities that hold a current Memorandum of Understanding (MOU) issued by CDFW pursuant to Fish and Game Code section 2081(a) prior to start of Project activities and receive written confirmation from the facility that desert tortoise individuals can be accepted for rehabilitation before starting Project activities. Written confirmation from the facility, contact information for the point of contact at the facility, and a copy of the facility's MOU shall be provided to CDFW for review and approval. SCE shall obtain CDFW approval of the wildlife rehabilitation facilities in writing before starting Project activities and shall also obtain approval in advance, in writing, if the wildlife rehabilitation facility must be changed. The contact information and location of the facilities shall be on-site for the Authorized Biologist(s) during Project activities.

- **Authorized Biologist(s) and Biological Monitor(s) Authority.** To ensure compliance with protective measures (biological resource mitigation measures contained within the mitigation and monitoring program, or conditions of approval contained in the ITP), the Authorized Biologist and/or Biological Monitor(s) shall have authority to immediately order work to stop or halt and/or order SCE or its agent to implement any reasonable measure necessary to avoid the unauthorized take of desert tortoise. If a Biological Monitor or Authorized Biologist orders work to stop or halt, work shall not resume until an Authorized Biologist determines that all activities are in compliance with the incidental take permit, as issued by CDFW. SCE shall inform all employees, contractors, and individuals working on the project site that the Biological Monitor(s) and Authorized Biologist(s) have the authority to stop or halt work.

Trash Abatement. SCE shall initiate a trash abatement program before starting Project activities and shall continue the program for the duration of the Project. SCE shall ensure that trash and food items are contained in self-closing, sealable, wind-proof, and animal-proof containers with lids that latch, and are regularly inspected and removed, ideally at daily intervals but at least once a week, and prior to periods of Project inactivity, to avoid attracting opportunistic predators such as ravens, coyotes, and feral dogs.

Delineation of Project Area Boundaries. Before starting surface disturbing Project activities along each part of the route in active construction, SCE shall clearly delineate the boundaries of the Project Area with fencing, stakes, or flags. SCE shall restrict all Project activities to within the fenced, staked, or flagged areas. SCE shall maintain all fencing, stakes, and flags until the completion of Project activities in that area.

Delineation of Habitat. SCE shall clearly delineate habitat of desert tortoise within the Project activity work area when surface-disturbing Project activities occur with posted signs, posting stakes, flags, and/or rope or cord, and placing fencing as necessary to minimize the disturbance of habitat.

Project Access. SCE shall ensure Project-related personnel access the Project area using existing legal routes and those routes identified in the Project description and shall not cross desert tortoise habitat outside of or en route to the Project work areas. SCE shall restrict Project-related vehicle traffic to established roads, staging, and parking areas. SCE shall ensure that vehicle speeds do not exceed 20 miles per hour to avoid desert tortoise on or traversing the roads. Drivers shall stop the vehicle in areas of low visibility due to terrain and exit the vehicle to review the roadway ahead to confirm desert tortoise are not within the roadway before proceeding. If a desert tortoise is encountered, drivers shall stop (or remain stopped) and wait for the desert tortoise to move off the road of its own accord out of harm's way.

Project Access Escorts. Along the route to the Project work area where desert tortoise may be traversing the road, the Authorized Biologist or Biological Monitor shall escort Project personnel to the Project work areas in situations where there is an increased potential for incidental take of desert tortoise through vehicular collisions due to decreased road visibility and/or lowered brake reaction time and insufficient stopping distances. Situations in which Authorized Biologist or Biological Monitor escorts shall be required include when more than two vehicles or heavy equipment are caravanning to the Project work area; when heavy equipment with limited visibility is being driven to the Project work area; and when flatbed trucks with trailers, dump trucks with

trailers, and other vehicles with trailers are transporting equipment to the Project work area. The Authorized Biologist or Biological Monitor escorts and/or drivers shall stop the vehicle in areas of low visibility due to terrain and exit the vehicle to review the roadway ahead to confirm desert tortoise are not within the roadway before proceeding. If a desert tortoise is encountered, drivers shall stop (or remain stopped), wait for the desert tortoise to move off the road of its own accord out of harm's way, or until the Authorized Biologist(s) has relocated the desert tortoise.

Staging Areas. SCE shall confine all Project-related parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities to the Project work area using, to the extent possible, previously disturbed areas.

CNDDB Observations. SCE or the Authorized Biologist shall submit all observations of desert tortoise to CDFW's California Natural Diversity Database (CNDDB) within 60 calendar days of the observation.

Notification of Take or Injury. SCE shall notify CDFW within 24 hours if a desert tortoise is taken or injured by a Project-related activity, or if a desert tortoise is otherwise found dead or injured within the vicinity of the Project area. SCE shall also send CDFW a written report within 2 calendar days. The report shall include the date and time of the finding or incident, location of the animal or carcass, and if possible, provide a photograph, explanation as to cause of take or injury, and any other pertinent information. In addition, the report shall identify proposed corrective measures that shall be implemented, subject to prior review and approval by CDFW, during subsequent Project activities. The corrective measures at a minimum shall propose methods to prevent or minimize future take or injury of desert tortoise in a similar manner in the future and if approved by CDFW be immediately implemented for all Project activities. For injured desert tortoise, the Authorized Biologist shall immediately take the individual(s) to the CDFW-approved wildlife rehabilitation or veterinary facility. SCE shall bear all costs associated with the care or treatment of the injured individual(s). SCE shall be responsible for the monetary cost of the animal until the animal is permanently placed with a rehabilitation facility or re-released into the wild. SCE shall notify USFWS of take or injury of desert tortoise per their Biological Opinion.

Vehicle and Equipment Inspection. SCE shall require workers to inspect for desert tortoise under vehicles and equipment before the vehicles and equipment are moved. If a desert tortoise is present, the worker shall contact the Authorized Biologist(s) or Biological Monitor(s) and wait for the individual to move unimpeded to a safe location or the Authorized Biologist(s) shall relocate the individual before moving vehicles and equipment.

Desert Tortoise Pre-Activity Presence/Absence Surveys. No more than 30 calendar days prior to the start of any surface-disturbing Project activities, the Authorized Biologist(s) and Biological Monitor(s) approved by CDFW for the task shall conduct pre-activity presence/absence surveys for desert tortoise within each Project work area. Presence/absence surveys shall be conducted using the methods described in the most recent United States Fish and Wildlife Service (USFWS) Desert Tortoise (Mojave Population) Field Manual (hereinafter referred to as USFWS Field Manual). In addition to the guidance provided in the USFWS Field Manual, SCE shall also comply with the following CDFW requirement(s): Pre-activity presence/absence surveys shall be completed using perpendicular survey routes and cannot be combined with other surveys conducted for other

species while using the same personnel. Surveys shall cover 100 percent of the Project work area and a 300-foot buffer zone. The Authorized Biologist(s) or Biological Monitor(s) shall record all desert tortoise live individuals, burrows, or other sign within the survey area using high-accuracy (< 1 meter) global positioning system (GPS) technology. The Authorized Biologist(s) or Biological Monitors(s) shall visually demarcate all potential desert tortoise burrows within each Project work area and 50-foot buffer to alert biological and work crews to their presence in a manner that does not attract predators. The Authorized Biologist(s) or Biological Monitors(s) shall provide the results of the pre-activity presence/absence survey (using the USFWS Protocol data sheet) to CDFW quarterly.

Desert Tortoise Pre-Activity Clearance Surveys. Within 24 hours prior to start of Project activities, the Authorized Biologist(s) approved under the CDFW ITP for this activity shall conduct pre-activity clearance surveys for desert tortoise, using the methods described in the most recent USFWS Field Manual. In addition to the guidance provided in the USFWS Field Manual, SCE shall comply with the following CDFW requirement(s): Pre-activity clearance surveys shall be completed using perpendicular survey routes and cannot be combined with other surveys conducted for other species while using the same personnel. Project activities cannot start until two (2) negative results from consecutive surveys using perpendicular survey routes for desert tortoise are documented, and these surveys shall cover 100 percent of the Project work area and a 50-foot buffer zone. The Authorized Biologist(s) shall record any new desert tortoise individuals, burrows, or other signs that were not documented in the presence/absence survey using high-accuracy (< 1 meter) global positioning system (GPS) technology. The Authorized Biologist shall visually demarcate any new potential desert tortoise burrows within each Project work area or 50-foot buffer zone to alert biological and work crews to their presence in a manner that does not attract predators and ensure previous demarcation materials remained intact. The use of specialized equipment (e.g., fiber optics) shall be used to thoroughly inspect all burrows. SCE shall provide the results of the pre-activity clearance survey (using the USFWS Protocol data sheet) to CDFW within 5 working days of completing the surveys.

Desert Tortoise Exclusionary Fencing. SCE shall construct any temporary or permanent desert tortoise fencing used during surface disturbing Project activities in the Project area according to the USFWS Field Manual. Any request for variance to the fencing specifications within the USFWS Manual shall be reviewed and approved by CDFW and USFWS on a case-by-case basis prior to the Project activity. The Authorized Biologist(s) shall immediately conduct an additional clearance survey following the erection of desert tortoise exclusionary fencing within the fenced area. The Authorized Biologist(s) shall inspect the desert tortoise fence each morning prior to the start of Project activities, during Project activities, and at the end of the workday after Project activities have ceased. The Authorized Biologist(s) shall inspect the fence within 24 hours after major rainfall events prior to recommencing Project activities to ensure the fence is not compromised. SCE shall repair the fence immediately if the fence is found down or a hole is discovered. The Authorized Biologist(s) shall perform a clearance survey immediately after the fencing is repaired and prior to re-commencing Project activities.

Unfenced Project Work Areas. Any surface-disturbing Project activities conducted in an area that is not fenced to exclude desert tortoises shall be monitored by an Authorized Biologist who shall halt work if a desert tortoise enters the Project work area or an adjacent area where take or injury to the

individual may occur. Project work activities shall only proceed at the site after the desert tortoise has either moved away of its own accord or has been relocated off the site per the Desert Tortoise Relocation Plan approved by USFWS and CDFW. Any Project activities that do not require surface disturbance shall have an Authorized Biologist on-call that can immediately go into the field to address compliance with these mitigation measures and the ITP.

Desert Tortoise Relocation. No desert tortoise may be handled or relocated without authorization from USFWS and CDFW. Regardless of the number of desert tortoise estimated to be relocated a short distance away out of harm's way, SCE shall prepare a Desert Tortoise Relocation Plan for CDFW and USFW review at least 60 calendar days prior to start of all Project activities. The relocation plan shall follow the most current guidelines provided by USFWS and CDFW regarding desert tortoise translocation. The relocation plan shall include parameters in which Authorized Biologists may relocate desert tortoise to minimize impact to the individual. The plan shall contain at a minimum the following descriptions: recipient site selection criteria and characteristics that will benefit the relocated desert tortoise (including land ownership, maximum distance from Project activities work area based on surround land uses, presence of native vegetation species and percentage of cover, no predator sign and concentrations, friable soil types, and lack of anthropogenic features); minimum distance away from paved highway/roads to reduce vehicular strikes; Survey requirement to identify unoccupied natural burrows available for immediate use or enhancement and the creation and design of supplemental artificial burrows within the site; procedures for relocation of tortoises and eggs; post-relocation monitoring of individuals by the Authorized Biologist(s) for at least two days after placement in the new burrows to ensure their safety; health assessments; shade structures and shelters to minimize potential heat stress and exposure to lethal temperatures; disinfectant and sanitation to prevent spread of disease; handling and releasing procedures including temperature restrictions to prevent overheating (no desert tortoise shall be captured, moved, transported, released, or purposefully caused to leave its burrow for whatever reason when the ambient air temperature is above 95° Fahrenheit (F)), and requirements to rehydrate the individuals that void their bladder during handling at the location where the individual was captured, or the location where the individual will be released out of harm's way by the Authorized Biologist; attaching transmitters to assist with monitoring; transporting procedures; temporary penning procedures; construction coordination; and quarterly reporting requirements to CDFW. All CDFW and USFWS comments shall be resolved and incorporated into a final Desert Tortoise Relocation Plan. Project activities shall not commence until the plan is approved in writing by CDFW and USFWS. The Authorized Biologist(s) shall maintain a record of all desert tortoises handled. The Desert Tortoise Relocation Plan shall be updated and otherwise amended to include the latest science and guidance as directed by CDFW.

Desert Tortoise Observations. If project personnel observe a desert tortoise within or near the Project work area, SCE will stop all work as soon as it is safe to do so and contact a Biological Monitor or Authorized Biologist. If the Authorized Biologist or Biological Monitor determines take or injury may occur, all work shall immediately halt and Project activities shall not resume until the Authorized Biologist(s) has verified the desert tortoise has left the Project work area, determined there is an appropriate buffer between the Project activities and the tortoise, determined the desert tortoise can be monitored to prevent take, or determined the individual is relocated as described the Desert Tortoise Relocation Plan. SCE shall immediately notify CDFW of any desert tortoise

observations within the Project work area within 24 hours. Notification and the written report shall include the date, location (including GPS coordinates), and circumstances of the observation; the name of the Authorized Biologist(s); and pictures, map (including GPS coordinates), and if applicable, the shapefiles with the location where the individual was moved as specified in the Desert Tortoise Relocation Plan.

Excavating Desert Tortoise Burrows. Only Authorized Biologist(s) approved by CDFW and USFWS are authorized to conduct desert tortoise burrow excavation. Excavation of burrows shall follow the methods described in the USFWS Field Manual. All potential desert tortoise burrows identified during pre-activity surveys and clearance surveys conducted in the Project work area that cannot be avoided shall be fully excavated by hand. Any individuals removed from burrows shall be transmitted and relocated per the Desert Tortoise Relocation Plan. All burrows that can be avoided shall remain visually demarcated and monitored until completion of Project activities in that area.

Desert Tortoise Nests. If an active desert tortoise nest is detected during pre-activity surveys, burrow excavation, or during Project activities, procedures outlined in the USFWS Desert Tortoise Field Manual regarding nests and eggs shall be followed by an Authorized Biologist approved by CDFW and USFWS to perform the task. CDFW shall be notified immediately upon discovery of an active desert tortoise nest, and the site of egg relocation shall be approved by CDFW prior to relocation through implementation of a Desert Tortoise Relocation Plan.

Raven Management. Upon completion of construction, SCE will work with the BLM and USFWS to incorporate the Project into the SCE Programmatic Raven Management Plan by providing additional funding to the annual budget based on current Plan per mile (plus 2 percent annual increase to adjust for inflation) at completion of construction of Project line and components within desert tortoise habitat. No later than 30 days prior to the start of construction, SCE will contribute to USFWS's Regional Raven Management Program by making a one-time payment of $105 per acre ($18,255.30 for 173.86 acres) of long term or permanent Project disturbance within desert tortoise habitat to the National Fish and Wildlife Federation Renewable Energy Action Team raven control account.

Desert Tortoise Compensatory Mitigation. For Project-related impacts to suitable desert tortoise habitat, SCE shall provide compensatory mitigation as described in MM-BIO-21.

MM-BIO-8 **Mojave Fringe-Toed Lizard.** Preconstruction surveys for Mojave fringe-toed lizards shall be conducted by Qualified Biologist(s) in suitable habitat (sand dunes/partially stabilized dunes) within 14 days prior to the start of construction. The survey area shall include disturbance areas plus a 100-foot buffer. Qualified Biologist(s) shall walk transects at 5-meter (16-foot) intervals. Biological monitor(s) shall be present in each area of active construction in occupied Mojave fringe-toed lizard habitat. Biological Monitor(s) shall examine the disturbance areas periodically for the presence of Mojave fringe-toed lizards, and shall inspect all trenches, holes, or excavations for the presence of lizards prior to backfilling. If a lizard is found trapped in an excavation, Qualified Biologist(s) with appropriate permitting to handle special-status species will relocate the lizard to nearby suitable habitat outside of the disturbance area, placed in the shade of a shrub. SCE shall mitigate for loss of Mojave fringe-toed lizard habitat at no less than a 2:1 ratio as described in MM BIO-21.

MM-BIO-9 Desert Kit Fox and American Badger.

Desert Kit Fox. Preconstruction surveys for desert kit fox shall be conducted within 14 days prior to the start of construction. The survey area shall include the Project disturbance areas plus a 500-foot buffer during the breeding season (January 15 through August 31 or until pups are foraging on their own) and a 250-foot buffer outside the breeding season. Pre-construction surveys should include 100-percent visual coverage of the Project area and buffers. Potentially occupied burrows in Project disturbance areas and the survey buffer shall be mapped, and Qualified Biologist(s) shall utilize daily on-site monitoring, tracking stations, and wildlife cameras to determine whether the burrows are occupied. If a burrow is determined to be occupied by desert kit fox during the breeding season, the burrow shall be demarcated with a 500-foot buffer. If a burrow is determined to be occupied outside the breeding season it shall be demarcated with a 250-foot buffer. Burrows determined to be unoccupied shall be demarcated with a 50-foot buffer. If occupied burrows are found in Project disturbance areas and cannot be avoided, SCE shall consult with CDFW prior to relocation of any desert kit fox. Passive relocation shall not be conducted from January 15 through August 31 (or until pups are foraging on their own). No disturbance of active dens shall take place when juvenile desert kit fox may be present and dependent on parental care. SCE shall mitigate for loss of desert kit fox habitat at no less than a 2:1 ratio as described in MM BIO-21.

American Badger. No more than 30 days prior to the beginning of ground disturbance and/or construction activities, a Qualified Biologist(s) shall conduct surveys to determine if potential American badger burrows are present in the Project area. If American badger burrows are located, SCE shall have a Qualified Biologist(s) monitor the burrows using observation and tracking material and/or trail cameras over a three (3) day period to determine the status of the burrow. If non-natal active dens can be avoided and buffered from Project activities, the biologist shall flag a minimum 100-foot disturbance-free buffer zone. A minimum 500-foot disturbance-free buffer shall be placed around the natal den and maintained until juvenile independence is determined by the biologist. The biologist shall block inactive dens within the work area or buffer zone that will not be directly impacted by Project activities with rocks and sticks to discourage use. The biologist shall periodically check and ensure the inactive burrows remain blocked and are not occupied. The biologist shall remove the obstructions when Project activities are complete. The biologist has the authority to halt or stop work if individuals exhibit signs of disturbance. Established buffers shall remain until the biologist determines the young have dispersed or the den is no longer active, or until Project activities cease. If American badger is proposed to be relocated from an active den or an active den will be impacted, an exclusion plan shall be prepared for CDFW review and approval that will be performed outside of breeding season and after juvenile dispersal. Relocation of American badger from an active den or impacts to an active den shall be subject to compensatory mitigation as described in MM BIO-21.

MM-BIO-10 Bats, Common and Sensitive Species.

Focused Surveys. Prior to the initiation of Project activities within suitable bat roosting habitat, SCE shall retain a qualified biologist to conduct focused surveys to determine presence of daytime, nighttime, wintering (hibernacula), and maternity roost sites. Two spring surveys (April through June) and two winter surveys (November through January) shall be performed by qualified biologists in areas identified as suitable roosting habitat for common and sensitive bat species. Surveys shall

be conducted during favorable weather conditions only. Each survey shall consist of one dusk emergence survey (start one hour before sunset and last for three hours), followed by one pre-dawn re-entry survey (start one hour before sunrise and last for two hours), and one daytime visual inspection of all potential roosting habitat on the Project site. Surveys shall be conducted within one 24-hour period. Visual inspections shall focus on the identification of bat sign (i.e., individuals, guano, urine staining, corpses, feeding remains, scratch marks and bats squeaking and chattering). Bat detectors, bat call analysis, and visual observation shall be used during all dusk emergence and pre-dawn re-entry surveys.

Pre-construction Surveys. A qualified bat biologist will conduct surveys before the start of construction to identify the presence of bats, including active daytime, nighttime, wintering (hibernacula), and maternity roosting within or adjacent to Project impact areas. Trees, rock outcrops, and man-made structures with bat roost potential will be assessed for the presence of roosting bats. The surveys of suitable bat habitat will be conducted using an appropriate combination of visual and acoustic survey techniques to assess the habitat's potential to support sensitive bat species and results shall be provided to CDFW prior to Project activities.

High-value habitat features (large tree cavities, crevices, bark fissures, basal hollows, loose or peeling bark, larger snags, palm trees with intact thatch, rock outcrops, buildings, etc.) will be identified and the area around these features searched for bats and bat sign (guano, culled insect parts, staining, etc.).

Avoidance and Minimization Measures. Should daytime, nighttime, maternity, or wintering bat roosts be identified in the Project area and buffer zone, SCE shall have a qualified bat biologist place an appropriate disturbance-free exclusionary buffer surrounding the roost based on factors including the species' sensitivity to disturbance from Project-related noise, vibrations, and artificial light. Proposed buffers shall be provided to CDFW prior to Project activities. The qualified bat biologist shall monitor effectiveness of the exclusionary buffer distance and shall increase the buffer distance based on the species' sensitivity to disturbance from Project activities and the status of the roost. If active maternity roosts are identified during preconstruction surveys, Project construction will only occur outside of the maternity/pupping season, which is typically April 1 to September 15. Tree/structure removal will be avoided during the maternity/pupping season to avoid impacts to active maternity roosts (reproductively active females and dependent young that are not yet volant). No tree/structural removals shall occur during the hibernation season, which typically begins in November and continues through mid-February, due to the high potential for mortality of hibernating bats.

Tree/Structure Removal. If no roosts (maternity, wintering, or otherwise) are present, tree trimming/removal or building/structure removal may continue as planned. Tree/structure removal work with the potential to house roosting bats shall be performed between September 15 and October 31 to minimize direct impacts to roosting bats. This time period is after young are volant (flying) but before expected onset of torpor (wintering inactivity). Tree/structural removal work may also be conducted between February 15 and March 31, following winter torpor and prior to the start of the maternity season. No tree/structural removals shall occur during the hibernation season, which typically begins in November or December (depending on weather conditions) and continues through mid-February, due to the high potential for mortality of hibernating bats.

All tree removals shall require a two-step removal process and the involvement of a CDFW-approved qualified bat biologist to ensure that no roosting bats are killed during this activity. The following two-step tree removal process shall be implemented over two consecutive days:

- On Day 1 under the supervision of a qualified bat biologist, branches and limbs that do not contain crevices or cavities shall be removed using hand tools. The goal is to create a disturbance sufficient to cause any bats roosting in the vegetation to leave that night and not return, but not at a level of intensity that will cause bats to fly out of the tree during the disturbance itself (i.e., during the daytime, when roost abandonment will likely result in predation).
- On Day 2, the remainder of the vegetation may be removed if bats are not present. Trees that are only to be trimmed and not removed will be processed in the same manner; if a branch with a potential roost must be removed, all surrounding branches will be trimmed on Day 1 under supervision of a qualified bat biologist and then the limb with the potential roost will be removed on Day 2 if bats are not present.

Removal of structures requires the following process:

- Removal of structures containing or suspected to contain active bat roosts shall be partially dismantled (e.g., create holes in roof, remove windows) under the supervision of the qualified bat biologist in the evening prior to the emergence of bats. Structures shall be partially dismantled to create a disturbance sufficient to cause any bats roosting to leave that night and not return, but not at a level of intensity that will cause bats to fly out during the disturbance itself. Structure removal shall be completed the subsequent day, under the supervision of the qualified bat biologist, if bats are not present.

SCE shall not disturb active maternity day roosting sites. Impacts to a bat roosting site, including removal of vegetation roosting sites or impacts that cause bats to leave a roosting site during the day or abandon a roosting site shall be subject to compensatory mitigation as described in MM-BIO-21.

Construction Monitoring. Roosts will be monitored to determine activity and species' sensitivity to disturbance. Roost monitoring will be conducted by qualified biological monitors with knowledge of bat behavior under the direction of a CDFW-approved qualified bat biologist. The qualified biological monitor will ensure that the exclusionary buffer is maintained around active roosts and will observe and document implementation of exclusionary buffer areas around active roosts(s) during Project activities. As necessary, the qualified bat biologist will monitor active roost site buffers during Project activities to determine if roosting activity is influenced by noise, vibrations, and artificial light and whether a larger exclusionary buffer should be implemented.

MM-BIO-11 **Develop and Implement Habitat Restoration and Revegetation Plan (HRRP).** Temporary impacts to regulated species' habitats, plant species, and vegetation communities shall be restored or revegetated. Regulated species and vegetation communities include all species designated as threatened, endangered or rare, sensitive, or of concern by resource or land agencies. Species and vegetation communities that require restoration and revegetation will be determined by the resource agencies through the permitting process.

SCE shall develop and implement a Habitat Restoration and Revegetation Plan (HRRP). SCE will consult with appropriate agencies during development of the HRRP and implement the HRRP in conjunction with applicable permit conditions and mitigation measures. The HRRP shall be submitted to CDFW for review and approval prior to the start of construction. Invasive plant management will be performed in conjunction with the HRRP per the Invasive Plant Management Plan (IPMP; MM-BIO-12).

Habitat Restoration and Revegetation Plan.

For all revegetation or restoration sites, the HRRP shall include:

- Revegetation and restoration goals and objectives based on vegetation type and jurisdictional status of each site.
- Quantitative restoration success criteria.
- Implementation details as applicable. Details may include topsoil stockpiling and handling, postconstruction site preparation, soil decompaction and recontouring, planting and seeding palettes to include only native, locally sourced materials with confirmed ability to produce from suppliers, fall or other suitable season-season planting or seeding dates.
- Maintenance details, which may include irrigation or hand-watering schedule and equipment, and erosion control.
- Monitoring and Reporting, specifying monitoring schedule and data collection methods throughout establishment of vegetation with key indicators of successful or unsuccessful progress, and quantitative criteria values to objectively determine success or failure at the conclusion of the monitoring period.
- Adaptive management procedures such as reseeding, re-planting, drainage repairs, adjustments to irrigation schedule, and repair or remediation of sites to meet success criteria on schedule.

For temporary disturbance in common vegetation or habitat (e.g., creosote bush scrub) or in disturbed areas such as roads or agricultural lands, the goal of the HRRP will be revegetation to minimize spread of invasive plants, dust generation, and soil erosion. For revegetation sites the goals, objectives, and success criteria specified in the HRRP will be limited to requirements of the Storm Water Pollution Prevention Plan (SWPPP) and the IPMP (MM-BIO-12).

For species and vegetation communities with permit requirements (e.g., Incidental Take Permits and Lake and Streambed Alteration Agreements) including wetlands and riparian habitats, the goal of the HRRP will be to restore plant species, habitat values, or vegetation communities. For restoration sites the goals, objectives, and success criteria specified in the HRRP will include native species cover and species richness compatible with the specific vegetation and habitat type.

For all revegetation or restoration areas, if a fire, flood, or other disturbance beyond the control of SCE or CDFW damages the area within the monitoring period, SCE will be responsible for one reseeding or replanting event, as applicable. If a second event occurs, no replacement is required.

For all revegetation (per SWPPP requirements) or restoration (per the HRRP) areas, seed and/or potted nursery stock of locally native species will be used. The list of plants observed during botanical surveys of the Project area will be used as a guide to site-specific plant selection, additional appropriate species may be included.

Monitoring of the revegetation sites will be conducted according to requirements of the SWPPP, and the IPMP. Monitoring of the restoration sites will continue annually until HRRP success criteria are achieved. SCE will be responsible for implementing adaptive management as needed.

Reporting of revegetation will be according to requirements of the SWPPP and the IPMP. For all restoration areas, SCE will provide annual reports to the CDFW to verify the total vegetation acreage subject to restoration, areas that have been completed, and areas still outstanding. The annual reports will also include a summary of the restoration and adaptive management activities for the previous year, success criteria progress and completion, and any adjustments to planned activities, for the upcoming year.

MM-BIO-12 **Develop Invasive Plant Management Plan.** SCE shall prepare and implement an Invasive Plant Management Plan (IPMP). This plan shall include measures designed to avoid the introduction and spread of new nonnative invasive plant species (invasive plants) and minimize the spread of existing invasive plants resulting from Project activities. The IPMP shall be submitted to CDFW for review and approval prior to the start of construction.

For the purpose of the IPMP, invasive plants shall include plants that (1) are invasive and rated high or moderate for negative ecological impact in the California Invasive Plant Inventory Database (Cal-IPC 2006), or (2) aid and promote the spread of wildfires (such as *Bromus tectorum* [cheatgrass], *Brassica tournefortii* [Sahara mustard], and *Bromus madritensis* spp. Rubens [red brome]) or (3) identified by BLM as special concern. The IPMP will be implemented throughout Project pre-construction, construction, and restoration phases.

Invasive Plant Management Plan.

The IPMP will include the information defined in the following sections:

Assessment. An assessment of the proposed Project's potential to cause spread or introduction of invasive plants into new areas, or to introduce new invasive plants into the ROW. This section will list known and potential invasive plants occurring on the ROW and in the Project region and identify threat rankings and potential for Project-related occurrence or spread for each species. This section will identify control goals (e.g., eradication, suppression, or containment) for invasive plants of concern with potential to occur on the ROW.

Pre-construction invasive plant inventory. SCE shall inventory of all invasive plants of concern in areas (both within and outside the ROW) subject to Project-related vegetation removal/disturbance, "drive and crush," and ground-disturbing activity. The invasive plants inventory area shall also include vehicle and equipment access routes within the ROW and all Project staging and storage yards. Invasive plants of concern shall be mapped by area of occurrence and percent cover. The map will be updated with new occurrences at least once a year.

Pre-construction invasive plants treatment. Invasive plant infestations identified in the pre-construction invasive plants inventory shall be evaluated to identify potential for Project-related spread and potential benefits (if any) of pre-construction treatment. Pre-construction treatment will consider the specific invasive plants, potential seed banks, or other issues. The IPMP will identify any infestations to be controlled or eradicated prior to Project construction. Control and follow-up monitoring of pre-construction invasive plants treatment sites will follow methods identified in appropriate sections of the IPMP.

Prevention. The IPMP will specify methods to minimize potential transport of new invasive plant seeds onto the ROW, or from one section of the ROW to another. The ROW may be divided into "weed zones," based on invasive plants of concern in the ROW. The IPMP will specify inspection procedures for construction equipment entering the proposed Project area. Vehicles and equipment may be inspected and cleaned at entry points to specified sections of the ROW, and before leaving work sites where invasive plants of concern must be contained locally. Construction equipment shall be inspected to ensure it is free of any dirt or mud that could contain invasive plant seeds, roots, or rhizomes, and the tracks, outriggers, tires, and undercarriage will be carefully washed, with special attention being paid to axles, frame, cross members, motor mounts, underneath steps, running boards, and front bumper/brush guard assemblies. Other construction vehicles (e.g., pick-up trucks) that will be frequently entering and exiting the site will be inspected and washed on an as-needed basis. Tools such as chainsaws, hand clippers, pruners, etc., shall be cleaned of dirt and mud before entering Project work areas.

All vehicles will be washed off site when possible. If off-site washing is infeasible, on-site cleaning stations (including air washing) will be set up at specified locations to clean equipment before it enters the work area. Wash stations will be located away from native habitat or special-status species occurrences. Wastewater from cleaning stations will not be allowed to run off the cleaning station site. When vehicles and equipment are washed, a daily log must be kept stating the location, date and time, types of equipment, methods used, and personnel present. The log shall contain the signature of the responsible crewmember. Written or electronic logs shall be available to and CDFW monitors on request.

Erosion control materials (e.g., straw bales) must be certified free of invasive plant seed ("weed-free") before they are brought onto the site. The IPMP must prohibit on-site storage or disposal of mulch or green waste that may contain invasive plant material. Mulch or green waste will be removed from the site in a covered vehicle to prevent seed dispersal and transported to a licensed landfill or composting facility.

The IPMP will specify guidelines for any soil, gravel, mulch, or fill material to be imported into the proposed Project area, transported from site to site within the proposed Project area, or transported from the proposed Project area to an off-site location, to prevent the introduction or spread of invasive plants to or from the proposed Project area.

Monitoring. The IPMP shall specify methods to survey for invasive plants of concern during pre-construction, construction, and restoration phases; and shall specify qualifications of specialists responsible for invasive plant monitoring and identification. It must include a monitoring schedule to ensure timely detection and immediate control of new invasive plant infestations to prevent

further spread. Surveying and monitoring for invasive plant infestations shall occur at least two times per year, to coincide with the early detection period for early season and late season invasive plants. The monitoring section shall also describe methods for post-eradication monitoring to evaluate success of control efforts and any need for follow-up control.

Permittee shall notify CDFW immediately if an invasive species not previously known to occur within the Project site is discovered during Project activities by submitting a completed Suspect Invasive Species Report (available online at: https://wildlife.ca.gov/Conservation/Invasives/Report) and photos to the Invasive Species Program by email at: invasives@wildlife.ca.gov. Notification may also be provided by calling (866) 440-9530.

Control. The IPMP must specify manual and chemical invasive plant control methods to be employed. The IPMP shall include only invasive plant control measures with a demonstrated record of success for target invasive plants, based on the best available information. The plan shall describe proposed methods for promptly scheduling and implementing control activity when any Project-related invasive plant infestation is located (e.g., located on a Project disturbance site), to ensure effective and timely invasive plant control. Invasive plant infestations must be controlled or eradicated as soon as possible upon discovery, and before they go to seed, or when appropriate with the goal to prevent further spread. All proposed invasive plant control methods must minimize disturbance to native vegetation, limit ingress and egress to defined routes, and avoid damage to any environmentally sensitive areas (ESA) identified within or adjacent to the ROW. New infestations by invasive plants of concern will be treated at a minimum of once annually until eradication, suppression, or containment goals are met. Invasive plant occurrences can be considered eradicated when no new seedlings or resprouts are observed for three consecutive years, or a single season where new seedlings or resprouts are observed in reference populations but not at the control site. Invasive plant control efforts may cease when eradication is complete.

Manual control shall specify well-timed removal of invasive plants or their seed heads with hand tools; seed heads and plants must be disposed of in accordance with San Bernardino County guidelines, if such guidelines are available.

The chemical control section must include specific and detailed plans for any herbicide use. It must indicate where herbicides will be used, which herbicides will be used, and specify techniques to be used to avoid drift or residual toxicity to native vegetation or special-status plants, consistent with BLM's Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States (BLM 2007) and National Invasive Species Management Plan (National Invasive Species Council [NISC] 2008). All herbicide applications will follow United States Environmental Protection Agency (USEPA) label instructions and will be in accordance with federal, state, and local laws and regulations. Only state and BLM-approved herbicides may be used. Herbicide treatment will be implemented by a Licensed Qualified Applicator. Herbicides shall be applied in accordance with product labels and applicator licenses. Herbicides shall not be applied during or within 24 hours of high confidence predicted rain. Only water-safe herbicides shall be used in riparian areas or within channels (engineered or not) where they could run off into downstream areas. Herbicides shall not be applied in high wind conditions.

Reporting schedule and contents. The IPMP shall specify reporting schedule and contents of each report.

MM-BIO-13 **Sensitive Vegetation Communities Protective Measures and Compensatory Mitigation.** SCE shall avoid impacts to sensitive vegetation communities to the extent feasible. Work areas shall be designed to avoid sensitive vegetation communities. Sensitive vegetation communities shall be flagged for avoidance prior to the start of construction. Drive and crush methods shall be implemented to the extent feasible. Care shall be taken to not cause root erosion or damage to sensitive vegetation community plant root systems. A Biological Monitor shall be present during construction to help direct crews where to drive and stage vehicles to minimize impacts to sensitive vegetation. Workers shall restrict activities to established work areas and access routes.

SCE shall compensate for impacts to 1.08 acres of desert willow-smoketree wash woodland, 0.23 acres of Mojave-Sonoran desert dunes, 0.28 acres of black-stem rabbitbrush scrub, 3.51 acres of big galleta shrub-steppe, 0.17 acres of bush seepwood scrub, and 31.72 acres of Joshua tree woodland through onsite restoration (MM-BIO-11) and land acquisition and/or preservation at a minimum ratio of 2:1. Compensation for impacts to sensitive vegetation communities may be satisfied concurrent with mitigation for impacts to special-status species (e.g., desert tortoise) habitat and jurisdictional waters where impacts overlap.

MM-BIO-14 **Special-Status Herbaceous Plants.** SCE shall avoid, minimize, or mitigate impacts to any state or federally listed or California Rare Plant Rank (CRPR) 1 or 2 herbaceous plants that may be located on the Project disturbance areas or surrounding buffer areas.

Pre-construction Surveys. Pre-construction clearance surveys will be performed by a Qualified Biologist(s) (i.e., a biologist with the requisite education and experience to address specific resources), approved by CDFW for this Project, to avoid or minimize impacts on special-status plants. Disturbance free buffers for herbaceous species shall be 25-ft from the individual and/or occurrence boundary. These buffers shall be established from the previously conducted focused surveys and preconstruction survey results. If a smaller buffer is required, SCE shall develop and implement site-specific monitoring plan to minimize direct impacts to the species. The plan will be submitted to the CDFW for review and approval.

In the event of a discovery of previously undescribed species, the boundary of the occurrence (defined by the California Natural Diversity Database [CNDDB] as all individuals within 0.25 mile of each other) will be flagged, avoided, and monitored as discussed above and the CDFW will be notified. Should any state-listed plant species be present in the Project area, the SCE shall notify CDFW and determine if an Incidental Take Permit is required for those species prior to the start of Project activities. Otherwise, they will be avoided.

Focused Surveys. For construction areas where focused surveys have not occurred, focused surveys will take place prior to construction. Focused surveys will be conducted by a Qualified Biologist(s) and shall be consistent with methodology of a thorough floristic-based assessment of special-status plants and natural communities, following CDFW's Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities (CDFW 2018 or most recent version). Should any state-listed plant species be detected during focused

surveys, SCE shall notify CDFW and determine if an Incidental Take Permit is required for those species prior to the start of Project activities. Otherwise, they will be avoided.

Salvage and Mitigation

For unavoidable impacts to CRPR 1 and 2 herbaceous plants in excess of 10% of the local occurrence, SCE shall implement the following activities; other conflicting permit conditions will supersede the activities below.

- **Salvage.** SCE shall consult with a qualified restoration ecologist or horticulturist regarding the feasibility and likely success of salvage efforts for each species. If salvage is feasible, based on prior success with similar species, SCE shall include salvage methods in a Special-Status Plant Salvage and Relocation Plan (SSPSRP). For special-status plants, the goal shall be to preserve existing populations or establish new populations. The SSPSRP will include at minimum: (a) species and locations of plants identified for salvage; (b) criteria for determining whether a species is appropriate for salvage; (c) the appropriate season for salvage; (d) equipment and methods for collection, transport, and re-planting plants or propagules, to retain intact soil conditions and maximize success; (e) details regarding storage of plants or propagules for each species; (f) location of the proposed recipient site, and detailed site preparation and plant introduction techniques, as applicable; (g) a description of the irrigation, and other maintenance activities, as applicable; (h) success criteria, including specific timeframe for survivorship of each species; and (i) a detailed monitoring program, commensurate with the SSPSRP goals. Invasive plant control for special-status plants will be addressed in the IPMP (MM-BIO-12).
- **Off-site Compensation.** Where avoidance and/or salvage is not feasible, SCE shall provide compensation lands consisting of habitat occupied by the impacted CRPR 1 or 2 herbaceous plant occurrences at a minimum 2:1 ratio of acreage for any occupied habitat affected by the Project. Occupied habitat will be calculated on the Project site and on the compensation lands as including each special-status plant occurrence. If compensation is selected as a means of mitigating special-status plant impacts, it may be accomplished by purchasing credit in an established mitigation bank, acquiring conservation easements, or direct purchase and preservation of compensation lands. Compensation for these impacts may be "nested" or "layered" with compensation for habitat loss.

Annual construction monitoring reports shall be submitted to CDFW. Reports shall include, but not be limited to, details of plants or propagules salvaged, stored, and transplanted (salvage and transplanting locations, species, number, size, condition, etc.); adaptive management efforts implemented (date, location, type of treatment, results, etc.); and evaluation of success of transplantation. After construction, salvage status will be described in the HRRP annual report.

MM-BIO-15 **Avoid and/or Minimize Impacts to Jurisdictional Waters, Wetlands, and Riparian Habitats.** The Project shall avoid and/or minimize impacts to all state and federally jurisdictional waters, wetlands, and riparian habitat that occur within the Project area to the maximum extent feasible. All grading, fill, staging of equipment, infrastructure construction or removal, and all other construction activities shall be designed, sited, and conducted outside of state and federally jurisdictional waters, wetlands, and riparian habitat to the maximum extent feasible.

The implementation of appropriate Best Management Practices (BMP) (e.g., silt fencing, straw wattles, secondary containment, avoiding fueling in close proximity to waters, etc.) shall be utilized to ensure that indirect impacts to jurisdictional waters, wetlands and riparian areas are avoided or minimized to the maximum extent feasible. BMPs are also necessary to reduce the risk of an unintended release of sediment or other material into jurisdictional waters. New and upgraded roadways will use at-grade type stream crossings, where possible. Stockpiled and bermed sediment will be redistributed or removed from the site so as not to alter flows. New poles will be sited outside stream channels to the extent possible.

If permanent impacts to waters, wetlands, and riparian habitats are unavoidable, they shall be mitigated for at a minimum of a 2:1 ratio, or at a ratio determined by the applicable Resource Agencies (i.e., U.S. Army Corps of Engineers, the State Water Resources Control Board/Regional Water Quality Control Boards, and CDFW). Temporary impacts to jurisdictional waters shall be returned to pre-existing contours upon completion of the work.

CDFW Lake and Streambed Alteration Program. Prior to construction and issuance of any grading permit, SCE shall obtain written correspondence from the California Department of Fish and Wildlife (CDFW) stating that notification under section 1602 of the Fish and Game Code is not required for the Project, or SCE shall obtain a CDFW-executed Lake and Streambed Alteration Agreement, authorizing impacts to Fish and Game Code section 1602 resources associated with the Project.

MM-BIO-16 **Limit Disturbance Area.** Project disturbance areas and access routes shall be limited to existing access roads and previously disturbed areas (such as spur roads, pads, etc.) to the greatest extent feasible. The boundaries of all disturbance areas shall be clearly demarcated with stakes and flagging prior to the initiation of construction activities and no work shall extend outside of the delineated areas. No paint or permanent discoloring agents will be applied to rocks or vegetation. All temporary fencing and flagging shall be removed at the conclusion of Project activities. Crushing/removal of perennial, native vegetation in disturbance areas shall be avoided and SCE shall limit ground disturbance to “drive and crush” rather than vegetation removal and grading to the maximum extent feasible. Spoils shall be stockpiled in either disturbed areas lacking native vegetation or areas that do not contain special-status plant species, sensitive vegetation communities, or jurisdictional waters. Where minor grading is needed, the grade shall match surrounding contours and allow for surface flows through the area. Adequate measures shall be taken to prevent any potential runoff from entering areas containing special-status plant species, sensitive vegetation communities, or jurisdictional waters. Parking areas and staging areas shall be located in previously disturbed areas without native vegetation, special-status species habitat, or jurisdictional waters (such as along access roads, spur roads, and pads) to the extent feasible, and conspicuously delineated.

MM-BIO-17 **Avoid Wildlife Pitfalls and Entrapment.** SCE shall have a Qualified Biologist(s) inspect all trenches, pipes, and culverts before material is moved, buried, or capped. The biologist shall inspect all trenches, pits, or other excavations at a minimum of twice per day and just prior to backfilling to ensure no wildlife, including special-status species, are present prior to backfilling. At the end of each workday, SCE shall ensure that all potential wildlife pitfalls have been backfilled, sloped at a 3:1 ratio at the ends to provide wildlife escape ramps (or wood planking or other suitable material is placed at an angle no greater than 30 degrees), or completely covered to prevent wildlife access.

Both ends of all pipes and culverts shall be capped to prevent entry by burrowing owl, desert kit fox, desert tortoise, herpetofauna, or other wildlife. If wildlife become entrapped, Project workers and the biologist shall allow the individual to escape unimpeded if possible, or an appropriately permitted biologist may move the individual out of harm's way before allowing work to continue.

MM-BIO-18 **Minimize Standing Water.** Water applied for dust abatement shall be the minimal amount needed to meet safety and air quality standards to avoid the formation of puddles, which may attract wildlife to Project work areas. In particular, desert tortoises and other special-status wildlife species may be attracted to Project work areas and access roads if they are sprayed with water. A qualified biologist shall be present after water application to ensure that no special-status wildlife species (or nuisance predators such as common ravens or coyotes) are attracted to the water. No standing water shall be allowed to persist.

MM-BIO-19 **No Pets or Firearms.** SCE shall prohibit firearms and domestic dogs from the Project area during Project construction, except those in the possession of authorized security personnel or local, state, or federal law enforcement officials, or persons with disabilities (in the case of service dogs).

MM-BIO-20 **Vehicle Travel.** Motor vehicle speeds along Project routes and existing access roads shall not exceed 20 miles per hour (mph) and Project personnel shall exercise care to observe and avoid wildlife, including desert tortoises. SCE shall restrict Project-related vehicle traffic to the established Project work areas, including existing roads, staging and parking areas, and established construction areas. Project personnel shall not cross native species habitat outside of or in route to the Project work areas and vehicular travel in washes shall be avoided. SCE shall clearly mark speed limits and inform all Project personnel of these limits. Engines of stopped vehicles shall be turned off if the vehicle is not required for immediate use for Project activities. If additional routes are needed, they shall be surveyed by the qualified biologist(s).

MM-BIO-21 **Habitat Compensation Plan.** SCE shall prepare a Habitat Compensation Plan for CDFW review and approval prior to implementation. The Habitat Compensation Plan shall include compensatory mitigation for CESA-listed and other special-status species expected to be impacted by Project activities.

Compensatory Mitigation for Desert Tortoise and Gilded Flicker. Offsite compensatory mitigation will occur at no less than a 5:1 ratio for impacts to critical desert tortoise habitat and no less than a 3:1 ratio for impacts to non-critical suitable desert tortoise habitat. Offsite compensatory mitigation will occur at no less than a 3:1 ratio for impacts to gilded flicker. Compensatory mitigation for these CESA-listed species shall be fulfilled through (1) the purchase of CDFW-approved mitigation bank credits or (2) acquisition and transfer of fee title of lands, protection in perpetuity through recordation of a conservation easement with a legally appropriate entity acting as grantee, land management in perpetuity, and funding of management activities through the calculation and deposit of an endowment fund. Compensatory mitigation shall be fulfilled prior to start of Project activities unless a security is provided to ensure funding for CDFW to complete these activities.

Desert Kit Fox and American Badger. If desert kit fox or American badger are proposed to be relocated from an active burrow or an active burrow will be impacted, SCE shall have a Qualified Biologist prepare and implement an exclusion plan to be performed outside of breeding/pupping

season and after juvenile dispersal. SCE shall implement compensatory mitigation such that the habitat acreage and number of dens (desert kit fox and American badger) and individuals impacted (American badger) are replaced at no less than a 2:1 ratio.

Mojave Fringe-Toed Lizard. If impacts to Mojave fringe-toed lizard and their sand dune habitat are expected, SCE shall provide compensatory mitigation such that the habitat acreage and lizards impacted are replaced at no less than a 2:1 ratio, in advance of impacts.

Burrowing Owl. If impacts occur to an occupied burrow or if a burrowing owl relocation plan is implemented, SCE shall provide compensatory mitigation. Mitigation shall be implemented consistent with the recommendations in the Staff Report on Burrowing Owl Mitigation (CDFW 2012 or most recent version) such that the habitat acreage, number of burrows, and burrowing owls impacted are replaced.

Bats. If impacts are expected to occur to bat roosting habitat, SCE shall provide compensatory mitigation sufficient to replace the total area of roosting habitat at no less than a 2:1 ratio, in advance of impacts.

Sensitive Vegetation Communities. SCE shall compensate for anticipated impacts to desert willow-smoketree wash woodland, Mojave-Sonoran desert dunes, black-stem rabbitbrush scrub, big galleta shrub-steppe, bush seepwood scrub, and Joshua tree woodland through onsite restoration (MM-BIO-11) and land acquisition and/or preservation at a minimum ratio of 2:1.

MM-BIO-22 **Minimize Impacts of Helicopter Use.** Prior to initiating Project activities, SCE shall, in coordination with the Designated Biologist or Biological Monitor, review species-specific minimization measures to ensure protection of sensitive species/habitats from the potential impacts resulting from the use of helicopters during the Project. The Designated Biologist(s) shall review all measures specific to reducing dust, noise, and disturbance to sensitive biological resources with all helicopter pilots and construction contractors during on-site education training. Measures to be discussed should include, but not be limited to, conducting visual surveys to ascertain presence/absence of sensitive species, application of vertical and horizontal buffers, and implementation of seasonal and daily operating limitations. Helicopter crews will meet prior to conducting daily helicopter operations to review flight paths and landing areas.

MM-BIO-23 **Desert Bighorn Sheep.**

Determination of Desert Bighorn Sheep Habitat. CDFW will determine desert bighorn sheep habitat within the Project area based on data gathered by CDFW Wildlife Biologists. SCE, in conjunction with a Designated Biologist(s), will coordinate with CDFW to obtain information on desert bighorn sheep habitat, including lambing habitat and water sources, within the Project area in advance of Project activities, and SCE will implement appropriate avoidance and minimization measures to avoid impacts to desert bighorn sheep in these areas. Avoidance and minimization measures should be in place prior to the start of construction and any ground-disturbing activities.

Limited Operating Period. Activities within desert bighorn sheep habitat will be avoided during the peak lambing period (December 1 through June 30, or earlier, if data are available to demonstrate

to the satisfaction of CDFW that six weeks have elapsed from the last date of lambing). Furthermore, no sudden, loud noises (e.g., from heavy machinery, pile driving, or blasting) shall occur within 1 km of lambing habitat, and no low-elevation helicopter flights shall occur within 1 km of lambing habitat.

Construction Noise. Sound pressure levels shall not exceed 85 dB measured at 50 ft from the noise. Sudden, loud noises (e.g., heavy machinery, blasting, pile driving, low-elevation helicopter flights) that may startle bighorn sheep will be avoided within 1 km of desert bighorn sheep habitat.

Pre-construction Surveys and Ongoing Monitoring. When work is being implemented in or within 1-km of desert bighorn sheep habitat, a Designated Biologist(s) will assess presence of bighorn sheep in the vicinity of work areas and helicopter flight paths. The Designated Biologist will coordinate directly with CDFW Wildlife Biologists for guidance with specific questions as situations arise. The Designated Biologist access (e.g., ground or helicopter) will depend on the first type of activity that is planned for the day. For example, if the first entry into the area is foot or vehicle, the Designated Biologist will be the first one in using that method. If the first entry is to be helicopter, the Designated Biologist will be on the first flight (the flight would be as close to the 1500' AGL as possible, flying between 30 and 40 knots; a pass would be made to determine the location of bighorn sheep; biologists qualified to conduct helicopter surveys for bighorn sheep shall have 50 hours of experience conducting large mammal surveys from a helicopter, including 20 hours specifically for bighorn sheep). If bighorn sheep are present within 1 km of the work area, work will be suspended in that area. The 1-km buffer may be reduced in coordination with CDFW if it is determined that bighorn sheep are not at risk. Factors such as distance of the activities from the sheep, nature of construction activities, duration of activities, topography, work area located in trees or other natural features that attenuate the sound, etc. should be taken into consideration. The Designated Biologist will be present at the work site(s) to monitor for bighorn sheep during all activities in bighorn sheep habitat. The Designated Biologist will work with project personnel to cease or defer activities when bighorn sheep are close enough to be disturbed by the activities.

Helicopter Use. Helicopter flight paths and landings will be delineated prior to implementation in coordination with the CDFW Wildlife Biologist to ensure protection of desert bighorn sheep habitat by incorporating appropriate species-specific vertical and horizontal buffers and Limited Operating Periods.

Reporting of Mortality or Injury. SCE shall immediately report any bighorn sheep mortalities, whatever the cause, to CDFW as soon as possible after the observation. The bighorn sheep carcass shall be covered and left in place until the CDFW biologist can examine it and determine the proper disposal method.

Disease Prevention. A boot disinfection station will be set up at the staging area. If workers have any potential contact with grounds occupied by sheep or goats (for example, at home, visiting a farm, attending a County fair, going to a petting zoo, etc.), they shall disinfect their boots before going to the work site. Workers will also ensure that their vehicles/equipment are washed at either a project wash station or a commercial wash if there is a chance that the tires or interior may be contaminated. Alternatively, personnel can be required to change their footwear so that contaminated footwear is not used in work vehicles or on the Project site.

Water Sources. In the event that bighorn sheep abandon the use of one or more water sources as a result of disturbance associated with the Project, SCE shall create additional water sources after consulting with appropriate agency personnel (CDFW and USFWS) to select location(s) and provide assistance in establishing additional water sources(s).

MM-BIO-24 **Tricolored Blackbird.** Tricolored blackbird may nest within 500 feet of construction activities in Segment 1. To the extent feasible, construction activities within 500 feet of suitable breeding habitats will be avoided during the peak breeding season (March 1 through August 31) for tricolored blackbird. If construction activities must occur during the peak breeding season, preconstruction surveys for tricolored blackbird shall be conducted by a Designated Biologist(s) within three days prior to the start of construction (see MM-BIO-3). If an active nest is observed in the survey area, a 500-foot avoidance buffer will be established, and construction activities will not be permitted within the 500-foot buffer until the Designated Biologist has confirmed that all chicks have fledged and are no longer reliant on the nest site. The Designated Biologist(s) will use binoculars to observe the nests to the extent feasible to limit proximity to the nest, avoiding direct disturbance and attracting predators. The Designated Biologist shall monitor the efficacy of the 500-foot buffer at the onset of Project activities, if activities will increase in intensity or duration, or if activities change such that potential impacts could adversely affect existing nests. The Designated Biologist shall have the authority to stop work and increase the buffer distance if the birds are observed to be distressed. Observations of injury or mortality to the birds or nest failure shall be reported to CDFW immediately. If take of tricolored blackbird would occur from Project activities, an incidental take permit (ITP) under CESA would be required for the Project.

3.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. 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?	☐	☐	☒	☐

Existing Condition

Cultural resources reflect the history, diversity, and culture of the region and people who created the resources. They are unique in that they often are the only remaining evidence of activity that occurred in the past. Cultural resources can be natural or built, purposeful or accidental, physical or intangible. They encompass

archaeological, traditional, and built environmental resources, including buildings, structures, objects, districts, and sites.

Information presented in this section is based on the results of the cultural resources survey reports prepared for the Project (Confidential Appendix E). The study area for cultural resources is the Area of Potential Effects (APE), which is the Project footprint plus a 50-meter buffer. Cultural resources staff synthesized records of previous projects and previously recorded resources and consulted archival and literary resources pertaining to the prehistory, ethnography, and history of the entire APE. In addition, cultural resources staff conducted records searches and field surveys for the APE, which are discussed further below.

Prehistoric Background

Cultural complexes for the Mojave Desert divide the prehistoric era into five temporal periods, beginning approximately 12,000 years ago: Lake Mojave, Pinto, Gypsum, Saratoga Springs, and Shoshonean The four earlier periods encompass the Archaic Period of the Great Basin. The Saratoga Springs period includes formative influences from the Southwest, while the Shoshonean period includes the ethnographic era. Sutton et al. (2007) expanded the Mojave Desert sequence to include elements more closely aligned to prehistoric cultural complexes in the Central Mojave Desert. They note little evidence of a "Pre-Clovis" occupation of the Mojave Desert during the Pleistocene, but do not discount the possibility of such evidence existing in the region. In contrast to the earlier sequence, Pleistocene-era occupation is identified and termed the hypothetical "Pre-Clovis" and "Paleo-Indian" Complexes. Other elements of the Sutton et al. (2007) Mojave Desert chronology for the Holocene period include the Lake Mojave Complex, Pinto Complex, Dead Man Lake Complex, Gypsum Complex, Rose Spring Complex, and Late Prehistoric Complex. These cultural complexes and the artifact assemblages that characterize these complexes are summarized below. As used herein, "climatic periods (e.g., Early Holocene) [refers] to specific spans of calendric time and cultural complexes (e.g., Lake Mojave Complex) to denote specific archaeological manifestations that existed during (and across) those periods" (Sutton et al. 2007, p. 233).

Ethnohistoric Background

Several groups occupied the APE and surrounding Mojave Desert region, including the Kawaiisu, Kitanemuk, Southern Paiute, Serrano, Chemehuevi, Desert Mojave, Tubutulabal, and Panamint. Four major linguistic groups originating from northern Uto-Aztecan groups also are associated with the Mojave Desert Region: Tubatulabalic, Hopic, Numic, and Takic (Sutton et al. 2007, p. 243). The Mojave River appears to have been a major boundary between Takic and Numic speaking groups during prehistoric times. Groups occupying the Central Mojave Desert were of the Takic and Numic linguistic groups. Takic-speaking groups originated in the southwestern Mojave Desert, expanding south and east sometime around 500 cal B.P., and include the Serrano and Kitanemuk (Sutton et al. 2007, p. 243). At time of contact, groups south of the Mojave River and much of southern California were part of the Takic linguistic group. The groups north and east of the APE were of the Numic linguistic group, which included the Kawaiisu, Chemehuevi, and Southern Piute. During the ethnographic period, the Serrano, Vanyume, Chemehuevi, and Desert Mojave occupied the APE.

Historic Background

There are three generally recognized divisions of the historic period: the Spanish Period (1540 to 1821), the Mexican Period (1821 to 1848), and the American Period (1848 to present). Each of these periods are briefly described below.

The Spanish had explored much of the California coast by 1769 but paid little attention to the California interior. Several factors delayed European exploration in the APE: travel and communication were slow; there were few roads, trails and maps; and no supply stations existed in California's interior deserts. During the Spanish period, no permanent European settlements were established in the APE.

In 1821, Mexico gained independence from Spain. Ten years later, secularization of a number of missions was initiated. Secularization freed vast amounts of land that had been under mission control and the land became civilian pueblos and large land grants awarded to Mexican, American, or European settlers. During the Spanish and Mexican periods, San Bernardino County and the APE remained relatively isolated. There were no Spanish and Mexican land grants in the region surrounding the APE, and the Spanish were mainly interested in using the area as an overland route to their coastal missions.

In 1848, the Unite States won the Mexican–American War and acquired all Mexican territory north and west of the Rio Grande and Gila Rivers. American settlers began to migrate to the newly acquired territory, and the discovery of gold in 1848 brought numerous settlers to California. Most of these travelers likely used the northern route of the Old Spanish Trail to enter California, although some likely followed the Mojave Trail.

Military

Several military bases are located in the Mojave Desert region and within the same region as the APE, including Marine Corps Air Ground Combat Center (Twentynine Palms), south of the APE, and Fort Irwin National Training Center, located partially within the APE. These bases in combination with other military installations in the area led to an increase of traffic and increased population near the APE.

During World War II, the Desert Training Center was established in California and Arizona, much of which was located on public land east of the APE. Training exercises were designed to prepare U.S. troops for combat in the hostile desert terrain and climate. During desert training, the U.S. Army created the first detailed maps of the Mojave Desert to facilitate training activities. After the war, those maps were used by the U.S. Geological Survey to create 15-minute topographic quadrangles in the late 1940s and early 1950s. The Desert Training Center closed in 1944 toward the end of World War II.

During the Cold War, sections of the Mojave Desert within the vicinity of the APE hosted another major training exercise known as Desert Strike in May 1964. The 2-week exercise was centered on the Colorado River and included troops from the U.S. Army and U.S. Air Force. It designed to test tactical deployment of nuclear weapons and involved combat training between two hypothetical countries.

Mining

Mining in northeastern San Bernardino County turned the most profit between 1900 and 1919. In addition to silver and gold, other materials mined throughout the Mojave Desert and San Bernardino County included copper, lead, zinc, and other base metals. During the Great Depression, a resurgence of gold mining took place, and World War II stimulated a renewed interest in mining base metals. The Vulcan Iron mine, in the Providence Mountains northeast of the APE, was worked during that time. Since the end of World War II, mining in the area has slowed considerably. More recently, non-metals, such as clay, talc and cinder have been mined especially around the Kingston Mountains in the vicinity of I-15 and aggregate mining for sand and gravel is also common.

Electrical Power for Southern California

Southern California lacked sufficient electrical power to accommodate uncontrolled population growth and urban expansion at the beginning of the 20th century. Therefore, California power companies turned to the Colorado River where it was agreed that the river needed to be harnessed with a dam for the purposes of irrigation, drinking water, and power generation. At roughly the same time, the federal government was also interested in building a dam on the river. To accomplish this, the government had to arrive at an agreement between seven states where the river ran; this eventually resulted in the Colorado River Compact signed in November 1922, and the Boulder Canyon Act enacted in December 1928.

Situated in a desolate desert environment southeast of Las Vegas, Black Canyon was selected as the site for the location of a massive concrete dam, initially known as Boulder Dam; the site was later renamed and is known today as Hoover Dam. The dam began commercial production of electricity in October 1936 when the first of four electric producing turbines on the Nevada side of the power plant were turned on. Electricity generated by this unit flowed across a new 266-mile-long, 287 kV transmission line serving the cities of Los Angeles, Pasadena, Glendale, and Burbank. A turbine on the Arizona side of the power plant went into operation less than a year later, and its electricity flowed back over the same 132 kV line that had earlier supplied the dam site with energy during its construction.

The Bureau of Power and Light and the Los Angeles Department of Water and Power entered into contract with the U.S. Bureau of Reclamation in 1930 to purchase electrical power from Hoover Dam. The Los Angeles Department of Water and Power began construction of the 270-mile-long Boulder Lines 1 and 2 in June 1933 and completed them in mid-1936. A portion of the Boulder Line 3 was placed into service in December 1939 with the entire line in operation by 1940, spanning some 285 miles. The Project would set a new standard for long-distance transmission through investments in research, development, and technological advances in the design and construction of towers, conductors, control mechanisms, and auxiliary equipment for the 270-mile-long system. By 1940, there were no less than 11 power transmission lines emanating out of Hoover Dam dedicated to providing southern California with electrical power.

Records Search and Survey Results

Several cultural resources inventories have been conducted for the proposed Project and its APE (Davis and George 2018; Nixon et al. 2019; Urbana Preservation & Planning, LLC [Urbana] 2018; Winslow 2018, 2019). A cultural resources records search was conducted for Segment 1 at the South Central Coastal Information Center (SCCIC), at California State University, Fullerton in May 2018. The records search identified 53 previous cultural resources studies conducted within a 0.5-mile radius of Segment 1. A total of 344 cultural resources were identified with the Segment 1 records search extent, 42 of which overlap with Segment 1. A cultural resources records search was conducted for Segment 2 at SCCIC in November 2016, which included a 0.5-mile radius of Segment 2, and a supplemental records search data was obtained by SCE in June 2017, which included a 1-mile search radius of Segment 2. The records search identified 70 cultural resource studies that have been conducted within a 1-mile radius of Segment 2. A total of 120 cultural resources were identified within the Segment 2 records search extent, 15 of which intersect or are located within Segment 2. A cultural resources records search for additional work areas located within Segment 1 and Segment 2 was conducted at SCCIC in September of 2021. Additionally, Jacobs Engineering Group, Inc. (Jacobs) utilized supplemental records search data from the projects mentioned above. The records search of the additional work areas identified 11 cultural resource studies that have been conducted within a 1-mile radius of the additional areas.

The majority of Segment 1 falls within the area of three recent BLM approved studies: the Class III Cultural Resources Inventory for SCE's Coolwater-Lugo Transmission Project, San Bernardino County, California (Jackson et al. 2015); the Class III Inventory for the Granite Wind Energy Telecommunication Lines, Granite Mountain Gen-tie Line, and Jasper Substation Interconnection Projects, San Bernardino County, California (Winslow et al. 2013); and the Final Class III Cultural Resources Technical Report for the Calico Solar Project (Nixon et al. 2010). A total of 26 acres of Segment 1 were not covered by these previous studies and were surveyed by Garcia and Associates (GANDA) in August 2018 (Nixon et al. 2019). In May 2017, Environmental Intelligence (EI) completed an intensive pedestrian survey for the California portion of Segment 2. ASM Affiliates (ASM) conducted supplemental surveys of Segment 2 in May 2019. The built environment survey for Segment 1 was conducted by Urbana in May 2018 (Urbana 2018). The built environment survey for Segment 2 was conducted by ASM in three separate field surveys in December 2016, October 2017, and November 2017. Jacobs Engineering Group conducted intensive pedestrian surveys of additional work areas located within Segment 1 and Segment 2 in May of 2021 (Jacobs 2021a, 2021b). Rincon Consultants conducted a supplemental pedestrian survey of additional work areas within Segment 1 in July 2022 (Rincon 2022b)

A total of 131 cultural resources, including 26 built environment resources, 44 archaeological sites, 4 multicomponent resources (recorded as built environment and archaeological resources), and 57 archaeological isolates are present in the Project APE (see Confidential Appendix E-8 for details). Of the 131 cultural resources within the Project APE, 16 (see Table 23) are listed or have been previously determined or recommended eligible for listing in the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR). A total of 7 resources are unevaluated, of which one is assumed to be eligible for purposes of this IS (P-SBR-54). Isolates, by definition, are not eligible for listing in the NRHP or the CRHR and not are discussed further. The Von Schmidt Line (P-36-006835) and the DTC C-AMA (P-36-029043) have both been designated as California Historical Landmarks. However, there are no physical manifestations of either resource within the Project area.

Table 23. NRHP Eligible or Recommended Eligible Resources

Project Segment	Primary Number	Trinomial	Period	BSO[1] / Site	Description
Segment 1	P-36-000317	CA-SBR-317H	Multicomponent	Site	Prehistoric habitation site and historic refuse deposit
Segment 1	P-36-001908	CA-SBR-1908H	Multicomponent	Site	Prehistoric rock features and lithic scatter, and historic refuse deposit
Segment 1	P-36-007694/ P-36-027758	CA-SBR-7694H	Historic	BSO	Number 3 Line (P-26-027758), Los Angeles Department of Water and Power Boulder Dam to Los Angeles Transmission Lines (P-36-007694)
Both	P-36-014632	CA-SBR-13108H	Multicomponent	Site	Historic refuse scatter and historic rock features, and lithic reduction site with cores and biface fragment
Segment 1	P-36-023423	CA-SBR-14798H	Historic	BSO	Powerline Road/Stoddard Valley Road (unpaved road, road supports, and water control features)

Table 23. NRHP Eligible or Recommended Eligible Resources

Project Segment	Primary Number	Trinomial	Period	BSO[1] / Site	Description
Segment 1	P-36-025649	CA-SBR-16190H	Historic	Site	Historic refuse scatter with associated tent pad and footpath
Segment 1	P-36-027753	N/A	Historic	BSO	I-40
Segment 2	P-36-001910	CA-SBR-1910H	Historic	BSO	San Pedro, Los Angeles and Salt Lake; Union Pacific Railroad
Segment 2	P-36-031821	CA-SBR-031821	Prehistoric	Site	Rock alignment
Segment 2	P-36-031823	CA-SBR-031823	Prehistoric	Site	Rock cairns
Both	P-36-002910	CA-SBR-2910H	Historic	Site; BSO	U.S. Route 66/National Old Trails Road/National Old Trails Highway and associated features
Both	P-36-006693	CA-SBR-6693H	Historic	Site; BSO	Atlantic & Pacific Railroad/ AT&SF/Burlington Northern/BNSF Railroad
Both	P-36-014876/ P-33-011315	CA-SBR-13115H	Historic	BSO	SCE Lugo-Pisgah Numbers 1 and 2 Transmission Lines
Both	P-36-014877	CA-SBR-13116H	Historic	BSO	SCE 220 kV South Transmission Line
Both	P-36-014878	CA-SBR-13117H	Historic	BSO	SCE Pisgah Substation
Both	P-36-027752 (California)/ S2128 (Nevada)	N/A	Historic	BSO	SCE Eldorado-Lugo 500 kV Transmission Line

[1] BSO = Building, Site, or Object

Regulatory Setting

Federal

National Historic Preservation Act (NHPA)

The Project APE encompasses federally administered lands, thus requiring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (National Historic Preservation Act [NHPA]; 54 USC 306108), and its implementing regulations (36 CFR 800).

The NHPA established the NRHP and the President's Advisory Council on Historic Preservation, and provided that states may establish State Historic Preservation Officers to consult with federal agencies on undertakings that may affect historic properties. Most significantly for federal agencies responsible for managing cultural resources, Section 106 of the NHPA directs that "[t]he head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of

any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the NRHP." Section 106 also requires that the head of the federal agency afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking (54 USC 306108).

Title 36 of the Code of Federal Regulations, Part 800 (36 CFR 800), implements Section 106 of the NHPA. It defines the steps necessary to identify historic properties (those cultural resources listed in or eligible for listing in the NRHP), including consultation with federally recognized Indian Tribes to identify resources of concern to them and to determine whether or not they may be adversely affected by a proposed undertaking, as well as defining the process for avoiding, minimizing, or mitigating adverse effects. The content of 36 CFR 60.4 also defines criteria for determining eligibility for listing in the NRHP. BLM evaluates the significance of cultural resources identified during inventory phases in consultation with the California State Historic Preservation Office to determine whether the resources are eligible for inclusion in the NRHP. Cultural resources may be considered eligible for listing if they possess integrity of location, design, setting, materials, workmanship, feeling, or association. According to 36 CFR 60.4, resources may be considered historically significant and eligible for NRHP listing under the following criteria:

> The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and that:
>
> 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 installation, 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

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) specifies requirements for responding to discoveries of Native American human remains and associated funerary objects on federal land. These requirements are addressed under Public Law 101 601 and its implementing regulations found at 43 CFR Part 10.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979 (16 USC 470aa et seq.) and its implementing regulations found at 43 CFR Part 7 protect archaeological resources from vandalism and unauthorized collecting on public and Indian lands.

California Desert Conservation Area Plan Cultural Resource Element (as amended in 1999)

The Cultural Resources Element of the California Desert Conservation Area Plan provides for the protection of significant cultural resources on lands administered by BLM in compliance with Sections 106 and 110 of the NHPA.

State Laws, Regulations, and Management Policies

California Environmental Quality Act (CEQA)

CEQA requires a lead agency to determine if a project may have a significant effect on historical resources (PRC Section 21084.1) or tribal cultural resources (PRC Section 21074[a][1][A]-[B]). A historical resource is a resource listed, or determined to be eligible for listing in the California Register of Historical Resources (CRHR); a resource included in a local register of historical resources; or an object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be *historically significant* (State CEQA Guidelines Section 15064.5[a][1-3]).

A resource shall be considered *historically significant* if it meets any of the following 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 to 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; and/or
4) Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project will cause damage to a *unique archaeological resource*, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a], [b]).

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

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

Critical to the eligibility of a resource for the CRHR is its historic integrity. The California Office of Historic Preservation offers the following guidance for assessing the integrity of a resource under CEQA:

> In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired, or

> significant individuals made their important contributions. Integrity is the authenticity of a historical resource's physical identity as evidenced by the survival of characteristics or historic fabric that existed during the resource's period of significance. Alterations to a resource or changes in its use over time may have historical, cultural, or architectural significance. Simply, resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the California Register if, under criterion 4, it maintains the potential to yield significant scientific or historical information or specific data (California Office of Historic Preservation 2006, p. 3).

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 states that in the event of discovery of human remains outside a dedicated cemetery, there will be no further excavation or disturbance of the site until the county coroner determines if the remains are of Native American origin. If the human remains are of Native American origin, the county coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods within 48 hours of being provided site access.

California PRC Section 5097.5

PRC Section 5097.5 prohibits the removal, destruction, injury, or defacement of archaeological features on any lands under the jurisdiction of state or local authorities.

Nevada Revised Statute 383.085

Nevada Revised Statute 383.085 includes information regarding the Nevada State Register of Historic Places. For a property to be listed in the Nevada State Register of Historic Places, it must meet one of the following criteria:

1) Associated with events contributing to the broad patterns of the state's history and culture;
2) Associated with historically important people;
3) Embodies distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master;
4) Has the potential for yielding important information in Nevada's history or prehistory; or
5) Property reflects cultural traditions important to historic or prehistoric peoples of Nevada.

Nevada Revised Statute 383.121

Nevada Revised Statute 383.121 states all departments, commissions, boards, and other agencies of the State and its political subdivisions will cooperate with the Nevada SHPO to salvage or preserve historic, prehistoric or paleoenvironmental evidence located on property owned or controlled by the United States, the State of Nevada, or its political subdivisions.

Nevada Revised Statute 383.150 to 383.190

Nevada Revised Statute 383.150 to 383.190 was enacted in 1989 to protect Native American graves on private and public lands and identifies the processes and procedures for the discovery and treatment of Native American burial sites and funerary objects.

Local

San Bernardino County General Cultural Resources Element

The portions of the Project in California are subject to the requirements and authority of the San Bernardino County General Plan Cultural Resources Element (San Bernardino County 2020). Relevant goals and policies related to cultural resources include:

1) Consult with Native American Tribes and avoid or minimize effects to Native American cultural resources (Goal CR-1).
2) Protect and preserve historic and paleontological resources within San Bernardino County (Goal CR-2).

Clark County Comprehensive Master Plan Historic Preservation Element

The portions of the Project in Nevada are subject to requirements and authority of the Clark County Comprehensive Master Plan Historic Preservation Element. Relevant goals and policies related to cultural resources include:

1) Encourage the identification and protection of cultural resources within Clark County.
2) Promote cooperation between local, state, and federal organizations and agencies.

Impact Analysis

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less than Significant. As described in the Existing Condition of this section and detailed in Confidential Appendix E-8, a total of 131 cultural resources, including 26 built environment resources, 44 archaeological sites, 4 multicomponent resources (recorded as built environment and archaeological resources), and 57 archaeological isolates are present in the Project APE. Of the 131 cultural resources within the Project APE, 16 (P-36-000317, P-36-001908, P-36-007694/ P-36-027758, P-36-014632, P36-023423, P-36-025649, P-36-027753, P-36-001910, P-36-031821, P-36-031823, P-36-002910, P-36-006693, P-36-014876/ P-33-011315, P-36-014877, P-36-014878, and P-36-027752 (California)/ S2128 (Nevada) are listed or have been previously determined or recommended eligible for listing in the NRHP or CRHR. A total of 7 resources are unevaluated, of which one is assumed to be eligible (P-SBR-54) for purposes of this Initial Study. Isolates, by definition, are not eligible for listing in the NRHP or the CRHR and are not discussed further. The Von Schmidt Line (P-36-006835) and the DTC C-AMA (P-36-029043) have both been designated as California Historical Landmarks. However, there are no physical manifestations of either resource within the Project area.

These historical resources are potentially subject to direct and indirect impacts from the proposed Project; however, APMs CUL-1 through CUL-7 would protect historical resources from impacts through avoidance and monitoring during construction. APM CUL-1 requires the assembly and implementation of a Cultural Resource Management Plan (CRMP). APM CUL-2 would require training for all construction personnel to learn the proper identification or buried cultural resources and the procedures to treat inadvertent discoveries. APM CUL-3 would include cultural monitoring for work occurring within 50 ft of sites P-36-000317, P-36-001908, P-36-014632, P-36-025649, and P-36-002910. APM CUL-4 would avoid impacts to historic properties/resources through the fencing and avoidance of environmentally sensitive areas. APM CUL-5 would avoid impacts to historic resources P-36-003033, P-36-002910, P-36-003757, P-36-005272, P-36-031821, P-36-031823, P-36-031813, P-36-003427, P-36-026483, P-36-014496, P-36-025642, P-36-025645, P-36-027753, P-36-014876/P-33-011315, P-36-014878, P-36-007694/P-36-027758, P-36-023423, P-36-027752, and P-SBR-54 through monitoring and exclusionary fencing. APM CUL-6 requires the preparation of a Historic Properties Treatment Plan (HPTP) if avoidance of historic resources is not feasible. APM CUL-7 further details the protocols for unanticipated discovery of previously unknown cultural resources during construction. With the implementation of APM CUL-1 through APM CUL -7, there would be no damage or loss of a site of archaeological, Tribal, or historical value that is listed, or eligible for listing, in the NRHP or CRHR and impacts would be less than significant with no mitigation required.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than Significant. As described in Response 3.5a, above, 16 resources eligible or potentially eligible for inclusion in the NRHP or the CRHR and one assumed to be eligible for the purposes of this Initial Study, have been identified within the Project area and have the potential to be impacted by Project implementation. The Von Schmidt Line (P-36-006835) and the DTC C-AMA (P-36-029043) have both been designated as California Historical Landmarks. However, there are no physical manifestations of either resource within the Project area. These archaeological resources are potentially subject to direct and indirect impacts from the proposed Project; however, APMs CUL-1 through CUL-7 would protect archaeological resources from impacts through avoidance and monitoring during construction. APM CUL-1 requires the assembly and implementation of a CRMP. APM CUL-2 would require training for all construction personnel to learn the proper identification or buried cultural resources and the procedures to treat inadvertent discoveries. APM CUL-3 would include cultural monitoring for work occurring within 50 ft of sites P-36-000317, P-36-001908, P-36-014632, P-36-025649, and P-36-002910. APM CUL-4 would avoid impacts to historic properties/resources through the fencing and avoidance of environmentally sensitive areas. APM CUL-5 would avoid impacts to historic resources P-36-003033, P-36-002910, P-36-003757, P-36-005272, P-36-031821, P-36-031823, P-36-031813, P-36-003427, P-36-026483, P-36-014496, P-36-025642, P-36-025645, P-36-027753, P-36-014876/P-33-011315, P-36-014878, P-36-007694/P-36-027758, P-36-023423, P-36-027752, and P-SBR-54 through monitoring and exclusionary fencing. APM CUL-6 requires the preparation of a HPTP if avoidance of historic resources is not feasible. APM CUL-7 further details the protocols for unanticipated discovery of previously unknown cultural resources during construction. However, with the implementation of APM CUL-1 through APM CUL-7, there would be no damage or loss of a site of archaeological, Tribal, or historical value that is listed, or eligible for listing, in the NRHP or CRHR. Impacts would be less than significant, and no mitigation is required.

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

Less than Significant. No formal cemeteries are located within the Project area. Prehistoric archaeological sites are located within the Project area; however, human remains have not been identified at any of the sites and ground disturbance will not occur within the boundaries of the sites as part of the proposed Project. Federal and state laws require immediate reporting when human remains are discovered. California state law (California Health and Safety Code 7050.5; California PRC Section 5097.98) defines specific protocols for the treatment of human remains discovered in the state of California, regardless of if the remains are modern or archaeological. In addition, because APM CUL-8, which further details the protocols for the unanticipated discovery of human remains during construction, is already built into the proposed Project, the potential for disturbance of human remains would be less than significant.

3.6 Energy

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

Affected Environment

As a state, California is one of the lowest per capita energy users in the United States, ranked 48th in the nation, due to its energy efficiency programs and mild climate (United States Energy Information Administration [USEIA] 2021a). Most of California's electricity is generated in state with approximately 30% imported from the Northwest and Southwest in 2020; however, the state relies on out-of-state natural gas imports for nearly 90% of its supply (California Energy Commission [CEC] 2021a, 2021b). In addition, approximately 33% of California's electricity supply comes from renewable energy sources, such as wind, solar photovoltaic, geothermal, and biomass (CEC 2021a). Energy consumption is directly related to environmental quality in that the consumption of nonrenewable energy resources releases criteria air pollutant and greenhouse gas (GHG) emissions into the atmosphere. The environmental impacts of air pollutant and GHG emissions associated with the Project's energy consumption are discussed in detail in Section 3.3, Air Quality, and Section 3.8, Greenhouse Gas Emissions, respectively.

Existing Conditions

Electricity and natural gas are primarily consumed by the built environment for lighting, appliances, heating and cooling systems, fireplaces, and other uses such as industrial processes in addition to being consumed by alternative fuel vehicles. Petroleum fuels in the State of California are primarily consumed by on-road and off-road equipment in addition to some industrial processes (USEIA 2021a). Gasoline, which is used by light-duty cars, pickup trucks, and sport utility vehicles, is the most used transportation fuel in California with 12.6 billion gallons sold in 2020 (CEC 2021c). Diesel, which is used primarily by heavy duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction and military vehicles, is the second most used fuel in California with 1.7 billion gallons sold in 2020 (CEC 2021c). In addition, approximately 1.4 million gallons of jet fuel were consumed in California in 2020 (USEIA 2021b).

Under existing conditions, energy is consumed by SCE's existing routine O&M activities along the Project alignment through the use of personnel vehicle trips and heavy-duty equipment for repairing existing facilities, restringing lines, routine access road maintenance, periodic insulator washing, telecommunications equipment maintenance, and as-needed emergency repairs. In general, energy is also consumed by vehicular and rail traffic as well as existing land use development within the vicinity of Segments 1 and 2.

Regulatory Setting

State and local agencies regulate the use and consumption of energy through various plans and programs. In 2018, Senate Bill (SB) 100 accelerated the state's Renewable Portfolio Standards Program, codified in the Public Utilities Act, by requiring electricity providers to increase procurement from eligible renewable energy and zero-carbon resources to 33% of total retail sales by 2020, 60% by 2030, and 100% by 2045. In addition, many state regulations have been established to reduce energy use and its associated GHG emissions as a result of the passage of Assembly Bill (AB) 32, the "California Global Warming Solutions Act of 2006" and the subsequent SB 32, which extended AB 32 by requiring the State to further reduce GHG emissions to 40% below 1990 levels by 2030.

The County of San Bernardino Renewable Energy and Conservation Element (2019a) addresses renewable energy systems, energy conservation and efficiency, and environmental compatibility with a focus on the development of renewable resources in communities.

Methodology

Information provided by SCE and the assumptions included in the air quality and greenhouse gas emissions modeling prepared by Environmental Intelligence, LLC (EI) (Appendix C, Air Quality and Greenhouse Gas Emissions) were used to estimate energy consumption associated with the proposed Project. This analysis assumes all on-road vehicles would be traveling at an average speed of 65 miles per hour for 2 hours each day for commutes and the remaining hours of vehicle operation would be at an average speed of 25 miles per hour as vehicles move around the work areas. After construction, ongoing maintenance-related activities are not expected to significantly increase above existing conditions. Therefore, operational energy consumption was not quantified. Additional modeling details and assumptions are provided in Appendix I, Energy Calculations.

Impact Analysis

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

Less than Significant. The proposed Project would use energy resources primarily for construction activities. The anticipated use of these resources is detailed below.

During Project construction, energy would be consumed in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the Project site, construction worker and water truck travel to and from the Project site, and vehicles used to transport materials to and from the site. As shown in Table 24, Project construction activities associated with Segments 1 and 2 would require approximately 3,504,548 gallons of gasoline, approximately 1,915,660 gallons of diesel fuel, and approximately 26,100 gallons of jet fuel in total. In the event that helicopter construction is temporarily infeasible due to weather or other unforeseen conditions, gasoline and diesel fuel consumption during the removal of existing OHGW and installation of OPGW using ground-based construction equipment and vehicles within the structure work areas would be anticipated to increase incrementally, and jet fuel consumption would be anticipated to decrease incrementally as compared to the estimates provided in Table 24. Gasoline fuel consumption during Project construction activities would be approximately 0.4% of countywide consumption and approximately 0.03% of statewide consumption. Diesel fuel consumption would be approximately 1.2% of countywide consumption and approximately 0.1% of statewide consumption, and jet fuel consumption would be approximately 0.0001% of statewide consumption.

Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than 5 minutes and would minimize unnecessary fuel consumption. Construction equipment would be subject to the USEPA Construction Equipment Fuel Efficiency Standard, which would also minimize inefficient, wasteful, or unnecessary fuel consumption. These practices would result in efficient use of energy necessary to construct the Project. In the interest of cost-efficiency, construction contractors also would not utilize fuel in a manner that is wasteful or unnecessary. In addition, implementation of APM AIR-5, which encourages the use of carpools and public transportation for worker commutes, and APM AIR-2, which requires the use of Tier 4 Final equipment where feasible, would further reduce fuel consumption during construction activities. Therefore, Project construction would not involve the inefficient, wasteful, and unnecessary use of energy during construction. Impacts would be less than significant, and no mitigation is required.

Table 24. Estimated Fuel Consumption during Construction

Source	Fuel Consumption (gallons)		
	Gasoline	Diesel	Jet
Segment 1	967,020	306,826	–
Segment 2	2,537,528	1,608,834	26,100
Total	**3,504,548**	**1,915,660**	**26,100**

Table 24. Estimated Fuel Consumption during Construction

Source	Fuel Consumption (gallons)		
	Gasoline	Diesel	Jet
Annual Countywide Consumption (San Bernardino County)[1, 2]	823,000,000	159,000,000	–
Project Proportion of Countywide Fuel Consumption	**0.4%**	**1.2%**	**–**
Annual Statewide Consumption[3]	12,600,000,000	1,700,000,000	2,675,025,000[4]
Project Proportion of Countywide Fuel Consumption	**0.03%**	**0.1%**	**0.0001%**

1 Source: CEC 2021c
2 Jet fuel consumption data was not readily available at the county-level
3 Sources: CEC 2021c and USEIA 2021b
4 Assumes one barrel contains 45 gallons of fuel (Muenster 2020)
Source: Appendix I, Energy Calculations.

After construction, ongoing maintenance-related activities are not expected to significantly increase above existing conditions. Therefore, any additional operational energy consumption associated with operations and maintenance activities, such as fuel consumed by staff vehicle trips, would be minimal and would be subject to compliance with existing local, state, and federal regulations that minimize the potential for wasteful, inefficient, or unnecessary energy consumption. No impact would occur, and no mitigation is required.

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

Less than Significant. State and local agencies regulate the use and consumption of energy through various plans and programs. Many state regulations have been established to reduce energy use and its associated GHG emissions as a result of the passage of AB 32, the "California Global Warming Solutions Act of 2006" and the subsequent SB 32, which extended AB 32 by requiring the State to further reduce GHG emissions to 40% below 1990 levels by 2030. As discussed under checklist item (b) in Section 3.8, Greenhouse Gas Emissions, the Project would be consistent with state and local GHG emission reduction plans and policies as they relate to energy usage, including the State's 2017 Climate Change Scoping Plan and the County of San Bernardino Greenhouse Gas Emissions Reduction Plan (2011). In addition, the County of San Bernardino Renewable Energy and Conservation Element (2019a) addresses renewable energy systems, energy conservation and efficiency, and environmental compatibility with a focus on the development of renewable resources in communities. As a utility project along an existing utility corridor in a sparsely developed desert area, the proposed Project is consistent with the County's efforts to focus utility-scale renewable energy facilities in well-defined areas that are "1) less desirable for the development of communities, neighborhoods, commerce, and industry, and 2) less environmentally and culturally sensitive" (County of San Bernardino 2019a). Moreover, the proposed Project would reliably interconnect and integrate multiple renewable generation projects in the Southern Nevada/Eastern California area onto the electric grid, which would support the renewable energy targets established by SB 100 for the Renewables Portfolio Standard Program. Therefore, the proposed Project would not conflict with local plans for renewable energy or energy efficiency. This impact would be less than significant, and no mitigation is required.

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. 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 off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Existing Condition

The proposed Project is located in the Mojave Desert, which occupies a substantial portion of Southern California and parts of Nevada, Arizona, and Utah. The Mojave Desert occupies roughly 54,000 square miles in a typical

Basin and Range topography, with isolated mountain ranges separated by expanses of desert plains. It is bound on the northwest by the Tehachapi Mountains and the Garlock Fault and to the west by the San Andreas fault and the San Gabriel and San Bernardino mountain ranges. The northeastern, eastern, and southern boundaries are less distinct. It has an interior enclosed drainage and many playas. The Mojave region exhibits a wide variety of geomorphic landforms that represent the varying erosional, depositional, and tectonic processes the area is undergoing, including volcanic features such as basaltic flows and cones; erosional and depositional features such as pediments, alluvial fans, playas, badlands, desert pavement; and tectonic (faulting) features such as scarps, offset streams, sags, and sag ponds. The physiography of the Project area is dominated by prominent northwest-southeast trending faults and generally northwest-southeast trending mountain ranges.

The proposed Project generally traverses alluvial plains, alluvial fans and pediments, badlands, hills, and the foothills of numerous mountain ranges. Segment 1 is primarily underlain by Quaternary-aged geologic features, and Segment 2 is underlain by a mix of Precambrian, Paleozoic, Tertiary, and Quaternary-aged geologic features. A detailed discussion of specific geologic features that underly Segment 1 and Segment 2 is presented within the Response (f) discussion.

Regulatory Setting

Federal

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act was enacted in 1977 to “reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program.” To accomplish this, the act established the National Earthquake Hazard Reduction Program (NEHRP). NEHRP’s mission includes improved understanding and characterization of hazards and vulnerabilities, improvement of building codes and land use practices, risk reduction through post-earthquake investigations and education, development and improvement of design and construction techniques, improvement of mitigation capacity, development of alternative performance objectives to advance functional recovery, and accelerated application of research results. The NEHRP designates the National Institute of Standards and Technology as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities. Programs under the NEHRP help inform and guide planning and building code requirements, such as emergency preparedness responsibilities and seismic code standards.

Paleontological Preservation Act

The Paleontological Resources Preservation Act (PRPA) was signed into law in 2009. It directs the Department of Agriculture and the Department of the Interior to implement comprehensive paleontological resource management programs on federal lands. The PRPA protects scientifically significant fossils on federal lands and provides a permitting system where researchers can collect and study scientifically significant fossils, which will remain in the public trust. The act also allows for the collection of common plant and invertebrate fossils for personal, non-commercial use on federal lands. The PRPA requires the Secretaries of the Interior and Agriculture to manage and protect paleontological resources on federal land. The PRPA furthers the protection of fossils on federal lands by criminalizing the unauthorized removal of fossils.

California

California Building Standards Code

The California Building Standards Code (CBSC) appears in the CCR as Title 24, Part 2. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. The purpose of the CBSC, more commonly known as the California Building Code (CBC), is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all building and structures within its jurisdiction. The CBC contains necessary California amendments, which are based on the American Society of Civil Engineers/Structural Engineering Institute Standard, which provides requirements for general structural design and includes means for determining earthquake loads, as well as other loads for inclusion into building codes. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every building or structure, or any appurtenances connected or attached to such buildings or structures, throughout California. Chapter 16 of the CBC contains specific requirements for seismic safety. Chapter 18 of the CBC regulates excavation, foundations, and retaining walls. Chapter 33 of the CBC contains specific requirements pertaining to site demolition, excavation, and construction to protect people and property from hazards associated with excavation cave-ins and falling debris or construction materials. Chapter 70 of the CBC regulates grading activities, including drainage and erosion.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act, California's Alquist-Priolo Act (PRC 2621 et seq.), is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The Alquist-Priolo Act prohibits the location of most types of structures intended for human occupancy across the traces of active faults and strictly regulates construction in the corridors along active faults (Earthquake Fault Zones). It also defines criteria for identifying active faults, giving legal weight to terms such as "active," and establishes a process for reviewing building proposals in and adjacent to Earthquake Fault Zones. Under the Alquist-Priolo Act, faults are zoned, and construction along or across them is strictly regulated if they are "sufficiently active" and "well-defined." A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined as within the last 11,000 years). A fault is considered well-defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria and judgment.

PRC Section 5097.5

Section 5097.5 of the California Public Code Section states that no person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

Nevada

Nevada Building Code

The provisions of the Nevada Building Code (NBC) apply to the construction, alteration, relocation, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures. The NBC is based on the International Building Code. Chapter 16 of the NBC contains requirements for structural design, including for wind and seismic loads. Chapter 18 of the NBC regulates excavation, foundations, and retaining walls. Chapter 33 of the NBC contains specific requirements pertaining to safety during site demolition, excavation, and construction to protect people and property from hazards associated with excavation cave-ins and falling debris or construction materials.

Nevada Revised Statutes

The Nevada Revised Statutes (NRS) are the current codified laws of the State of Nevada. NRS Section 704.865 provides that "A person, other than a local government, shall not commence to construct a utility facility in the State without first having obtained a permit therefore from the Commission. The replacement of an existing facility with a like facility, as determined by the Commission, does not constitute construction of a utility facility."

Nevada addresses paleontological resource protections under the following policies in Title 33 of their NRS:

- **NRS 381.195:** Defines a prehistoric site as any archeological or paleontological site, ruin, deposit, fossilized footprints and other impressions, petroglyphs and pictographs, habitation caves, rock shelters, natural caves, burial ground or sites of religious or cultural importance to an Indian tribe.
- **NRS 381.197:** Permit required to investigate, explore or excavate historic or prehistoric site; applicability of penalties. Except for action taken under an agreement with the Office of Historic Preservation of the State Department of Conservation and Natural Resources pursuant to NRS 383.430, and except as otherwise provided in this section, a person shall not investigate, explore or excavate an historic or prehistoric site on federal or state lands or remove any object therefrom unless the person is the holder of a valid and current permit issued pursuant to the provisions of NRS 381.195 to 381.227, inclusive. Conduct that would otherwise constitute a violation of this section is not a violation of this section if it is also a violation of NRS 383.435. (Added to NRS by 1959, 290; A 2005, 569; 2011, 2981).
- **NRS 383.011:** Defines cultural resources as any objects, sites or information of historic, prehistoric, archeological, architectural, or paleontological significance. This was added to the Statutes of Nevada in 2015 under SB 20, Chapter 18 by the Committee on Natural Resources.

Clark County Comprehensive Plan

The Safety Element of the Clark County Comprehensive Plan contains the following policy to address geologic and seismic hazards:

- **Natural and Man-made Hazards Policy 1:** Minimize public exposure to natural and man-made hazards

Impact Analysis

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.

Less than Significant. The proposed Project is located in a seismically active region and traverses several historic to Holocene/Latest Quaternary-active faults (movement in the last 15,000 years). A review of a U.S. Geological Survey (USGS) Quaternary fault map (USGS 2020a), California Geological Survey (CGS) fault map (CGS 2015a), and CGS Alquist-Priolo (AP) Earthquake Fault Map (CGS 2015b) indicates that four active fault zones traverse the Project alignment along Segment 1. The Calico Fault, within the Calico-Hidalgo Fault Zone, crosses the alignment near the center of Segment 1, near the I-40/Newberry Road intersection. The Calico Fault is a northwest trending strike-slip fault with right lateral movement, and the total length is estimated by the CGS to be 34 miles. The Newberry Fracture Zone Fault, within the Calico-Hidalgo Fault Zone, also crosses the alignment near I-40 and Freemont Road. The Newberry Fracture Zone Fault is a north-northeast striking branch of the Calico Fault, approximately 6 miles in length. Movement on the Calico-Hidalgo Fault Zone was responsible for the moment magnitude (Mw) 7.3 Landers earthquake in June 1992 (USGS 2000; CGS 2015a).

The Pisgah Fault within the Pisgah-Bullion Fault Zone crosses the eastern portion of Segment 1, west of the I-40/Hector Road intersection. This fault is a northwest-trending strike-slip fault with right lateral movement, approximately 21 miles in length. A small unnamed fault within the Lavic Lake Fault Zone also crosses the eastern portion of Segment 1, near the start of Segment 2. This unnamed fault section is part of the larger Lavic Lake Fault Zone to the southeast, which is a large northwest trending strike-slip fault with right lateral movement, approximately 17 miles in length (CGS 2015a; USGS 2020a). The Pisgah-Bullion Fault Zone partially ruptured during the 1992 Landers earthquake and the Mw 7.1 Hector Mine earthquake in October 1999. However, movement on the Lavic Lake Fault was the primary generator of the latter earthquake, which caused extensive surface fault rupture (Southern California Earthquake Data Center 2020).

The Segment 2 alignment is within or within proximity (less than or equal to 1 mile) of unnamed Holocene-active to Quaternary (past 1.6 million years) fault zones (CGS 2015a, 2015b; USGS 2020a). The southern portion of Segment 2 parallels several, unnamed faults in the Lavic Lake Fault Zone, which caused the 1999 Hector Mine earthquake. The Project alignment parallels the Ludlow Fault, within the Quaternary Ludlow Fault Zone, near Broadwell Mesa. Finally, the Segment 2 alignment, near the Union Pacific Railroad crossing, is near the primary Baker Fault. Many other areas of the Project alignment occur within 2 or more miles of several small, unnamed faults.

The proposed Project could be subject to potential fault rupture along the Holocene to latest Quaternary faults (past 15,000 years) that cross the distribution line, potentially resulting in damage to utility structures. However, Project design and construction would be completed in accordance with the CBSC, thus minimizing the potential for seismically induced damage. In addition, the proposed Project would not increase the potential for fault rupture to occur and therefore would not directly or indirectly cause

substantial adverse effects, including the risk of loss, injury, or death as a result of fault rupture. As a result, impacts would be less than significant, and no mitigation is required.

ii) Strong seismic ground shaking?

Less than Significant. As discussed above, the proposed Project is located within a seismically active area, within or in proximity to several active fault zones. However, the proposed Project would be engineered to meet, or exceed, strength standards to withstand potential ground shaking in accordance with CPUC GO 95 and the CBSC, thus minimizing the potential for seismically induced damage. In addition, the proposed Project would not increase the potential for seismic ground shaking to occur and therefore would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death as a result of ground failure. As a result, impacts would be less than significant, and no mitigation is required.

iii) Seismic-related ground failure, including liquefaction?

Less than Significant. Liquefaction occurs when unconsolidated, water-laden soils are shaken and lose cohesion, causing previously solid soils to behave temporarily as viscous liquids. It is most prevalent in areas of recently deposited silts or sands, and in areas with high groundwater levels. Liquefaction may lead to near-surface ground failure, such as ground settlement, lateral spreading, and loss of foundation support. The CGS has mapped potential earthquake-induced liquefaction and landslide areas in many regions of California. Such seismic hazard maps depicting areas of potential liquefaction and seismically induced landslides have not been mapped for the Project alignment (CGS 2015b). Although areas of potential liquefaction and lateral spreading may be present along the alignment, the proposed Project would be engineered to meet or exceed the strength standards to withstand potential ground shaking in accordance with CPUC GO 95, and the CBSC, thus minimizing the potential for seismically induced damage. In addition, the proposed Project would not increase the potential for seismic-related ground failure, including liquefaction, to occur and therefore would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death as a result of ground failure. As a result, impacts would be less than significant, and no mitigation is required.

iv) Landslides?

Less than Significant. As previously discussed, the CGS has mapped potential earthquake-induced landslide areas in many regions of California. Such seismic hazard maps depicting areas of potential seismically induced landslides have not been mapped for the Project alignment (CGS 2015b). Minor vegetation and ground disturbance would occur in proposed work areas; however, cut-and-fill grading that could potentially result in slope instability would not occur. Therefore, the proposed Project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death as a result of landslides. As a result, impacts would be less than significant, and no mitigation is required.

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

Less than Significant. No new permanent roads, grading, or lay down areas would be required for Project construction. Access to facilities would use surface streets and existing unimproved (dirt) roads to the greatest extent possible. In locations where access roads are not available, trucks would travel overland

to reach the poles or towers. Cable pulling sites may be required in previously undisturbed areas, and fiber optic cable may affect existing vegetation during installation. For underground construction, new manhole structures would be installed to provide access to the underground cable and trenching would be required for the underground conduit. Manhole construction and trenching would result in temporary stockpiling of soil pending backfill and compaction. For overhead installation on poles, light disturbance (primarily overland vehicle travel and equipment staging) would occur within an approximately 20-foot radius around each pole. For wood pole replacement or installation, an approximate 100-foot x 60-foot work area would be required. Soil would be temporarily stockpiled during drilling of 8-foot deep holes for new poles, pending backfill in the old hole or off-site disposal. In addition, construction yards, helicopter landing zones, access spur road construction, and guard structure construction would result in temporary disturbance of soils.

Ground disturbing activities during construction would potentially result in short-term erosion and associated siltation of nearby drainages. However, at the conclusion of construction, roads and staging areas used for construction purposes would be returned to preconstruction (or better) conditions. In addition, as discussed in more detail in Section 3.10, Hydrology and Water Quality, the proposed Project would comply with existing applicable regulations governing water quality, including the Construction General Permit (2009-0009-DWQ [as amended] – General Permit No. CAS000002, if required) for construction within California and 2015 Construction Stormwater General Permit for construction within Nevada. Potential impacts resulting from erosion and sedimentation during construction activities would be addressed by using standard erosion and sediment control measures specified in the Project-specific SWPPP, as specified in APM HYD-1. Temporary Best Management Practices (BMP), such as silt fences, straw waddles, sediment traps, gravel sandbag barriers, or other construction BMPs, would be implemented to control stormwater runoff and reduce erosion and sedimentation during construction activities. With compliance with existing regulatory requirements and implementation of APM HYD-1, the proposed Project would not result in substantial erosion or loss of topsoil and impacts 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 off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant. The Project alignment is underlain by alternating areas of recent alluvium, older alluvium, and variable types of bedrock (USGS 2017). Areas of slope instability may be locally present along the alignment. However, as previously discussed, cut-and-fill grading that could potentially result in slope instability would not occur. Therefore, the ground surface in the work areas would not become unstable and potentially result in landslides as a result of the proposed Project. Also as previously discussed, the Project alignment has not been mapped with respect to liquefaction and associated lateral spreading. Although areas of potential liquefaction and lateral spreading may be present along the alignment, the proposed Project would be engineered to meet or exceed the strength standards to withstand potential ground shaking, in accordance with CPUC GO 95[9] and the CBSC, thus minimizing the potential for seismically induced damage. In addition, the ground surface in the work areas would not

[9] CPUC GO 95 includes requirements for overhead line design, construction, and maintenance, the application of which will ensure adequate service and secure safety to persons engaged in the construction, maintenance, operation or use of overhead lines and to the public in general.

become unstable and potentially result in liquefaction and lateral spreading as a result of the proposed Project.

Regional ground subsidence primarily occurs as a result of excessive groundwater pumping, oil extraction, or peat loss. The western portion of Segment 1, from the vicinity of the Barstow-Daggett Airport east to Hector Road, is within an area of documented ground subsidence due to groundwater pumping. This area is known as the Mojave: Troy Lake/Newberry Springs subsidence area. Because surface water is scarce in this region, groundwater has been over-pumped since the early 1900s, resulting in ground subsidence, which in turn has resulted in an increase in inland flooding, damaged engineered infrastructure, and the sudden appearance and erosional enlargement of destructive earth fissures (USGS 2003, 2020b). No areas of ground subsidence have been documented for Segment 2. However, regional subsidence could result in damage to proposed Project infrastructure located along Segment 1.

Most of the Project components would include above-ground fiber optic cable supported by new and existing wooden distribution poles (Segment 1) or LSTs (Segment 2), which would be relatively unaffected by regional ground subsidence. Elongated linear surface and below-ground features, such as pipelines and utilities, are most susceptible to damage due to ground subsidence. Of the 29 miles of Segment 1, approximately 1.3 miles of cable would be placed underground in five separate sections. In Segment 2, approximately 475 linear feet of cable would be placed underground in three separate sections. For both segments, underground cables would be installed in high-density polyethylene smoothwall innerduct, which is flexible and would provide protection for the cable in the event of ground movement due to subsidence. Concrete slurry would be poured over the conduit for added protection. In addition, the soils along the proposed buried cable alignment would not become unstable and potentially result in ground subsidence and collapse as a result of the proposed Project. As a result, impacts would be less than significant, and no mitigation is required.

d) Would the project 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?

Less than Significant. Expansive soils are generally characterized as clay-rich soils that are prone to substantial volume change (shrink and swell) as a result of variation in soil moisture content. Soils in the desert region of the County have low to moderate expansive soils (County of San Bernardino 2019b). Therefore, such soils may be present along the Project alignment. As previously discussed, most of the Project components would include above-ground ADSS/OFNR supported by new and existing wooden poles or LSTs, including new replacement and interset wooden poles, which would be relatively unaffected by expansive soils. Concrete slab foundations and elongated linear surface and below-ground features, such as pipelines and utilities, are most susceptible to damage due to expansive soil. Of the 29 miles of Segment 1, approximately 1.3 miles of cable would be placed underground in five separate sections. In Segment 2, approximately 475 linear feet of cable would be placed underground in three separate sections.

For both segments, underground cables would be installed in high-density polyethylene smoothwall innerduct, which is flexible and would provide protection for the cable in the event of ground movement due to expansive soil. Concrete slurry would be poured over the conduit for added protection. In addition, the soils along the proposed buried cable alignment would not become unstable and potentially result in

soil expansion as a result of the proposed Project. As a result, impacts would be less than significant, and no mitigation is required.

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

No Impacts. The proposed Project would not require any sewer or septic systems. No impacts would occur.

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

Less than Significant. Several paleontological technical studies have been prepared for the proposed Project (Aron et al. 2017; Aron and Carson 2018; Richards and Raum 2019) and are attached in Appendix F. The paleontological analyses consisted of a review of existing data and a Phase 1 field survey. Based on these analyses, all geologic units within the Project area were classified using the federal Potential Fossil Yield Classification (PFYC) system in order to determine the potential paleontological sensitivity of the Project area and to determine adequate mitigation measures for the proposed Project (BLM 2016b).

Paleo Solutions, Inc (Paleo Solutions) reviewed geologic maps of the Project area, as well as published and unpublished scientific papers. Paleontological records searches were requested from the San Bernardino County Museum (SBCM) and the Las Vegas Natural History Museum. An additional records search was provided by the NPS MNP, and searches of online databases were completed by Paleo Solutions staff (Aron et al. 2017; Aron and Carson 2018; Richards and Raum 2019; Appendix F). Rincon Consultants, Inc. (Rincon) conducted a desktop analysis for the structure work areas to confirm the validity of Project impacts and recommendations in previously prepared reports (Rincon 2022a).

Geologic mapping indicates that Segment 1 is immediately underlain by Quaternary basalt flows of Pisgah Crater (Qb); Quaternary older (Holocene to Pleistocene) alluvial fan deposits (Qof); and younger Quaternary (Holocene) alluvium (Qa, Qal), clay (Qc), alluvial fan gravels (Qf), and windblown sands (Qs) (Dibblee 1967, 1970, 2008a-b; Dibblee and Bassett 1966a-b). Segment 2 is underlain by Precambrian to Paleozoic igneous (pCg) and metamorphic (m) rocks; Carboniferous Monte Cristo Limestone (Mmc); Permian Bird Spring Formation (Pbs); Mesozoic igneous and metamorphic rocks (quartz diorite porphyry [qdp], biotite quartz diorite [bqd], gneiss [gn], granite [gr], hornblende diorite-gabbro [hd], granite or quartz monzonite [gqm], dacite flow breccia [Jfb], Sands granite [Js], Teutonia quartz monzonite [TKq], granite or metamorphic rocks [gr-m]); Tertiary and Quaternary igneous rocks (altered andesite porphyry [Tah], andesite [Ta], Qb); Tertiary unnamed sedimentary rocks (andesitic fanglomerate [Taf], tuff breccia [Tt], fanglomerate and sediments and flows [Tsf], sandstone [Tss], volcanic fanglomerate [Tvf]); older Quaternary (Pleistocene) alluvial deposits (Qf, Qc, Quaternary older alluvium [Qoa]); and younger Quaternary (Holocene) deposits (Qa, Qal, Mojave River channel sand [Qrs], Qf) (Dibblee 1967, 1970, 2008a-b; Dibblee and Bassett 1966a-b).

Paleontological records searches were requested from the SBCM in order to identify if there are any known fossils within Project area. No previously recorded fossil localities occur within the Segment 1 alignment. However, scientifically significant Pleistocene-aged fossils have been found within the Project

vicinity and elsewhere in San Bernardino County, and similar fossils may be encountered during excavation within Quaternary older deposits assigned a moderate paleontological potential (PFYC 3). The records search for Segment 2 reported one fossil locality near Daggett, two within a 1-mile radius, and seven localities within a 2-mile radius. The localities were all recovered from areas identified by the SBCM as later Neogene- to Quaternary-aged valley alluvium and consist of a mix of both extinct and extant taxa of Pleistocene age. SBCM also noted that abundant fusulinid, coral, and other marine fossils have been recovered from the Bird Spring Formation. The NPS MNP records search along Segment 2 did not identify fossil localities from within the Project area; however, fossils of Pleistocene horse, camel, rodent, and fish have been identified approximately 1 mile south of the Project area.

For Segment 1, a paleontological pedestrian field survey was conducted on November 9, 2017 (Aron and Carson 2018). No paleontological resources were observed or collected during the survey. However, sediments conducive to fossil preservation, such as Qof, were observed along road cuts and wash channel incisions within the bounds of the Project area. The fine-grained beds within older Quaternary deposits are favorable for harboring recognizable and intact scientifically significant vertebrate fossils. Younger Quaternary deposits (Qa, Qc, Qf, and Qs) were also observed on adjacent low-rising hills, road cuts, and wash channels within the bounds of the Project area. These deposits are typically too young to contain scientifically significant paleontological resources; however, they may be underlain by older Quaternary deposits, such as Qof and Qoa, which have a higher potential for fossil preservation.

Field surveys for Segment 2 were conducted by Paleo Solutions staff on July 12-14, 2017, July 19-22, 2017, and July 27-29, 2017, with a supplemental survey conducted on May 8, 2019 (Aron et al. 2017; Richards and Raum 2019). No paleontological resources were observed during the field surveys. However, sediments conducive to fossil preservation were observed within the Qoa, Tss, Tt, Taf, Tvf, and Pbs.

Scientifically significant paleontological resources may be encountered during ground-disturbing activities (e.g., grading, trenching, and excavation) within Project areas underlain by intact (native) deposits of Qof, Qoa, Tss, Tt, Taf, and (PFYC U); Pbs (PFCY 3); and Mmc (PFYC 3) either at the surface or at depth (beneath previously disturbed sediments, artificial fill, or Qa, Qc, Qf, and Qs). Surface grading or shallow excavations within Qa/Qal deposits or previously disturbed sediments (PFYC 2) are unlikely to uncover significant fossil remains. However, older sedimentary deposits are likely present immediately below Holocene alluvial deposits. Topographic relief is minimal throughout the survey area, and the minimal bedrock exposures provide little indication of the depth at which older more paleontologically sensitive sediments occur beneath younger surficial deposits. Therefore, trenching, grading, and other earthmoving activities may uncover paleontological resources throughout the Project area in areas containing underlying sedimentary units.

Project-related ground disturbance (e.g., excavations) within Proterozoic- to Cenozoic-aged igneous and metamorphic rocks (PFYC 1), are unlikely to yield significant recognizable fossil remains. Therefore, construction excavation within these sediments would likely not uncover significant paleontological resources.

APMs PALEO-1 and PALEO-3 require preparation of a Paleontological Resources Mitigation and Monitoring Plan (PRMMP) as well as construction monitoring. As required by the PRMMP, full-time paleontological monitoring would be conducted during Project-related ground disturbance that reaches

approximate depths for significant paleontological resources within geologic units assigned moderate paleontological potential/sensitivity (PYFC 3). In addition, part-time paleontological monitoring shall be conducted for excavations exceeding depths of 5 feet within geologic units assigned a low paleontological potential/sensitivity and Project areas underlain by previously disturbed sediments (e.g., artificial fill) to determine if these activities have potential to impact underlying geologic units with moderate or unknown paleontological potential/sensitivity. In the event that paleontological resources are encountered during construction, construction would halt in the vicinity of the find until the find can be assessed by a qualified paleontologist. The find would be recovered and curated in an accredited museum repository according to the procedures detailed in the PRMMP. Additionally, prior to the start of construction, APM PALEO-2 requires construction personnel to attend a WEAP training regarding the recognition of possible buried paleontological resources (i.e., fossils) and protection of all paleontological resources during construction. Because APMs PALEO-1, PALEO-2, and PALEO-3 are already built into the proposed Project, impacts to scientifically significant paleontological resources would be less than significant, and no mitigation is required.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. 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?	☐	☐	☒	☐

Existing Condition

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. Climate change is the result of numerous, cumulative sources of GHG emissions contributing to the "greenhouse effect," a natural occurrence that takes place in Earth's atmosphere and helps regulate the temperature of the planet. The majority of radiation from the sun hits Earth's surface and warms it. The surface, in turn, radiates heat back towards the atmosphere in the form of infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions.

GHG emissions occur both naturally and as a result of human activities, such as fossil fuel burning, decomposition of landfill wastes, raising livestock, deforestation, and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG

is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global warming effect is 30 times greater than CO_2 on a molecule per molecule basis (Intergovernmental Panel on Climate Change 2021). However, the 2017 Climate Change Scoping Plan published by CARB uses a GWP of 25 for methane, consistent with the Intergovernmental Panel on Climate Change's (2007) Fourth Assessment Report. Therefore, this analysis utilizes a GWP of 1 for CO_2, 25 for methane, and 298 for N_2O.

Anthropogenic activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the concentration of GHGs in the atmosphere that trap heat. Since the late 1700s, estimated concentrations of CO_2, methane, and nitrous oxide in the atmosphere have increased by over 43%, 156%, and 17%, respectively, primarily due to human activity (USEPA 2021b). Emissions resulting from human activities are thereby contributing to an average increase in Earth's temperature. Potential climate change impacts in California may include loss of snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (State of California 2018).

Under existing conditions, GHG emissions in the vicinity of Segments 1 and 2 are primarily generated by vehicular and rail traffic on transportation corridors, such as I-40 and the BNSF rail line. SCE's existing routine O&M activities along the Project alignment contribute to existing GHG emissions through the use of personnel vehicle trips and heavy-duty equipment for repairing existing facilities, restringing lines, routine access road maintenance, periodic insulator washing, telecommunications equipment maintenance, and as-needed emergency repairs. In addition, GHG emissions are generated by equipment at the Gale, Pisgah, and Cima substations due to the incidental leaks of the sulfur hexafluoride gas used for voltage electrical insulation, current interruption, and arc quenching.

Regulatory Setting

In response to climate change, California implemented AB 32, the "California Global Warming Solutions Act of 2006." AB 32 required the reduction of statewide GHG emissions to 1990 emissions levels (essentially a 15% reduction below 2005 emission levels) by 2020 and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions. On September 8, 2016, the Governor signed SB 32 into law, extending AB 32 by requiring the State to further reduce GHG emissions to 40% below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, the California Air Resources Board (CARB) adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program and the Low Carbon Fuel Standard, and implementation of recently adopted policies and legislation, such as SB 1383 (aimed at reducing short-lived climate pollutants including methane, hydrofluorocarbon gases, and anthropogenic black carbon) and SB 100 (discussed further below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide Project-level thresholds for land use development. Instead, it recommends local governments adopt policies and locally appropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) of CO_2e by 2030 and two MT of CO_2e by 2050 (CARB 2017). Other relevant state laws and regulations include SB 100, which supports the reduction of GHG emissions from the electricity sector by

accelerating the state's Renewables Portfolio Standard Program. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33% of total retail sales by 2020, 60% by 2030, and 100% by 2045.

Impact Analysis

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

Less than Significant. GHG emissions associated with Project construction were estimated using the same methodology and assumptions described under Section 3.3, Air Quality. After construction, ongoing maintenance-related activities are not expected to increase above existing conditions; this includes no change in sulfur hexafluoride emissions. Therefore, operational GHG emissions were not quantified. Additional modeling details and assumptions are provided in Appendix C, Air Quality and Greenhouse Gas Emissions.

Construction of the proposed Project would generate temporary GHG emissions primarily as a result of operation of construction equipment on site as well as from vehicles transporting construction workers to and from the work areas, water trucks, and heavy trucks to transport materials to and from the work areas. Calculations of CO_2 and methane are provided to identify the magnitude of potential Project effects. As shown in Table 25, Project construction activities would generate approximately 215 tons of CO_2e for Segment 1 and approximately 4,626 tons of CO_2e for Segment 2. In total, Project construction activities would generate approximately 4,841 tons of CO_2e over the course of a 1-year period, which would not exceed the MDAQMD annual significance threshold of 100,000 tons of CO_2e per year. This level of emissions represents less than 5% of the MDAQMD annual significance threshold. In the event that helicopter construction is temporarily infeasible due to weather or other unforeseen conditions, GHG emissions generated during the removal of existing OHGW and installation of OPGW using ground-based construction equipment and vehicles within the structure work areas would be less than those estimated in Table 25 given that ground-based construction equipment and vehicles emit substantially fewer GHG emissions on an hourly basis than helicopters emit. Furthermore, after construction, ongoing maintenance-related activities are not expected to increase above existing conditions and would not result in substantial additional GHG emissions beyond existing conditions. Therefore, impacts would be less than significant, and no mitigation is required.

Table 25. Estimated GHG Emissions during Construction[1]

Source	Total GHG Emissions (tons per year)
Segment 1	215
Segment 2	4,626
Total	**4,841**
MDAQMD Annual Threshold of Significance[2]	100,000
Threshold Exceeded?	No

1 Of the total 113-mile Project alignment, approximately 1.8 miles of the alignment is located in Nevada. The remaining approximately 111.2 miles of the alignment is located in California. Emissions in Nevada have not been quantified as part of this CEQA analysis. This analysis assumes all GHG emissions would occur in California and therefore are compared in total to the MDAQMD significance threshold.

2 **Source**: MDAQMD 2020

Source: Appendix C, Air Quality and Greenhouse Gas Emissions.

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

Less than Significant. Several plans and policies have been adopted to reduce GHG emissions in the Project region, including the State's 2017 Climate Change Scoping Plan, the Southern California Association of Governments' (SCAG) 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS; 2021), the County of San Bernardino Greenhouse Gas Emissions Reduction Plan (2011), and Clark County's Sustainability and Climate Action Plan (2020). SCE is not subject to the SCAG 2020-2045 RTP/SCS or the Clark County's Sustainability and Climate Action Plan because these plans do not address GHG emissions generated by SCE's construction and operational activities. Therefore, the State's 2017 Scoping Plan, the related renewable energy targets established by SB 100 for the Renewables Portfolio Standard Program, and the County of San Bernardino Greenhouse Gas Emissions Reduction Plan (2011) are the primary GHG emission reduction plans applicable to the proposed Project.

As discussed above under checklist item (a), GHG emissions from the proposed Project would not exceed the MDAQMD significance threshold of 100,000 tons per year. Furthermore, one of the key goals of the 2017 Climate Change Scoping Plan is to increase renewable energy use, and Goal GHG EE 2 of the County of San Bernardino Greenhouse Gas Emissions Reduction Plan (2011) focuses on reducing GHG emissions from electricity generation by promoting and supporting the siting of new renewable energy generation facilities. In addition, Measure R3E9 of the County of San Bernardino Greenhouse Gas Emissions Reduction Plan (2011) is to support utility-scale renewable energy siting and transmission lines. The proposed Project would reliably interconnect and integrate multiple renewable generation projects in the Southern Nevada/Eastern California area onto the electric grid. Therefore, because the proposed Project provides infrastructure to support renewable energy development and usage, the Project would be consistent with the 2017 Climate Change Scoping Plan, the related renewable energy targets established by SB 100 for the Renewables Portfolio Standard Program, and the County of San Bernardino Greenhouse Gas Emissions Reduction Plan. Moreover, although these plans are not applicable to SCE activities, the Project would also support the goals and objectives of the SCAG 2020-2045 RTP/SCS and the Clark County's Sustainability and Climate Action related to increasing renewable energy usage. Impacts would be less than significant, and no mitigation is required.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. 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?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
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 that 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?	☐	☐	X	☐

Existing Condition

Environmental hazards include accidental spills of hazardous materials, the presence of existing subsurface contamination, the risk of wildfire, and aircraft safety. Hazardous materials include fuel, oil, and lubricants. If encountered, contaminated soil can pose a health and safety threat to workers or the public. The following discussion addresses existing environmental conditions at and near the LVRAS Project to identify and analyze environmental impacts related to hazards and hazardous materials.

The proposed Project is located in San Bernardino County, California and Clark County, Nevada, within the Mojave Desert. The proposed Project primarily traverses federal lands under the jurisdiction of the BLM, NPS, and DOD. The area of influence for hazards associated with releases of hazardous materials (e.g., spills and leaks), past soil and groundwater contamination, and hazards associated with potential for exposure of workers or the public to unsafe situations would include the proposed Project work areas, adjacent land areas, and roadways adjacent to

and in the vicinity of the Project area. There are no existing or proposed schools within 0.25 miles of the Project area. The proposed Project is within 2 miles of the DAG, and the existing Daggett Construction Yard.

As described in Section 3.20, Wildfire, Segment 1 of the Project alignment passes through Federal Responsibility Areas and Local Responsibility Areas, and no Fire Hazard Severity Zones exist within the Project alignment. The nearest State Responsibility Area to the Project alignment is located approximately 28.2 miles southwest of Segment 1. The nearest Very High Fire Hazard Severity Zone is located approximately 33.8 miles southwest of Segment 1 (California Department of Forestry and Fire Protection [CAL FIRE] 2022b).

Regulatory Setting

Federal

- **Toxic Substances Control Act.** The Toxic Substances Control Act established a program administered by the USEPA for regulating the generation, transportation, treatment, storage, and disposal of hazardous waste. It grants USEPA the authority to develop reporting, record-keeping, and testing requirements for, as well as restrictions on, the manufacture, use, and sale of chemical substances. Section 403 of the Toxic Substances Act establishes standards for lead-based paint hazards in paint, dust, and soil.
- **Resource Conservation and Recovery Act.** Resource Conservation and Recovery Act Subtitle C regulates the generation, transportation, treatment, storage and disposal of hazardous waste by LQGs (1,000 kilograms per month or more) through comprehensive life cycle or “cradle to grave” tracking requirements. The requirements include maintaining inspection logs of hazardous waste storage locations, records of quantities being generated and stored, and manifests of pick-ups and deliveries to licensed treatment/storage/disposal facilities. This act also identifies standards for treatment, storage, and disposal, which is codified in 40 CFR 260.
- **Comprehensive Environmental Response Compensation and Liability Act (CERCLA).** Congress enacted CERCLA, setting up what has become known as the Superfund program, in 1980 to establish prohibitions and requirements concerning closed and abandoned hazardous waste sites; provide for liability of persons responsible for releases of hazardous waste at these sites; and establish a trust fund to provide for cleanup when no responsible party can be identified. Generally, CERCLA authorizes two kinds of response actions:
  - Short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response.
  - Long-term remedial response actions that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening.
- **Superfund Amendments and Reauthorization Act (SARA).** SARA amended CERCLA in 1986, emphasizing the importance of permanent remedies and innovative treatment technologies to clean up hazardous waste sites; requiring Superfund actions to consider the standards and requirements found in other state and federal environmental laws and regulations; providing new enforcement authorities and settlement tools; increasing involvement of the states in every phase of the Superfund program; increasing the focus on human health problems posed by hazardous waste sites; encouraging greater citizen participation in making decisions on how sites should be cleaned up; and increasing the size of the trust fund to $8.5 billion.

- **Hazardous Materials Transportation Act.** The Hazardous Materials Transportation Act is administered by the U.S. Department of Transportation and regulates interstate transport of hazardous materials and wastes. This act contains requirements for hazardous material shipments and packaging, and guidelines for marking, manifesting, labeling, packaging, placarding, and spill reporting. Specific regulations dealing with hazardous materials are covered under Title 49, Part 173 et seq. of the CFR and Title 49, Part 397.
- **Federal Aviation Regulation (49 CFR Part 77).** This Federal Aviation Administration (FAA) regulation establishes standards and notification requirements for objects that may impact navigable airspace. Airports and navigable airspace that are not administered by the DOD are under the jurisdiction of the FAA. This regulation includes: (a) FAA notification requirements for proposed construction, or the alteration of existing structures, that meet specific standards; (b) the standards used to determine obstructions to air navigation, and navigational and communication facilities; (c) the process for aeronautical studies of obstructions to air navigation or navigational facilities to determine the effect on the safe and efficient use of navigable airspace, air navigation facilities or equipment; and (d) the process to petition the FAA for discretionary review of determinations, revisions, and extensions of determinations.

California

Unified Program

California's Unified Program, overseen by CalEPA, protects Californians from hazardous waste and hazardous materials by ensuring local regulatory agencies consistently apply statewide standards when they issue permits, conduct inspections and engage in enforcement activities. The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections and enforcement activities of six environmental and emergency response programs, as listed below:

- Hazardous Materials Release Response Plans and Inventories (Business Plans);
- CalARP Program;
- Underground Storage Tank Program;
- Aboveground Petroleum Storage Act Program;
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs; and
- California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements.

The state agency partners involved in the Unified Program have the responsibility of setting program element standards, working with CalEPA on ensuring program consistency and providing technical assistance to the Certified Unified Program Agencies.

The Certified Unified Program Agency for the Project area in California is the Hazardous Materials Division of the San Bernardino County Fire Department.

California PRC Sections 4292 and 4293

These sections of the PRC specify requirements related to fire protection and prevention in transmission line corridors. PRC Section 4292 states that any person that owns, controls, operates, or maintains any electrical transmission or distribution line has primary responsibility for fire protection of such areas, and shall maintain around and adjacent to any pole or tower that supports a switch, fuse, transformer, lightning arrester, line

junction, or dead end or corner pole, a firebreak that consists of a clearing of not less than 10 feet in each direction from the outer circumference of such a pole or tower (PRC 4292). PRC 4293 states that any person that owns, controls, operates, or maintains any electrical transmission or distribution line upon any mountainous land, or in forest-covered land, or grass covered land that has primary responsibility for the fire protection of such area, shall maintain a clearance of the respective distances.

Nevada

Nevada Administrative Code Chapter 459 – Hazardous Materials

Chapter 459 of the NAC provides regulations for the handling, transportation, disposal, and storage of hazardous materials. Chapter 459 also includes regulations that pertain to storage tanks, explosives, voluntary cleanup of hazardous substances, enforcement actions, spill response, and funding for Brownfield projects. The Nevada Bureau of Corrective Actions operates under the regulations provided in Chapter 445A – Water Controls of the NAC and manages the cleanup of regulated substances following a release. The Bureau of Corrective Actions administers Superfund and Brownfield programs, environmental response programs, and the underground storage tank program for the State. The Bureau also specifies spill reporting requirements and provides current information on a number of active hazardous sites and remediation projects located in the State of Nevada.

Impact Analysis

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

Less than Significant. During construction, the proposed Project would involve the transport, use, and disposal of hazardous materials in quantities that would pose a less than significant threat to the environment or people, including hazardous liquid materials (i.e., fuel). Existing construction yards used for the proposed Project may include fueling stations, generators, trash containers, and portable toilets/restrooms. Normal maintenance and refueling of construction equipment would be conducted at the construction yards. Helicopter fueling would occur at staging areas, local airports, or landing zones determined during final engineering, which would be located primarily within the SCE ROW or along access roads. Fueling would use the helicopter contractor's fuel truck and would be supervised by the helicopter fuel service provider. Petroleum products such as gasoline, diesel fuel, crankcase oil, hydraulic oil, lubricating grease, automatic transmission fluid, lubricants, and cleaning solvents would be used during construction to fuel, lubricate, and clean vehicles and equipment, and would be transported in specialty trucks or in other approved containers. Hazardous materials would be properly stored to prevent drainage or accidental discharge of these materials onto the ground or into drainage areas. The transport, use, and disposal of these hazardous materials would comply with all applicable laws, regulations, and guidelines designed to prevent accidents, injury, or other potential impacts to the public or the environment. All construction waste, including trash and litter, garbage, other solid wastes, concrete washout, petroleum products, and other potentially hazardous materials, would be removed to a disposal facility, authorized to accept such materials. Sanitation waste (i.e., human generated waste) would be disposed of in accordance with sanitation waste management practices.

Minor spills or releases of hazardous materials could occur due to improper handling and/or storage of hazardous materials during construction. However, any potential impacts during construction activities

would be less than significant through implementation of APM HYD-1, which requires implementation of a SWPPP and associated good housekeeping BMPs to reduce risk of spills, and APM HAZ-1, which requires preparation of a Hazardous Materials Management Plan. The Hazardous Materials Management Plan would include safety information regarding the requirements for transport, use, and disposal of hazardous materials in compliance with applicable laws, rules, and regulations. As such, the proposed Project would not create a significant hazard to the public or the environment. Construction impacts related to the routine transport, use, and disposal of hazardous materials would be less than significant.

Project operation would not include transport, use, or disposal of substantial quantities of hazardous materials. O&M activities would be similar to those currently performed by SCE for existing facilities and would be within an existing utility corridor. Once construction is complete, SCE would continue to comply with all hazardous materials laws and regulations in addition to the incorporation of the Hazardous Materials Management Plan outlined in APM HAZ-1 and would not affect hazardous material sites in the area. Any underground cables, overhead fiber optic cables, and associated components such as anchors, would not result in a hazard for people residing or working in the area. Impacts related to the routine transport, use, and disposal of hazardous materials during O&M would be less than significant. No mitigation is required.

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?

Less than Significant. Construction and operation of the proposed Project would not include substantial quantities of hazardous materials and would not create a significant hazard to the public or environment, as discussed in Section 3.9(a) above. Construction of the proposed Project would involve the use of hazardous materials such as lubricants, oils, cleaning solvents, and fuels, and would potentially generate limited quantities of hazardous waste during construction and demolition of existing facilities. All refueling and maintenance activities and storage of fuels and other hazardous materials would be in accordance with the SWPPPs, applicable plans, and federal and State regulations (APM HYD-1). The transport and disposal of hazardous waste would be conducted consistent with applicable State and federal regulations. O&M activities would be similar to those already occurring for the existing transmission lines and associated facilities, including incorporation of a Hazardous Materials Management Plan per APM HAZ-1, and would not result in additional impacts related to upset or accident of hazardous materials. Therefore, with implementation of a SWPPP, BMPs, and Hazardous Materials Management Plan, as specified in APMs HYD-1 and HAZ-1, the proposed Project would result in less than significant impacts related to reasonably foreseeable upset and accident conditions. No mitigation is required.

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 Impact. The proposed Project would not emit hazardous emissions or handle hazardous materials within 0.25 miles of existing or proposed schools. The closest school to Segment 1 of the proposed Project is Newberry Elementary School located off Newberry Road, approximately 2.6 miles north of the Project ROW. The nearest schools to Segment 2 are Baker High School and Baker Elementary School, which are both approximately 17.5 miles northwest in Baker. The nearest schools to the Daggett Construction Yard are Calico High School and Silver Valley High School, both approximately 3 miles west

in the unincorporated community of Daggett. The proposed Project would not emit hazardous emissions or handle hazardous materials within 0.25 miles of any schools. No impact would occur, and no mitigation would be required.

d) Would the project be located on a site that 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?

Less than Significant. Based on a desktop review of California Department of Toxic Substances Control's (DTSC) EnviroStor database (2021) and State Water Resources Control Board (SWRCB) GeoTracker database (2021), including information regarding facilities/sites identified as meeting the "Cortese List" requirements, there are no active hazardous material sites located on or within 1,000 feet of the Project ROW (California Environmental Protection Agency 2021). Therefore, work within the Project alignment would not create a significant hazard to the public or environment.

The Daggett Construction Yard is not located on a documented hazardous materials site. The yard would be used for helicopter take-off and landing, reporting location for crews, vehicle and equipment parking, and material storage. No grading or earthwork activities are proposed at the yard. Approximately 300 feet to the west of the construction yard is the Coolwater Generating Station, located on the Coolwater Substation site. The Coolwater Generating Station is a retired natural gas fired power facility and is categorized as a large quantity generator and a solid waste landfill with an open cleanup status, according to the GeoTracker database (SWCRB 2021). Leaking above-ground storage tanks caused soil contamination, including polychlorinated biphenyls, vanadium and other contaminants of concern (DTSC 2021). As of August 2014, there are no further actions required by the DTSC as a Cleanup Site (DTSC 2021). The Proposed Project would not utilize the Coolwater Generating Station and no ground disturbing activities would occur at this location. Use of the Daggett Construction Yard would not create a significant hazard to the public or environment.

Likewise, the Nipton Construction Yard is not located on a documented hazardous materials site, nor are any hazardous sites within the immediate vicinity. The yard would be used for helicopter take-off and landing, reporting location for crews, vehicle and equipment parking, and material storage. No grading or earthwork activities are proposed at the yard. Therefore, use of the Nipton Construction Yard would not create a significant hazard to the public or environment.

Gale Substation would be used as a construction yard, and a portion of the Segment 1 fiber optic cable would be underground from the substation to 0.67 miles due southeast in the SCE ROW. A Limited Environmental Soil Characterization for Construction Purposes was prepared in December 2015 due to construction proposed at this existing substation. Soil samples were collected, and based on soil analytical results in this report, excavated soil was considered non-hazardous waste with no special handling required for disposal. In addition, PCBs and total petroleum hydrocarbons (TPH) were not detected above practical quantitation limits in soil samples. Further, California Code of Regulations Title 22 metals detected in the soil samples were below the total threshold limit concentration for hazardous waste classification. Use of the Gale Substation would not create a significant hazard to the public or environment related to the presence of known legacy contaminants.

Pisgah Substation would also be used as a construction laydown yard, and ground disturbance is proposed for underground telecom work for Segment 1 within this substation. A Limited Environmental Asphalt Concrete and Soil Characterization for Construction Purposes letter was prepared in March 2016 for work proposed at this existing substation. Based on laboratory results, soil samples collected from boring locations was considered non-hazardous. The soil concentrations of TPH-impacted waste were determined to not require special handling for disposal. Additionally, the asphalt concrete to be demolished as part of the proposed Project was considered non-hazardous waste and would not require special handling for disposal. Much like the Gale Substation report described above, the soil concentrations of metals, TPHs, PCBs, and diesel/oil organics were below applicable thresholds and limits for hazardous waste classification. As a result, use of the Pisgah Substation would not create a significant hazard to the public or environment.

As detailed above, the Project would not be located on known hazardous materials sites that would have the potential to cause a significant hazard to the public or environment. O&M activities would be similar to those already occurring for the existing transmission lines and associated facilities and would not result in additional impacts related to hazardous materials sites. This impact is less than significant, and no mitigation is required.

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?***

Less than Significant. The Project alignment is located approximately 1,200 feet south (at the closest point) of the runways at the DAG. In addition, the proposed Daggett Construction Yard is approximately 2 miles northwest from the DAG. The DAG is a general aviation San Bernardino County airport primarily used by the military and public. Additionally, the Project alignment is approximately 18 miles south of the Baker Airport.

Airport Safety Review Areas are established within airport land use plans to provide greater protection to people, property, and aircraft in areas within close proximity to an airport by establishing development standards for projects within these areas. Development standards include allowable land uses, height limitations, notification requirements, and other requirements to ensure proposed uses within an Airport Safety Review Area do not interfere with aircraft operations. According to the DAG Airport Comprehensive Land Use Plan (County of San Bernardino 1992a), Baker Airport Comprehensive Land Use Plan (County of San Bernardino 1992b), and San Bernardino Countywide Plan Airport and Safety & Planning Map (County of San Bernardino 2020a), the Daggett Construction Yard is outside of an Airport Safety Review Area. Project components adjacent to DAG (i.e., the Project alignment) are within Safety Review Area 3 (AR3), which reflects areas with reduced exposure to aircraft operations and aviation hazards (County of San Bernardino 2020a). According to the DAG Airport Comprehensive Land Use Plan, utilities are normally acceptable in AR3, which means new construction or development is permitted subject to restrictions for public safety.

During construction, the DAG would be used at night and during non-working days to stage helicopter(s) for the proposed Project. Helicopter fueling would occur at staging areas, local airports, or helicopter landing zones, which are located primarily within the SCE ROW or along access roads. Fueling would use the helicopter contractor's fuel truck and would be supervised by the helicopter fuel service provider.

Helicopters would be used to transport equipment and workers to towers along Segment 2, and the nearest structure (M68-T2) is approximately 23.5 miles southeast from DAG. On average, the helicopter would operate approximately 10 hours per day during conductor stringing operations. Helicopter use would comply with all FAA requirements. In addition, the air traffic controllers at airports monitor the flight paths of all aircraft within their zone and coordinate their movement to prevent collisions. After take-off and before landing, helicopter flight paths would be limited to the existing utility alignment and would use previously identified helicopter landing zones near the existing utility corridor. Helicopter operations during construction would not result in a safety hazard for people residing or working in the Project area.

Additionally, the Project site would be within the DAG Airport Hazard Area. Height limitations are imposed on projects within an airport hazard area so that structures or trees do not obstruct the airspace required for the flight of an aircraft in landing or taking off at an airport or are otherwise hazardous to the landing or taking off of an aircraft. Because a portion of the Project site is within 10,000 ft (1.89 mi) of an airport, the Project site falls within the 10,000 ft Federal Air Regulations (FAR) Part 77 Notification Area for DAG and is subject to FAA review. This notification serves as the basis for evaluating the effect of the construction or alteration on operating procedures, determining the potential hazardous effect of the proposed construction on air navigation, identifying mitigating measures to enhance safe air navigation, and charting of new objects (FAA 2020). Notification allows the FAA to identify potential aeronautical hazards in advance, thus preventing or minimizing the adverse impacts to the safe and efficient use of navigable airspace. Therefore, all obstructions, whether permanent or temporary, are subject to the notice requirement outlined in FAR Part 77 (FAA 2020). Under Part 77, power and cable lines and towers would be considered Permanent Construction or Alterations, and staging areas, stockpiles, and construction equipment as Temporary Construction of Alterations, all of which would need to be evaluated and approved by the FAA prior to the commencement of work (FAA 2020). Additionally, the portions of the proposed Project located within 10,000 ft of an airport would be required to comply with Part 77 notification to FAA since the Project would be:

- Within 20,000 ft of a public use or military airport that exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 ft.
- Within 10,000 ft of a public use or military airport that exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 ft.

Four new power poles lining the road near DAG would be installed approximately 1,200 feet to the south of the runway and two new poles would be installed approximately 4,000 feet southeast of the runway, and therefore would be subject to FAA review. However, none of these poles would be in the direct flight path for takeoff or landings. In addition, Proposed infrastructure modifications or additional Project components (e.g., replacement poles) would not increase the heights of existing structures or add new obstacles to aircraft. Regardless, FAR Part 77 notification is required to be submitted to the FAA prior to Project construction, as specified in APM HAZ-2. The FAA would conduct its own analysis related to proposed construction activities and structures in the vicinity of airports and may request alterations or limitations to construction methods; redesigning the proposed structures near the airports to reduce the height of such structures; marking of the structures, including the addition of aviation lighting; or placement of marker balls on wire spans. SCE would evaluate the FAA recommendations for reasonableness and feasibility, and in accordance with Title 14 Part 77, SCE may petition the FAA for a discretionary review of its determination to address any issues with the FAA determination. FAA agency determinations for permanent structures typically are valid for 18 months, and therefore the FAA

notifications would be filed upon completion of final engineering and before construction commences. Compliance with FAA regulations and recommendations reduces the potential for aviation safety hazards related to Project construction. Therefore, because APM HAZ-2 is already built into the Project and with approval from the FAA, impacts related to hazards outlined in FAR Part 77 would be less than significant.

As discussed in Section 3.1, Aesthetics, Project construction and operation would not introduce a source of light or glare that could interfere with aircraft operations in the vicinity of the DAG. Nighttime construction work is not anticipated for the proposed Project; however, if temporary lighting is required, portable light standards would be placed along the perimeter of the work area as necessary. The light standards would be shielded, resulting in light being directed downward and inward (toward the work). Therefore, light and glare would not interfere with or pose a safety hazard to aircraft operations.

O&M activities for the new Project components would be similar to those occurring for the existing facilities. Helicopters are periodically used to inspect existing SCE utility facilities and would continue to be used during O&M to perform aerial inspections of the Project infrastructure. Helicopter flight paths would continue to follow existing flight paths, which are generally limited to the SCE ROW. O&M activities requiring the use of a helicopter would be coordinated with the FAA and local air traffic control prior to commencement in a similar manner, consistent with current procedures. No additional impact related to airport safety would occur due to O&M activities. Therefore, during O&M, the Project would not result in a safety hazard for people residing or working in the Project area. Overall, construction, operation, and maintenance impact related to airport safety hazards would be less than significant, and no mitigation would be required.

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

Less than Significant. San Bernardino County and Clark County (in Nevada) have developed emergency operations plans that describe the emergency response actions the counties would take in the event of an emergency or natural disaster, including a wildfire (County of San Bernardino and San Bernardino County Fire Department 2013; Clark County 2019). The designated evacuation routes in the vicinity of the Project alignment are the I-15 and I-40 (County of San Bernardino 2017). Construction and O&M activities and access associated with the Project would be limited to the existing utility corridor, existing nearby roads where feasible, construction laydown yards, temporary helicopter landing zones and guard pole areas, and existing substations. The proposed Project would be located within an existing utility corridor and would not impact the use of evacuation routes or interfere with implementation of an emergency operations plan or emergency evacuation plan. Segment 1 would cross I-40 overhead in two locations; however, guard structures would be set up adjacent to the major highway and would not result in a road closure of I-40 in these two areas. In addition, SCE is required to obtain an encroachment permit from Caltrans and the California Highway Patrol for work by the highway. Segment 2 is not located along the I-15 or I-40, or any other evacuation routes. Therefore, the proposed Project would not physically interfere with these evacuation routes or with adopted emergency evacuation plans. In addition, SCE would implement traffic control protocols and a Project-specific traffic plan as specified in APM TR-1, to reduce interference with an adopted emergency response or evacuation plans. Additionally, as specified in APM TR-1, SCE would coordinate with local county and city authorities, including emergency responders. Construction impacts to an emergency evacuation plan within San Bernardino

County would be less than significant with implementation of the Construction Traffic Control Plan (APM TR-1), which would establish emergency access around active construction. Therefore, construction of the proposed Project would not physically interfere with evacuation routes, adopted emergency response plans, or adopted emergency evacuation plans and impacts would be less than significant.

O&M activities would be similar to those occurring in the existing condition. O&M activities would generally not occur in roadways; however, O&M activities associated with the proposed Project may infrequently require temporary lane closures to allow access. This occurrence would be the same as for existing facilities. No additional impact would occur because of operating and maintaining the Project. No mitigation is required.

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

Less than Significant. As stated in the Existing Condition of Section 3.20, Wildfire, the proposed Project alignment is not located within or near a Very High Fire Hazard Severity Zone (CAL FIRE 2022b). Although the Project is not within or near a Very High Fire Hazard Severity Zone, three fires have occurred within a 5-mile radius of the Project alignment since 1950. The primary function of the proposed Project is to prevent thermal overloading of the existing Lugo-Victorville 500 kV Transmission Line, which would help to reduce fire risk compared to existing conditions. The proposed Project would not result in the installation of new utilities that would exacerbate fire risk. However, it is possible for the proposed Project to indirectly expose construction personnel to a naturally occurring wildland fire should one occur during construction. The proposed Project would implement APM WF-1, which would implement a Fire Prevention and Emergency Response Plan. The Fire Prevention and Emergency Response Plan would mandate fire safety training for SCE personnel and require implementation of fire suppression and communication equipment during construction, thereby providing the training and tools necessary to minimize fire risk. In addition, the Fire Prevention and Emergency Response Plan would include coordination procedures with federal and local fire officials in the event of a wildland fire, and post-construction fire prevention and response measures. Additionally, the proposed Project would implement APM TR-1, which would establish a Traffic Management Plan that would detail emergency access for emergency response vehicles during active construction. Because APM TR-1 and APM WF-1 are already built into the proposed Project, the proposed Project would not indirectly expose people or structures to a significant risk of loss, injury, or death involving wildland fires and impacts would be less than significant.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐

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

Existing Condition

The proposed Project is located within the Mojave Desert, which is characterized by high aridity, low precipitation, hot summers, and cool winters. Most rainfall occurs during the winter months, or in association with summer thunderstorms, which tend to be of shorter duration and higher intensity than winter storms. Within the Mojave Desert, annual precipitation ranges from approximately 3.5 inches at lower elevations to approximately 10 inches in mountainous regions (NPS 2022). There are no mapped 100-year flood hazard areas within the Project area, and the Project area is not near any lakes or other water bodies.

Groundwater Resources

The proposed Project is within the Lower Mojave River Valley Groundwater Basin (Basin 6-40), Cronise Valley Groundwater Basin (Basin 6-35), Caves Canyon Valley Groundwater Basin (Basin 6-38), Silver Lake Valley Groundwater Basin (Basin 6-34), and Upper Kingston Valley Groundwater Basin (Basin 6-22), all of which are

within the South Lahontan Hydrologic Region (California Department of Water Resources [DWR] 2003, 2015). None of the groundwater basins in the region are managed under a Groundwater Sustainability Plan under the Sustainable Groundwater Management Act (SGMA), because they are all considered "low priority" or "very low priority" basins by DWR, based on the low degree of domestic/agricultural and urban water demand (DWR 2019). The Lower Mojave River Groundwater Basin, which is where the majority of the Project alignment is located, is transected by the Camp Rock-Harper Lake, Calico-Newberry, and Pisgah fault zones, which form barriers or partial barriers to ground water flow (DWR 2003). Groundwater levels have been declining in wells within the basin, and most of the businesses, homes, and farms in the area derive their water supply from groundwater. In the vicinity of Segment 1, the Mojave Water Agency (MWA) delivers water from the State Water Project to groundwater recharge sites to supplement natural water supplies (MWA 2012). The MWA proposes three strategies to reduce or eliminate the decline of water levels: water conservation, water supply enhancement, and water allocation. Along Segment 1, the depth to groundwater ranges from approximately 90 feet below ground surface (bgs) to 140 feet bgs on the east side and 55 feet bgs at Troy Dry Lake (MWA 2012). In accordance with SGMA, groundwater levels along the eastern portion of Segment 2 are low priority for monitoring (DWR 2019). Historic levels in groundwater basins in the Segment 2 area range widely from 12 to 142 feet bgs (DWR 2003).

Surface Water Resources

The proposed Project is located within two watersheds: Mojave River [Hydrologic Unit Code: 18090208) and Ivanpah-Pahrump Valleys (Hydrologic Unit Code: 16060015)]. The Mojave River watershed contains the Mojave River, the headwaters of which begin in the San Bernardino Mountains and flow north through Victorville and Helendale then flow east through Barstow to terminate south of Soda Lake near Baker. Soda Lake is an isolated, dry lakebed. Drainages identified within the Ivanpah-Pahrump Valleys watershed flow into Ivanpah Dry Lake, which is approximately 13 square miles and is located in the center of the watershed. This watershed is a gently sloping north-trending watershed.

A formal jurisdictional delineation was conducted to map the area, type, and location of all potential jurisdictional waters under the regulatory purview of the USACE, RWQCB, CDFW, and NDEP (Artemis 2021b). The delineation survey area included all work areas plus a 25-foot buffer. Approximately 56.33 acres of waters of the United States are present in the form of ditches, canals, and ephemeral streambeds. Approximately 83.18 acres of waters of the State are present and include isolated basins, diversion ditches, and roadside ditches. Approximately 92.99 acres of ephemeral streambanks are present within the Project area in California, and an additional 2.43 acres is within the Project area in Nevada.

Regulatory Setting

Federal

Clean Water Act

Congress enacted the Clean Water Act (CWA), 33 U.S.C. Section 1251 et seq., formerly the Federal Water Pollution Control Act of 1972, with the intent of restoring and maintaining the chemical, physical and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain and restore water quality through the regulation of point source and non-point source discharges to surface water and the setting of water quality standards (CWA Section 303). Point source discharges are regulated by the National

Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). NPDES permitting authority is administered by the State Water Resource Control Board (SWRCB) and the nine RWQCBs (CWA Section 401).

Under Section 303(d) of the CWA, States are required to develop and update a list of all water bodies under their jurisdiction that fail to meet water quality standards even after point sources of pollution have utilized the minimum levels of pollution control These are referred to as '303(d) impaired' bodies. Jurisdictions must establish priority rankings for 303(d) impaired water bodies and develop action plans to improve water quality to minimum standards. The plans include the setting of Total Maximum Daily Loads (TMDLs) for the pollutants that are impairing the water bodies; these limits are stricter than the normal minimum standards in order to bring the impaired bodies into compliance over time.

Under Section 401 of the CWA, the RWQCBs have regulatory authority over actions in waters of the United States through the issuance of water quality certifications, which are issued in conjunction with any federal permit (e.g., permits issued by the USACE under Section 404 of the CWA, described below). This section requires the issuance of certification by the RWQCB that state water quality standards will not be violated.

Section 402 of the CWA requires that direct and indirect discharges and stormwater discharges into waters of the United States be pursuant to a NPDES permit for industrial or construction activities. NPDES permits contain industry-specific, technology-based limits and may include additional water quality-based limits, and pollutant-monitoring requirements. An NPDES permit may include discharge limits based on Federal or State water quality criteria or standards.

Section 404 of the CWA authorizes the USACE to regulate the discharge of dredged or fill material to the waters of the United States and adjacent wetlands. Discharges to waters of the United States must be avoided where possible and minimized and mitigated where avoidance is not possible.

California

Construction Stormwater General Permit

In California, the SWRCB Storm Water Program Construction General Permit (General Construction Storm Water Permit) required by the federal Clean Water Act regulates stormwater runoff from construction sites of 1 acre or more in size. The Construction General Permit is a statewide, standing permit. Qualifying construction activities, which would include the Proposed Project, must obtain coverage under the permit by filing a Notice of Intent with the Regional Water Quality Control Board, and through the development of and compliance with a Storm Water Pollution Prevention Plan (SWPPP) describing BMPs to protect stormwater runoff. The SWPPP must contain a visual monitoring program, a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs, and a sediment monitoring plan if the site discharges directly to a water body listed on the Section 303(d) list for sediment.

The General Permit prohibits the discharge of pollutants except stormwater and non-stormwater discharges authorized by the General Permit or another NPDES permit. It also prohibits all discharges that contain a hazardous substance in excess of reportable quantities established in 40 C.F.R. Sections 117.3 and 302.4 (pursuant to Section 311 of the Clean Water Act), unless a separate NPDES Permit has been issued to regulate those discharges. In addition, the General Permit incorporates discharge prohibitions contained in water quality control plans implemented by the nine Regional Water Boards. Discharges to Areas of Special Biological

Significance are prohibited unless covered by an exception that the State Water Board has approved. Authorized non-stormwater discharges must be infeasible to eliminate; comply with BMPs as described in the SWPPP; filtered or treated using appropriate technology; meet the established numeric action levels for pH and turbidity; and not cause or contribute to a violation of water quality standards. Discharges to stormwater that cause or threaten to cause pollution, contamination, or nuisance are prohibited. Pollutant controls must use best available technology economically achievable (BAT) for toxic pollutants and non-conventional pollutants and best conventional pollutant control technology (BCT) for conventional pollutants.

The CWA provides definitions for the types of controls that can be used to satisfy BAT and BCT requirements. Specific BAT and BCT pollution controls and BMPs may include runoff control, soil stabilization, sediment control, proper stream crossing techniques, waste management, spill prevention and control, and a wide variety of other measures depending on the site and situation.

California Fish and Game Code

Sections 1600 through 1617 of the California Fish and Game Code protects the natural flow, bed, channel, and bank of any river, stream, or lake designated by the CDFW where there is, at any time, any existing fish or wildlife resources, or benefit for the resources. A Lake and Streambed Alteration Agreement is required between the CDFW and an entity proposing to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake. The Lake and Streambed Alteration Agreement is designed to protect the fish and wildlife resources of a river, stream, or lake.

Porter-Cologne Water Quality Control Act

The Porter Cologne Water Quality Control Act of 1967, Water Code Section 13000 et seq., requires the SWRCB to adopt water quality criteria to protect State waters. Each Regional Water Quality Control Board (RWQCB) has developed a Water Quality Control Plan (Basin Plan) specifying water quality objectives, beneficial uses, numerical standards of pollution concentrations, and implementation procedures for Waters of the State. Waters of the State is defined by the Porter Cologne Water Quality Control Act as “any surface water or groundwater, including saline waters, within the boundaries of the State.” General objectives of the Basin Plans state that all waters (of the State) shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in, human, plant, animal, or aquatic life. The water quality control plans are intended to protect designated beneficial uses of waters, avoid altering the sediment discharge rate of surface waters, and avoid introducing toxic pollutants to the water resource. The Porter Cologne Water Quality Control Act requires anyone proposing to discharge waste that could affect the quality of the waters of the State to report the waste discharge to the appropriate RWQCB.

Sustainable Groundwater Management Act

In September 2014, Governor Brown signed legislation requiring that California’s critical groundwater resources be sustainably managed by local agencies. The SGMA gives local agencies the power to sustainably manage groundwater, provides for the creation of regional Groundwater Sustainability Agencies (GSAs) and requires GSPs to be developed for medium- and high-priority groundwater basins, with plans immediately being developed for basins deemed in ‘critical overdraft’ (DWR 2019).

Nevada

Construction Stormwater General Permit

In Nevada, the NDEP's Bureau of Water Pollution Control (BWPC) issues the Construction Stormwater General Permit (NVR100000) to control and reduce pollution to Waters of the State that meet the definition of waters of the United States. The State of Nevada requires that projects disturbing 1 or more acres must obtain a Construction Stormwater General Permit. This construction permit is also required for projects that disturb less than 1 acre and are part of a larger common plan for development or sale that would ultimately disturb 1 acre or more. In addition, if NDEP determines that a project less than 1 acre in size will impact receiving waters or tributaries within a 0.25-mile radius of the project, the owner/operator of the project will also be required to obtain a Construction Stormwater General Permit.

Nevada Revised Statutes 445A

The Nevada BWPC Permits Branch issues and renews discharge permits, which define the quality of the discharge necessary to protect the waters of the State. Waters of the State are defined in NRS 445A.415 as "all waters situated wholly or partly within or bordering upon this State, including but not limited to:

- All streams, lakes, ponds, impounding reservoirs, marshes, water courses, waterways, wells, springs, irrigation systems and drainage systems; and,
- All bodies or accumulations of water, surface and underground, natural or artificial."

Depending on the types of regulated discharges, the duration, and the waters that may potentially be impacted, the BWPC may issue individual, general, or temporary permits. Individual permits are issued by the BWPC in consideration of the following types of waters:

- Discharges to surface water bodies that are permitted under the NPDES program pursuant to Section 402 of the federal CWA as amended and the State of Nevada Water Pollution Control Law (NRS 445A.300- 445A.730).
- Discharges that may impact subsurface waters, and other waters of the State that are not covered under the NPDES permits, are permitted pursuant to Water Pollution Control Law and referred to as the State's Water Pollution Control permits.
- Injections of fluids underground for storage or disposal, as authorized pursuant to Section 1422 of the Safe Drinking Water Act and the State Water Pollution Control Law, are permitted under the Underground Injection Control Program.

Impact Analysis

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant. Construction of the proposed Project would involve minimal clearing and leveling of construction sites, trenching for conduit installation, use of an auger for replacement wood pole installation, possible horizontal directional drilling for installation of underground telecommunication lines, installation of new electrical equipment at three substations, installation of new ADSS, OFNR, and

OPGW, and minor improvements to existing access roads. Ground-disturbing activities increase erosion and subsequent sediment transport downstream either overland or within watercourses. Disturbed sediment could enter watercourses and increase turbidity and alter of channel characteristics, which could contribute to water quality impairments and reduce beneficial uses. Trash and debris from construction could be left and transported to watercourses to the detriment of surface water quality. Construction would involve the use of hazardous materials such as vehicle fuel, hydraulic fluid, oil, grease, solvents, and concrete that if spilled or otherwise discharged to the ground surface could contaminate stormwater, surface water, and groundwater.

Potential impacts to water features would be minimized through the implementation of applicant proposed measures, and SCE would obtain permits as needed for permanent impacts to jurisdictional features. Construction activities within drainages would be avoided to the extent feasible; however, the proposed Project would require access to wire-setup or pulling locations that involves crossing drainages. Indirect impacts (i.e., through polluted runoff from equipment staging areas, helicopter landing zones, and/or construction work sites along the alignment) would be avoided or substantially minimized through implementation of a SWPPP and Hazards Materials Management Plan (described further below). Phases of work would proceed incrementally along the alignment so that areas of active construction work would generally be limited in any one place and time, further minimizing potential impacts on stormwater runoff.

As shown in Table 3, the proposed Project would require approximately 8,515 feet of trenching for underground conduit. However, the trench for underground conduit would be approximately 18 inches wide and 36 inches deep, which would not be deep enough to impact the groundwater table that sits approximately 50 feet bgs. Additionally, the disturbance area for the trench would be repaved and/or restored following construction. Therefore, trenching activities would not result in degradation of groundwater quality.

Areas with the greatest potential for impacts on water quality standards (which in this case consist of the water quality objectives within the Water Quality Control Plan for the Lahontan Region) would consist of construction yards, helicopter landing zones, and any vehicle refueling and maintenance areas within those yards along the Project alignment. There is the potential for heavy downpours and runoff events associated with summertime monsoonal moisture, or unusually strong winter storm events, which could result in stormwater runoff. However, during most times of the year, the region has a very low probability of rainfall that would be sufficient enough in magnitude to produce runoff.

Discharge of pollutants to waters of the United States is regulated under the Clean Water Act (CWA), which states that discharge of pollutants from any point source is unlawful unless the discharge is in compliance with a NPDES permit. Similarly, the discharge of waste to waters of the United States may not occur without a WDR or a waiver of a WDR. Construction projects that disturb greater than 1 acre of soil and discharge to waters of the United States are subject to regulation under the General Permit for Discharges of Storm Water Associated with Construction Activity and Land Disturbance Activities, or more commonly known as the Construction General Permit (CGP, 2009-0009-DWQ [as amended] – General Permit No. CAS000002). The proposed Project would impact 1 or more acre of soil and may be required to obtain coverage under the General Construction Permit if USACE determines that the drainages within the Project site discharge to waters of the United States and are under USACE jurisdiction. The Construction General Permit requires the preparation of a SWPPP, which would require implementation of construction BMPs to prevent and minimize potential erosion, sedimentation, and spills. Regardless of

whether not coverage under the Construction General Permit is required, SCE is committed to implementing a SWPPP and construction BMPs during construction within California, as specified in APM HYD-1. Additionally, as detailed in APM HYD-1, for work within Nevada, compliance with the 2015 Construction Stormwater General Permit (NVR100000) also requires preparation of a SWPPP and implementation of construction BMPs during construction within Nevada.

The SWPPP would specify erosion control BMPs that would be implemented during construction to minimize impacts related to erosion and sedimentation. While activities such as minor soil disturbance, and on-site stockpiling of materials and construction equipment could occur during Project construction, typical BMPs relevant to Project construction, such as silt fencing, fiber rolls, and protection of storm drain inlets, which would be identified within the SWPPP, would be implemented as needed to reduce impacts to water quality. In addition, MM-BIO-7 requires measures to minimize temporary impacts to jurisdictional waters, including delineating work areas to avoid encroachment into jurisdictional areas, limiting work in jurisdictional areas to the dry season, and prohibiting equipment and storage areas within jurisdictional areas. Because APM HYD-1 is already built into the proposed Project, the impact of construction-related water quality degradation from soil erosion and sedimentation would be less than significant.

Trash and debris from construction could be left and transported to watercourses to the detriment of surface water quality. Good Housekeeping BMPs specified in the SWPPP (APM HYD-1) would also include trash management activities. Because APM HYD-1 is already built into the proposed Project, construction impacts related to degradation of water quality from trash and debris would be less than significant.

Accidental spills or disposal of potentially harmful materials used during construction could occur during refueling or because of equipment damage. Small amounts of liquids, including diesel fuel, gasoline, lubrication oil, hydraulic fluids, anti-freeze, and lubricating grease potentially could wash into and pollute surface waters or groundwater. As required by APM HAZ-1, all hazardous waste would be properly handled, stored, and disposed of in compliance with the Hazardous Materials and Waste Management Plan to minimize the probability of a spill event occurring. In addition, APM HYD-1 requires preparation of a SWPPP and implementation of construction BMPs, which would include Good Housekeeping BMPs to reduce risk of spills. With implementation of applicable laws and these measures already built into the proposed Project, construction impacts related to degradation of water quality from spills would be less than significant.

O&M activities would be similar to those for the existing lines and consist of inspections, testing, repairs of equipment, washing of equipment, brush and weed control, roadway maintenance, and other routine activities. These same activities are currently ongoing and would therefore not be a new impact. Further, in compliance with MM-BIO-11, temporary disturbance areas would be restored to avoid permanent land disturbance that could be a potential a source of erosion and sedimentation. O&M impacts would therefore be less than significant. No mitigation is required.

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?

Less than Significant. Groundwater resources would not be affected by dewatering activities associated with the proposed Project. Groundwater is unlikely to be encountered during trenching for the underground portion of the alignment or for installation of new anchors because the depth to groundwater along the alignment is generally more than 50 feet bgs while excavated areas would be less than 10 feet deep. Therefore, groundwater dewatering would not be required.

Project construction water use would generally be limited to dust suppression during travel along existing dirt access roads, minimal clearing and leveling required for construction areas during ADSS and OPGW stringing, trench excavation for OFNR installation, and vehicle and structural materials washing. Water use is estimated at 185,290 gallons per day on average which, over the 12-month construction period, would amount to a total of 180 acre-feet. The Project would obtain water from regional water agencies and local municipal sources that have enough supplies to serve the Project. The municipal supplies may come from either groundwater or surface water sources, or a combination of both, depending on the water agency, and there are no applicable groundwater management plans for these subbasins because of their low priority status.

It is expected that water for the proposed Project would be provided by Golden State Water Company, or by another purveyor with available capacity. The Golden State Water Company has a total supply of 14,408 acre-feet per year through the year 2045, and therefore would have enough water to accommodate 180 acre-feet of water that would be used by the proposed Project (Golden State Water Company 2021). Each water agency is responsible for managing groundwater resources to ensure sufficient water supply is available. With the water provided by regional water agencies and local municipal sources with available capacity the Project would not require additional direct extraction of groundwater. For these reasons, the Project would not result in substantial depletion of groundwater supply and recharge and impacts would be less than significant.

During operation, activities would be similar to those currently in place, leading to no new impact. O&M operations are not expected to use large amounts of water, which when needed would be obtained from municipal water suppliers, and the amount of water to be used during O&M will be approximately the same as is currently used. The only impervious surfaces created by the proposed Project would be for manhole covers, and these would not cause a substantial decrease in water infiltration into the groundwater basins. For these reasons, O&M would not result in substantial depletion of groundwater supply and recharge and impacts would be less than significant.

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 which would:

Less than Significant. The proposed construction activities would not substantially alter the drainage patterns of the Project area through alteration of drainage courses because ground disturbance and work within drainages would be minimized to the extent feasible. Minimal erosion would occur from installation of new poles, installation of underground conduit and associated manholes, wire-set-up and pulling

locations, and overland travel. Temporary crossings have been sited to avoid or minimize impacts to drainages and vegetation to the greatest extent possible. Any overland travel would not substantially alter the existing drainage pattern on site. Potential impacts to water features would be minimized through the implementation of applicant proposed measures and mitigation measures MM-BIO 7, MM-BIO-11, and SCE would obtain permits as needed for permanent impacts to jurisdictional features. SCE's construction methodology minimizes grading; overland travel will be primarily "drive and crush". Implementation of APM HYD-1 would further reduce erosion and sedimentation that potentially may occur from Project activities.

Direct impacts would result from the installation of manholes in the unpaved road shoulder, which would result in a negligible increase of impervious surfaces. There are no other features associated with the proposed Project that would increase impervious surfaces. The manhole covers, which measure 4 feet by 4 feet, would not increase stormwater runoff in a manner that would result in flooding on or off site or exceed existing storm water drainage systems because the increase would be minor due to the small size of the manholes, there are no storm water drainage systems present in the area, and the surrounding soils and vegetation are adequate to absorb any minor increase in stormwater runoff. Impacts on the drainage pattern of the site and areas surrounding the existing SCE ROW would be less than significant.

During O&M, workers and equipment would use existing access or spur roads. Drainage across these features is at grade. The existing drainage pattern would not be affected. Impacts related to alteration of drainage patterns would be less than significant and no mitigation is required.

i) Result in substantial erosion or siltation on- or off-site?

Less than Significant. Minimal erosion would occur from the installation of new poles, underground conduit, manholes, wire-set-up, and overland travel. Measures have been implemented to minimize impacts to drainages and vegetation. The implementation of APM HYD-1 further reduces erosion and sedimentation potential. Therefore, substantial erosion or siltation is not expected.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Less than Significant. The installation of manholes in the unpaved road shoulder would result in a negligible increase of impervious surfaces. However, due to the small size of the manholes, the absence of stormwater drainage systems in the area, and the ability of surrounding soils and vegetation to absorb any minor increase in stormwater runoff, there would be no substantial increase that would lead to flooding on or off site.

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?

Less than Significant. There are no stormwater drainage systems present in the area associated with the proposed Project. The increase in stormwater runoff from the installation of manhole covers would be minor and adequately absorbed by the surrounding soils and vegetation. Therefore, there would be no substantial additional sources of polluted runoff or exceeding the capacity of existing or planned stormwater drainage systems.

iv) Impede or redirect flood flows?

Less than Significant. The response does not mention any activities that would impede or redirect flood flows. It states that impacts related to the alteration of drainage patterns would be less than significant, and no mitigation is required. Therefore, the proposed construction activities would not impede or redirect flood flows.

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

Less than Significant. The proposed Project is not located within a 100-year flood hazard area (the area is not mapped by the Federal Emergency Management Agency [FEMA]) (FEMA 2018). However, the Project alignment in Segment 1 would cross a 100-year DWR Awareness Floodplain in four locations (DWR 2021). SB 5, enacted in 2007, authorized DWR to develop 100- and 200-year floodplain maps, which supplement the available FEMA FIRM maps. The proposed Project is not located near any lakes or other bounded water bodies and is more than 105 miles from the ocean at its closest; therefore, the Project is not at risk of inundation from seiche or tsunami.

Because the Project alignment is in a location subject to flooding during storm events, there is a potential risk of release of pollutants during construction. However, as discussed in Threshold 10a, above, a SWPPP would be prepared as specified in APM HYD-1. The SWPPP would require implementation of Good Housekeeping measures to reduce risk of spills and release of pollutants during a storm event. Additionally, a Hazardous Materials Management Plan, would be prepared and implemented as specified in APM HAZ-1. The Hazardous Materials Management Plan would reduce risk of pollutants release by ensuring proper hazardous materials handling, use, storage, disposal, and waste management during Project construction. With implementation of a SWPPP and construction BMPs, impacts related to risk of release of pollutants would be less than significant.

O&M activities would consist of short-term periodic site visits to inspect and repair facilities. These activities would not increase the risk of pollutants being released due to inundation and no mitigation is required.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant. The proposed Project includes upgrades to existing distribution and transmission lines and would not conflict with or obstruct implementation of a water quality control plan or groundwater management plan. The proposed Project crosses the Mojave River Watershed but does not affect any urban areas that are included in the Phase II Small Municipal Separate Storm Sewer Systems (MS4s) General Permit for the Mojave River Watershed. Potential impacts to water features would be minimized through the implementation of applicant proposed measures. SCE would obtain permits as needed for permanent impacts to jurisdictional features, and construction activities within drainages would be avoided to the extent feasible. In addition, APM HYD-1 requires preparation of a SWPPP and implementation of construction BMPs, which would include Good Housekeeping BMPs to ensure the proposed Project would not conflict with the Mojave River Watershed Water Quality Management Plan. The Mojave National Preserve Water Resources Management Plan seeks to provide groundwater at safe

yields to maintain wildlife from springs, seeps, water diversions, and artificial water sources (NPS 2018). The Project would not require the additional direct extraction of groundwater during construction or operation and would not affect groundwater resources. In addition, as discussed in Threshold 10b, the Project would obtain water for dust suppression from regional water agencies and local municipal sources that have enough supplies to serve the Project. Therefore, it would not conflict with or obstruct any groundwater management plans including the MNP Water Resources Management Plan. The proposed Project is also not anticipated to conflict with the Clark County 208 Area-Wide Water Quality Management Plan for the portion of the Project alignment located in Clark County, Nevada. Finally, none of the groundwater basins in the region are managed under a Groundwater Sustainability Plan under SGMA, because they are all considered "low priority" or "very low priority" basins by DWR, based on the low degree of domestic/agricultural and urban water demand (DWR 2019).

O&M activities would consist of short-term periodic site visits to inspect and repair facilities. These activities would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan and no mitigation is required. O&M operations are not expected to use large amounts of water, which when needed would be obtained from municipal water suppliers, and the amount of water to be used during O&M will be approximately the same as is currently used. Therefore, the potential impacts would be less than significant with no mitigation required.

3.11 Land Use and Planning

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. 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?	☐	☐	☒	☐

Existing Condition

The majority of the Project area is within undeveloped open space that is managed by the BLM, DOD, NPS, and SLC, and private lands, or is within the jurisdiction of San Bernardino County, California and Clark County, Nevada. Approximately 1 mile of Segment 1 of the proposed Project would cross DOD land. Approximately 22 miles of Segment 1, and 4 miles of Segment 2, would be located on private land within the unincorporated area of San Bernardino County. The Project area encompasses land with various land use designations Land use zoning designations along Segment 1 include Rural Living (RL and RL-5), Resource Conservation (RC), Community Industrial (IC), General Commercial (CG), Multiple Residential (RM), Neighborhood Commercial (CN), Highway Commercial (CH), and Institutional (IN) (County of San Bernardino 2020a). Land use zoning designations for

Segment 2 include RC, R-U, and SD-RES (Special Development). The Project area in Clark County located entirely on land managed by the BLM and is within the O-S District, designated as Open Lands land use designation (Clark County Department of Comprehensive Planning 2013).

Approximately 5.7 miles of Segment 1, and 26 miles of Segment 2, are located on BLM managed lands with various land designations. The Project area is within BLM land managed under the California Desert Conservation Area, as amended by the Desert Renewable Energy Conservation Plan Land Use Plan Amendment. Thus, the proposed Project would be subject to Conservation and Management Actions determined by BLM in its review under NEPA.

The California Desert Protection Act established the Mojave National Preserve, which covers approximately 1.6 million acres. Approximately 51 miles of Segment 2 are located within the Mojave National Preserve. Providence Mountains State Recreation Area, the University of California Natural Reserve System's Sweeney Granite Mountains Desert Research Center, and California State University's Desert Studies Center at Soda Springs are also within the preserve's boundaries. Additionally, approximately 700,000 acres of the Mojave National Preserve is designated wilderness, including the Mojave Wilderness.

Regulatory Setting

Federal

Federal Land Policy and Management Act. The FLPMA provides a regulatory framework for the management and use of BLM resources. An important aspect of the FLPMA is that it supports multiple uses on public lands. In addition, under the FLPMA, the BLM regulates ROWs for electrical power generation, transmission and distribution systems, systems for the transmission and reception of electronic signals and other means of communication, pipelines (other than oil and gas), railroads, highways, and other facilities or systems developed in the interest of the public. The FLPMA also designated the approximately 26-million-acre California Desert Conservation Area in Southern California, of which approximately 10.4 million acres are administered by the BLM. Lands in the California Desert Conservation Area are also managed by the NPS and DOD.

California Desert Conservation Area Plan. The CDCA Plan is a comprehensive, long-range plan for the management, use, development, and protection of lands within the CDCA, and it is required as part of the FLPMA and implemented by the BLM. The CDCA Plan contains an Energy Production and Utility Corridors Element, in which the BLM encourages applicants for utility ROWs to use designated corridors. The Desert Renewable Energy Conservation Plan Land Use Plan Amendment is focused on 10.8 million acres of public lands in the desert regions of seven California counties – Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego. It is a landscape-level plan that streamlines renewable energy development while conserving unique and valuable desert ecosystems and providing outdoor recreation opportunities. The BLM signed the Record of Decision approving its Land Use Plan Amendment to the CDCA Plan on September 14, 2016. The BLM Plan Amendment covers the 10 million acres of BLM-managed lands in the DRECP plan area and supports the overall renewable energy and conservation goals of the DRECP. No state or local agency, including CDFW, has adopted or approved the DRECP. CDFW recognizes the DRECP under federal law as a land use plan for BLM. It is also a relevant regional plan for purposes of CDFW's lead agency review of the proposed Project under CEQA, including the DRECP's landscape-level focus on the conservation of, among other things, unique desert ecosystems in the plan area, which includes the Project alignment.

California Desert Protection Act of 1994. The California Desert Protection Act of 1994 is a federal law that established Death Valley National Park, Joshua Tree National Park, and the Mojave National Preserve in California. Section 511 Utility Rights of Way states that SCE activities within the ROW of the Mojave National Preserve are to remain valid. This includes upgrades to the existing electrical transmission line to increase capacity.

Mojave General Management Plan. The Mojave General Management Plan, the management strategy for the Mojave National Preserve, was developed as a requirement of the California Desert Protection Act of 1994 and is implemented by the NPS. The Mojave General Management Plan notes that some existing land uses such as electric transmission lines do not conform well with the preservation mission and management goals but are authorized pre-existing uses. The Plan identifies these resources to recognize their existence as non-conforming uses that dissect the park and at times may interfere with the visitor experience. The management philosophy towards these developments is to minimize their intrusion and manage towards their eventual elimination, either through technological improvements or acquisition.

Local

San Bernardino County Countywide Plan

The San Bernardino County Countywide Plan Infrastructure and Utilities Element provides guidance on the development and expansion of infrastructure and utilities projects. Goal IU-5, Power and Communications, seeks to ensure unincorporated area residents and businesses have access to reliable power and communication systems. Relevant policies under Goal IU-5 include the following (County of San Bernardino 2020a):

Policy IU-5.1 Electricity and natural gas service. We partner with other public agencies and providers to improve the availability and stability of electricity and natural gas service in unincorporated communities.

Policy IU-5.4 Electric transmission lines. We support the maintenance of existing and development of new electric transmission lines along existing rights-of-way and easements to maintain the stability and capacity of the electric distribution system in southern California.

Policy IU-5.6 Dig once approach. We encourage infrastructure, telecommunication, and utility planning and projects to coordinate so that improvements are made concurrently or in such a manner that minimizes disruption to rights-of-way and reduces costs.

Clark County Comprehensive Plan and Municipal Code

The Clark County Comprehensive Plan is a policy document for the physical development of unincorporated Clark County. Title 30 – Unified Development Code of Clark County's Municipal Code implements the county's Comprehensive Plan. Key policies include:

Utilities 3: Utility providers are to locate transmission lines and pipelines within Clark County's existing utility corridors when technically feasible

Utilities 4: Support increasing capacity of existing utility corridors over establishing new ones

Utilities 6: Encourage the development of transmission capability and interconnectivity for distributed energy, cogeneration and alternative energy sources, including regional interconnectivity and transmission capability

Utilities 12: Use the Aboveground Utility Corridor Map for review of proposed Aboveground Utility Projects

Impact Analysis

a) Would the project physically divide an established community?

Less than Significant. The proposed Project includes installation of a new telecommunication path on existing distribution and transmission lines in an existing utility corridor, primarily located in unincorporated San Bernardino County, California and a portion located in Clark County, Nevada. Segment 1 crosses through the unincorporated community of Newberry Springs, and the unincorporated community of Daggett, located approximately 1 mile west of SCE's Gale Substation. The nearest community to Segment 2 of the proposed Project is the unincorporated community of Nipton, located approximately 2.25 miles northwest of the Project alignment, approximately 3 miles west of the California-Nevada border. The Project alignment crosses lands managed by the BLM, DOD, NPS, and SLC, and private lands. The existing land uses in the Project vicinity consist of undeveloped and open space lands, utilities and infrastructure, low-density residential and agricultural uses. Construction and O&M activities would be conducted within an existing utility corridor. Existing access roads will be used to the extent feasible for construction of the proposed Project; where needed, these roads will be improved to allow the safe use of construction equipment. In locations where access roads are not available, trucks would travel overland to reach poles or towers.

No new permanent access roads or transmission infrastructure are proposed that would act as a physical barrier between nearby communities; therefore, the proposed Project would not divide an established community. Furthermore, access to businesses and other uses in the area surrounding the Project alignment would be generally maintained during the construction phase, and any land and/or road closures would be temporary and short-term. Additionally, O&M activities associated with the proposed Project would be similar to those currently performed for the existing facilities. Therefore, impacts would be less than significant, and no mitigation is required.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant. In California, the CPUC's jurisdiction over electric power line projects and substations exempts the proposed Project from local land use regulations, under GO 131-D. However, SCE considers local and state land use plans and policies as part of its environmental review process, and the CPUC generally reviews local regulations for consistency. The proposed Project is subject to local regulations in the state of Nevada.

Approximately 22 miles of Segment 1, and 4 miles of Segment 2, would be located on private land within the unincorporated area of San Bernardino County. Land use zoning designations along Segment 1 include Rural Living (RL and RL-5), Resource Conservation (RC), Community Industrial (IC), General Commercial (CG), Multiple Residential (RM), Neighborhood Commercial (CN), Highway Commercial (CH), and Institutional (IN) (County of San Bernardino 2020a). Land use zoning designations for Segment 2

include RC, R-U, and SD-RES. Local jurisdictions in California acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters. Because the proposed Project is located within existing ROW (APM LU-1), the local agencies are aware of the ROW and have incorporated it into their general plans and ordinances. Additionally, APM LU-2 requires all permits to be obtained prior to the start of construction. Therefore, the proposed Project would not conflict with relevant County of San Bernardino land use plans and goals.

Additionally, approximately 1.8 miles of the Project alignment is located within Clark County, Nevada, within the existing SCE ROW. This portion of the Project alignment is within the O-S District, designated as Open Lands land use designation. Public utility structures (including transmission lines that are 34.5 kV or greater) are allowed within Open Space as a conditional use if the structures are located within an aboveground transmission line corridor designated in the Public Facilities and Services Element of the Clark County Comprehensive Plan. Therefore, the proposed Project would not conflict with relevant Clark County land use plans and goals.

Approximately 5.7 miles of Segment 1, and 26 miles of Segment 2, is located on BLM land. The proposed Project would cross BLM managed lands having various land designations. The BLM land in California is managed under the CDCA Plan as amended by the DRECP LUPA. As such, it would be subject to the Conservation and Management Actions as determined by the BLM in its review of the Project under NEPA. The DRECP LUPA recognizes valid existing rights such as existing transmission lines. CDFW appreciates that portions of the Project alignment and surrounding public lands are managed by BLM under the DRECP LUPA, a federal land management plan. The BLM Environmental Assessment (BLM 2020) included review of each CMA to ensure the proposed Project either complied with the CMA or the CMA is not applicable. BLM published the Environmental Assessment and the Applicability of DRECP Conservation and Management Actions for the LVRAS Project on its ePlanning website.[10] Because the BLM will require the proposed Project to comply with the applicable management actions under the CDCA Plan, the Project does not conflict with the existing plans and policies.

Approximately 51 miles of Segment 2 would be located on NPS MNP land. The Mojave General Management Plan is the management strategy for the MNP. The Plan notes that some existing land uses such as electric transmission lines do not conform well with the preservation mission and management goals but identifies them as authorized pre-existing uses. The Park's philosophy toward these developments is to minimize their intrusion, and manage toward their elimination; however, the NPS Mojave General Management Plan recognizes that many existing uses will remain intact through the life of the Plan. As such, the Project would not conflict with the existing General Management Plan.

Approximately 1 mile of Segment 1 would cross DOD land. The DOD recognizes that electromagnetic interference from electricity transmission lines may impact DOD testing activities. To identify and mitigate any potential impacts, the DOD has a structured process for developers to request a mission compatibility evaluation of a proposed energy project, as documented in Part 211 of Title 32 CFR. The DOD conducts a Mission Compatibility Evaluation to provide a timely, transparent, and science-based analysis of potential

[10] Lugo-Victorville 500 kV Remedial Action Scheme ePlanning webpage is https://eplanning.blm.gov/eplanning-ui/project/1502126/570.

impacts to military operations (United States Office of the Assistant Secretary of Defense 2021a, 2021b). SCE would submit Project application materials to the DoD Clearinghouse, as required, to ensure its approval prior to Project construction. Therefore, the Project would not conflict with existing DOD regulations, policies, or plans.

As discussed in Response (f) in Section 3.4, Biological Resources, the Project alignment is not within an area covered by an adopted Habitat Conservation Plan; Natural Community Conservation Plan; or other approved local or state habitat conservation plan. However, CDFW has determined for purposes of CEQA that the DRECP is an "other approved regional habitat conservation plan" relevant to its lead agency review of the proposed Project. Project activities located on BLM lands in California are subject to and would comply with all applicable requirements of the DRECP. The proposed Project would not conflict with the provisions of any applicable local, regional, or state habitat conservation plan, nor would it prevent the associated agencies from meeting the conservation goals and objectives of such plans.

The proposed Project would adhere to the applicable land use plans, policies, and regulations of San Bernardino County and Clark County to the maximum extent feasible. Additionally, as discussed in Section 3.4(f) of this document, construction of the proposed Project would be consistent with the DRECP, including the Conservation and Management Actions (CMA) established in the DRECP. Furthermore, any potential impacts to access roads located within the Mojave Wilderness Area (within NPS MNP managed lands) have been analyzed in the MRDG in order to comply with the Wilderness Act (Appendix H).

O&M activities associated with the proposed Project would be similar to those currently performed for the existing transmission line facilities and would not result in additional land use impacts. Therefore, incorporation of Project APMs and with compliance with the policies and plans, discussed above, impacts related to conflict with any land use plan, policy, or regulation would be less than significant with no mitigation required.

3.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. 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?	☐	☐	☐	☒

Existing Condition

According to the USGS, a mineral resource is defined as a concentration of naturally occurring solid, liquid, or gaseous materials in or on the earth's crust in such a form that economic extraction of a commodity is regarded as feasible, either currently or some future time. Mineral resources include oil, natural gas, and metallic and non-metallic deposits.

The Project area is located in California and Nevada, within the Mojave Basin and Range. Mineral resources are known to be present within this region, including land scattered throughout the Mojave National Preserve and along the California-Nevada border. These mineral resources include rare earth elements, skarns, industrial minerals, hydrothermal deposits, and aggregate resources (County of San Bernardino 2020b). Additionally, there are numerous operational and closed mines within this region. According to the USGS, the Nu-Lite Insulated Homes Inc. mine, Rest mine, Albermarle Mine, and Railroad Ballast Quarry are closed mines within approximately 1,000 feet of the Project area (USGS 2018). No currently active mines are near the Project area.

The County of San Bernardino has a wealth of diversified minerals, with approximately 100 active mines throughout the County that include commodities such as decorative rock, sand, gravel, limestone, and talc. According to the San Bernardino Countywide Plan and the Countywide Plan Draft EIR, portions of the Project alignment are within lands designated as (County of San Bernardino 2019b):

- **Mineral Resource Zone (MRZ)-2 (Identified Significant Resources):** areas underlain by mineral deposits where geologic data or geologic information indicates that significant measured or indicated resources are present; and
- **MRZ-3 (Potentially Significant Resources):** areas containing known or inferred deposits that may qualify as mineral resources.

Regulatory Setting

Federal

Materials Sales Act of 1947 (30 USC 601–604)

The Materials Sales Act provides for materials disposal on public lands. The Secretary of the DOI is authorized to develop and implement rules and regulations to dispose of mineral materials (including, but not limited to, common varieties of sand, stone, gravel, pumice, pumicite, cinders, and clay) on public lands in the United States. These materials can be disposed of upon adequate payment to the DOI. The Secretary of the Interior has the authority and discretion to permit any federal, state, or territorial agency, unit, or subdivision, including municipalities, or any other association or corporation not organized for profit, to take and remove, without charge, materials and resources for uses other than commercial or industrial purposes or resale (43 CFR 3600).

California

Surface Mining and Reclamation Act (SMARA) of 1975

The California Geological Survey designates MRZ where access to important mineral resources may be threatened, according to the provisions of the SMARA of 1975. The SMARA requires that all jurisdictions

incorporate mapped mineral resource designations—as approved by the California State Mining and Geology Board—into their general plans. The California State Mining and Geology Board and the DOC's Division of Mine Reclamation are jointly charged with ensuring proper administration of the SMARA's requirements. The California State Mining and Geology Board promulgates regulations to clarify and interpret the SMARA's provisions, as well as to serve as a policy and appeals board. The Division of Mine Reclamation provides an ongoing technical assistance program for lead agencies and operators, maintains a database of mine locations and operational information Statewide, and is responsible for compliance-related matters.

Nevada

Nevada Administrative Code Chapters 445A.350 through 445A.447, and 519A.010 through 519A.415

Mining activities in Nevada are regulated by the Nevada Division of Environmental Protection Bureau of Mining Regulation and Reclamation, in cooperation with other federal, State, and local agencies under regulations adopted in 1989 (Nevada Administrative Code Chapters 445A.350 through 445A.447, and 519A.010 through 519A.415). The Bureau of Mining Regulation and Reclamation has regulation, closure, and reclamation branches; and its mission is to ensure that mining operations do not degrade Nevada's waters and that land disturbed by mining operations is reclaimed in a manner to ensure productive post-mining use.

Local

San Bernardino County Countywide Plan

The San Bernardino County Countywide Plan Natural Resource Element Goal NR-6 protects 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. Specifically, Policy NR-6.1 prioritizes 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 MRZ 2a, 2b, or 3a (County of San Bernardino 2020b).

Impact Analysis

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

No Impact. The closest known mineral deposits to the proposed Project are located north of Barstow in the Waterman Hills, the Calico Mountains, and the Newberry Mountains. Although there are no active mines and four closed mines within approximately 1,000 feet of the Project alignment, there is the occurrence or prospect of mineral resources in four areas within 1,000 feet of the Segment 2 alignment (USGS 2018). These mineral resources include lead, silver, and gold on both sides of the California-Nevada border, and pumice located just north of where the Project alignment crosses Hector Road. The proposed Project would be located within an existing utility easement and would not transect these four locations. Access to the Project ROW would be primarily from existing access roads or by helicopter.

O&M activities would be similar to those currently performed by SCE for existing facilities and would be within the existing ROW. As a result, construction and O&M activities would not reduce the availability of regionally important mineral resource areas, and no impact would occur. No mitigation would be required.

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

No Impact. The closest known mineral deposits to the proposed Project are located north of Barstow in the Waterman Hills, the Calico Mountains, and the Newberry Mountains. Although there are no active mines and four closed mines within approximately 1,000 feet of the Project alignment, there is the occurrence or prospect of mineral resources in four areas within 1,000 feet of the Segment 2 alignment (USGS 2018). These mineral resources include lead, silver, and gold on both sides of the California-Nevada border, and pumice located just north of where the Project alignment crosses Hector Road. The proposed Project would be located within an existing utility easement and would not transect these four locations. Access to the Project ROW would be primarily from existing access roads or by helicopter.

O&M activities would be similar to those currently performed by SCE for existing facilities and would be within the existing ROW. As a result, construction and O&M activities would not reduce the availability of regionally important mineral resource areas, and no impact would occur. No mitigation would be required.

3.13 Noise

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. 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?	☐	☐	☒	☐

Existing Condition

Overview of Noise

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (California Department of Transportation [Caltrans] 2013).

Human Perception of Sound

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response. Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; dividing the energy in half would result in a 3 dB decrease (Caltrans 2013).

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not “sound twice as loud” as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible (8 times the sound energy); and that an increase (or decrease) of 10 dBA sounds twice (half) as loud (10.5 times the sound energy) (Caltrans 2013).

Sound Propagation and Shielding

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in the noise level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of sources (e.g., point or line), the path the sound will travel, site conditions, and obstructions.

Sound levels are described as either a “sound power level” or a “sound pressure level,” which are two distinct characteristics of sound. Both share the same unit of measurement, the dB. However, sound power (expressed as Lw) is the energy converted into sound by the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers, such as an eardrum or microphone, which is the sound pressure level (Lp). Sound measurement instruments only measure sound pressure, and noise level limits are typically expressed as sound pressure levels.

Noise levels from a point source (e.g., construction, industrial machinery, air conditioning units) typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance. Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this “shielding” depends on the size of the object and the frequencies of the noise levels. Natural terrain features, such as hills and dense woods, and man-made features, such as buildings and walls, can significantly alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver

(Federal Highway Administration [FHWA] 2011). Structures can substantially reduce exposure to noise as well. The FHWA's guidance indicates that modern building construction generally provides an exterior-to-interior noise level reduction of 10 dBA with open windows and an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows (FHWA 2011).

Descriptors

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important factors of Project noise impact. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. The noise descriptors used for this study are the equivalent noise level (L_{eq}), Day-Night Average Level (DNL; may also be symbolized as L_{dn}), and the community noise equivalent level (CNEL; may also be symbolized as L_{den}).

L_{eq} is one of the most frequently used noise metrics; it considers both duration and sound power level. The L_{eq} is defined as the single steady-state A weighted sound level equal to the average sound energy over a time period. When no time period is specified, a 1-hour period is assumed. The L_{max} is the highest noise level within the sampling period, and the L_{min} is the lowest noise level within the measuring period. Normal conversational levels are in the 60 to 65 dBA L_{eq} range; ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (Federal Transit Administration [FTA] 2018).

Noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise is usually measured using Day-Night Average Level (DNL or L_{dn}), which is the 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime hours (10:00 p.m. to 7:00 a.m.). Community noise can also be measured using Community Noise Equivalent Level (CNEL or LDEN), which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013).[11] The relationship between the peak-hour L_{eq} value and the LDN/CNEL depends on the distribution of noise during the day, evening, and night; however, noise levels described by L_{dn} and CNEL usually differ by 1 dBA or less. Quiet suburban areas typically have CNEL noise levels in the range of 40 to 50 CNEL, while areas near arterial streets are in the 50 to 60+ CNEL range (FTA 2018).

Overview of Groundborne Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent buildings or structures and vibration energy may propagate through the buildings or structures. Vibration may be felt, may manifest as an audible low-frequency rumbling noise (referred to as groundborne noise), and may cause windows, items on shelves, and pictures on walls to rattle. Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants at vibration-sensitive land uses and may cause structural damage.

Existing Noise Environment

Noise impacts are localized and typically limited to an approximately 1,000-foot radius around a noise source, although this radius of impact may be increased for significant noise sources, such as airports, or decreased due

[11] Because DNL and CNEL are typically used to assess human exposure to noise, the use of A-weighted sound pressure level (dBA) is implicit. Therefore, when expressing noise levels in terms of DNL or CNEL, the dBA unit is not included.

to intervening development that results in greater attenuation or due to the presence of other noise sources that dominate the local noise environment at locations far from the noise source of concern. The San Bernardino County General Plan lists noise sensitive uses as residences, schools, libraries, hospitals, churches, offices, hotels, motels, and outdoor recreational areas (County of San Bernardino 2007a). For Segment 1, the nearest noise-sensitive receivers are scattered single-family homes located along National Trails Highway and the SCE ROW at approximately 50 to 100 feet from work areas. For Segment 2, the nearest noise sensitive receivers are located 1,900 feet south of the Cima Substation and 1,600 feet east of the nearest Clark County work area.

The existing noise environment for Segment 1 is dominated by transportation source noise, including vehicular traffic attributable to I-40 and rail traffic attributable to the BNSF rail line. The 65 dBA L_{dn} noise contour for I-40 extends approximately 550 feet from the centerline, and the BNSF 65 dBA L_{dn} noise contour extends approximately 500 feet from the tracks. Noise from the existing transmission line also contributes to the existing noise environment, but to a lesser extent and could be audible to existing receivers when there is a lull in traffic on I-40. Given the remote surroundings of Segment 2, its existing noise environment is dominated by natural noise sources, such as wind and wildlife, with occasional vehicular traffic noise along a limited number of rural roads that intersect the alignment. Noise levels in these types of remote environments typically range from 20 to 40 dBA L_{dn}. Under existing conditions, noise is also generated by SCE personnel vehicle trips and heavy-duty equipment used to conduct SCE's routine O&M activities along the Project alignment, which include repairing existing facilities, restringing lines, routine access road maintenance, periodic insulator washing, telecommunications equipment maintenance, and as-needed emergency repairs.

Regulatory Setting

California

The noise standards adopted by the State of California primarily regulate motor vehicles' noise levels, establish building noise insulation standards to limit sound transmission through buildings, and address occupational noise to limit workers' noise exposure to prevent hearing loss. No state environmental noise regulations or guidelines are directly applicable to the proposed Project. While no state standards are specifically applicable to the proposed Project, the following approach is used to assess potential noise and vibration impacts.

California Energy Commission staff in their analysis often reference the Caltrans (2020) Transportation and Construction Vibration Guidance Manual. Caltrans has recommended threshold criteria for vibration damage potential and vibration annoyance potential, which are shown in Table 26 and Table 27, respectively.

Table 26. Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum Vibration Level (in/sec PPV)	
	Transient Sources	Continuous/ Frequent Intermittent Sources[1]
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	.025
Older residential structures	0.5	0.3

Table 26. Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum Vibration Level (in/sec PPV)	
	Transient Sources	Continuous/ Frequent Intermittent Sources[1]
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

in/sec = inches per second; PPV = peak particle velocity
Source: Caltrans 2020
[1] Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Table 27. Vibration Annoyance Potential Criteria

Human Response	Maximum Vibration Level (in/sec PPV)	
	Transient Sources	Continuous/ Frequent Intermittent Sources[1]
Severe	2.0	0.4
Strongly perceptible	0.9	0.10
Distinctly perceptible	0.25	0.04
Barely perceptible	0.04	0.01

in/sec = inches per second; PPV = peak particle velocity
Source: Caltrans 2020
[1] Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Local

San Bernardino County Development Code

The San Bernardino County Development Code includes general performance standards to promote compatibility with surrounding areas and land uses (Chapter 83.01) by protecting the health and safety of businesses, nearby residents, and workers and preventing damaging effects to surrounding properties, including those of noise (Chapter 83.01.080) and vibration (83.01.090).

Noise-sensitive land uses include residential uses, schools, hospitals, nursing homes, religious institutions, libraries, and similar uses (Development Code Chapter 83.01.080[b]). According to the stationary source noise standards (Chapter 83.01.080[c]), industrial facility related noise must not exceed 55 dBA Leq during daytime hours (7:00 a.m. to 10:00 p.m.) at the property line of any residential use receiving the noise. For a noise source that consists of a simple tone, such as a “hum,” then the applicable standard is reduced by five dBA to 50 dBA Leq (Chapter 83.01.080[f]). During nighttime hours (10:00 p.m. to 7:00 a.m.), stationary noise sources must not exceed 45 dBA Leq at the property line of a residential use. The standard is 60 dBA Ldn for exterior noise levels at residential uses adjacent to roadways and sources of traffic or mobile noise sources (Chapter 83.01.080[d]).

Vibration that is not due to construction sources must be confined, according to the vibration performance standard (Chapter 83.01.090), as follows: No ground vibration shall be allowed that can be felt without the aid of

instruments at or beyond the lot line, nor shall any vibration be allowed that produces a particle velocity greater than or equal to 0.2 inches per second measured at or beyond the lot line.

Construction noise and vibration, including maintenance, repair or demolition, is exempt from 7:00 a.m. to 7:00 p.m. Monday through Saturday, except Federal holidays (Chapter 83.01.080[g] and 83.01.090[c]).

San Bernardino County General Plan, Noise Element

The County of San Bernardino 2007 General Plan, Noise Element, identified goals and policies to manage noise and identify when land uses would be compatible with ambient noise levels (San Bernardino 2007a). The following goals and policies may be relevant to the Proposed Project:

- **Noise Element Goal N1.** The County will abate and avoid excessive noise exposures through noise mitigation measures incorporated into the design of new noise-generating and new noise-sensitive land uses, while protecting areas within the County where the present noise environment is within acceptable limits.
- **Noise Element Goal N1, Policy N1.3.** When industrial, commercial, or other land uses, including locally regulated noise sources, are proposed for areas containing noise sensitive land uses, noise levels generated by the proposed use will not exceed the performance standards within outdoor activity areas [i.e., 55 dBA Leq during daytime hours (7:00 a.m. to 10:00 p.m.) or 45 dBA Leq during nighttime hours (10:00 p.m. to 7:00 a.m.) for residences as in Development Code Chapter 83.01.080(c)]. If outdoor activity areas have not yet been determined, noise levels shall not exceed the performance standards listed in Chapter 83.01 of the Development Code at the boundary of areas planned or zoned for residential or other noise-sensitive land uses.
- **Noise Element Goal N1, Policy N1.5.** Limit truck traffic in residential and commercial areas to designated truck routes; limit construction, delivery, and through-truck traffic to designated routes; and distribute maps of approved truck routes to County traffic officers.
- **Noise Element Goal N1, Policy N1.6.** Enforce the hourly noise-level performance standards for stationary and other locally regulated sources, such as industrial, recreational, and construction activities as well as mechanical and electrical equipment.
- **Noise Element Goal N2.** The County will strive to preserve and maintain the quiet environment of mountain, desert and other rural areas.
- **Noise Element Goal N2, Policy N2.1.** The County will require appropriate and feasible on-site noise attenuating measures that may include noise walls, enclosure of noise generating equipment, site planning to locate noise sources away from sensitive receptors, and other comparable features.
- **Noise Element Goal N2, Policy N2.2.** The County will continue to work aggressively with federal agencies, including the branches of the military, the U.S. Forest Service, BLM, and other agencies to identify and work cooperatively to reduce potential conflicts arising from noise generated on federal lands and facilities affecting nearby land uses in unincorporated County areas.

Clark County Code

The Clark County Code of Ordinances (Section 30.68, Site Environmental Standards) identifies standards to protect adjacent properties against objectionable noise, and the ordinance limits the maximum permitted sound levels from continuous or regular sources of noise with standards for each octave band for sounds received by

residential, business or industrial districts. The standards in the ordinance do not apply to aircraft noise or construction and/or demolition activity during daytime hours, where "daytime" is from 6:00 a.m. to 10:00 p.m., as defined by the Unified Development Code (Section 30.08).

Impact Analysis

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?

Less than Significant. The proposed Project consists of temporary construction activities primarily along an existing utility corridor. The types of construction equipment used during construction activities would include helicopters, trucks, backhoes, compactors, dozers, forklifts, graders, loaders, cranes, manlifts, and other tools. Construction noise was estimated using reference noise levels and equipment use factors from the FHWA Roadway Construction Noise Model (FHWA 2006).

Noise impacts from construction equipment are typically assessed from the center of the equipment activity area over the time period of a construction day (e.g., construction site, demolition area, grading area, etc.).

Pursuant to APM NOI-1, construction activities would be conducted within the exemption timeframes.

Per Section 83.01.080(g) of the San Bernardino County Code and Section 30.68.020.h.1 of the Clark County development code, noise generated by construction activities is exempt from compliance with the local Noise Ordinances between 7:00 a.m. and 7:00 p.m. in San Bernardino County and during daytime hours in Clark County. However, for purposes of analyzing impacts from this Project, the FTA Transit Noise and Vibration Impact Assessment Manual (FTA 2018) criteria were used. The FTA provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction. For residential uses, the daytime noise threshold is 80 dBA L_{eq} for an 8-hour period (FTA 2018). An increase in ambient noise levels that exceeds this absolute limit would be considered substantial because this noise limit is set at a reasonable level at which a substantial noise level increase as compared to ambient noise levels would occur. Segment 1 is located in a rural environment with few sensitive receptors near construction areas. Work areas in Segment 1 would be accessed by vehicle and would not require the use of helicopters. Scattered residences are located within 800 feet of Gale Substation and 50 feet to 500 feet along the SCE ROW, primarily concentrated around the National Trails Highway. The Newberry Road pull-site in Segment 1 would be the nearest to a residential receiver at approximately 50 feet. Trenching for underground installation would occur 150 feet from the nearest residential receiver and the nearest manhole installation would be 240 feet. New pole installation in Segment 1 would be as close as 330 feet from a residential receiver. Table 28 shows the modeled construction noise levels at the nearest receivers to work areas in Segment 1. As shown in Table 28, conservative modeling of proposed construction activities would range from 76 dBA L_{eq} at 50 feet to 64 dBA L_{eq} at 330 feet from work areas in Segment 1. Therefore, although temporary increases in ambient noise levels would occur at sensitive receivers due to construction activities along Segment 1, construction noise levels would not exceed the FTA daytime noise threshold of 80 dBA L_{eq} at the nearest sensitive receivers. Furthermore, pursuant to APM NOI-1, noise-generating construction within Segment 1

would occur between 7:00 a.m. and 7:00 p.m., which are the hours specified as being exempt from the San Bernardino noise limits.

Table 28. Segment 1 Construction Noise Levels at Nearest Receivers

Description	Distance	Modeled Noise Level (dBA L_{eq} 1-hour)
Pull-Site[1]	50	76
Trenching[2]	150	71
Manhole[2]	240	67
New Pole[2]	330	64

1 Assumes use of a puller/tensioner, man lift, and backhoe.
2 Assumes use of a dozer, man lift, and trenching machine.
See Appendix J-1 for RCNM results.

Segment 2 is located in a more rural area than Segment 1 with very few residential receivers. The nearest residential receiver to work areas are 1,900 feet south of the Cima Substation and 1,600 feet east of the nearest Clark County work area. Table 29 shows the modeled construction noise levels at the nearest receivers to work areas in Segment 2. As shown in Table 29, conservative modeling of proposed construction activities would range from 51 dBA L_{eq} at 1,600 feet to 44 dBA L_{eq} at 1,900 feet from work areas in Segment 2. Therefore, although temporary increases in ambient noise levels would occur at sensitive receivers due to construction activities along Segment 2, construction noise levels would not exceed the FTA daytime noise threshold of 80 dBA L_{eq} at the nearest sensitive receivers. In addition, pursuant to APM NOI-1, noise-generating construction that would occur on private land in Segment 2 would occur between 7:00 a.m. and 7:00 p.m., which are the hours specified as being exempt from the San Bernardino and Clark County noise limits. Construction activities on federal (BLM or NPS) land could occur between the hours of 5:00 a.m. and 7:30 p.m., but no sensitive receptors are located on non-private land that would be substantially affected by construction noise.

Table 29. Segment 2 Construction Noise Levels at Nearest Receivers

Description	Distance	Modeled Noise Level (dBA L_{eq} 1-hour)
Trenching[1]	1,600	51
Pull-Site[2]	1,900	44

1 Assumes use of a dozer, man lift, and trenching machine.
2 Assumes use of a puller/tensioner, man lift, and backhoe.
See Appendix J-1 for RCNM results.

Up to two helicopters would be used to support construction and would be required for Segment 2 activities to move materials and equipment in and out of the most remote tower areas. At night and during non-working days the helicopters would be based at Hesperia Airport, DAG, Baker Airport, and Jean Airport and staged at the construction yards (including the Daggett Construction Yard in Segment 1). The closest residential receiver to a proposed helicopter landing zone is a residence located approximately 2,200 feet south of proposed Helicopter Landing Zone 22 that would be north of the Cima Substation. Helicopter noise at various distances is shown in Table 30.

Table 30. Helicopter Noise at Various Distances

Helicopter Type	Distance			
	250	500	1,000	2,000
Light-Duty	81	75	69	63
Medium-Duty	86	80	73	67
Heavy-Duty	96	90	84	78

Source: CPUC, TL 695 & TL 6971 Reconductor Project Final IS/MND, July 2017

As shown in Table 30, at 2,000 feet a light-duty, medium-duty, and heavy-duty helicopter would result in noise levels of 63 dBA, 67 dBA, and 78 dBA, respectively. The nearest residential receiver to a helicopter landing zone would be 2,200 feet to the south of the Cima Substation landing zone. At this distance helicopter noise would be approximately 62 dBA for a light-duty, 67 dBA for a medium-duty, and 77 dBA for a heavy-duty helicopter. Therefore, although temporary increases in ambient noise levels would occur at sensitive receivers due to helicopter usage, helicopter noise levels would not exceed the FTA daytime noise threshold of 80 dBA L_{eq} at the nearest sensitive receivers. In the event that helicopter construction is temporarily infeasible due to weather or other unforeseen conditions, noise levels at the nearest sensitive receivers resulting from the removal of existing OHGW and installation of OPGW using ground-based construction equipment and vehicles within the structure work areas would be similar to those shown in Table 29, which are substantially lower than noise levels produced using helicopter construction.

Per APM NOI-1, helicopter use would be limited to the hours specified as being exempt by San Bernardino or Clark County. In addition, per APM NOI-2, helicopter use would comply with federal regulations regarding helicopter over-flights of residences and schools. Once airborne, helicopter sound levels are exclusively regulated by the Federal Aviation Administration. With the implementation of APM NOI-1 and APM NOI-2, substantial noise generating activities during construction would be limited to those hours exempted by San Bernardino and Clark County and would therefore comply with the applicable local noise standards. Furthermore, although temporary increases in ambient noise levels would occur at sensitive receivers due to construction activities (including helicopter usage), construction noise levels would not exceed the FTA daytime noise threshold of 80 dBA L_{eq} at the nearest sensitive receivers. As such, Project construction would not generate noise that exceed the noise level standards and this impact would be less than significant. No mitigation is required.

After construction, ongoing O&M activities would be necessary to ensure reliable service. Maintenance activities would include repairing existing facilities, restringing lines, routine access road maintenance, periodic insulator washing, telecommunications equipment maintenance, and as-needed emergency repairs. It is anticipated that routine maintenance activities would be conducted during the exempted time period and would be similar to construction activities, but more limited in duration. However, O&M activities would be similar to those that occur in the existing condition. No new operational sources of noise would result from the proposed Project. Project O&M would not result in the exposure of persons to or generate noise that exceed the noise level standards and this impact would be less than significant. No mitigation is required.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant. Project construction would not involve activities typically associated with excessive groundborne vibration such as pile driving or blasting. The equipment utilized during Project construction that would generate the highest levels of vibration would include bulldozers and loaded trucks. Section 83.01.090(a) of the San Bernardino County Development Code states that no ground vibration shall be allowed that produces a particle velocity greater than or equal to 0.2 inches per (in/sec) second measured at or beyond the lot line. However, San Bernardino County and Clark County exempt vibration due to temporary construction, demolition, repair, and maintenance when occurring during the daytime hours of 7:00 a.m. to 7:00 p.m. The thresholds of significance used in this analysis to evaluate vibration impacts is 0.2 in/sec peak particle velocity (PPV).

Project construction may require operation of vibratory equipment such as trucks or bulldozers within 50 feet of the nearest residential structure along Segment 1. Vibration sensitive receivers identified near Segment 2 would be 2,000 feet or more from vibration producing construction activities, even if structure work areas are utilized in the event that helicopter construction is temporarily infeasible due to weather or other unforeseen conditions. For areas that cannot be accessed by overland travel, helicopter access would be necessary. For these areas, helicopter use would be rescheduled in the event that weather or other conditions temporarily prevent helicopter use. As shown in Table 31, vibration levels from bulldozers or loaded trucks would not exceed the threshold, 0.20 in/sec PPV. Construction vibration levels at all other buildings in the immediate vicinity, including residences further from construction work areas, would be less than the levels shown in Table 31 because vibration levels would attenuate with distance. Furthermore, in accordance with APM NOI-1, noise-generating construction within San Bernardino County and Clark County jurisdiction would occur during daytime hours (7:00 a.m. to 7:00 p.m.) and would not disturb residences during sensitive nighttime hours of sleep. Therefore, construction vibration impacts for Segments 1 and 2 would be less than significant, and no mitigation is required.

Table 31. Vibration Levels at Sensitive Receivers

Equipment	Estimated PPV at Nearest Building (50 feet)
Large Bulldozer	0.042
Loaded Truck	0.036
Threshold	0.2
Threshold Exceeded?	No

See Appendix J-2 for vibration analysis worksheets.

Project O&M would not utilize significant stationary sources of vibration, such as manufacturing or heavy equipment operations. Routine maintenance and repair activities could be conducted in the future; however, these activities would be conducted during the daytime and would not require heavy equipment that generate vibration levels higher than what is analyzed above. In addition, O&M activities would be similar to O&M activities occurring in the existing condition. No operational vibration impact would occur, and no mitigation is required.

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?

Less than Significant. The airport closest to the Project alignment is the Barstow Daggett Airport, which is located approximately 1,120 feet north of the closest portion of the alignment and 1,200 feet north the nearest work area of the proposed Project. The entire Project alignment is located 800 feet south of the 65 dBA CNEL noise contour shown in Figure 2 of the Barstow Daggett County Airport Land Use Compatibility Plan (County of San Bernardino 1992a). Therefore, the proposed Project would not expose people residing or working in the Project area to excessive noise levels associated with a public airport or private airfield. This impact would be less than significant, and no mitigation is required.

3.14 Population and Housing

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. 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?	☐	☐	☐	☒

Existing Condition

The Project area is located in San Bernardino County, California and Clark County, Nevada, within the Mojave Basin and Range. Federal lands constitute a majority of land area in the Mojave, including lands under the jurisdiction of the BLM, NPS, and DOD. Current and forecasted populations for San Bernardino County and Clark County can be found in Table 32 below.

Table 32. Current and 2040 Forecasted Populations

Location	Population	
	2020	2040
San Bernardino County	2,162,532	2,824,232
Clark County	2,228,866	3,138,000

Sources: United States Census Bureau 2022; County of San Bernardino 2016; University of Nevada Las Vegas 2021

The populations of San Bernardino County and Clark County are expected to increase by 30% and 40%, respectively, from 2030 to 2040. The proposed Project does not include residential development, businesses, or any extension of infrastructure into unserved areas.

Regulatory Setting

There are no federal regulations related to population and housing that are relevant to the proposed Project. There are no specific laws and regulations relating to unplanned population growth or displacement of people and housing at the state level. These issues are addressed by local plans and ordinances; however, no specific goals or policies contained in relevant local plans or ordinances are relevant to the proposed Project. As such, a discussion of Housing Elements and other guiding documents for population and housing are not discussed herein.

Impact Analysis

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The proposed Project includes the installation of a new telecommunication path in an existing utility corridor. The primary function of the proposed Project is to prevent thermal overloading on the Lugo-Victorville 500 kV Transmission Line and to reliably interconnect and integrate multiple renewable generation projects in the Eastern California/Southern Nevada area onto SCE's electrical power grid. The proposed Project would not directly induce population growth since the Project does not include the construction of any new homes or businesses, and it would not indirectly induce population growth by extending infrastructure into previously unserved areas. New roads would not be constructed, existing roads would not be extended, and other infrastructure would not be expanded that would directly or indirectly induce population growth.

The construction duration is expected to be approximately 1 year. Construction would be managed by SCE, using both SCE and contract personnel during construction. SCE construction crews would be typically based at SCE's local facilities, (e.g., service centers, substation, SCE ROW, etc.) or at the temporary material staging yards set up for the Project. SCE anticipates up to 121 construction personnel working on any given day over the 1-year construction period. Construction personnel would likely commute from the San Bernardino and Clark County areas and are not anticipated to permanently relocate from other counties.

O&M for the proposed Project would be infrequent and temporary and would require minimal personnel. O&M activities would be similar to existing conditions and would be provided by existing SCE employees and would not require workers to relocate to the Project area. The proposed Project would not directly or indirectly induce substantial population growth or urban development in the vicinity of the Project area. Therefore, no impacts would occur, and no mitigation would be required.

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

No Impact. Work associated with the proposed Project would be located within an existing utility corridor and nearby areas (i.e., construction yards, helicopter landing zones) that do not currently include residential structures; therefore, there would be no displacement of people or housing, nor would there be a requirement for replacement of existing housing. There would be no impacts, and no mitigation would be required.

3.15 Public Services

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

Existing Condition

Fire Protection Services

The Project area is in San Bernardino County, California and Clark County, Nevada, within the Mojave Basin and Range. Federal lands constitute a majority of land area in the Mojave, including lands under the jurisdiction of the BLM, NPS, and DOD. The Project area is served by multiple jurisdictions. The San Bernardino County Fire Department (SBCFD) provides coverage for the majority of Segment 1, and partial coverage of the portion Segment 2 not under federal fire protection. The SBCFD is equipped with 48 fire stations, 8 paid-call/volunteer fire stations, 1,043 county fire personnel, and 640 fire suppression personnel (SBCFD 2020).

The Federal Interagency Communications Center (FICC) provides dispatching services established for the San Bernardino National Forest, BLM California Desert District, Joshua Tree National Park, Death Valley National Park, Mojave National Preserve, Southern California Agency Bureau of Indian affairs and the Santa Rosa and San Jacinto Mountains National Monument. The FICC serves an area of approximately 30 million acres and is served by over 100 law enforcement officers, 7 special agents, 35 fire stations, 7 active fire lookouts, 20 fire prevention units, 70 forest protection officers, 6 hand crews, 1 fuels crew, plus equipment (including helicopters, air tankers, patrol plane, etc.) (FICC 2021).

Police Protection Services

Within the Mojave National Preserve, the NPS provides law enforcement services, including front-country and backcountry patrols, criminal investigations, case management, and wildlife enforcement (NPS 2021b). The BLM has resource protection and law enforcement responsibilities for BLM-managed lands and resources. Approximately 200 law enforcement rangers and 70 special agents enforce laws affecting public land resources on a national level (BLM 2022a).

The California Highway Patrol provides uniform traffic law enforcement throughout California. The Project area is located within the Inland Division of the California Highway Patrol. The Inland Division contains 3 communications and dispatch centers and 12 offices. The Inland Division is equipped with 2 fixed-wing airplanes, 2 helicopters, and a Special Enforcement Unit with 8 officers and 6 specially trained dogs. The California Highway Patrol (CHP) Inland Division serves portions of Interstates 10, 15, 215, and Highways 210, 91, 71, and 60 (CHP 2022).

The Nevada Highway Patrol (NHP) provides law enforcement traffic services on Nevada highways. The closest NHP office to the Project is in the community of Laughlin approximately 40 miles southeast of Segment 2 (NHP 2022).

The San Bernardino County Sherriff's Department serves over 2.1 million residents in San Bernardino County with 8 county and 14 contract patrol stations, and approximately 3,600 employees. The closest patrol station to the Project area is located in the city Hesperia, California, approximately 40 miles southwest of Segment 1 (San Bernardino County Sheriff's Department 2022). Unincorporated Clark County, Nevada is served by the Las Vegas Metropolitan Police Department (LVMPD). The LVMPD has approximately 4,658 employees (LVMPD 2020).

Regulatory Setting

California

- **CPUC GO 95, Section 35**. Section 35 of CPUC GO 95 covers all aspects of design, construction, and O&M of electrical power lines, as well as fire safety hazards.
- **California Code of Regulations, Title 14, Sections 1250 to 1258**. Title 14, Sections 1250 to 1258 of the California Code of Regulations provide specific clearance standards to be maintained by utility companies between electric power lines and all vegetation.
- **2019 Strategic Plan for California.** The 2019 Strategic Plan prepared by CAL FIRE and the California Natural Resources Agency lays out central goals for reducing and preventing the impacts of fire in the State. The goals are meant to establish, through local, State, federal, and private partnerships, a natural environment that is more resilient and human-made assets that are more resistant to the occurrence and effects of wildland fire. In addition to the 2019 Strategic Plan for California, individual CAL FIRE units develop fire plans, which are major strategic documents that establish a set of tools for each CAL FIRE unit for its local area. Updated annually, unit fire plans identify wildfire protection areas, initial attack success, assets and infrastructure at risk, pre-fire management strategies, and accountability within their unit's geographical boundaries. The unit fire plan identifies strategic areas for pre-fire planning and fuel treatment as defined by the people who live and work locally. The plans include contributions from local collaborators and stakeholders and are aligned with other plans for the area.

Local

- **San Bernardino County Countywide Plan.** The Personal and Property Protection Element of the Safety and Security Section in the San Bernardino County Countywide Plan provides policies to promote public safety. The following policies from the Personal and Property Protection Element are relevant to the proposed Project (County of San Bernardino 2020a):
  - Policy PP-3.6: We require that fire department facilities, equipment, and staffing required to serve new development are operating prior to, or in conjunction with new development.

Nevada

- **Clark County Comprehensive Plan.** The Safety Element of the Clark County Comprehensive Plan contains policies for fire and emergency services. The following policies from the Safety Element are relevant to the proposed Project (Clark County Department of Comprehensive Planning 2015):
  - Fire and Emergency Services Policy 1: Ensure that all developments provide adequate access for fire and other emergency vehicles and equipment (including fire hydrants)
  - Fire and Emergency Services Policy 4: New development in Rural Areas must address additional water storage needs for the community prior to approval.
  - Fire and Emergency Services Policy 6: Ensure that emergency services are provided in Wildland Interface Areas through mission sensitive reciprocal agreements with federal and state agencies.

Impact Analysis

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?

Less than Significant. Increases in population can result in an increased demand for public services, including fire protection services. As discussed in Section 3.14, Population and Housing, the proposed Project includes the installation of a new telecommunication path along new, replaced, and existing structures within an existing utility corridor. Construction of the proposed Project would be temporary and construction personnel would likely commute from the San Bernardino and Clark County areas and are not anticipated to permanently relocate from other counties. O&M would be similar to existing conditions and would not require additional employees. The proposed Project would not result in an increase in population that could increase demand for fire protection services.

As stated in the Existing Condition of Section 3.20, Wildfire, the Project alignment is not approximately 28.2 miles northeast of the nearest State Responsibility Area and approximately 33.8 miles northeast of the nearest Very High Fire Hazard Severity Zone (CAL FIRE 2022b). However, as discussed in Section 3.20, Wildfire, three fires have occurred within a 5-mile radius of the Project alignment since 1950, so it is possible for wildfire to occur near the Project area. The primary function of the proposed Project is to prevent thermal overloading of the existing Lugo-Victorville 500 kV Transmission Line, which would help

to reduce fire risk compared to existing conditions. The proposed Project would not result in installation of new utilities that would exacerbate fire risk. Additionally, as the Project area is not located in a Very High Fire Hazard Severity Zone, the risk of wildfire as a result of Project construction is low, and temporary construction activities would not substantially increase demand for fire protection services. Further, the proposed Project would implement APM WF-1, which would require implementation of a Fire Prevention and Emergency Response Plan. The Fire Prevention and Emergency Response Plan would require fire-safe training for SCE personnel, provide fire suppression and communication equipment, and provide procedures determining fire weather related work restrictions. The measures implemented through the Fire Prevention and Emergency Response Plan would minimize the risk of fire during construction activities. Consequently, the demand for fire protection services would not substantially increase during construction.

O&M activities would be similar as that occurring for the existing transmission lines and infrastructure. As with current O&M, SCE would comply with all current federal and State laws related to vegetation clearance and fire prevention. In addition, the Fire Prevention and Emergency Response Plan would implement post-construction fire prevention and response measures, thereby minimizing fire risk during O&M activities. No additional impact related wildfire risk would occur because of O&M activities.

Because the proposed Project would not substantially increase demand for fire protection services during either construction or operation, the proposed Project would not affect the ability of the applicable fire agencies to maintain acceptable service ratios, response times, or other performance objectives and would not require new or altered fire protection facilities. Therefore, impacts related to fire protection services would be less than significant and no mitigation is required.

Police protection?

No Impact. Construction activities and O&M activities associated with the proposed Project would not require new or increased need for law enforcement services. A telecommunication path would be added to an existing utility corridor and O&M activities within the ROW would not increase as a result of the proposed Project. Upon completion of the proposed Project, the ROW would be similar to existing conditions; therefore, construction of the proposed Project would not induce criminal activity in the surrounding area. As discussed in Response 15.a1, above, the proposed Project would not result in an increase in population that could increase demand for public services, including police protection services and would therefore not affect the ability of the applicable police agencies to maintain acceptable service ratios, response times, or other performance objectives and would not require new or altered police protection facilities. Therefore, no impacts would occur with police protection, and no mitigation would be required.

Schools?

No Impact. The proposed Project includes the installation of a new telecommunication path in an existing utility corridor. Construction of the proposed Project would not require new personnel to relocate to the area that would require new housing or result in a new or increased demand for school services. O&M activities of the proposed Project would not increase or require public education services or facilities in the surrounding area. As a result, no impacts would occur, and no mitigation would be required.

Parks?

No Impact. An increased use in parks is typically associated with an increase in population. As previously discussed, the proposed Project would not result in unplanned population growth in the Project area. Therefore, construction and operation of the proposed Project would not result in an increased use existing neighborhood or regional parks, or other off-site recreational facilities, nor would it require the need for new park or other recreational facilities. Therefore, no impacts would occur, and no mitigation would be required.

Other public facilities?

No Impact. A new telecommunication system is proposed in an existing utility corridor to reliably interconnect and integrate multiple renewable generation projects onto SCE's electric grid. The proposed Project would not result in unplanned population growth that would result in an increase in the use or the need for new public facilities. Therefore, the Project would not result in an increased demand for public services, and no impacts would occur. No mitigation would be required.

3.16 Recreation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. 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?	☐	☐	☐	☒

Existing Condition

The majority of the Project area is within undeveloped open space that is managed either by the BLM or NPS, or is within the jurisdiction of San Bernardino County, California and Clark County, Nevada. Recreational resources include the California Desert Conservation Area, Special Recreation Management Areas, Wilderness Areas, and Off-Highway Vehicle Areas. Bicycling, camping, hiking, hunting, picnicking, off-roading, and sightseeing opportunities are available within these areas, including the Mojave National Preserve. Table 33 lists recreational areas that are either crossed or within 1 mile of the Project area.

Table 33. Recreational Areas within 1 Mile of the Project Area

Facility	Jurisdiction	Size (acres)	Amenities	Distance to Nearest Project Component (miles)	Nearest Proposed Project Component
California					
Crucero Valley ERMA	BLM	23,748	Campgrounds, hunting, backcountry touring, and open space	Spanned	Eldorado-Lugo 500 kV Transmission Line
Ivanpah Valley ERMA	BLM	–	Land sailing	0.94	Eldorado-Lugo 500 kV Transmission Line
Kelso Dunes Wilderness	BLM	144,915	Open Space, hiking trails, and roadside camping	Spanned	Eldorado-Lugo 500 kV Transmission Line
Mojave Trails National Monument	BLM	965,000	Hiking trails, campgrounds, picnic areas, fossil sites, historic sites, rock collecting, and four-wheel drive trails	Spanned	Pisgah Substation; Eldorado-Lugo 500 kV Transmission Line
Mojave National Preserve	NPS	1,600,000	Campgrounds, food service, stores, picnic areas, and hiking trails	Spanned	Cima Substation; Eldorado-Lugo 500 kV Transmission Line
Mojave Wilderness	NPS	695,200	Campgrounds, picnic areas, self-guided trails, and hiking trails	Spanned	Eldorado-Lugo 500 kV Transmission Line
Stoddard/Johnson SRMA	BLM	277,000	Subdivided into four Recreation Management Zones (Granite Mountain, Stoddard Valley, Johnson Valley Off-Highway Vehicle (OHV) Area, and Ord Rodman). OHV areas, hiking, trails. Includes man organized recreational events.	0.9	Gale Substation
Nevada					
Open Access BLM Land	BLM	–	Open space and hiking trails	Spanned	Transmission Tower M152-T2

Sources: BLM 2022b; NPS 2022

Regulatory Setting

Federal

- **The Wilderness Act of 1964.** As codified by Title 16, Chapter 23 of the U.S. Code, the Wilderness Act of 1964 defines "wilderness" as an area where "the earth, and its community of life, are untrammeled by man and where man himself is a visitor who does not remain." This act also established the National Wilderness Preservation System that coordinates the wilderness activities of four federal agencies: the USFS, BLM, NPS, and the USFWS. The National Wilderness Preservation System provides a system by which land is evaluated and can be added to the list of wilderness areas. With some exceptions (e.g., existing private rights), the Wilderness Act prohibits motorized equipment or mechanized transport in designated wilderness areas, timber harvest, or development.
- **Federal Land Policy and Management Act.** The FLPMA provides a regulatory framework for the management and use of BLM resources. An important aspect of the FLPMA is that it supports multiple uses on public lands. In addition, under the FLPMA, the BLM regulates ROWs for electrical power generation, transmission and distribution systems, systems for the transmission and reception of electronic signals and other means of communication, pipelines (other than oil and gas), railroads, highways, and other facilities or systems developed in the interest of the public. The FLPMA also designated the approximately 26-million-acre California Desert Conservation Area in Southern California, of which approximately 10.4 million acres are administered by the BLM. Lands in the California Desert Conservation Area are also managed by the NPS and DOD.
- **Desert Renewable Energy Conservation Plan.** The Desert Renewable Energy Conservation Plan (DRECP) is a collaborative effort between the California Energy Commission, California Department of Fish and Wildlife, BLM, and U.S. Fish and Wildlife Service to advance federal and state natural resource conservation goals and other federal land management goals; meet the requirements of the FESA, CESA, Natural Community Conservation Planning Act, and FLPMA; and facilitate the timely and streamlined permitting of renewable energy projects in the Mojave and Colorado/Sonoran desert regions of Southern California. The DRECP covers approximately 22.5 million acres in the desert regions of Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego Counties. The DRECP is being prepared in two phases. As part of Phase I, BLM has prepared a Record of Decision approving its Land Use Amendment to the California Desert Conservation Area Plan, and Bishop and Bakersfield Resource Management Plans. Phase II will consist of a General Conservation Plan for approximately 5.5 million acres of non-federal land and a Conceptual Plan-Wide NCCP that encompasses the entire DRECP plan area. The DRECP designates National Scenic and Historic Trail management corridors on federal lands within the Plan area.
- **California Desert Conservation Area Plan.** The CDCA Plan is a comprehensive, long-range plan for the management, use, development, and protection of lands within the CDCA, and it is required as part of the FLPMA and implemented by the BLM. The CDCA Plan contains an Energy Production and Utility Corridors Element, in which the BLM encourages applicants for utility ROWs to use designated corridors. The Desert Renewable Energy Conservation Plan Land Use Plan Amendment is focused on 10.8 million acres of public lands in the desert regions of seven California counties – Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego. It is a landscape-level plan that streamlines renewable energy development while conserving unique and valuable desert ecosystems and providing outdoor recreation opportunities. The BLM signed the Record of Decision approving its Land Use Plan Amendment to the CDCA Plan on September 14, 2016. The BLM Plan Amendment covers the 10 million acres of BLM-

managed lands in the DRECP plan area and supports the overall renewable energy and conservation goals of the DRECP.

- **California Desert Protection Act of 1994.** The California Desert Protection Act of 1994 is a federal law that established Death Valley National Park, Joshua Tree National Park, and the Mojave National Preserve in California. Section 511 Utility Rights of Way states that SCE activities within the ROW of the Mojave National Preserve are to remain valid. This includes upgrades to the existing electrical transmission line to increase capacity.
- **Mojave General Management Plan.** The Mojave General Management Plan, the management strategy for the Mojave National Preserve, was developed as a requirement of the California Desert Protection Act of 1994 and is implemented by the NPS. The Mojave General Management Plan notes that some existing land uses such as electric transmission lines do not conform well with the preservation mission and management goals but are authorized pre-existing uses. The Plan identifies these resources to recognize their existence as non-conforming uses that dissect the park and at times may interfere with the visitor experience. The management philosophy towards these developments is to minimize their intrusion and manage towards their eventual elimination, either through technological improvements or acquisition.

Impact Analysis

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?

Less than Significant. The proposed Project would consist of a new telecommunication path on existing structures in an existing utility corridor. SCE anticipates that the proposed Project would require up to 121 construction personnel at any given time over the 1-year construction period. Construction personnel would likely commute from the San Bernardino and Clark County areas and are not anticipated to permanently relocate to the Project area. The minor increase in daily worker population would be temporary and would not put additional demand on existing recreational facilities.

O&M activities associated with the proposed Project would be similar to those currently performed by SCE for existing facilities. Therefore, the number of personnel required for O&M activities would not increase. O&M activities would not increase the use of parks or recreational facilities.

Potential impacts to nearby recreation areas would be less than significant. No mitigation is required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

No Impact. The proposed Project does not include or require the construction or expansion of recreational facilities. As described in Response 16a, above, construction personnel would likely commute from the San Bernardino and Clark County areas and are not anticipated to permanently relocate to the Project area. Therefore, construction of the proposed Project would not directly or indirectly induce population growth that would increase the use of existing recreational facilities.

O&M activities associated with the proposed Project would be similar to those currently performed by SCE for existing facilities. The number of personnel required for O&M activities would not increase, and no additional park and recreational facility usage would occur. As described in Section 3.14, Population and

Housing, the proposed Project would not create a need for additional housing, or a long-term population increase that would result in a permanent increase in park or recreational facility use. The proposed Project would accommodate existing and planned growth within the SCE service area and would not alter the location, distribution, density, or growth rate of the population. As a result, the Project would not require the construction or expansion of recreational facilities, and no impact would occur. No mitigation is required.

3.17 Transportation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. 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?	☐	☐	☒	☐

Existing Condition

The Project area is located in California and Nevada, within the Mojave Basin and Range. Federal lands constitute a majority of the land area in the Mojave Basin and Range, including lands under the jurisdiction of the BLM, NPS, and DOD. Regional access to the Project area is provided by I-40, I-15, SR-247, SR-95, and SR-164. The majority of roadways spanned by the Project area consist of local unpaved roadways. Pioneer Road, Newberry Road, Daggett-Yermo Road, and Nipton Road would be used to access Project components and construction yards. Segment 1 of the proposed Project runs parallel to I-40 from the Gale to Pisgah Substations and is accessible from Route 66. Segment 2 of the proposed Project would be accessed primarily by helicopters based at Hesperia Airport, Barstow-Daggett Airport, Baker Airport, Jean Airport, and staged at construction yards, including the Daggett Construction Yard. The portion of Segment 2 in Clark County can be accessed via SR-164. No traffic study was prepared for the proposed Project.

Regulatory Setting

California

- **State CEQA Guidelines, Section 15064.3, Determining the Significance of Transportation Impacts.** In response to SB 743 (Steinberg 2013), this provision states that VMT is the most appropriate measure of

transportation impacts in the CEQA process. For transportation impacts under CEQA, VMT refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the Project on transit and nonmotorized travel. Except for roadway capacity projects, a project's effect on automobile delay would not constitute a significant environmental impact under CEQA. For instances where existing models or methods are not available to estimate the VMT for the particular project being considered, a lead agency may analyze the project's VMT qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate (14 CCR 15064.3[b][3]).

- In December 2018, the California Governor's Office of Planning and Research (OPR) released a technical advisory titled Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR guidelines), which contains recommendations regarding the assessment of vehicle miles travelled (VMT) and thresholds of significance. As noted in the OPR guidelines, lead agencies are directed to choose metrics and thresholds that are appropriate for their jurisdiction to evaluate the potential impacts of a project.
- The OPR guidelines indicate that projects that generate or attract fewer than 110 trips per day generally may be presumed to cause a less-than-significant transportation impact. Section 15064.3(a) of the State CEQA Guidelines define VMT as the "amount and distance of automobile travel attributable to a project." The OPR guidelines further state, "Here, the term 'automobile' refers to on-road passenger vehicles, specifically cars and light trucks." Truck trips are generally excluded from the requirements of CEQA as they pertain to transportation impacts and VMT. Furthermore, the OPR guidelines focus almost exclusively on permanent residential, office, and retail projects as primarily responsible for increasing VMT in the state. Therefore, for the purpose of this analysis, the Project would potentially conflict or be inconsistent with State CEQA Guidelines section 15064.3(b), and potentially result in a significant impact, if it would generate more than 110 permanent trips per day.
- California Streets and Highways Code. The use of California State highways for purposes other than normal transportation may require written notification or an encroachment permit from Caltrans. Caltrans has jurisdiction over the State's highway system and is responsible for protecting the public and infrastructure. Section 660 of the California Streets and Highways Code allows Caltrans to issue encroachment permits authorizing activities related to the placement of encroachments within, under, or over State highway ROWs. Caltrans reviews all requests from utility companies that plan to conduct activities within State highway ROWs. Caltrans's encroachment permits may include conditions or restrictions on the timeframe for construction activities performed within or above roadways that are under Caltrans's jurisdiction. The California Streets and Highways Code also includes regulations for the care and protection of State and county highways and requires permits for any load that exceeds Caltrans's weight, length, or width standards for public roadways. Sections 700 through 711 provide provisions that are specific to utility providers. Additionally, the California Streets and Highways Code outlines directions for cooperation with local agencies, guidelines for permits, and general provisions relating to State highways and Caltrans's jurisdiction.
- California Joint Utility Traffic Control Manual. The California Joint Utility Traffic Control Manual provides guidelines for ensuring that the needs of all road users (e.g., motorists, bicyclists, and pedestrians) are met through the establishment of a temporary traffic control zone during highway construction, utility work, and maintenance operations. For any Proposed Project construction activities within a local public ROW, the use of a traffic control service and any lane closures would be conducted in accordance with

applicable laws and permit conditions. These traffic control measures would be consistent with those published in the California Joint Utility Traffic Control Manual.

- **California Vehicle Code.** The California Vehicle Code includes regulations pertaining to licensing, size, weight, and load of vehicles operated on highways, safe operation of vehicles, and the transportation of hazardous materials.

Nevada

- **Nevada Administrative Code.** Nevada Administrative Code Chapter 408, Section 427 requires that non-transportation facilities along highway ROWs be authorized by the Nevada Department of Transportation. Permission is granted via an occupancy permit. If the highway crosses private property, the property owner must also give consent. Chapter 408, Section 4398 specifies design guidelines for aerial electrical or communications lines that traverse State ROWs. Aerial electrical lines must not be lower than 22 feet above the ground, and poles must not be located closer than 2 feet to the curb of the road. Guy wires for such facilities may not be attached to trees and must conform to requirements defined in the National Electrical Safety Code, unless the district engineer overrides these requirements. In addition, aerial crossings of the wire over the road must be as close to 90 degrees as possible.
- **Clark County Encroachment Permit.** Per Clark County Code, an encroachment permit shall be issued for the purposes of minor construction, modification or maintenance of existing improvements, the installation of new utility facilities, or any other minor encroachment approved by the Director of Public Works.

Local

- **San Bernardino County Congestion Management Program.** The San Bernardino County Congestion Management Program, created in conformance with Proposition 111 passed in 1990, intends to maintain or enhance the performance of the multimodal transportation system and anticipate the impacts of proposed new development on the multimodal transportation system. As such, the program requires San Bernardino County and cities to adhere to its requirements and implement the Land Use/Transportation Analysis Program included within the plan.
- **San Bernardino County Countywide Plan.** The San Bernardino County Countywide Plan Transportation and Mobility Element includes policies designed to ensure road design standards of unincorporated areas are met and reflect regional context. Of these policies, Policy TM-2.3 states:

"We require new development to mitigate project transportation impacts no later than prior to occupancy of the development to ensure transportation improvements are delivered concurrent with future development."

Impact Analysis

a) ***Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?***

Less than Significant. Project-related traffic would be temporary during the 1-year construction period. Access to the Daggett Construction Yard would be via I-40 and Daggett-Yermo Road. Access to the Gale Substation would be from Route 66. The Pisgah Substation would be accessed from Route 66 to Power Lane. Access to the Nipton Construction Yard would be via I-15 and Nipton Road. The Project alignment

spans several unpaved roads, unnamed trails, and service roads that may be used by cyclists, off-highway vehicles, and pedestrians. Therefore, temporary construction activities may intermittently reduce, disrupt, or temporarily restrict access to portions of the local roadway network during construction of the proposed Project.

Up to two helicopters may be used for Segment 2 to transport equipment and workers to work locations to begin setting up for pulling. Two crews would utilize one helicopter each and the helicopters would operate approximately 10 hours per day during conductor stringing operations. The proposed helicopter landing zones are located on existing level land to avoid grading and strategically located to access the Project alignment. The majority of the landing zones would be located on existing spur roads and other limited use roadways such as Powerline Road, which is mostly parallel or adjacent to the existing utility corridor. Helicopter use activities would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

Existing access roads would be used to the extent feasible for construction of the proposed Project. Some improvements to existing access roads may be required to allow safe use of heavy equipment. Potential impacts to access roads located with the Mojave Wilderness Area (within NPS MNP managed lands) have been analyzed in the MRDG in order to comply with the Wilderness Act (Appendix H).

Although traffic may be disrupted along Route 66, Pioneer Road, Newberry Road, Daggett-Yermo Road, and Nipton Road to access Project components and construction laydown yards, Project construction activities would not be expected to contribute a substantial amount of vehicle traffic to these roadways and other local roads. Construction traffic would be temporary, and any traffic increase would be negligible in a desert, rural area of the County. Due to the temporary nature of any traffic impacts, construction-related traffic would not conflict with the San Bernardino County Congestion Management Program and San Bernardino County General Plan Circulation and Infrastructure Element; Clark County Department of Public Works encroachment permit and manuals regarding traffic management plans (Clark County Department of Public Works 2019), or any other applicable plan, ordinance, or policy related to the effectiveness of the existing circulation system. The proposed Project would be located in mostly rural or undeveloped areas and would not affect public transit or bicycle or pedestrian facilities.

The proposed Project would comply with goals and policies per the San Bernardino County General Plan Circulation and Infrastructure Element and the Clark County Department of Public Works encroachment permit procedures. Potential traffic and transportation-related impacts during construction would be less than significant, and no mitigation is required.

O&M for the proposed Project would involve routine maintenance and therefore, access would be minimal and infrequent. The majority of regular O&M activities of telecommunications equipment would be typically performed at substation or communication sites and inside equipment rooms. These areas would be accessed from existing roads with no surface disturbance; helicopter transportation may be required to access remote communications sites for routine or emergency maintenance activities. O&M activities would be similar to those occurring for the existing utility alignment and would therefore not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Less than Significant. CEQA Guidelines 15064.3 states that vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts. CEQA Guidelines 15064.3 subdivision (b) provides several criteria for analyzing transportation impacts, including analyzing a project's VMT qualitatively when lead agencies may not be able to quantitatively estimate VMT for a project type.

During times of overlap between Segment 1 and Segment 2, up to approximately 121 private commuting vehicles and construction vehicles/equipment per day would travel to the construction yards or substations throughout the 103-mile Project alignment, although carpooling is anticipated and the actual of vehicles is likely to be lower. Crews would load materials onto work trucks and drive to the current construction location. At the end of each day, crews would return to the yard in their work vehicles and depart in their private vehicles. This VMT would be temporary, would cease upon completion of construction and decommissioning, and would not contribute to permanent per-capita VMT. Therefore, Project construction and decommissioning would not result in a substantial increase in VMT that would conflict or be inconsistent with State CEQA Guidelines Section 15074.3(b) and impacts would be less than significant.

Construction would occur between 5:00 a.m. and 7:30 p.m. on federal land and between 7:00 a.m. and 7:00 p.m. on private land. The types of vehicles may include, but are not limited to, one-ton trucks, dump trucks, splice trucks, pole diggers, compressor trailer, bucket truck, and water truck during construction. Larger pieces of equipment may include rope machine, a puller, tensioning machine or "bull wheel," backhoe/front loader, several flatbed trailers with mounted reel stands, a rough terrain crane, and a sagging Cat/Bulldozer. Construction of the proposed Project would result in a temporary increase in VMT from employee and truck trips during the approximately 12-month construction period. As discussed in the Regulatory Setting above, the State CEQA Guidelines state that VMT refers to the amount and distance of automobile travel attributable to a project. The OPR guidelines further state, "Here, the term 'automobile' refers to on-road passenger vehicles, specifically cars and light trucks" (OPR 2018). Therefore, truck trips typical of those that would be generated by Project construction are generally excluded from the requirements of CEQA as they pertain to transportation impacts and VMT.

The majority of regular O&M activities of telecommunications equipment would be typically performed at substation or communication sites and inside equipment rooms. These areas would be accessed from existing roads with no surface disturbance, which would not increase VMT during operation since O&M activities for the new telecommunication path would occur during the normally scheduled cycles for the existing distribution and transmission tower locations. Due to the negligible increase in vehicle miles traveled during construction, a traffic study for the Project was not prepared as thresholds for VMT would not be exceeded. The proposed Project would not result in a substantial increase in VMT that would conflict or be inconsistent with State CEQA Guidelines Section 15064.3(b), and impacts would be less than significant with no mitigation required.

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)?

Less than Significant. The proposed Project would not increase the footprint of the existing facility, nor would it substantially alter circulation patterns on adjacent roadways. Existing access roads would be

used to the extent feasible during construction and no new permanent roads would be created. Some maintenance to existing unimproved access roads may be necessary for safe use of heavy equipment. Potential impacts to access roads located with the Mojave Wilderness Area (within NPS MNP managed lands) have been analyzed in the MRDG in order to comply with the Wilderness Act (Appendix H).

Construction activities would be compatible with the intended use of the existing transportation facilities, but the movement of heavy trucks and equipment on roadways providing access to Project work areas could damage road surfaces, shoulders, curbs, sidewalks, signs, and light standards. To minimize the potential impact of hazards related to inadvertent damage, roads utilized for construction would be improved as needed. The proposed Project does not include design features that would increase hazards or incompatible uses. Therefore, hazards due to a geometric design features and incompatible uses would be less than significant. No mitigation is required.

O&M activities associated with the Project would be similar to those currently performed for the existing facilities. If lane or road closures are necessary to maintain new and existing facilities, SCE would continue to employ traffic management and control measures to reduce the risk of hazards during O&M. Therefore, O&M of the proposed Project would not significantly increase hazards caused by a design feature or incompatible use, and there would be a less than significant impact.

d) Would the project result in inadequate emergency access?

Less than Significant. Temporary activities across roadways could disrupt the operations of emergency service providers. However, as noted in APM TR-1, in the event that an emergency service provider's vehicle was to approach a roadway subject to overhead construction or reconductoring activities, SCE would accommodate the emergency service provider vehicle by immediately stopping work and allowing the safe passage of the emergency service vehicle. In addition, guard structures would be set up next to major highway and road crossings and would not impede emergency access. If an emergency vehicle, or helicopter, approached during helicopter Project activities, the Project helicopter would be able to quickly maneuver off the landing zone or out of the way for safe passage of the emergency responders. As previously discussed in Section 3.9, Hazards and Hazardous Materials, under Response (f), the designated evacuation routes in the vicinity of the Project alignment are the I-15 and I-40 (County of San Bernardino 2017). The proposed Project would be located within an existing utility corridor and would not impact the use of evacuation routes or interfere with implementation of an emergency operations plan or emergency evacuation plan. Segment 1 would cross I-40 overhead in two locations; however, guard structures would be set up adjacent to the major highway and would not result in a road closure of I-40 in these two areas. Segment 2 is not located along the I-15 or I-40, or any other evacuation routes. The portion of the Project alignment located in Nevada would comply with the emergency operations plans of the Clark County Southern Nevada Health District.

In addition, SCE would implement traffic management and control protocols and a Project-specific traffic plan as specified in APM TR-1, to reduce interference with an adopted emergency response or evacuation plans. Also, as specified in APM TR-1, SCE would coordinate with local county and city authorities, including emergency responders. Construction impacts related to inadequate emergency access would be less than significant because of APM TR-1 is already built into the proposed Project and requires the preparation of the Construction Traffic Management Plan , which would establish emergency access

around active construction. Therefore, construction of the proposed Project would not result in inadequate emergency access and this impact would be less than significant. No mitigation is required.

O&M activities would be similar to those occurring in the existing condition. O&M activities would generally not occur in roadways; however, O&M activities associated with the proposed Project may infrequently require temporary lane closures to allow access. This occurrence would be the same as for existing facilities. No additional impact would occur because of operating and maintaining the Project. No mitigation is required.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) 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	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

Affected Environment

Several groups occupied the APE and surrounding Mojave Desert region, including the Kawaiisu, Kitanemuk, Southern Paiute, Serrano, Chemehuevi, Desert Mojave, Tubutulabal, and Panamint. Four major linguistic groups originating from northern Uto-Aztecan groups also are associated with the Mojave Desert Region: Tubatulabalic, Hopic, Numic, and Takic (Sutton et al. 2007, p. 243). The Mojave River appears to have been a major boundary between Takic and Numic speaking groups during prehistoric times. Groups occupying the Central Mojave Desert were of the Takic and Numic linguistic groups. Takic speaking groups originated in the southwestern Mojave Desert, expanding south and east sometime around 500 cal B.P., and include the Serrano and Kitanemuk (Sutton et al. 2007 p. 243). At time of contact, groups south of the Mojave River and much of southern California were

part of the Takic linguistic group. The groups north and east of the APE were of the Numic linguistic group, which included the Kawaiisu, Chemehuevi, and Southern Piute.

During the ethnographic period, the Serrano, Vanyume, Chemehuevi, and Desert Mojave occupied the APE. These groups are discussed below.

Serrano

The Serrano occupied an area in and around the San Bernardino Mountains between approximately 450 and 3,350 m (1,500 to 11,000 feet) above mean sea level. Their territory extended west of the Cajon Pass, east past Twentynine Palms, north of Victorville, and south to Yucaipa Valley. A smallpox epidemic in the 1860s killed many indigenous southern Californians, including many Serrano (Bean and Vane 2002). Oral history accounts of a massacre in the 1860s at Twentynine Palms may have been part of a larger American military campaign that lasted 32 days (Bean and Vane 2002: 10). Surviving Serrano sought shelter at Morongo with their Cahuilla neighbors; Morongo later became a reservation (Bean and Vane 2002). Other survivors followed the Serrano leader Santos Manuel down from the mountains and toward the valley floors and eventually settled what later became the San Manuel Band of Mission Indians Reservation, formally established in 1891.

Vanyume

Limited information is available on the Vanyume during the historic period. What information exists describes the Vanyume as a small division of the Serrano living in the Mojave Desert, north of Serrano territory (Kroeber 1925, p. 614). The Vanyume spoke a Takic language related to the Kitanemuk to the west and the Serrano to the south. Kroeber reported that the Vanyume were occasionally friendly with the Mojave and Chemehuevi, but hostile to the Serrano (Kroeber 1925, p. 614). Kroeber also stated that the population of the Vanyume was very small at the time of historic contact. The Vanyume were hunters and gatherers, and shell beads and milling stones were known to have been used. The Vanyume are generally associated with lifeways similar to the Serrano to the south (Yohe and Sutton 1991).

Chemehuevi

The Chemehuevi band of the Southern Paiute possibly entered the eastern Mojave Desert area from the north in fairly recent prehistoric times. The Chemehuevi, also called the Pah-Utes, were closely related to the Southern Paiute in Death Valley and the Southern Nevada region. At the time of ethnographic contact, the Chemehuevi claimed a large portion of the eastern and central Mojave Desert, perhaps as far west as Afton Canyon on the Mojave River (Kelly and Fowler 1986, p. 368). Although the Chemehuevi territory boundaries are unclear, it is certain that they inhabited the Providence Mountains. Based on archaeological data, the Chemehuevi entered the Mojave Desert sometime in the 17th century (Yohe and Sutton 1991).

The Chemehuevi were strongly influenced by the Mojave. It is possible that they displaced the Desert Mojave, a Yuman speaking group (Kelly and Fowler 1986, p. 368). Many Chemehuevi words are related to Mojave vocabulary, along with agricultural practices, house construction, warfare, and other cultural elements, such as religious practices. The Chemehuevi used square metates, paddle and anvil pottery techniques and hair dye (Kelly and Fowler 1986, p. 369). In addition to their close association with the Mojave, the Chemehuevi traded widely with the Shoshone, Kawaiisu, Serrano, Vanyume, Cahuilla, and Diegueno (Kelly and Fowler 1986, p. 369).

In 1874, the U.S. government established the Colorado River Reservation in an effort to move the remaining Chemehuevi onto the reservation. However, the reservation was shared with the Mojave band, with which the Chemehuevi had differences. From 1865 to 1871, the Chemehuevi were at war with the Mojave. They were therefore reluctant to move to the reservation (Kelly and Fowler 1986, p. 388). Some of them were forced to move to the reservation, while some of them would not move. Many stayed in their historic locations, finding work on farms, ranches, and in mines. In 1901, the Chemehuevi received their own reservation in the Chemehuevi Valley.

Desert Mojave

The Desert Mojave are only known by ethnographic accounts given by Chemehuevi informants, who claimed that they had fought the Desert Mojave in relatively recent times and extirpated them from a large territory extending westward from the New York and Providence mountains to the Mojave River (Earle 1996). The Desert Mojaves were described to various ethnographers by Chemehuevi sources as a group that was of Mojave cultural affiliation, but dressed like the Chemehuevi, had bows like them, and hunted like them. They were said to have spoken Mojave and cremated their dead. Chemehuevi accounts described in some detail a war of extermination between the Desert Mojave and the Chemehuevi (Kelly 1953, pp. 17-24–27). This war was recalled as having occurred five generations before that of the elderly native consultants.

At the time of the outbreak of the Chemehuevi–Desert Mojave war, the latter were said by several Chemehuevi sources to have lived in the region of the Providence and Granite mountains and as far west as the Sinks of the Mojave River and the Soda Mountains. It was mentioned by one of Isabel Kelly's Chemehuevi sources that the Desert Mojave might have occupied the Mojave River as far to the west as Daggett, and one of Van Valkenbergh's consultants put them as far west as Barstow (Kelly 1953, pp. 17–11, pp. 24–27). J. P. Harrington also recorded considerable information about the Desert Mojaves from the Mojave, who placed them in the vicinity of Newberry Springs, within the APE. They were said to have been headed directly north and were never seen again (Harrington 1986, pp. III: 167, p. 363).

Chemehuevi and Mojave accounts of the expulsion of the so-called Desert Mojaves create the impression that this event was relatively recent in the framework of regional tribal histories (Earle 2005, pp. 6–7; 2009, pp. 34-35). Accounts from native individuals interviewed in the early 20th century suggest a date of perhaps the mid- or late-18th century. At the same time, Garcés' journey of exploration through the region in 1776 clearly seems to post-date the expulsion of the Mojaves (Earle 2005, pp. 19–23).

Regulatory Setting

State and Local

There are variety of state policies aimed at regulating the management of Cultural Resources on state lands. The following is a brief overview of the most pertinent laws affecting the proposed Project area. For further in-depth analysis of the regulatory framework that affects Tribal Cultural Resources refer to the Regulatory Setting subsection in Section 3.5, Cultural Resources.

California

AB 52

As of July 1, 2015, California AB 52 of 2014 (AB 52) was enacted and expands CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3). PRC Section 20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources.

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and meets either of the following criteria:

1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC section 5020.1(k); and/or
2) 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 PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

AB 52 also establishes a formal consultation process for California Native American Tribes regarding those resources. The formal consultation process must be completed before a CEQA document can be released if a California Native American Tribe traditionally and culturally affiliated with the geographic area of the proposed Project requests consultation from the lead agency (PRC Section 21080.3.1). California Native American Tribes to be included in the process are those that have requested notice of any proposed projects within the jurisdiction of the lead agency.

Nevada

Nevada Revised Statute 383.121 states all departments, commissions, boards, and other agencies of the State and its political subdivisions will cooperate with the Nevada SHPO to salvage or preserve historic, prehistoric or paleoenvironmental evidence located on property owned or controlled by the United States, the State of Nevada, or its political subdivisions.

Tribal Cultural Resources

Tribal cultural resources include sites, features, places, cultural landscapes, and sacred places or objects that have cultural value or significance to a tribe. A tribal cultural resource is one that is either: (1) listed on, or eligible for listing on the CRHR or local register of historical resources (refer to Section 3.5, Cultural Resources, for more information about the CRHR); or (2) a resource that the CEQA lead agency, at its discretion and supported by substantial evidence, determines is significant pursuant to the criteria in PRC Section 5024.1, subdivision (c) (refer to PRC Section 21074). Further, because tribes traditionally and culturally affiliated with a geographic area may have specific expertise concerning their tribal cultural resources, AB 52 sets forth requirements for

notification and invitation to government-to-government consultation between the CEQA lead agency and geographically affiliated tribes (PRC Section 21080.3.1[a]). Under AB 52, lead agencies must avoid damaging effects to tribal cultural resources, when feasible, regardless of whether consultation occurred or is required.

Tribal cultural resources per PRC 21074 (a)(1)(A)–(B) are defined as either of the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    a. Included or determined to be eligible for inclusion in the California Register of Historical Resources.
    b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.
    a. A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
    b. A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Sacred Lands File Search

The NAHC maintains two databases to assist cultural resources specialists in identifying cultural resources of concern to California Native Americans. On February 22, 2017, Environmental Intelligence (EI), on behalf of SCE, contacted the NAHC to obtain information about known cultural and tribal cultural resources and request a list of Native American tribal representatives who may have a cultural affiliation with the Project area for Segment 2. The NAHC provided the results of a Sacred Lands File search to EI on February 27, 2017. The NAHC responded that "Sites have been located within the APEs provided that may be impacted by the Project. Please immediately contact the Chemehuevi Indian Tribe at (760) 858-4219 for more information about these sites." The NAHC also provided a list of tribes that have cultural and traditional affiliation to the Project area. A NAHC search was requested for Segment 1 on October 4, 2019 and negative results were provided to EI on October 17, 2019.

AB 52 Native American Tribal Consultation

The lead CEQA agency is required to conduct formal consultation with California Native American Tribes who identify as being traditionally and culturally affiliated with the Project area pursuant AB 52 to determine potential impacts to tribal cultural resources as defined in PRC Section 21074. The lead CEQA agency must begin the AB 52 consultation process prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report. The AB 52 consultation process shall begin with the lead CEQA agency providing

written notification to California Native American Tribes who identify as being traditionally and culturally affiliated with the Project area. The written notification includes a brief description of the proposed Project, the Project's location, the lead CEQA agency contact information, and notification that the California Native American Tribe has 30 days to request consultation. Upon receipt of a written response from a California Native American Tribe requesting consultation, the lead CEQA agency and the California Native American Tribe requesting consultation shall begin AB 52 consultation.

On June 15, 2020, CDFW provided notification of the Project under CEQA Section 21080.3.1 and CDFW's Tribal Communication and Consultation Policy to the 15 tribes identified by the NAHC. The notification letters included a description of the Project and potential impacts to tribal interests and invited consultation pursuant to CEQA and CDFW's Tribal Communication and Consultation Policy. Three tribes responded: San Manuel Band of Mission Indians (SMBMI), Soboba Band of Luiseño Indians (Soboba) and Quechan Tribe of the Fort Yuma Reservation (Quechan). Quechan responded with deferment to more local tribes. SMBMI and Soboba requested formal consultation via letters attached to emails. SMBMI and Soboba also requested additional information regarding the Project. Pursuant to requests from the SMBMI and Soboba, CDFW provided copies of the cultural resources report in November 2020.

On April 24, 2023, CDFW provided a second notification of the Project under CEQA Section 21080.3.1 and CDFW's Tribal Communication and Consultation Policy to the 15 tribes identified by the NAHC. Three tribes responded: San Manuel Band of Mission Indians (SMBMI), Morongo Band of Mission Indians (Morongo) and Quechan Tribe of the Fort Yuma Reservation (Quechan). SMBMI and Morongo requested formal consultation via letters attached to emails. Quechan, SMBMI and Morongo also requested additional information regarding the Project. Pursuant to requests from the Quechan, SMBMI and Morongo tribes, CDFW provided copies of the cultural resources report in May 2023 (Quechan and SMBMI) and June 2023 (Morongo).

Consultation with the Morongo and SMBMI tribes has concluded.

Section 106

Native American consultation is also being performed by officials of the federal lead agency (BLM, Barstow Field Office) pursuant to Section 106 of the National Historic Preservation Act (NHPA). Because this Project overlaps with other projects recently completed in the area (Coolwater to Lugo, Granite Wind, and Calico Solar), the BLM has an established consulting tribe (San Manuel Band of Mission Indians) for cultural resources known and/or anticipated in this area. As such, the BLM handles all Section 106 consultation with the tribe related to this Project. All consultation documentation is on file with SCE and BLM. A summary of consultation results is available in Confidential Appendix E.

Other Tribal Consultation

On November 15, 2019, SCE sent a separate, non-AB 52, Project courtesy letter to notify the individuals identified on the NAHC contact list about the proposed Project to ensure those tribes would have an opportunity to provide meaningful input on the potential for tribal cultural resources to be found in the Project area, and to consult on the treatment of and mitigation of Project impacts to any such resources. The outreach letters were sent to the following individuals:

- Chairperson Charles F. Wood, Chemehuevi Reservation;

- Chairman Dennis Patch, Colorado River Indian Tribe;
- Chairperson Timothy Williams, Fort Mojave Indian Tribe;
- Ms. Julie Turner, Kern Valley Indian Community;
- Ms. Brandy Kendricks, Kern Valley Indian Community;
- Chairperson Robert Robinson, Kern Valley Indian Community;
- Ms. Denisa Torres, Morongo Band of Mission Indians;
- Chairperson Robert Martin, Morongo Band of Mission Indians;
- Chairperson Donna Yocum, San Fernando Band of Mission Indians;
- Director Lee Clauss, San Manuel Band of Mission Indians (email response received December 20, 2019; refer to Confidential Appendix G);
- Co-Chairperson Wayne Walker, Serrano Nation of Mission Indians;
- Co-Chairperson Mark Cochrane, Serrano Nation of Mission Indians;
- Chairperson Robert L. Gomez, Tubatulabals of Kern Valley;
- Tribal Historic Preservation Officer Anthony Madrigal, Twenty-Nine Palms Band of Mission Indians; and
- Chairperson Darrell Mike, Twenty-Nine Palms Band of Mission Indians.

A single response on behalf of Director Lee Clauss, further detailed in Confidential Appendix G, described that Segment 1 of the Project lies entirely within Serrano Ancestral Territory, and Segment 2 continues into Serrano Ancestral Territory until the northern boundary of the Broadwell Mesa quad. Both segments are located within the vicinity of multiple known tribal cultural resource locations (villages and rock art sites), particularly around Dagget, Newberry Springs, and Pisgah.

California Historical Resources Information System Records Search and Survey

AB 52 defines tribal cultural resources as those archaeological sites identified by tribal individuals that are eligible for or listed in the CRHR, or resources that are accompanied by substantial evidence such that the lead agency designates a resource as a tribal cultural resource. As such, it is appropriate to review identification of prehistoric archaeological resources that have the potential to be identified by consulting tribes as a tribal cultural resource by referring to records search and cultural resources inventories.

Several cultural resources inventories have been conducted for the proposed Project and its APE (Davis and George 2018; Nixon et al. 2019; Urbana 2018; Winslow 2018, 2019). A cultural resources records search was conducted for Segment 1 at the SCCIC in May 2018. A total of 344 cultural resources were identified with the Segment 1 records search extent, 42 of which overlap with Segment 1. A cultural resources records search was conducted for Segment 2 at the SCCIC in November 2016 and a supplemental records search data was obtained by SCE in June 2017 for Segment 2. A total of 120 cultural resources were identified within the Segment 2 records search extent, 15 of which intersect or are located within Segment 2. A cultural resources records search for additional work areas located within Segment 1 and Segment 2 was conducted at the SCCIC in September of 2021.

Segment 1 survey areas were covered by Jackson et al. 2015, Winslow et al. 2013, and Nixon et al. 2010. A total of 26 acres of Segment 1 were not covered by these previous studies and were surveyed by GANDA in August 2018 (Nixon et al. 2019). Segment 2 was surveyed by EI in May 2017 and a supplemental survey by ASM was

conducted in May 2019. The built environment survey for Segment 1 was conducted by Urbana in May 2018 (Urbana 2018). The built environment survey for Segment 2 was conducted by ASM in December 2016, October 2017, and November 2017. Jacobs Engineering Group conducted intensive pedestrian surveys of additional work areas located within Segment 1 and Segment 2 in May of 2021 (Jacobs 2021a, 2021b).

A total of 131 cultural resources, including 26 built environment resources, 44 archaeological sites, 4 multicomponent resources (recorded as built environment and archaeological resources), and 57 archaeological isolates are present in the Project APE (see Confidential Appendix E-8 for details). Of the 131 cultural resources within the Project APE, 16 are listed or have been previously determined or recommended eligible for listing in the NRHP or CRHR. A total of 12 resources are unevaluated, one of which is assumed to be eligible for purposes of this IS.

Impact Analysis

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:

a) ***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)?***

b) ***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.***

Less than Significant.

Under California's AB 52, Tribal Cultural Resources (TCRs) are defined as archaeological resources that are eligible for or listed in the CRHR, or resources that the lead agency determines to be a TCR with a substantial burden of evidence.

A total of 131 cultural resources, including 26 built environment resources, 44 archaeological sites, 4 multicomponent resources (recorded as built environment and archaeological resources), and 57 archaeological isolates are present in the Project APE (see Confidential Appendix E-8 for details). Of the 131 cultural resources within the Project APE, 16 are listed or have been previously determined or recommended eligible for listing in the NRHP or CRHR. A total of 12 resources are unevaluated, one of which is assumed to be eligible for purposes of this IS.

AB 52 notification letters were mailed on June 15, 2020, by CDFW to the 15 contacts identified by the NAHC contact list. Three tribes responded: San Manuel Band of Mission Indians (SMBMI), Soboba Band of Luiseño Indians (Soboba), and Quechan Tribe of the Fort Yuma Reservation (Quechan). Quechan responded with deferment to more local tribes. SMBMI and Soboba requested formal consultation and also requested additional information regarding the Project. Pursuant to requests from the SMBMI and Soboba, CDFW provided copies of the cultural resources report in November 2020.

On April 24, 2023, CDFW provided a second notification of the Project and three tribes responded: SMBMI, Morongo, and Quechan. SMBMI and Morongo requested formal consultation and Quechan, SMBMI and Morongo requested additional information regarding the Project. Pursuant to requests from the Quechan, SMBMI and Morongo tribes, CDFW provided copies of the cultural resources report in May 2023 (Quechan and SMBMI) and June 2023 (Morongo).

Consultation with the Morongo and SMBMI tribes has concluded.

During AB 52 consultation, the SMBMI expressed concerns about site P-36-000317, a multicomponent site (prehistoric habitation site and historic refuse deposit) eligible for the NRHP and CRHR, and located partially within the Project APE. SMBMI articulated about the importance of staying in previous footprints and working with low to no disturbance in the future, and provided their inadvertent discovery plan to provide example language to revise the APMs based on their own measures. The measures regarding tribal monitoring, TCR avoidance, and treatment of inadvertent discoveries in the TCR vicinity were provided by CDFW and modified by the tribe to ensure that TCRs would not be impacted. The modified measures were agreed to by SCE and incorporated as APMs (found in Table 9).

These resources described above are potentially subject to direct and indirect impacts from the proposed Project. Direct effects could occur to previously identified TCRs; however, avoidance of TCRs is preferred by the SMBMI, and impacts to known and inadvertently discovered resources would be avoided through the implementation of APMs CUL-1, CUL-2, CUL-3, CUL-7, CUL-8, TCR-1, and TCR-2, which would reduce these impacts to less than significant levels.

APM CUL-1 requires the preparation and implementation of a Cultural Resource Management Plan (CRMP). APM CUL-2 would require training for all construction personnel to learn the proper identification or buried tribal cultural resources and the procedures to treat inadvertent discoveries. APM CUL-3 would include cultural monitoring for work occurring within 50 ft of resources eligible or potentially eligible for inclusion in the NRHP or the CRHR. As detailed in APM TCR-1, a tribal monitor that is culturally affiliated with the Project area may be present during ground-disturbing activities within or directly adjacent to previously identified TCRs. As detailed in APM TCR-2, a Tribal Engagement Plan would be included as part of the CRMP to ensure Native American tribes will be engaged and informed throughout the Project. The CRMP also includes an unanticipated discovery protocol to protect any resources encountered during Project activity. APMs CUL-7 and CUL-8 further detail the protocols for unanticipated discovery of tribal cultural resources and human remains.

Construction activities would be temporary or short-term in nature and would cease with the end of construction. Permanent visual changes (e.g., series capacitor facilities and repeater facilities) would be of a similar nature and scale as existing visible facilities on the ROW and in the vicinity. Therefore, the proposed Project would not cause a substantial adverse change in the significance of an historical resource or TCR. As such, these resources are not subject to indirect effects from the proposed Project and no mitigation is necessary.

Operations and Maintenance (O&M) activities would occur in previously disturbed locations. No ground disturbance that would cause a substantial adverse change in the significance of a TCR is anticipated to occur during routine O&M activities. Therefore, the impact is less than significant during O&M.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, waste water 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 waste water 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?	☐	☐	☒	☐

Existing Condition

This section describes the utilities and service systems in the vicinity of the Proposed Project components. Utility and services system facilities associated with electricity, domestic (potable) water supply, stormwater, solid waste, communications, and natural gas are provided and maintained by a variety of local purveyors, including cities, counties, special districts, water agencies, and private companies. In the Project vicinity there are also interstate natural gas transmission lines.

Water, Wastewater, and Stormwater

San Bernardino County's domestic water is, on average 85% supplied by local sources and 15% supplied by imported purchased water (County of San Bernardino 2019b). The Golden State Water Company has a total supply of 14,408 acre-feet per year through the year 2045 (Golden State Water Company 2021). Imported water

is primarily purchased from the Metropolitan Water District of Southern California and the State Water Project (the California Aqueduct) as a supplemental source to local water supplies. Additionally, there are three State Water Project contractors and one sub-contractor in San Bernardino County. These are: Crestline-Lake Arrowhead Water Agency, Mojave Water Agency, San Bernardino Valley Municipal Water District, and Inland Empire Utilities Agency (County of San Bernardino 2019b).

Water in southern Nevada is managed by the Southern Nevada Water Authority, which is made up of seven local water and wastewater agencies within Nevada. The Southern Nevada Water Authority is responsible for water treatment and delivery and acquiring and managing long-term water resources for Southern Nevada. Approximately 90% of southern Nevada's water comes from the Colorado River and is stored in Lake Mead. The remaining 10% is groundwater drawn from the Las Vegas Valley (Southern Nevada Water Authority 2022).

Wastewater treatment for unincorporated areas of San Bernardino County is primarily provided by septic systems; however, there are limited-service sewer agencies in the region including Victor Valley Regional Wastewater Agency, the City of Adelanto, and the City of Barstow (County of San Bernardino 2019b). In Clark County, the Clark County Water Reclamation District is responsible for wastewater treatment and reclamation in all unincorporated areas. The District's collection network includes six treatment facilities, 23 pumping stations, and approximately 2,200 miles of pipeline (Clark County Water Reclamation District 2022). In areas where public sewers are not available to carry wastewater to municipal wastewater treatment plants, septic systems provide the functions of both sewer collection and treatment plant (Clark County Water Reclamation District 2009).

The San Bernardino County Flood Control District is responsible for providing flood control and related services to unincorporated areas and incorporated cities within San Bernardino County. Cities within San Bernardino County implement local storm drains that feed into a larger county-wide system (County of San Bernardino 2019b). In Clark County, flood control and stormwater management are administered by the Clark County Regional Flood Control District, which performs reviews of proposed land development to ensure regulatory compliance (Clark County Regional Flood Control District 2022).

Electricity, Natural Gas, and Telecommunications

In San Bernardino County, Southern California Gas Company (SoCalGas), Pacific Gas and Electric (PG&E), Kern River, Mojave, and Kern Mojave are the major natural gas pipelines that serve residents. SoCalGas provides natural gas services to San Bernardino County. Within San Bernardino County, retail electric service is provided by SCE. Telecommunications facilities in San Bernardino include AT&T, American Tower Corporation. Air Touch Cellular, Cingular Wireless, MCI, Verizon, Sprint Wireless, Cox Communications, and Nextel Communications (County of San Bernardino 2007c).

Within Clark County, electrical service is provided by the Nevada Power Company, Overton Power District #5, and Valley Electric Association (Clark County 2006). The Nevada Power Company provides electrical service to the Las Vegas Valley and outlying Clark County. Natural gas is transported through pipelines owned by CALNEV Pipeline, Southwest Gas, and Kern River Gas Transmission Company (Clark County 2006). Telecommunication services are largely supplied by Cox Communications, Embarq and various other cable providers in the outlying areas of Clark County (Clark County 2006).

Solid Waste

There are 5 regional landfills within San Bernardino County, 17 materials recovery facilities, 8 transfer stations, and 7 construction/demolition and inert debris processing facilities. The 5 regional landfills have capacity for well in excess of 15 years and there are various planned and proposed facilities in San Bernardino County, including 4 materials recovery facilities and 1 construction/demolition and inert debris processing facility (County of San Bernardino 2018). As of 2016, the County anticipated to generate 32.3 million tons of refuse for disposal for the next 15-year period (2017 through 2032), and the landfills currently had 164.2 tons of remaining capacity (County of San Bernardino 2018). Clark County is served primarily by Republic Services.

Regulatory Setting

California

- **California Government Code – Protection of Underground Infrastructure**. The responsibilities of California utility operators working in the vicinity of utilities are detailed in the California Government Code, "Protection of Underground Infrastructure" (California Government Code Title 1, Division 5, Chapter 3.1 Sections 4216–4216.24). This law requires that an excavator must contact a regional notification center at least 2 days prior to excavation of any subsurface installation. Any utility provider seeking to begin a project that may damage underground infrastructure can call Underground Service Alert, the regional notification center. Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the project. Representatives of the utilities are required to mark the specific location of their facilities within the work area prior to the start of project activities in the area. The code also requires excavators to probe and expose underground facilities by hand prior to using power equipment.

Nevada

- **Southern Nevada Health District.** Under the Southern Nevada District Board of Health acting as a Solid Waste Management Authority, created pursuant to NRS 439.362, the Solid Waste and Compliance section is responsible for managing permitted disposal facility inspections, illegal solid waste disposal site investigations and enforcement, underground storage tank compliance, solid and special waste and public nuisance complaints investigations, notices of violation and conducting the Solid Waste management Authority Hearing Officer process for illegal dumping complaints, and the Restricted Waste Management Program.

Local

- **San Bernardino County Countywide Plan.** The San Bernardino County Countywide Plan Infrastructure and Utilities Element implements specific policies to ensure adequate regional landfill capacity. These include:
  - **Policy IU-4.1 Landfill capacity.** We maintain a minimum ongoing landfill capacity of 15 years to serve unincorporated waste disposal needs.
  - **Policy IU-4.2 Transfer stations.** We locate and operate transfer stations based on overall system efficiency.
  - **Policy IU-4.3 Waste diversion.** We shall meet or exceed state waste diversion requirements, augment future landfill capacity, and reduce greenhouse gas emissions and use of natural resources through the reduction, reuse, or recycling of solid waste.

- **Policy IU-4.4 Landfill funding.** We require sufficient fees for use of County landfills to cover capital costs; ongoing operation, maintenance, and closure costs of existing landfills; and the costs and liabilities associated with closed landfills.

Impact Analysis

a) Would the project require or result in the relocation or construction of new or expanded water, waste water treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than Significant. Construction of the proposed Project would involve minimal clearing and leveling of construction sites, trenching for conduit installation, use of an auger for new and replacement wood pole installation, possible horizontal directional drilling for installation of underground telecommunication lines, installation of new electrical equipment at three substations, installation of new ADSS, OFNR, and OPGW, and minor improvements to existing access roads. Project construction and O&M activities are not anticipated to increase demand for additional service utilities (e.g., water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities).

Water, Wastewater Treatment, or Stormwater Facilities

Minimal water use would be required for construction activities and O&M for the proposed Project. As discussed in Section 3.10 (b), Project construction water use would generally be limited to dust suppression during travel along existing dirt access roads, minimal clearing and leveling required for construction areas during ADSS and OPGW stringing, trench excavation for OFNR installation, and vehicle and structural materials washing. As in Section 10 (b), water use is estimated at 185,290 gallons per day on average, which, over the 12-month construction period, would amount to a total of 180 acre-feet. Water would be obtained water from regional water agencies and local municipal sources that have enough supplies to serve the Project. The municipal supplies may come from either groundwater or surface water sources, or a combination of both, depending on the water agency. The water used for such activities would be obtained off site (hauled in by truck) and would not require any new water connections. This impact would be less than significant.

No new wastewater connections would be required for the proposed Project, and no permanent restroom facilities are proposed on site. During construction, portable sanitation facilities would be used in the Project area. Portable sanitation facilities would be maintained by a licensed sanitation contractor, and sanitation waste and wastewater (i.e., human generated waste) would be transferred to existing off-site disposal facilities in accordance with sanitation waste management practices. This impact would be less than significant.

Construction-related activities would not result in a substantial increase in impervious surfaces that would increase storm water runoff from the Project area, nor does the Project propose the installation of new impervious surfaces; therefore, it is expected that rates of storm water runoff during construction and O&M would be similar to preconstruction conditions. Because construction and O&M activities would not result in significant increases in runoff, the proposed Project would not require the construction of new storm water drainage facilities or the expansion of existing facilities.

Electric Power, Natural Gas, or Telecommunications Facilities

The Project would not increase demands for natural gas or electricity, and no new natural gas lines or electricity lines would be needed for construction or O&M for the proposed Project. As described in the Project Description, as part of the Project, the proposed telecommunication path would support the SCE communication system for the addition of renewable energy generation. This communication system is part of the larger SCE system that provides safe and reliable electrical service consistent with the North American Electric Reliability Corporation, Federal Energy Regulatory Commission, the California Independent System Operators, and SCE's planning design guidelines and criteria. While construction of the proposed Project would have the potential to disrupt existing underground utility systems or cause a collocation accident, coordination with other utility system owners and compliance with California Government Code Sections 4216–4216.9 and CPUC GO 95 would reduce the likelihood of accidental disruptions from a collocation accident. Prior to initiating underground construction, including drilling for pole foundations or underground lines, SCE or its contractor would contact Underground Service Alert to identify any existing underground utilities in the construction zone. Therefore, impacts would be less than significant.

Since the proposed Project involves installation of new telecommunication cable and does not include the development of any new or permanent infrastructure typically associated with an increased demand for service utilities, such as residential or commercial development, the Project would not increase demand for service utilities such that additional or relocated facilities would be required. Therefore, impacts to service utilities would be less than significant.

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?

Less than Significant. As described in Response 3.19 (a), above, water utilized for construction and O&M activities for the proposed Project would be obtained from regional water agencies and local municipal sources. The proposed Project would require water for temporary construction needs, such as dust suppression. Water use is estimated at 185,290 gallons per day on average, which, over the 12-month construction period, would amount to a total of 180 acre-feet. Water trucks from off site would be required for O&M activities, such as periodic washing of insulators. Water demand generated by Project O&M activities is anticipated to be similar to existing conditions. Additionally, during operation, the proposed Project components would be unmanned and require no supply of water.

The Project would obtain water from regional water agencies and local municipal sources that have enough supplies to serve the Project. The municipal supplies may come from either groundwater or surface water sources, or a combination of both, depending on the water agency. Each water agency is responsible for managing groundwater resources to ensure sufficient water supply is available, and the Project would not result in a significant increase in demand for water. Therefore, the Project would have sufficient water supplies available normal, dry, and multiple dry years, and impacts would be less than significant.

c) Would the project result in a determination by the waste water treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The proposed Project would generate minimal wastewater during construction. Portable sanitation facilities would be provided for construction work crews and serviced by a private company. This would generate a nominal amount of wastewater to be treated. Sanitation waste and wastewater (i.e., human generated waste) would be disposed of at a local wastewater treatment plant in accordance with sanitation waste management practices by the portable facility provider. There would be no sewer connection to any of the proposed Project components. Existing wastewater facilities would adequately accommodate the minor demand caused by Project construction while serving existing commitments. During operation, the proposed Project components would be unmanned and no new, permanent need for wastewater treatment would occur. Therefore, no impacts 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?

Less than Significant. Construction of the proposed Project is not expected to result in the generation of substantial solid waste materials such as wood, metal, soil, or vegetation. Construction waste would largely consist of the OHGW removed from Segment 2 and packaging (cable reels, etc.) for the new telecommunications cable, which would be temporarily stored in staging yards prior to disposal. Materials would be recycled to the greatest extent possible; however, some materials may require disposal, which would occur in accordance with federal, state, and local statutes and regulations. Soil material excavated for the proposed Project would be collected, analyzed for contaminants, and characterized based on analytical results. Based on those results, SCE would either reuse the soil on site, send the soil for recycling, or dispose of it off site at a licensed waste facility.

There are 5 regional landfills within San Bernardino County, 17 materials recovery facilities, 8 transfer stations, and 7 construction/demolition and inert debris processing facilities. The 5 regional landfills have capacity for well in excess of 15 years and there are various planned and proposed facilities in San Bernardino County, including 4 materials recovery facilities and 1 construction/demolition and inert debris processing facility (County of San Bernardino 2018). Should any construction materials or debris be unusable on site, they would be removed from the area and recycled or properly disposed of at one of the 5 regional landfills. As of 2016, the County anticipated to generate 32.3 million tons of refuse for disposal for the next 15-year period (2017 through 2032), and the landfills currently had 164.2 tons of remaining capacity (County of San Bernardino, 2018). Thereby, County facilities would have more than adequate capacity to support the solid waste generated through 2032; including the waste generated by the proposed Project. The proposed Project would not generate a considerable increase in solid waste that would exceed the capacity of the 5 regional landfills or the existing, planned, and proposed facilities in San Bernardino County. Additionally, the proposed Project would comply with all applicable regulations and policies in the San Bernardino County General Plan Circulation and Infrastructure Element related to solid waste (County of San Bernardino 2007b). For the portion of the Project located in Nevada, the proposed Project would comply with the Clark County Southern Nevada Health District's applicable regulations and policies related to solid waste.

During operation, the proposed Project would be unmanned and would not generate notable quantities of solid waste. Furthermore, APMs HAZ-1 detail hazardous waste disposal guidelines, which would ensure that any hazardous waste materials generated by the Project are safely disposed of, and APMs UTIL-1 and UTIL-2 address proper disposal methods for wood and other waste materials. With compliance of these APMs, impacts related to solid waste 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?

Less than Significant. The California Integrated Waste Management Act of 1989, which emphasizes resource conservation through reduction, recycling, and reuse of solid waste guide solid waste management, requires that localities conduct a Solid Waste Generation Study and develop a Source Reduction Recycling Element. Construction activities would be compliant with these applicable Solid Waste Management Policy Plans by recycling materials as appropriate. Construction of the proposed Project would include OHGW removed from Segment 2 and packaging (cable reels, etc.) for the new telecommunications cable that would be either reused, disposed of in a Class I hazardous waste landfill, or disposed of in the lined portion of a RWQCB-certified municipal landfill. As discussed in Section 3.9, hazardous liquid materials would be subject to the Spill Prevention, Control, and Countermeasure Plan developed for the proposed Project. All solid waste generated during construction of the proposed Project would be temporarily stored in a designated area of the construction yards or substations and would be reused or disposed in a manner consistent with applicable statutes and regulations related to solid waste.

The County of San Bernardino Waste Management Plan (WMP) provides goals, objectives and policies to help the County reach waste reduction and recycling goals. As a result, the County was able to divert 69.6% of the 5,214,178 tons of solid waste generated in 2016 (County of San Bernardino 2018). Compliance with this plan would ensure that waste produced by the proposed Project would be abide by the County's goals and policies related to solid waste.

As identified in Response (d) above, the landfills serving the proposed Project would have sufficient capacity to accommodate Project construction solid waste disposal needs, and Project solid waste disposal would not require the need for new or expanded landfill facilities. Furthermore, during O&M, the Project would be unmanned and would not generate solid waste in excess of any standards or facility capacity, nor would it affect solid waste reduction goals. Therefore, the proposed Project would comply with applicable statutes and regulations related to solid waste disposal limits and landfill capacities; this impact would be less than significant.

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. 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?	☐	☐	☒	☐

Existing Condition

In 2007, CAL FIRE adopted Fire Hazard Severity Zone (FHSZ) maps for State Responsibility Areas. The State Responsibility Area FHSZ maps use three fire hazard severity zone classifications: Very High, High, and Moderate. These fire hazard severity zone classifications are based on a combination of how a fire will behave and the probability of flames and embers threatening buildings. In 2008, CAL FIRE developed recommended maps for Fire Hazard Severity Zones in Local Responsibility Areas (which also includes areas of federal jurisdiction). For areas of local (and federal) responsibility, CAL FIRE uses only two FHSZ designations: Very High or Non-Very High. The Local Responsibility Area FHSZ rating reflects flame and ember intrusion from adjacent wildlands and from flammable vegetation found in the urban area (CAL FIRE 2022a).

According to CAL FIRE's Fire Hazard Severity Zone Viewer, the nearest State Responsibility Area to the Project alignment is located approximately 28.2 miles southwest of Segment 1. The nearest Very High Fire Hazard Severity Zone is located approximately 33.8 miles southwest of Segment 1 (CAL FIRE 2022b). Segment 1 and 2 both pass through Federal Responsibility Areas and Local Responsibility Areas, and no Fire Hazard Severity Zones exist within the Project alignment (CAL FIRE 2022b). The portion of the Project alignment within Nevada is mapped as very low and very very low wildfire risk (Nevada Department of Forestry 2021). Although the Project

area is not located in an area designated as being subject to substantial wildfire risk, the following summaries of wildfires in the Project area has been included.

According to CAL FIRE's historical fire data (CAL FIRE 2021), three fires have occurred within a 5-mile radius of the Project alignment since the year 1950, all of which were determined to have been caused by lightning strikes. In 2005, the Segs fire burned approximately 300 acres near Segment 1 of the Project alignment, just north of Gale. Also in 2005, the Wildhorse fire, part of the Hackberry Complex fire, burned approximately 63,400 acres of the Mojave National Preserve south of Segment 2 of the Project alignment. The 2020 Dome fire burned approximately 43,200 acres just north of Segment 2 the Project alignment, near the community of Cima (NPS 2021a).

Regulatory Setting

Federal

A variety of line and tower clearance standards are used throughout the electric transmission industry. Nationally, most transmission line owners follow the National Electric Safety Code rules or American National Standards Institute guidelines, or both, when managing vegetation around transmission system equipment. The National Electric Safety Code Part 2 details safety rules for the installation and maintenance of overhead electric supply and communication lines. American National Standards Institute code A300 Part 1 standardizes the practice of pruning and American National Standards Institute code A300 Part 7 provides guidance on removal of vegetation.

California

- **CPCU GO 95, Section 35**. Section 35 of CPUC GO 95 covers all aspects of design, construction, and O&M of electrical power lines, as well as fire safety hazards.
- **California Code of Regulations, Title 14, Sections 1250 to 1258**. Title 14, Sections 1250 to 1258 of the California Code of Regulations provide specific clearance standards to be maintained by utility companies between electric power lines and all vegetation.
- **California PRC Sections 4292 and 4293.** California PRC Section 4292 states:

  "… any person that owns, controls, operates, or maintains any electrical transmission or distribution line shall, during such times and in such areas as are determined to be necessary by the director or the agency, has primary responsibility for fire protection of such areas, maintain around and adjacent to any pole or tower which supports a switch, fuse, transformer, lightning arrester, line junction, or dead end or corner pole, a firebreak which consists of a clearing of not less than 10 feet in each direction from the outer circumference of such a pole or tower."

  California PRC Section 4293 states:

  "… any person that owns, controls, operates, or maintains any electrical transmission or distribution line upon any mountainous land, or in forest-covered land, or grass-covered land shall, during such times and in such areas as are determined to be necessary by the director or the agency which has primary responsibility for the fire protection of such area, maintain a clearance of the respective distances which are specified in this section in all directions between all vegetation and all conductors which are carrying electric current:

(a) For any line which is operating at 2,400 or more volts, but less than 72,00 volts, 4 feet
(b) For any line which is operating at 72,000 or more volts, but less than 110,000 volts, 6 feet
(c) For any line which is operating at 110,000 or more volts, 10 feet

- **2019 Strategic Plan for California.** The 2019 Strategic Plan prepared by CAL FIRE and the California Natural Resources Agency lays out central goals for reducing and preventing the impacts of fire in the State. The goals are meant to establish, through local, State, federal, and private partnerships, a natural environment that is more resilient and human-made assets that are more resistant to the occurrence and effects of wildland fire. In addition to the 2019 Strategic Plan for California, individual CAL FIRE units develop fire plans, which are major strategic documents that establish a set of tools for each CAL FIRE unit for its local area. Updated annually, unit fire plans identify wildfire protection areas, initial attack success, assets and infrastructure at risk, pre-fire management strategies, and accountability within their unit's geographical boundaries. The unit fire plan identifies strategic areas for pre-fire planning and fuel treatment as defined by the people who live and work locally. The plans include contributions from local collaborators and stakeholders and are aligned with other plans for the area.
- **Power Line Fire Prevention Field Guide 2021 Edition**. CAL FIRE, the state's three investor-owned utilities (Pacific Gas and Electric Company, SCE, and San Diego Gas and Electric), and other California electric utilities have mutually developed a comprehensive field guide for their personnel. Its purpose is to provide information and guidance to the personnel of the fire service agencies and electrical operators for minimum uniform application within the areas of their respective jurisdiction and franchise responsibilities. In addition to safety of the public, the guide details fire hazard reduction maintenance procedures for the safety of conductors and certain hardware.
- **SB 901.** Signed into law in September 2018, SB 901, among other things, amends the Public Utilities Code to require utilities to prepare wildfire mitigation measures if the utilities' overhead electrical lines and equipment are located in an area that has a significant risk of wildfire resulting from those electrical lines and equipment. The bill requires the wildfire mitigation measures to incorporate specified information and procedures and utilities to prepare a wildfire mitigation plan.

Local

- **San Bernardino County Countywide Plan.** The Safety and Security Section of the San Bernardino County Countywide Plan contains policies concerning fire hazards. The following policies from the Safety and Security Section are relevant to the proposed Project (County of San Bernardino 2020a):
  - Policy HZ-1.2: We require all new development to be located outside of the environmental hazard areas listed below. For any lot or parcel that does not have sufficient buildable area outside of such hazard areas, we require adequate mitigation, including designs that allow occupants to shelter in place and to have sufficient time to evacuate during times of extreme weather and natural disasters.
    - Flood: 100-year flood zone, dam/basin inundation area
    - Geologic: Alquist Priolo earthquake fault zone; County-identified fault zone; rockfall/debris-flow hazard area, medium or high liquefaction area (low to high and localized), existing and County-identified landslide area, moderate to high landslide susceptibility area)
    - Fire: high or very high fire hazard severity zone
  - Policy HZ-1.9: We minimize risk associated with flood, geologic, and fire hazard zones or areas by encouraging such areas to be preserved and maintained as open space

- Policy HZ-1.14: We require 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, and we require new development to enter into a long-term maintenance agreement for vegetation management in defensible space, fuel modification, and roadside fuel reduction in the Fire Safety Overlay and/or Very High Fire Hazard Severity Zones.

Nevada

- **Clark County Comprehensive Plan.** The Safety Element of the Clark County Comprehensive Plan contains policies for fire and emergency services. The following policies from the Safety Element are relevant to the proposed Project (Clark County Department of Comprehensive Planning 2015):
  - Fire and Emergency Services Policy 1: Ensure that all developments provide adequate access for fire and other emergency vehicles and equipment (including fire hydrants)
  - Fire and Emergency Services Policy 4: New development in Rural Areas must address additional water storage needs for the community prior to approval.
  - Fire and Emergency Services Policy 6: Ensure that emergency services are provided in Wildland Interface Areas through mission sensitive reciprocal agreements with federal and state agencies.

Impact Analysis

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant. The implementation of the proposed Project would not result in substantial impairment of an adopted emergency response plan or emergency evacuation plan. The Fire Prevention and Emergency Response Plan, which encompasses protocols for work restrictions, emergency response, fire-safe training, fire suppression and communication equipment, and post-construction fire prevention measures, ensures that the project aligns with the necessary preparedness and response measures.

b) Due to 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?

Less than Significant. The Project's location does not encompass substantial wildfire risks within state responsibility areas or very high fire hazard severity zones. Furthermore, the proposed Project's primary objective is to mitigate fire risks compared to existing conditions. Therefore, it does not contribute to exacerbating wildfire risks or exposing Project occupants to pollutant concentrations from a wildfire or uncontrolled fire spread.

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?

Less than Significant. The Project does not necessitate the installation or maintenance of associated infrastructure that would escalate fire risk. Consequently, there are no anticipated temporary or ongoing impacts on the environment arising from the Project's infrastructure requirements.

d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less than Significant. The Project's proximity to state responsibility areas or lands classified as very high fire hazard severity zones does not pose significant risks to individuals or structures in terms of downslopes or downstream flooding or landslides resulting from runoff, post-fire slope instability, or drainage alterations. The comprehensive implementation of the Fire Prevention and Emergency Response Plan and other specified measures ensures that the Project effectively mitigates these risks. Consequently, the Project's impacts in these aspects remain within acceptable limits.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. 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.)	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

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?***

Less than Significant with mitigation. As documented in Section 3.4, Biological Resources, the Project has the potential to result in impacts to sensitive species and habitat. All potential impacts to species and habitat would be mitigated through implementation of MM-BIO-1 through MM-BIO-24, APM-HYD-1, APM-AIR-1, APM-HAZ-1, and APM-WF-1. As a result, impacts from the proposed Project on biological resources would be less than significant with mitigation incorporated. Therefore, CDFW's issuance of the permits and its broader approval of the whole of the action under CEQA would result in less-than-significant impacts to fish, wildlife, and plants with incorporation of applicable APMs.

In addition, as documented in Section 3.5, Cultural Resources, the Project has the potential to result in impacts to inadvertent cultural resource discoveries and human remains. As documented in Section 3.18, Tribal Cultural Resources, the Project has the potential to result in impacts to inadvertent tribal cultural resource discoveries. These potential impacts would be reduced to a less-than-significant level through incorporation of APM CUL-1 through APM CUL-8, and APM TCR-1 through TCR-2 into the Project. Therefore, impacts from the proposed Project on cultural resources and tribal cultural resources would be less than significant. As a result, CDFW's issuance of the permits and its broader approval of the whole of the action under CEQA would result in a less than significant impact related to 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.)***

Less than Significant. When evaluating cumulative impacts, it is important to remain consistent with Section 15064(h) of the CEQA Guidelines, which states that an EIR must be prepared if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

As discussed in Sections 3.1 through 3.20, the majority of the potential impacts from the Project would occur during construction, with few lasting operational effects. Because the construction-related impacts of the Project would be temporary and localized to the Project site, they would only have the potential to combine with similar impacts of other projects if they occur at the same time and in proximity. Construction impacts caused by the Project (primarily related to biological resources) could combine with similar effects of other projects being built in the Project area at the same time. However, the Project area is remote and there are a minimal number of current or future projects within a 5-mile radius of the Project site (Caltrans 2023; County of San Bernardino 2023).

As discussed in Sections 3.1 through 3.20, impacts from the Project are considered less than significant or no impact after incorporation of mitigation measures and APMs. Thus, when coupled with potential impacts related to the implementation of other related projects throughout the broader Project area, the Project would not considerably contribute to cumulative impacts in the greater Project region. In addition, these other related projects would presumably be bound by their applicable lead agency to (1) comply with all applicable federal, state, and local regulatory requirements; and (2) incorporate all feasible mitigation measures, consistent with CEQA, to further ensure that their potentially cumulative impacts would be reduced to less-than-significant levels. Therefore, while cumulative impacts are always possible, the proposed Project would result in individually limited, but not cumulatively considerable, less-than-significant cumulative impacts.

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

Less than Significant. The proposed Project is required to reliably interconnect and integrate multiple renewable generation projects in the Eastern California and Southern Nevada area onto the California Independent System Operator controlled grid. The primary function of the proposed Project is to prevent thermal overloading of the existing Lugo-Victorville 500 kV Transmission Line, which is a major power transfer path between SCE and the Los Angeles Department of Water and Power. The Project area is within an existing utility corridor. The proposed Project includes the installation of a new telecommunication path in the existing utility corridor, including the replacement of overhead ground wire (OHGW), optical fiber nonconducting riser (OFNR) cable, and/or all-dielectric self-supporting (ADSS) fiber-optic cable between the existing Eldorado Substation in Nevada, and Cima, Pisgah, and Gale Substations in California. The proposed Project will provide reliable communication with renewable energy generators so that they can be safely taken off-line in a timely manner to prevent thermal overload.

Based on the preceding analysis, the potential for adverse direct or indirect impacts on human beings was considered in the response to certain threshold questions in Sections 3.1 through 3.20. With implementation of the APMs described in each respective resource section, where deemed necessary, Project impacts would be less than significant. Further, compliance with applicable federal, state, and local regulations would result in the Project having no substantial adverse effects on human beings. Therefore, impacts to human beings would be less than significant.

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The California Department of Fish and Wildlife is the California Environmental Quality Act lead agency supported by their environmental contractor, Dudek, during the California Environmental Quality Act review process. Rincon Consultants, Inc. prepared this Initial Study under contract to SCE for California Department of Fish and Wildlife review and provided technical assistance in the preparation of this document. The preparers and technical reviewers of this document are presented below.

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Figure 1 Project Overview

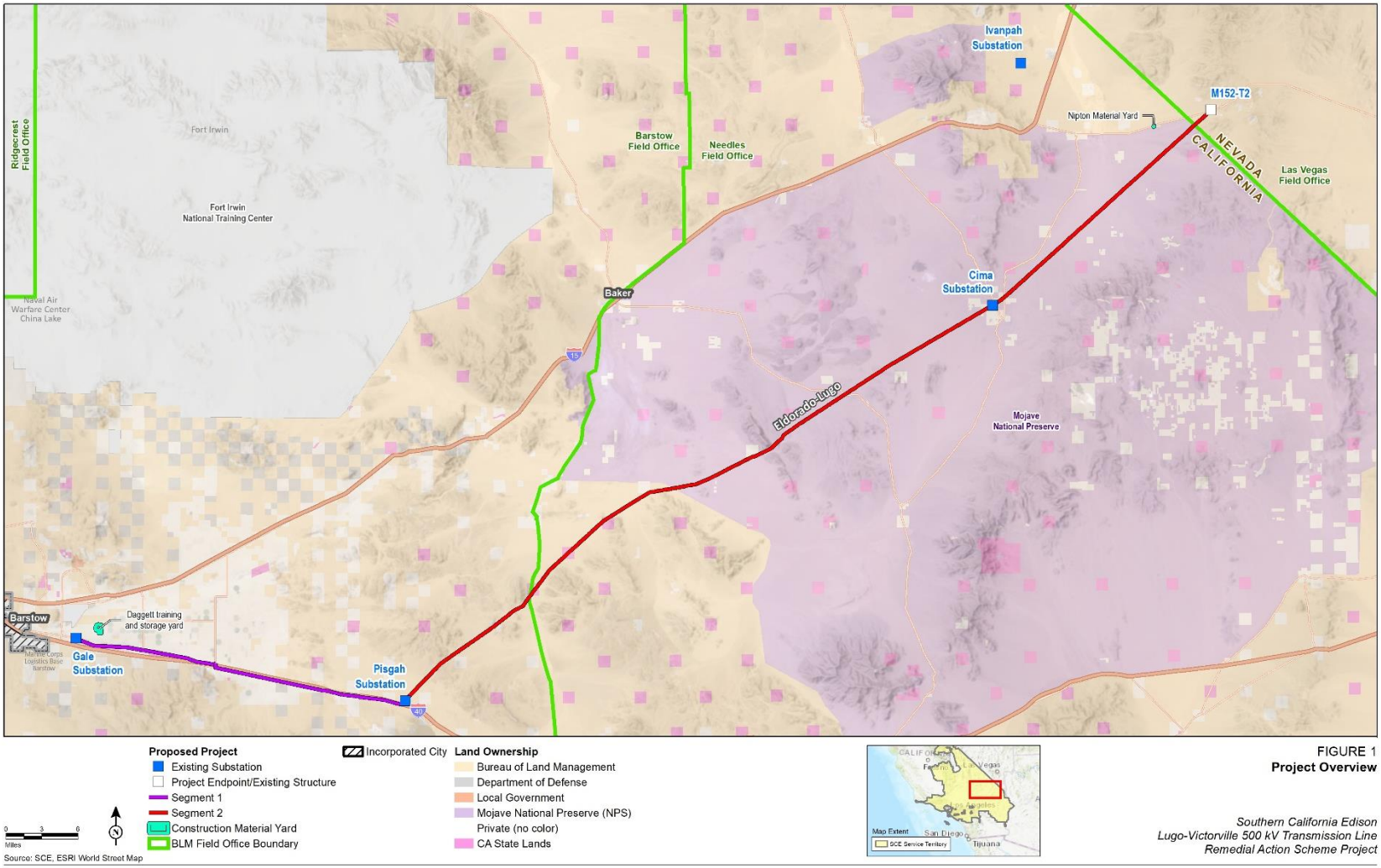

FIGURE 1
Project Overview

Southern California Edison
Lugo-Victorville 500 kV Transmission Line
Remedial Action Scheme Project

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Figure 2. Segment 1 Existing Hector 12 kV/Baroid 66 kV Distribution Line

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Figure 3. Segment 1 ADSS Installation on Distribution Pole

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