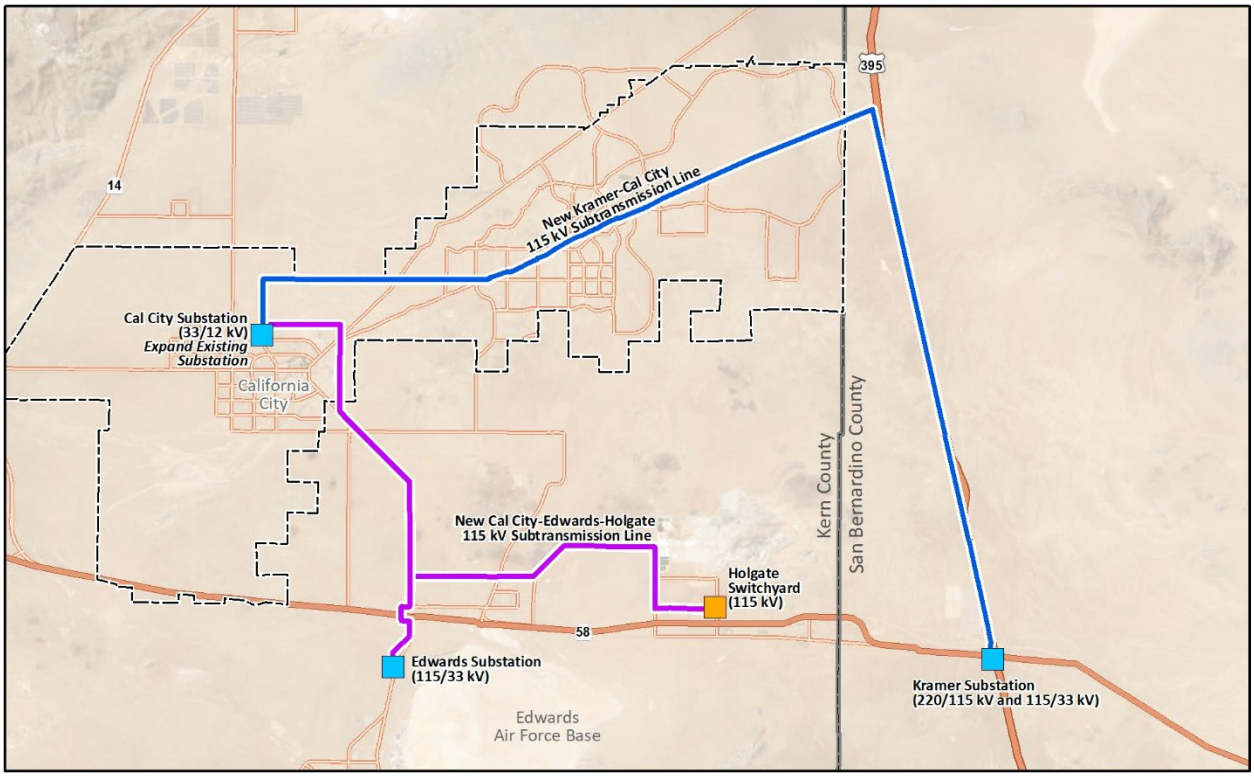

Proponent's Environmental Assessment for Southern California Edison Company's Cal City Substation 115 kV Upgrade Project

Volume 3

March 14, 2023 (PEA submittal date)

Upgrade and expansion of Cal City Substation, construction of new Kramer-Cal City and Cal City-Edwards-Holgate 115 kV subtransmission lines, installation of new telecommunications infrastructure along the proposed new lines, and associated improvements to two additional existing substations and a switchyard are proposed.

The Cal City Substation 115 kV Upgrade Project would be located in the City of California City, Kern County, and San Bernardino County.

Application A.23-XX-XX to the California Public Utilities Commission

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Volume 3 - Table of Contents

Volume 3 – List of Tables

Volume 3 – List of Figures

Volume 3 – Attachments

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5.9 Hazards, Hazardous Materials, and Public Safety

This section describes existing hazards and hazardous materials in the vicinity of the Cal City Substation 115 kV Upgrade Project (Proposed Project), as well as the potential impacts associated with construction and operation of the Proposed Project.

Research for this analysis involved a review of the following resources:

- California Department of Toxic Substances Control (DTSC) EnviroStor database
- Environmental Data Resources, Inc. (EDR) report
- United States Department of Transportation (USDOT) National Pipeline Mapping System (NPMS) map viewer
- United States Environmental Protection Agency (USEPA) Hazardous Waste publications
- Local agency planning documents

5.9.1 Environmental Setting

The Proposed Project is located in Kern County and San Bernardino County in the Mojave Desert region of California on federal, state, private, and municipal land. These lands include unincorporated areas of Kern County and San Bernardino County, City of California City, Edwards Air Force Base (EAFB) controlled by the Department of Defense (DoD), and public lands under the jurisdiction of the Bureau of Land Management (BLM) and the California Department of Fish and Wildlife. Approximately 90 percent of the Proposed Project is located within undeveloped open areas, with the remaining 10 percent located within developed areas (including the City of California City). The environmental setting section describes the existing hazards, hazardous materials, and public safety conditions in the Proposed Project area.

5.9.1.1 Hazardous Materials Report

A regulatory database search for known and potential release sites was completed by EDR for the area within a 1-mile radius[1] of the Proposed Project alignment (Appendix F). State and federal databases were reviewed to identify hazardous materials and hazardous waste facilities including federal Superfund sites, State Response sites, Voluntary Cleanup sites, School Cleanup sites, Permitted Operating sites, Corrective Action sites, and Tiered Permit sites within or adjacent to the Proposed Project area. Based on review of the databases, the following were identified:

- 11 known release sites within or adjacent to the Proposed Project area, listed in Table 5.9-1 and illustrated in Figure 5.9-1.
- Two known release sites with groundwater plumes located within the Proposed Project area, indicated in Table 5.9-1.
- No sites with deed restrictions related to hazardous materials or hazardous waste within the Proposed Project area.

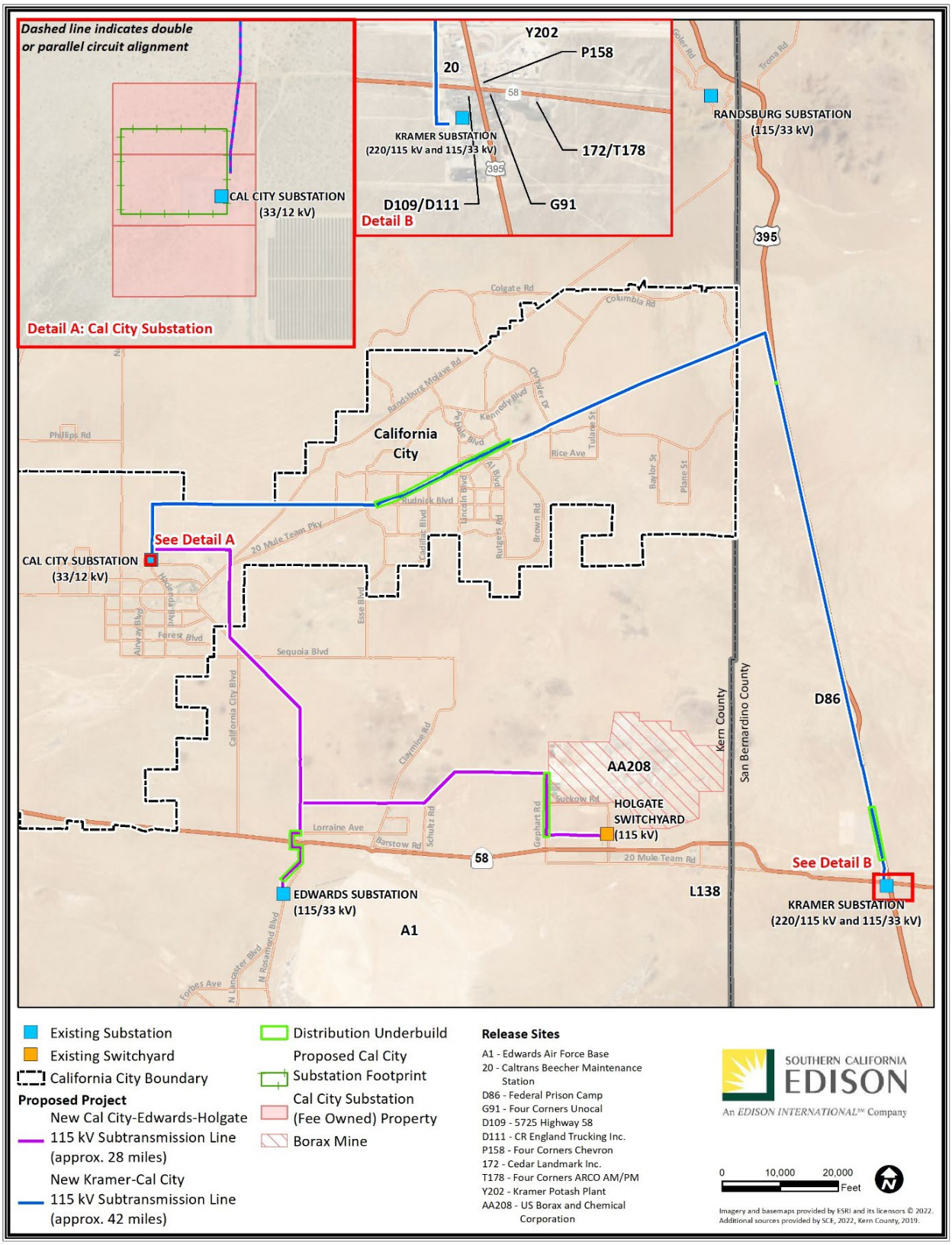
[1] A 1-mile radius search was utilized to provide coverage of the Proposed Project area and adjacent areas. This search radius provides conservative database results in the event the Proposed Project alignment is modified during the preparation of this document.

Table 5.9-1 Known Release Sites Identified within the Proposed Project Area

Map ID	Facility Name	Status	Concerns	Impacts			Approximate Distance to Nearest Proposed Project Component (Miles)	Nearest Proposed Project Component
				Soil	Soil Vapor	Groundwater		
A1	Edwards Air Force Base, NASA Jet Propulsion Lab, NASA Armstrong/ Dryden Flight Research Center, EAFB-PL Class III Landfill	Open	VOCs, metals, other chemicals	Yes	Yes	Yes	Includes Cal City-Edwards-Holgate south of State Route 58	Cal City-Edwards-Holgate
20	Caltrans Beecher Maintenance Station	Open, Active	Unknown	Unknown	Unknown	Unknown	0.06 mile	Kramer-Cal City
D86	Federal Prison Camp, Boron Air Force Station Z-59	Closed	TPH, VOCs	No	Unknown	No	0.15 mile	Kramer-Cal City
G91	Four Corners Unocal/Union/76, Way Station Mini Mart[1]	Closed	TPH, VOCs	Yes	Yes	Yes	0.02 mile	Kramer Substation
D109	5725 Highway 58	Unknown	TPH, VOCs	Unknown	Unknown	Unknown	Adjacent to the North	Kramer Substation
D111	CR England Trucking, Inc.	Unknown	TPH, VOCs	No	No	No	Adjacent to the North	Kramer Substation
P158	Four Corners Chevron	Closed	TPH, VOCs	Yes	Yes	Yes	0.06 mile	Kramer Substation
172	Cedar Landmark, Inc.	Unknown	TPH, VOCs	Unknown	Yes	Unknown	0.19 mile	Kramer Substation
T178	Four Corners ARCO AM/PM	Closed	TPH, VOCs	Yes	Yes	Yes	0.19 mile	Kramer Substation
Y202	Kramer Potash Plant	Unknown	Unknown	Unknown	Unknown	Unknown	0.26 mile	Kramer-Cal City
AA208	US Borax and Chemical Corporation/Mine[1]	Open, Remediation	Chromium, boron, arsenic, sulfate	Unknown	Unknown	Yes	Adjacent to the East	Cal City-Edwards-Holgate

[1] Site also contains groundwater plume concerns.
Source: EDR 2021. (Appendix F)

Figure 5.9-1 Known Release Sites in the Proposed Project Vicinity



5.9.1.1.1 Existing Building Materials

Lead-Based Paint/Roadway Paint Striping

Lead based paint (LBP) was banned for residential and consumer use in 1978, and lead solder used in plumbing was banned in 1988. Structures built before 1978 are likely to contain elevated concentrations of LBP and the use of LBP is still allowed for industrial purposes. Therefore, LBP may be present on or in buildings and structures in the Proposed Project area. The risk of lead toxicity in LBP varies according to the condition of the paint and the year of its application. The types of structures of concern in the Proposed Project area include residences painted prior to 1978, bridges, barns, sheds, commercial buildings, warehouses, industrial structures, equipment utility sheds, painted bridge surfaces, residue from yellow thermoplastic or yellow painted traffic stripes and pavement markings, and any other painted surfaces. Additionally, weathering and routine maintenance of paint on buildings may have contaminated nearby soils with lead.

Asbestos-Containing Materials

In December 1977, the U.S. Consumer Product Safety Commission restricted the use of asbestos-containing materials (ACM), including patching compounds and artificial fireplace ash products. In 1989, the USEPA restricted a number of other contaminated products, but this ruling was overturned in 1991. USEPA restrictions currently affect the ongoing use of asbestos in flooring felt, wallboard, certain types of papers, and any new uses of asbestos. Specifically, products can be made with asbestos if asbestos accounts for less than one percent of the product. Some of the asbestos-containing products that continue to be sold in the United States include brake pads, automobile clutches, roofing materials, vinyl tile, cement piping, corrugated sheeting, home insulation, and some potting soils. Therefore, although the use of asbestos in the manufacture of most building materials has not been fully prohibited by federal law, the use of asbestos in building materials has for the most part been discontinued since the late 1970s.

As such, many of the structures in the Proposed Project area, including concrete bridge abutments, may have been built with materials that contain asbestos. It is likely that many structures in the Proposed Project area were constructed prior to 1989. Therefore, ACM are likely present in many of the structures. The following ACM may be present:

- Interior building materials could contain ACM in floor tiles and mastic; including wallboard and joint compound; wall, ceiling, and pipe insulation; and acoustic ceiling panels.
- Exterior building materials could contain ACM in stucco, siding, roofing materials, window sealants, patching material, concrete bridge construction materials, and pipe.

Several roadway and railroad over-/undercrossing structures built prior to the 1980s also exist in the Proposed Project area, which may contain ACM.

Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) may be encountered in fluorescent lighting ballasts, transformers, elevators, electrical substations, vehicle service lifts, and other areas where hydraulic equipment was used historically. The types of equipment of concern in the Proposed Project area include pad-mounted transformers, pole-mounted transformers, stationary hydraulic equipment, mobile hydraulic equipment, as well as fluorescent lighting.

Chemically Treated Wooden Utility Poles

Wooden utility poles have been treated with chemicals, including creosote, for preservation and durability since at least the early 1900s. Preservation products can be applied to the wood via petroleum products (North American Wood Pole Council 2022). Wooden utility poles are present throughout the Proposed Project area.

5.9.1.1.2 Highways – Aerially Deposited Lead

Aerially deposited lead (ADL) was historically generated by cars burning leaded gasoline and is often found in the soil adjacent to highways and roads. Elevated concentrations of ADL may be present along existing roadways, including those throughout the Proposed Project area. Soil in the Proposed Project area may contain concentrations of lead exceeding State regulatory thresholds, and any waste generated from the disturbance of soil in these locations may be regulated as a non-hazardous or hazardous waste. Soil within the following Proposed Project areas may be contaminated with ADL due to the proximity of several highways within 0.25 mile of the Proposed Project alignment:

- U.S. 395 is located along the eastern portion of the Proposed Project alignment from Kramer Substation and surrounding potential staging areas to Cuddeback Road.
- SR 58 is located along the southern portion of the Proposed Project alignment and traverses the Proposed Project alignment at Rosamond Boulevard and U.S. 395.

5.9.1.1.3 Common Railroad Corridor Contaminants

Contaminants common in railway corridors include petroleum hydrocarbons, pesticides/herbicides, polycyclic aromatic hydrocarbons, and heavy metals, including arsenic and lead. Unused/abandoned railroad ties/timbers may also remain onsite and may require special handling and disposal if encountered during construction and/or operation and maintenance (O&M) activities. Several railways and railroad spurs are located within 0.25 mile of the Proposed Project alignment:

- One set of railroad tracks that traverses the southeastern portion of the Proposed Project alignment in an east-west direction approximately 110 feet north of the intersection of U.S. 395 and Twenty Mule Team Parkway.
- Two sets of railroad tracks that traverse the southwestern portion of the Proposed Project alignment in an east-west direction approximately 0.22 mile south of SR 58, at Rosamond Boulevard.
- One set of railroad tracks that traverses the southern portion of the Proposed Project alignment in a north/northeast-south/southwest direction approximately 0.8 mile north of the intersection of Rosamond Boulevard and North Base Road.

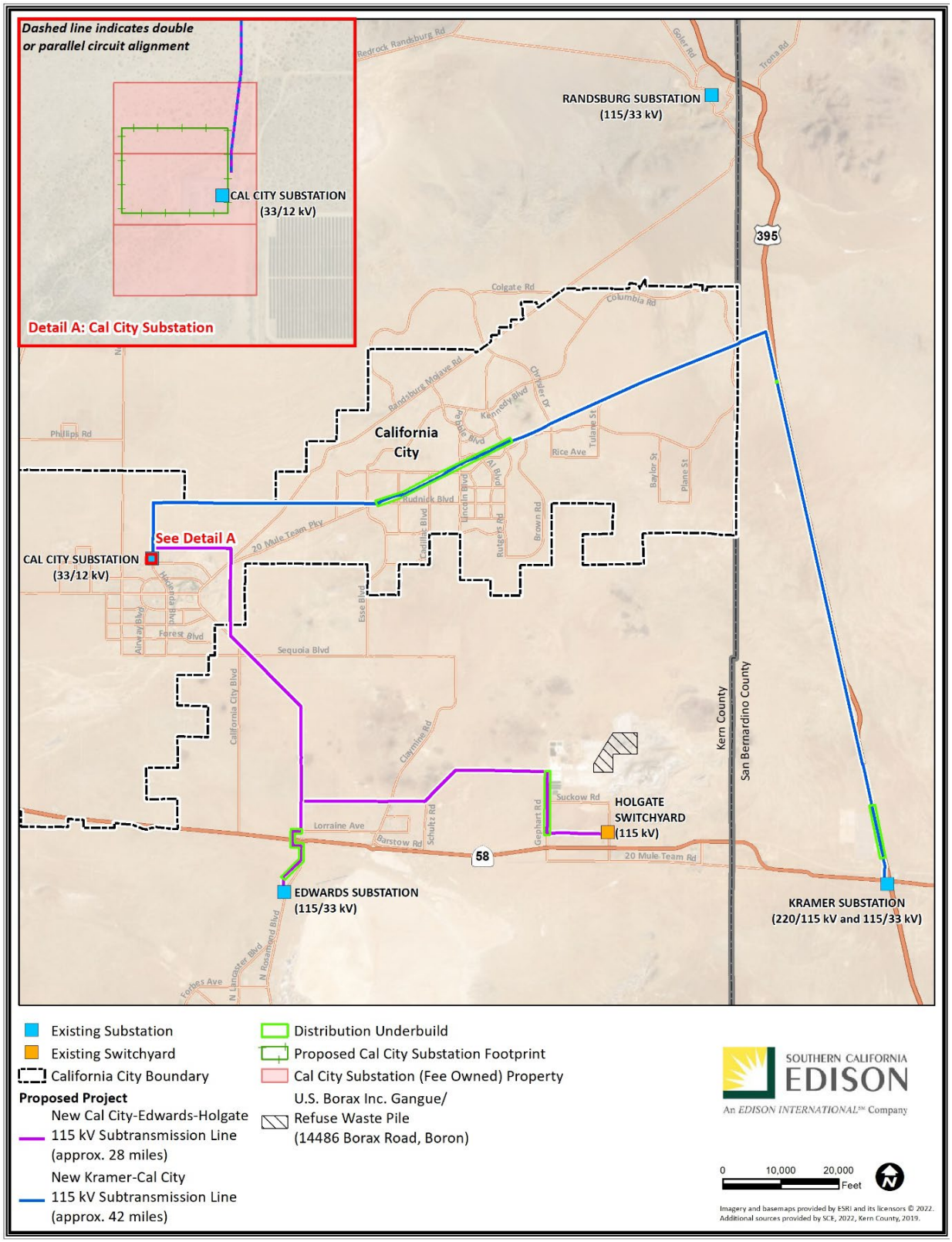
5.9.1.1.4 Mines

Thirteen mines are identified in the EDR database report (Appendix F) as being located within 1 mile of the Proposed Project alignment. Mines located in and near the Proposed Project area are listed in Table 5.12-1 and shown in Figure 5.12-1 in Section 5.12, Mineral Resources. The Rio Tinto Borax Mine, located in southeastern Kern County, is the only active mining claim within 1 mile of any portion of the Proposed Project. It is located approximately 1 mile from the Cal City-Edwards-Holgate 115 kV Subtransmission Line. The Proposed Project does not cross any known active mining claims. Mines and mineral resources near the Proposed Project alignment are further discussed in Section 5.12, Mineral Resources.

5.9.1.1.5 Landfills

Municipal landfills have the potential to release methane gas that may present an explosion risk. One landfill is associated with a street address located within 2,000 feet of the Proposed Project, the U.S. Borax Inc. Gangue/Refuse Waste Pile (14486 Borax Road, Boron, California). The location of this landfill is shown on Figure 5.9-2. The U.S. Borax Inc. facility is located to the east and north of the Proposed Project alignment along Gephart Road. The facility has an active Solid Waste Landfill permit for a 60-acre Class III landfill with a permitted disposal depth of 2,425 feet (mine pit) located approximately 8,000 feet east of the Proposed Project. The landfill accepts non-hazardous industrial (including gangue [mining waste]) and construction/demolition waste from within the U.S. Borax Inc. facility; the landfill is not open to the public and is restricted to authorized U.S. Borax Inc. vehicles only. Because this landfill is not a municipal landfill and no structures are proposed in the vicinity of this landfill, and based on the distance from the Proposed Project (approximately 8,000 feet), the U.S. Borax Inc. landfill would not pose a methane accumulation or explosion risk to the Proposed Project.

Figure 5.9-2 Landfills in the Proposed Project Vicinity



5.9.1.2 Airport Land Use Plan

Kern County and incorporated cities, including the City of California City, adopted the Kern County Airport Land Use Compatibility Plan (Kern County ALUCP) in November 2012, which guides the orderly development of each public use airport in the County. The two airports located nearest to the Proposed Project area include the California City Municipal Airport and EAFB. Table 5.9-2 provides a summary of the two airports and their locations in relation to the Proposed Project area. Figure 5.9-3 shows the airport locations.

Table 5.9-2 Airports Located within Two Miles of the Proposed Project

Airport Name	Address	Approximate Distance to Nearest Proposed Project Component (Miles)	Nearest Proposed Project Component
California City Municipal Airport	22636 Airport Way, California City	2.0	Cal City Substation, Cal City-Kramer 115 kV Subtransmission Line
Edwards Air Force Base Airstrip	Edwards Air Force Base, California	0.75	Edwards Substation, Cal City-Edwards-Holgate 115 kV Subtransmission Line

Source: City of California City 2021, Edwards Air Force Base 2021

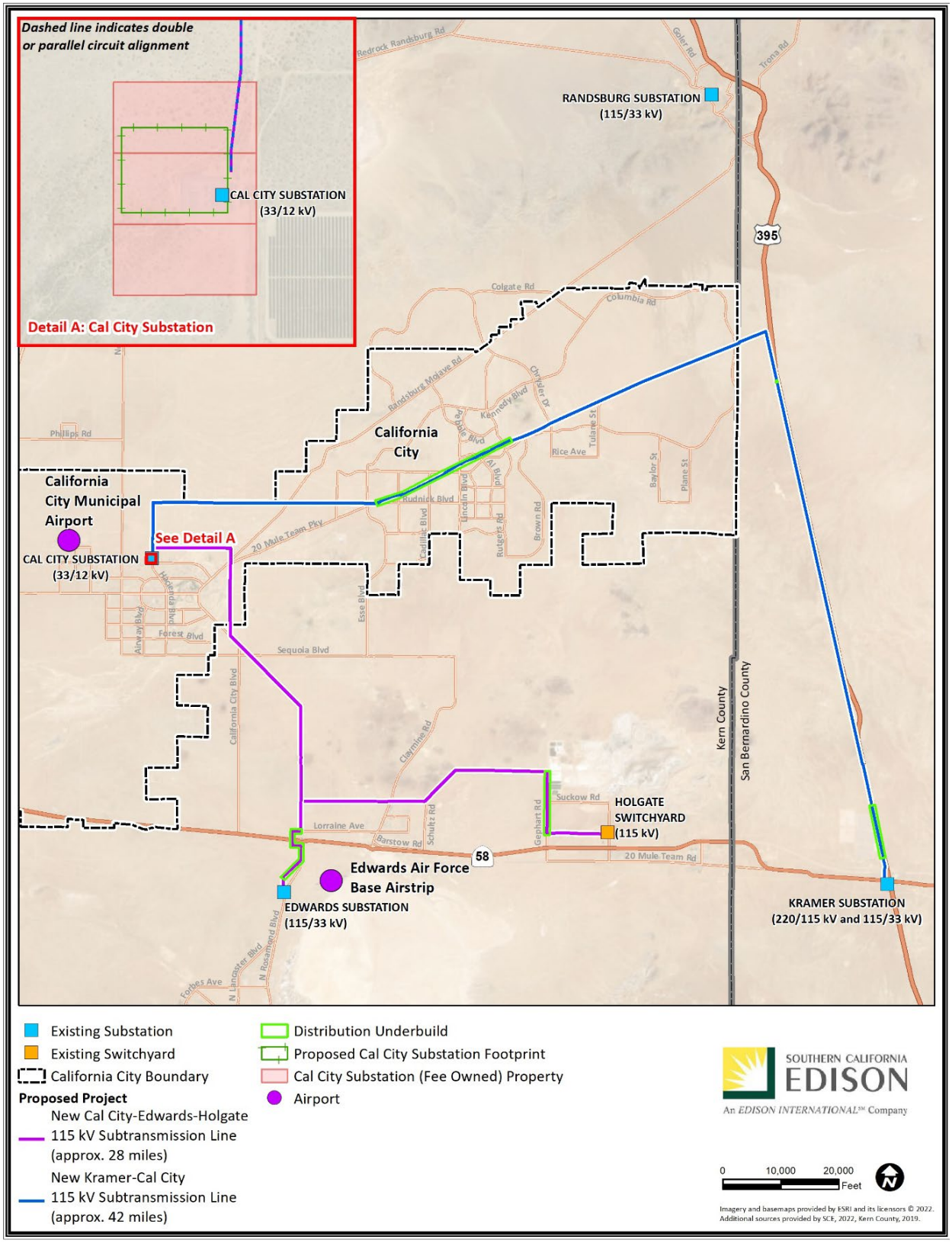
No portion of the Proposed Project is located within the planning boundary of the California City Municipal Airport. The Proposed Project area is not within the California City Municipal Airport Compatibility Zones, as noted in the Kern County ALUCP. Portions of the Proposed Project are located on EAFB, and include the following:

- Existing Edwards 115/33 kV Substation
- Approximately 2-mile portion of the proposed Cal City-Edwards-Holgate 115 kV Subtransmission Line alignment and approximately 0.6-mile portion of the proposed Kramer-Cal City 115 kV Subtransmission Line alignment

5.9.1.3 Fire Hazard

Wildfire hazards are discussed in Section 5.20, Wildfire, and summarized herein. Within California, fire hazard severity zones (FHSZs) are designated by the California Department of Forestry and Fire Protection (CAL FIRE). CAL FIRE uses a five-tiered ranking system to assess the threat to people based on fuel hazard, wildland fire potential, and housing density. The Proposed Project is located within the CAL FIRE moderate FHSZ and not within a very high FHSZ (CAL FIRE 2022). The California Public Utilities Commission (CPUC) High Fire Threat District (HFTD) map additionally indicates that the Proposed Project is not within a HFTD (CPUC 2022).

Figure 5.9-3 Airports in the Proposed Project Vicinity



FHSZs are administered by the federal, state, or local government that is financially responsible for preventing and suppressing wildfires in a given area and are categorized into the following three groups: Federal Responsibility Areas (FRA); State Responsibility Areas (SRA); and Local Responsibility Areas (LRA). Portions of the proposed Cal City-Kramer 115 kV Subtransmission Line and the proposed Cal City-Edwards-Holgate 115 kV Subtransmission Line are located in LRA and FRA. The Cal City and Kramer Substations and the Holgate Switchyard are located within an LRA and Edwards Substation is located within an FRA. No portion of the Proposed Project is located within an SRA. Table 5.20-1 in Section 5.20, Wildfire, contains tabular information on the miles of the Proposed Project alignment located within FRA and LRA.

5.9.1.4 Metallic Objects

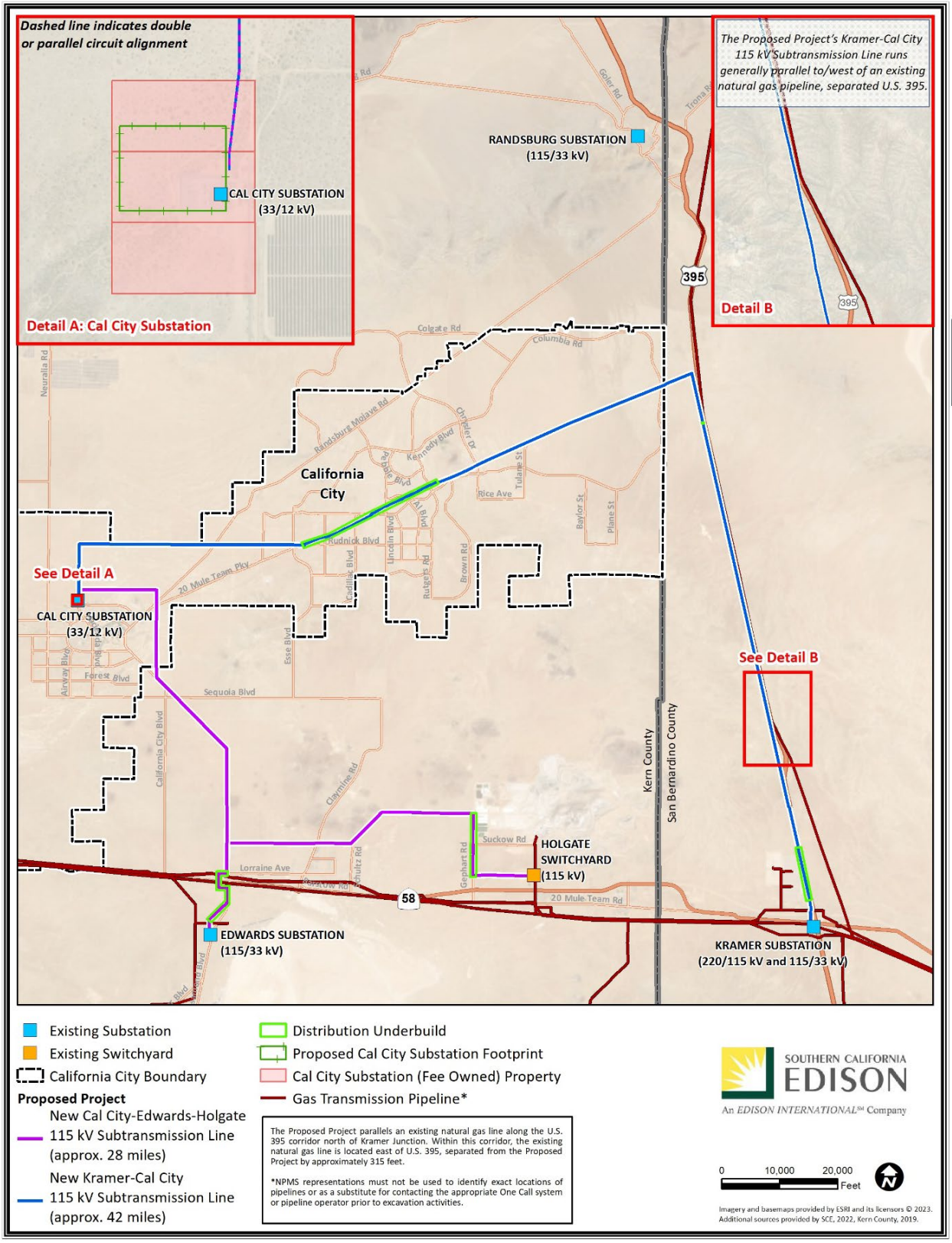
5.9.1.4.1 Hazardous Material Pipelines

The Proposed Project alignment crosses existing metallic hazardous material pipelines along the southern portion of the Proposed Project area (near SR 58; California Governor's Office of Emergency Services [Cal OES] 2020a). Figure 5.9-4 shows the location of hazardous material pipelines in relation to the Proposed Project area. A review of the USDOT Pipeline and Hazardous Materials Safety Administration (PHMSA) online NPMS database for buried hazardous material pipelines indicates the following (USDOT 2021) facilities in the Proposed Project vicinity:

- Two active natural gas pipelines (pipeline IDs 14610 and 14613) that traverse the southeastern portion of the Proposed Project alignment approximately 50 feet north of the northern SR 58 on-/off-ramps and are located approximately 80 feet south of Staging Area 1-11.
- One active natural gas pipeline (pipeline ID 10723) that traverses the Kramer Substation and is located adjacent to the south of the terminus of the Proposed Project alignment at the Kramer Substation.
- Two active natural gas pipelines (pipeline IDs 01901 and 01905) that are located approximately 100 feet south of Staging Area 1-11 and Staging Area 1-10.
- One active natural gas pipeline (pipeline ID 3796) that is located approximately 390 feet east of the eastern portion of the Proposed Project alignment along U.S. 395 from Rosewood Boulevard to Cuddeback Road.
- One active natural gas pipeline (pipeline ID BORAX GAS) that is located adjacent to the east of the southern portion of the Proposed Project alignment at the Holgate Switchyard.
- Three active natural gas pipelines (pipeline IDs 4125, 01901, and 01905) that traverse the southwestern portion of the Proposed Project alignment approximately 450 feet south of and 1,450 feet west-southwest of the intersection of Rosamond Boulevard and Lorraine Avenue.
- One natural gas pipeline (pipeline ID 10723) and one active crude oil pipeline (pipeline ID 01903B) that traverse the southwestern portion of the Proposed Project alignment at the intersection of SR 58 and Rosamond Boulevard and approximately 1,430 feet west of this intersection.
- One active natural gas pipeline (pipeline ID 3746) that traverses the southwestern portion of the Proposed Project alignment approximately 0.4 mile northwest of the intersection of Rosamond Boulevard and North Base Road.

The metallic pipelines listed above that traverse and are located adjacent to the Proposed Project alignment are located within 25 feet of the Proposed Project alignment.

Figure 5.9-4 Approximate Location of Hazardous Materials Pipelines in the Proposed Project Vicinity



5.9.2 Regulatory Setting

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

5.9.1.1 *Federal*

5.9.2.1.1 Comprehensive Environmental Response, Compensation, and Liability Act (Superfund) of 1980 (42 U.S.C. § 9601 *et seq*.)

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) provides a federal Superfund to clean up uncontrolled or abandoned hazardous waste sites, as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, USEPA has the power to seek out those parties responsible for a release and ensure their cooperation in the cleanup.

5.9.2.1.2 The Superfund Amendments and Reauthorization Act of 1986 Title III (40 CFR § 68.110 *et seq*.)

The Superfund Amendments and Reauthorization Act (SARA) amended CERCLA and established a nationwide emergency planning and response program, and imposed reporting requirements for businesses that store, handle, or produce significant quantities of extremely hazardous materials. The SARA requires states to implement a comprehensive system to inform local agencies and the public when a significant quantity of such materials is stored or handled at a facility. Additionally, the SARA identifies requirements for planning, reporting, and notification concerning hazardous materials.

5.9.2.1.3 Clean Air Act (42 U.S.C. § 7401 *et seq*.)

The Clean Air Act (CAA) provides measures aimed at preventing the accidental release of hazardous materials into the atmosphere. Regulations implementing the CAA and governing hazardous materials emissions are provided in Title 40, Part 68 of the Code of Federal Regulations (CFR). Implementation of these regulations is intended to prevent the accidental release of hazardous materials into the environment.

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

The Clean Water Act (CWA) is the principal federal statute protecting navigable waters and adjoining shorelines from pollution. The law was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. Since its enactment, the CWA has formed the foundation for regulations detailing specific requirements for pollution prevention and response measures. The USEPA and the U.S. Army Corps of Engineers implement provisions of the CWA through a variety of regulations, including the National Contingency Plan and the Oil Pollution and Prevention Regulations. Implementation of the CWA is the responsibility of each state.

5.9.2.1.5 Resource Conservation and Recovery Act (42 U.S.C. § 6901 *et seq*.)

The Resource Conservation and Recovery Act (RCRA) regulates hazardous waste from the time that waste is generated, through to its management, storage, transport, and treatment, until its final disposal. The USEPA has authorized the DTSC in California to administer their respective RCRA programs.

5.9.2.1.6 U.S. Department of Transportation

The USDOT has the regulatory responsibility for the safe transportation of hazardous materials under the Hazardous Materials Transportation Act, as amended and codified in 49 U.S.C. 5101 *et seq*.

5.9.2.1.7 Code of Federal Regulation Title 14

All airports and navigable airspace not administered by the DoD are under the jurisdiction of the Federal Air Administration (FAA). 14 CFR Part 77 establishes the standards and required notification for objects affecting navigable airspace. In general, construction projects exceeding 200 feet in height—or those extending at a ratio greater than 100 to 1 (horizontal to vertical) from a public or military airport runway more than 3,200 feet long, out to a horizontal distance of 20,000 feet—are considered potential obstructions and require FAA notification. In addition, construction projects extending at a ratio greater than 50 to 1 (horizontal to vertical) from a public or military airport runway measuring 3,200 feet or less, out to a horizontal distance of 10,000 feet, are considered potential obstructions and require FAA notification. 14 CFR Part 133 requires an operating plan to be developed in coordination with and approved by the local FAA Flight Standards District Office that has jurisdiction over when helicopter use would be required.

5.9.2.1.8 Occupational Safety and Health Administration (29 CFR 1900-1910)

Established under the Occupational Safety and Health Administration (OSHA) Act of 1970, OSHA regulates workplace safety and health. The agency's mission is to prevent work-related injuries, illnesses, and deaths.

5.9.2.1.9 Hazard Management and Resource Restoration Program

The Hazard Management and Resource Restoration (HMRR) program is administered by the BLM. Its mission is to protect lives, resources, and property, and to improve the health of landscapes and watersheds by minimizing the environmental contamination on public lands, reducing and eliminating risk associated with physical and environmental hazards, restoring resources impacted by oil discharges and hazardous release, and administering CERCLA assessments.

5.9.2.1.10 Instruction Memorandum Number No. 2022-036

BLM Instruction Memorandum Number 2022-036 provides guidance on the incorporation of appropriate fire prevention and control stipulations, as required by 43 CFR 2805.12(a)(4), for electric transmission and distribution right-of-way (ROW) authorizations issued under Title V of the Federal Land Policy and Management Act (FLPMA). The fire prevention and control stipulations shall be incorporated as standard stipulations into new authorizations, renewals, amendments, and assignments. Instruction Memorandum Number 2022-036 applies to electric transmission and distribution ROWs issued under Title V of FLPMA and clarifies terms and conditions required to prevent and suppress wildfires within, or in the immediate vicinity of, the ROW boundary. The Memorandum states that incorporating fire prevention and control stipulations should be done in coordination with resource specialists (wildlife, fuels, cultural, NEPA specialists, etc.) who participate on interdisciplinary teams formed to work on electric transmission and distribution ROWs.

5.9.2.2 State

5.9.2.2.1 California Emergency Management Agency

The California Emergency Management Agency (Cal/EMA) was formed January 1, 2009, as the result of a merger between the California Governor's Office of Emergency Services (Cal OES) and the Office of Homeland Security (OHS). The Hazardous Materials Unit of the Cal/EMA is responsible for hazardous materials emergency planning and response, spill release and notification, and hazardous materials enforcement of the Unified Program.

5.9.2.2.2 California Environmental Protection Agency

The California Environmental Protection Agency (Cal/EPA) is the California state agency responsible for developing, implementing, and enforcing the state's environmental protection laws that ensure clean air, clean water, clean soil, safe pesticides, and waste recycling and reduction. The Cal/EPA oversees the DTSC and State Water Resources Control Board (SWRCB). The Cal/EPA has implementation authority for the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) per California Code of Regulations (CCR) Title 27, Division 1, Subdivision 4, Chapter 1.

5.9.2.2.3 Department of Toxic Substances Control

Under Government Code section 65962.5(a), the DTSC is required to compile submit to the Secretary for Environmental Protection a list (the "Cortese List") of all of the following: all hazardous waste facilities subject to corrective action pursuant to section 25187.5 of the Health and Safety Code and all land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code. DTSC is required to update this list as appropriate, but at least annually.

5.9.2.2.4 Division of California Occupational Safety and Health, Department of Industrial Relations

The Division of California Occupational Safety and Health (Cal/OSHA) protects workers and the public from safety hazards, including asbestos and lead-based materials (CCR Title 8). Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations. These regulations concern the use of hazardous materials in the workplace, including requirements for employee safety training; availability of safety equipment; accident and illness prevention programs; hazardous-substance exposure warnings; and preparation of emergency action and fire prevention plans.

Cal/OSHA also enforces hazard communication program regulations, including procedures for identifying and labeling hazardous substances, and requires that safety data sheets (formerly known as material safety data sheets) be available for employee information and training programs. Cal/OSHA standards are generally more stringent than federal regulations. Construction workers and operational employees within the Project alignment would be subject to these requirements.

5.9.2.2.5 California State Hazard Mitigation Plan

The 2018 California State Hazard Mitigation Plan (SHMP) is the state's primary hazard mitigation guidance document. The 2018 SHMP continues to build upon the state's commitment to reduce or eliminate potential risks and impacts of natural and human-caused disasters to help communities with their mitigation and

disaster resiliency efforts. The 2018 SHMP includes an updated statewide risk assessment, disaster history, and statistics; recent mitigation progress, success stories, and best practices; updated state hazard mitigation goals, objectives, and strategies; and updated climate mitigation progress and adaptation strategies. The United States Federal Emergency Management Agency (FEMA) approved California's 2018 SHMP on September 28, 2018.

5.9.2.2.6 California State Water Resources Control Board

The SWRCB has jurisdiction throughout California. Created by the State Legislature in 1967, the SWRCB protects water quality by setting statewide policy and coordinating and supporting regional efforts. As a result of the Porter-Cologne Water Quality Control Act of 1970, the SWRCB is organized into nine Regional Water Quality Control Boards (RWQCBs) that exercise rulemaking and regulatory activities by basins. Together with the RWQCBs, the SWRCB is authorized to implement the federal CWA in California.

5.9.2.2.7 California Public Utilities Commission General Order 95

The CPUC General Order (G.O.) 95 contains requirements and specifications for overhead electrical line construction. These requirements are intended to ensure safety of workers engaged in the construction, O&M, and use of electrical facilities. The regulations are also intended to ensure the general reliability of the State's utility infrastructure and services. Rule 35 of G.O. 95 establishes minimum clearances between line conductors and nearby vegetation for fire prevention purposes. These minimum clearances must be maintained through tree trimming prior to construction and throughout O&M of utility facilities.

5.9.2.2.8 California Public Utilities Commission General Order 166

The purpose of the standards contained in CPUC G.O. 166 is to ensure that jurisdictional electric utilities are prepared for emergencies and disasters in order to minimize damage and inconvenience to the public which may occur as a result of electric system failures, major outages, or hazards posed by damage to electric distribution facilities. The standards require, among others, that each jurisdictional electric utility prepare an emergency response plan and update the plan annually, conduct annual emergency training and exercises using the utilities emergency response plan, and coordinate emergency plans with state and local public safety agencies.

5.9.2.2.9 Public Resources Code Sections 4292-4293

Public Resources Code (PRC) section 4292 requires a 10-foot clearance of any tree branches or ground vegetation from around the base of power poles carrying more than 110 kV. The firebreak clearances required by PRC section 4292 are applicable within an imaginary cylindrical space surrounding each pole or tower on which a switch, fuse, transformer, or lightning arrester is attached and surrounding each dead end or corner pole. Section 4293 presents guidelines for line clearance including a minimum of 10 feet of vegetation clearance from any conductor operating at 110 kV or higher.

5.9.2.2.10 Lahontan Regional Water Quality Control Board

As a result of the Porter-Cologne Water Quality Control Act of 1970, the Lahontan RWQCB is the regulatory oversight agency for hazardous material release cases that impact groundwater in eastern Kern County and San Bernardino County, which includes the Proposed Project area.

5.9.2.2.11 California Public Utilities Commission Fire Safety Rulemaking Background

In October 2007, devastating wildfires driven by strong Santa Ana winds burned hundreds of square miles in Southern California. Several of the worst wildfires were reportedly ignited by overhead utility power lines and aerial communication facilities in close proximity to power lines. In response to these wildfires, the CPUC initiated Rulemaking (R.) 08-11-005 to consider and adopt regulations to protect the public from potential fire hazards associated with overhead powerline facilities and nearby aerial communication facilities.

Beginning in 2009, the CPUC issued several decisions in R.08-11-005 that together adopted dozens of new fire-safety regulations. Most of the adopted fire-safety regulations consisted of new or revised rules in G.O. 95. Several of the adopted fire-safety regulations apply only to areas, referred to as "high fire-threat areas," where there is an elevated risk for power line fires igniting and spreading rapidly. These high fire-threat areas are designated by several maps that were adopted on an interim basis. Each of the interim maps covers a different part of the state and uses its own methodology for identifying high fire-threat areas, presenting consistency and potential enforcement issues. To address these issues, the CPUC also commenced the development of a single statewide fire-threat map to designate areas where (1) there is an elevated risk for destructive power line fires, and (2) stricter fire-safety regulations should apply.

In May 2015, the CPUC closed R.08-11-005 and initiated successor rulemaking R.15-05-006 to complete the outstanding tasks in R.08-11-005. The general scope of R.15-05-006 was to address the following matters carried over from the scope of R.08-11-005: (1) develop and adopt a statewide fire-threat map that delineates the boundaries of a new HFTD where the previously adopted regulations will apply, (2) determine the need for additional fire-safety regulations in the HFTD, and (3) revise G.O. 95 to include a definition and maps of the HFTD, as well as any new fire-safety regulations. The scope and schedule for R.15-05-006 was divided into two parallel tracks. One track focused on the development and adoption of a statewide fire-threat map. The second track focused on the identification, evaluation, and adoption of fire-safety regulations in the HFTD.

On December 21, 2017, the CPUC issued Decision (D.) 17-12-024 adopting regulations to enhance fire safety in the HFTD, effectively completing the second track of R.15-05-006 described above. On January 19, 2018, the CPUC adopted, via Safety and Enforcement Division's (SED) disposition of a Tier 1 Advice Letter, the final CPUC Fire-Threat Map. The adopted CPUC Fire-Threat Map, together with the map of Tier 1 High Hazard Zones on the USFS-CAL FIRE joint map of tree mortality High Hazard Zones, comprise the HFTD Map where stricter fire-safety regulations apply.

5.9.2.2.12 Public Resources Code Sections 4201-4204

PRC sections 4201-4202 require:

- The classification of lands within state responsibility areas in accordance with the severity of fire hazard present for the purpose of identifying measures to be taken to retard the rate of spreading and to reduce the potential intensity of uncontrolled fires that threaten to destroy resources, life, or property.
- The classification of lands within state responsibility areas into fire hazard severity zones. Each zone shall embrace relatively homogeneous lands and shall be based on fuel loading, slope, fire weather, and other relevant factors present, including areas where winds have been identified by the department as a major cause of wildfire spread.
- The designation of fire hazard severity zones and assignation to each zone a rating reflecting the degree of severity of fire hazard that is expected to prevail in the zone.

- The periodic review of zones designated and rated pursuant to this article and, as necessary, the revision of zones or their ratings or repeal the designation of zones.

5.9.2.2.13 Health and Safety Code Section 13009

Health and Safety Code section 13009 permits CAL FIRE to file civil actions to recover fire suppression costs from a party who causes a fire (1) negligently, or (2) in violation of a law or an order to correct a fire hazard. CAL FIRE established a Civil Cost Recovery Program to satisfy the statute's intent to assign financial responsibility to culpable parties and to prevent fires through deterrence.

5.9.2.2.14 Red Flag Fire Warning and Weather Watches

Like PRC sections 4292 and 4293, red-flag warnings and fire-weather watches aim to prevent fire events and reduce the potential for substantial damage. When extreme fire weather or behavior is present or predicted in an area, a red-flag warning or fire-weather watch may be issued to advise local fire agencies that these conditions are present. The National Weather Service issues Red Flag Warnings and Fire Weather Watches and the CAL FIRE has provided safety recommendations for preventing fires, including clearing and removing vegetation, and ensuring the proper use of equipment.

5.9.2.3 Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to 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."

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. Accordingly, the following discussion of local land use regulations is provided for informational purposes only.

5.9.2.3.1 Certified Unified Program Agency

The Certified Unified Program Agency (CUPA) is the agency certified by the DTSC to conduct the Unified Program. The program consists of hazardous waste generator and on-site treatment programs, aboveground and underground storage tank programs, Hazardous Materials Management, Business Plans, and Inventory Statements, and the Risk Management and Prevention Program. The Kern County Public Health Services Department, Environmental Health Services Division is the CUPA responsible for administering the hazardous materials program within Kern County. San Bernardino County Fire Department is the CUPA responsible for administering the hazardous materials and wastes programs within San Bernardino County.

5.9.2.3.2 Kern County General Plan

The Safety Element of the Kern County 2009 General Plan aims to minimize injuries and loss of life and reduce property damage, reduce economic and social disruption resulting from natural hazards, and reduce the public's exposure to hazards associated with accidental release as stated in Goal 8:

- **Goal 8.** Reduce the public's exposure to fire, explosion, blowout, and other hazards associated with the accidental release of crude oil, natural gas, and hydrogen sulfide gas.

5.9.2.3.3 San Bernardino Countywide Policy Plan

The Hazards Element of the San Bernardino Countywide Policy Plan identifies potential natural and human-generated hazards, provides direction to address risks to residents, businesses, workers, and visitors, and prioritizes resources and reduces pollution exposure in unincorporated disadvantaged communities. Policy HZ-2.4 is relevant to the Proposed Project and states the following:

- **Policy HZ-2.4 Truck routes for hazardous materials.** We designate truck routes for the transportation of hazardous materials through unincorporated areas and prohibit routes that pass through residential neighborhoods to the maximum extent feasible.

5.9.2.3.4 Eastern Kern Air Pollution Control District

The Eastern Kern Air Pollution Control District (APCD) is responsible for attaining and maintaining National and State Ambient Air Quality Standards and regulating stationary sources of air pollution in eastern Kern County. Under 40 CFR Part 61, Subpart M, air districts are delegated to enforce the National Emission Standards for Hazardous Air Pollutants [NESHAPs] as it applies to asbestos removal and demolitions. The Eastern Kern APCD enforces the NESHAP for asbestos under District Rule 423 (Eastern Kern County APCD 2022).

5.9.2.3.5 Mojave Desert Air Quality Management District

The Mojave Desert Air Quality Management District (AQMD) is responsible for attaining and maintaining National and State Ambient Air Quality Standards and regulating stationary sources of air pollution in the northern (desert) portion of San Bernardino County and the eastern portion of Riverside County. The Mojave Desert AQMD enforces the NESHAP for asbestos under District Rule 1000 (Mojave Desert APCD 2022).

5.9.2.3.6 Kern County Multi-Jurisdiction Hazard Mitigation Plan

Kern County and several participating jurisdictions prepared a Comprehensive Update to the Multi-Jurisdiction Hazard Mitigation Plan (MHMP) in 2020, originally approved by FEMA in 2012 (Kern County 2021). The purpose of this plan is to guide hazard mitigation planning to better protect the people and property of the County from the effects of natural disasters and hazard events, such as severe weather, floods, and earthquakes. The plan demonstrates the commitment of each participating jurisdiction to reducing risks from hazards and serves as a tool to help decision makers direct mitigation activities and resources.

5.9.2.3.7 San Bernardino County Multi-Jurisdiction Hazard Mitigation Plan

San Bernardino County and several participating jurisdictions prepared a Comprehensive Update to the MHMP in 2017, originally approved by FEMA in 2011 (San Bernardino County 2017). The purpose of this plan is to reduce and/or eliminate risk and loss of life and property in the unincorporated areas of the County from the effects of hazard events, such as wildfire, earthquakes, and floods. The plan demonstrates the commitment of each participating jurisdiction to reducing risks from hazards and serves as a tool to help decision makers direct mitigation activities and resources.

5.9.2.3.8 City of California City General Plan, Safety Element

The City of California City General Plan 2009-2028 Safety Element addresses contains goals, policies, and implementation measures that seek to reduce the potential for the loss of life, injuries, and property damage associated with natural and human-induced hazards, such as geologic and seismic, flood, fire, and aircraft over flight hazards. Safety Element goal and policies pertaining to human-induced hazards that are relevant to the Proposed Project are as follows:

Goal: Protect residents, businesses, and structures from human-induced hazards related to ground transportation, aircraft over flight, hazardous materials, and other human activities.

Policies:

- Require all generators and processors of hazardous waste develop long-term waste management programs in compliance with all applicable federal, state, county, and local requirements.
- Ensure that hazardous materials used by commercial and industrial land uses are properly transported, handled, and used, and that information on their handling, transport, and use is available to the California City Fire Department and other safety agencies in accordance with the Fire Code.
- Require that new development proposals be consistent with the Kern County Airport Land Use Compatibility Plan in order to eliminate hazards due to land use conflicts with the California City Municipal Airport, the Mojave Airport, EAFB, and other military over flight activities.
- Reduce the risk of potential spills and exposures to hazards and hazardous materials due to ground transportation by roadway and railway systems.
- Coordinate with the State to identify and monitor hazardous sites located within and/or adjacent to the General Plan Planning Area.

5.9.2.3.9 Kern County Airport Land Use Compatibility Plan

The Kern County ALUCP (Kern County 2012) contains goals, policies, and implementation measures that aim to avoid creating aviation hazards, and to protect the lives and property of nearby residents and other occupants. The Kern County ALUCP includes airport hazard overlay districts for seventeen airports, including the California City Municipal Airport, and military aviation.

Specific policies and measures that address military aviation concerns are included in the Kern County ALUCP to ensure development that encroaches established bases and operations occur in balance with present and future flight operation capabilities that meet mission requirements with public health, safety, quality of life, and economic stability of neighboring communities. There are no policies in the ALUCP applicable to the Proposed Project.

5.9.2.4 Touch Thresholds

5.9.2.4.1 California Division of Occupational Safety and Health

Cal/OSHA regulations on electrical safety require California employers to provide workers with a safe and healthful workplace. These regulations are contained in Title 8 of the California Code of Regulations. Most of the electrical health and safety regulations can be found in Chapter 4, Subchapter 5 in the Electrical Safety Orders, Sections 2299 through 2989.

Cal/OSHA regulations on electrical safety are grouped by electrical voltage. Regulations for low voltage (0-600V) are given in Sections 2299-2599 and the regulations for high voltage (above 600V) are given in

Sections 2700-2989. Section 1518 addresses the safety requirements for the protection of workers and others from electric shock in construction.

5.9.3 Impact Questions

5.9.3.1 Impact Questions

The thresholds of significance for assessing impacts come from the CEQA Environmental Checklist. For hazards and hazardous materials, the CEQA Checklist asks, would the project:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- 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?
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- Be located on a site that is included on a list of hazardous material sites, compiled pursuant to Government Code Section 65962.5, and as a result would create a significant hazard to the public or the environment?
- 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, the project would result in a safety hazard for people residing or working in the project area?
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

5.9.3.2 Additional CEQA Impact Questions

The CPUC has identified additional CEQA significance criteria. According to these additional CEQA significance criteria, a project causes a potentially significant impact if it would:

- Create a significant hazard to air traffic from the installation of new power lines and structures?
- Create a significant hazard to the public or environment through the transport of heavy materials using helicopters?
- Expose people to a significant risk of injury or death involving unexploded ordnance?
- Expose workers or the public to excessive shock hazards?

5.9.4 Impact Analysis

5.9.4.1 Hazards and Hazardous Materials Methodology

Impacts from hazards and hazardous materials within the Proposed Project area are determined using data from the EDR (Appendix F), Cal OES databases and maps, statewide Cortese List databases, and Proposed Project information provided by SCE.

5.9.4.2 Hazards and Hazardous Materials Impact Analysis

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

Construction

Less than Significant Impact with Mitigation. No acutely hazardous materials (as defined in 22 CCR 66260.10) would be used or stored on location during construction of the Proposed Project. Construction of the Proposed Project would require the use of gasoline, diesel fuel, oil, solvents, and lubricants associated with vehicles and construction activities. The type, uses, and volumes of hazardous materials that would be used during construction are shown in Table 3-9 in Chapter 3. If improperly used, transported, stored, or disposed of, such materials have the potential to create a significant hazard to the public or environment.

Management of these hazardous materials would include compliance with a Proposed Project-specific Storm Water Pollution Prevention Plan (SWPPP) and, if necessary (pursuant to CCR Title 19), a Spill Prevention Control and Countermeasure (SPCC) Plan, as well as implementation of associated Best Management Practices (BMPs), related to fueling and/or handling, use, and storage of hazardous materials. All transport of hazardous materials would comply with applicable laws, rules, regulations, and would be conducted using applicable BMPs, including the acquisition of required shipping papers, package marking, labeling, transport vehicle placarding, training, and registrations. Furthermore, in accordance with applicant proposed measure (APM) HAZ-1, SCE crews and/or SCE's construction contractor would implement proper hazardous materials management activities, which would include preparation and implementation of a Hazardous Materials Management Plan (HMMP) for the Proposed Project before field construction activities begin that would outline the proper procedures for the handling, use, storage, and disposal of hazardous materials.

In addition to the transport, use, and disposal of hazardous materials associated with vehicles and construction activities described above, construction of the Proposed Project could create a hazard to the public or environment if excavation or other ground-disturbing activities encounter contaminated soil from the following hazardous material concerns within the Proposed Project alignment:

- LBP/Roadway paint striping: Lead on or in buildings, bridges, and structures
- ACM: Asbestos in exterior and interior building materials, concrete, and roadway and railroad overcrossing structures
- PCBs: PCBs in transformers and other hydraulic equipment
- Wooden utility poles: Creosote
- ADL: Lead in soil in the vicinity of U.S. 395 and SR 58
- Railways and railroad spurs: Petroleum hydrocarbons, pesticides/herbicides, polycyclic aromatic hydrocarbons, and heavy metals, including arsenic and lead
- Crude oil and natural gas pipelines: Petroleum hydrocarbons and natural gas

APM HAZ-2 would require the preparation of a soil management plan, which would guide the proper handling, on-site management, and disposal of impacted soil, if encountered. Additionally, the Proposed Project would involve removal of existing wood poles, particularly along portions of the proposed alignment where distribution underbuild would occur. Depending on the type, condition, and original chemical treatment, any wood poles removed would be returned to a staging yard and either reused by SCE,

returned to the manufacturer, or disposed of in a Class I hazardous waste landfill or RWQCB-approved Class III landfill or equivalent facility.

An inadvertent release could occur from the use of hazardous materials during construction within temporary storage or staging sites, while transporting hazardous materials—including impacted soil—to and from work areas, or during refueling and servicing of equipment. The potential for an inadvertent release would be reduced or eliminated through compliance with applicable laws, rules, and regulations related to the transport, use, and disposal of hazardous materials and implementation of APMs HAZ-1 and HAZ-2.

All hazardous materials would be transported, used, and disposed of in accordance with applicable rules, regulations, and SCE standard protocols designed to protect the environment, workers, and the public. Therefore, the Proposed Project impacts from the transport, use, and disposal of hazardous materials during construction activities would be less than significant. Such impacts would be further reduced through implementation of a Proposed Project-specific HMMP, as specified in APM HAZ-1 and soil management plan as specified under APM HAZ-2. With implementation of APM HAZ-1 and APM HAZ-2, impacts would be less than significant with mitigation incorporated.

Operation

Less than Significant Impact. As presented in Chapter 3, the Proposed Project includes constructing subtransmission lines between existing substations in the vicinity of the City of California City, EAFB, and U.S. 395 where many overhead power lines currently exist. O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing facilities, including, but not limited to, repairing conductors, washing or replacing insulators, repairing or replacing other hardware components, repairing or replacing poles and towers, tree trimming, brush and weed control, and access road maintenance. SCE currently performs O&M activities for the existing substations and their associated source lines and infrastructure. While the Proposed Project would result in a nominal increase in O&M activities, it would not result in a substantial increase in the transport, use, or disposal of hazardous materials. Hazardous materials would be transported, used, and disposed of in accordance with applicable rules, regulations, and SCE standard protocols designed to protect the environment, workers, and the public. Therefore, the Proposed Project impacts from the transport, use, and disposal of hazardous materials during operation would be less than significant.

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

Construction

Less than Significant Impact with Mitigation. As described above in Section 5.9.4.2.1, construction of the Proposed Project would require the limited use of hazardous materials, such as fuels, lubricants, and cleaning solvents, and could also involve disturbance of contaminated soil. As described in Chapter 3, Proposed Project Description, fuel storage and refueling of vehicles and helicopters may occur in designated areas during construction activities. A small volume of fuels, lubricants, and solvents with low toxicity are anticipated to be used during the construction of the Proposed Project. All hazardous materials would be stored, handled, and used in accordance with applicable regulations, and materials safety data sheets (MSDS) would be available for on-site construction crew at all times. The most likely incidents involving these hazardous materials are associated with minor spills or drips.

A site-specific construction SWPPP would be prepared and followed, as applicable, to ensure quick response to minor spills and to minimize impacts to the environment. The SWPPP would identify the locations within the Proposed Project area for storing hazardous materials during construction, as well as protective measures, notification, and cleanup requirements for any incidental spills or other potential releases of hazardous materials. In the event of a release of hazardous materials, such as minor spills and drips from construction equipment and refueling, SCE would use the SWPPP as guidance for implementing appropriate handling and response.

During construction, the potential exists that subsurface utilities (e.g., a natural gas line) or structures (e.g., an underground storage tank) might be encountered and damaged, resulting in an accidental release of a hazardous material. During construction, screening activities would include contacting DigAlert, conducting visual observations, and using buried line locating equipment. In addition, SCE would develop and implement a project-specific HMMP pursuant to APM HAZ-1 and a soil management plan pursuant to APM HAZ-2, which would further reduce or eliminate the risk of construction hazards to the public, workers, and environment to less than significant.

Operation

Less than Significant Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. . However, hazardous materials would be transported, used, and disposed of in accordance with applicable rules, regulations, and SCE standard protocols designed to protect the environment, workers, and the public which would reduce the risk of upset and accident conditions. Therefore, the Proposed Project impacts from upset or accident conditions during operation would be less than significant.

5.9.4.2.3 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?

Construction

Less than Significant Impact with Mitigation. The California City High School (8567 Raven Way, City of California City) is located within 0.25 mile of the western-most portion of the Proposed Project alignment and proposed improvements at Cal City Substation and approximately 0.1 mile from proposed Staging Area 1-17. Hazardous materials to be used during construction of the Proposed Project would consist of low-toxicity materials including gasoline, diesel fuel, oil, solvents, and lubricants associated with the operation of construction equipment and vehicles and construction activities. The low-toxicity materials would be used throughout construction sites within the Proposed Project area. All hazardous materials would be stored, handled, and used in accordance with applicable regulations. No acutely hazardous materials (as defined in 22 CCR 66260.10) would be used or stored on location during construction activities.

Due to the low toxicity of materials associated with the Proposed Project and implementation of a construction SWPPP that would include good housekeeping, spill containment and response measures, waste management BMPs, and APMs HAZ-1 and HAZ-2, Proposed Project construction impacts would be less than significant for the California City High School and surrounding areas. Therefore, this impact would be less than significant with mitigation incorporated.

Operation

Less than Significant Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. . The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. However, even with an increase in O&M activities, all hazardous materials would be stored, handled, and used in accordance with applicable regulations. Therefore, the Proposed Project would result in less than significant impacts related to hazardous emissions or handling of hazardous materials during operation near a school.

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

Construction

No Impact. One known release site, EAFB, is located within the Proposed Project and is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Cortese List). EAFB is associated with two Cleanup and Abatement Orders issued in 1987 and 1988, which have an active status and pertain to a Leaking Underground Storage Tank case located approximately 3 miles south of the Proposed Project alignment. EAFB was also listed on regulatory databases indicative of hazardous materials releases as described in the Hazards Report. Based on the reported locations of the hazardous materials releases at EAFB, this Cortese List site is not associated with impacted soil or groundwater plumes beneath the Proposed Project alignment and is not a concern for the Proposed Project. Therefore, no impact would occur.

Operation

No Impact. As previously described, it is likely that the Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. However, as stated previously, based on the reported locations of the hazardous materials releases at EAFB, this Cortese List site is not associated with impacted soil or groundwater plumes beneath the Proposed Project alignment and is not a concern for the Proposed Project. Therefore, no impact during operation would occur.

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

Construction

Less than Significant Impact. One public airport, California City Municipal Airport (22636 Airport Way, City of California City), is located approximately two miles west of the Proposed Project alignment along 90th Street and the Cal City Substation. No portion of the Proposed Project is located within the planning boundary of the California City Municipal Airport. The Proposed Project area is not within the California City Municipal Airport Compatibility Zones, as noted in the Kern County ALUCP.

SCE would file FAA notifications for Proposed Project structures, as required. With respect to Proposed Project structures, the FAA would conduct its own analysis and may recommend no changes to the design of the proposed structures or may request redesigning the proposed structures near the airports to reduce

the height of such structures; or marking 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 14 CFR 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 such notifications would be filed upon completion of final engineering and before construction commences. The Proposed Project would be built within existing or new ROW and all construction activities would be performed at a distance from airport activity sufficient to minimize safety concerns to construction personnel. A very low probability of a safety hazard would exist for nearby residents or personnel. Therefore, the impact would be less than significant.

Operation

No Impact. As previously described, the Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. However, as described above, the Proposed Project is not located within the planning boundary of the California City Municipal Airport or any compatibility zones for the airport. For these reasons, O&M activities would not result in a safety hazard related to airports. Therefore, no impact during operation would occur.

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

Construction

Less than Significant Impact. As discussed in Section 5.17, Transportation, construction activities for the Proposed Project may require temporary road and/or lane closures on public roads in residential areas and would involve the movement of oversize vehicles that could affect emergency vehicle access to and along the Proposed Project alignment. Temporary activities across roadways could disrupt the operations of emergency service providers. However, SCE would prepare and implement required traffic control plans in accordance with required encroachment permits. With encroachment permit implementation, potential hazards from road closures would be minimal and the Proposed Project would not impair or interfere with emergency response or evacuation. Further, the Proposed Project would not be expected to increase demands on the existing emergency response services during temporary construction activities. Therefore, the impacts associated with construction activities would be less than significant.

Operation

No Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. Increased O&M vehicle trips associated with the Proposed Project are estimated at up to 60 trips annually, and it is anticipated that maintenance and inspection trips would generally occur along existing or to-be-constructed SCE access roads. For these reasons, this nominal increase in O&M activities would not impair implementation or physically interfere with an adopted emergency response plan or emergency evaluation plan. As a result, no impact would occur.

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

Construction

Less Than Significant Impact. High heat or sparks from vehicles or equipment have the potential to ignite dry vegetation and cause fires. Construction personnel could be exposed to a wildland fire should one start during Project construction. However, as previously discussed, the Proposed Project alignment is located within the CAL FIRE moderate FHSZ. The Proposed Project alignment is not within or near any SRA land or lands classified as very high FHSZ. Proposed Project activities would generally be located within existing SCE owned and/or new ROWs where vegetation has been previously or would be cleared or trimmed. Vehicles and equipment would primarily use existing roads. In addition, SCE would implement standard fire prevention protocols during construction activities and comply with applicable laws and regulations. Prior to construction, contractors would be required to submit a fire prevention plan to SCE construction management for review and approval. Risk to personnel would most likely come from the inability to avoid or escape a wildland fire. Accordingly, as discussed in Section 5.17, Transportation, the Proposed Project would implement traffic control plans in accordance with required encroachment permits, which would address this potential scenario.

SCE participates with CAL FIRE, the Cal OES, and various city and county fire agencies in the Red Flag Fire Prevention Program and complies with PRC sections 4292 and 4293 related to vegetation management in transmission line corridors. If the National Weather Service issues a Red Flag Warning during construction of the Proposed Project, additional measures would be implemented to address smoking and fire rules, storage and parking areas, the use of gasoline-powered tools, the use of spark arresters on construction equipment, road closures, the use of a fire guard, fire suppression tools, fire suppression equipment, and training requirements. Work areas within the Proposed Project alignment would generally be cleared of vegetation and graded prior to the staging of equipment, minimizing the risk of construction vehicles starting a fire. Based on SCE's participation in the Red Flag Fire Prevention Program and compliance with applicable state and federal laws and regulations during construction, impacts resulting from wildland fire involving the risk of loss, injury, or death would be less than significant.

Overall, this impact would be less than significant.

Operation

Less than Significant Impact. Operation of approximately 70 miles of new subtransmission lines and expansion of the Cal City substation may pose a fire hazard if a conducting object comes near a line or when a live-phase conductor falls to the ground. During maintenance activities, there is risk of fire danger from operating vehicles and other equipment off roadways during maintenance. Operation of the Proposed Project would be conducted in compliance with existing state and federal laws, rules, regulations, and CPUC standards discussed in the Regulatory Setting of Section 5.20, Wildfire, and the Proposed Project is not located in lands classified as SRA or very high FHSZ. To minimize the risk of accidental ignition of a wildland fire from the subtransmission lines, SCE would follow state vegetation and tree clearing requirements, including CPUC G.O. 95 and PRC section 4293, which require that certain vegetation management activities be performed and maintained for overhead conductors that traverse trees and vegetation to establish necessary and reasonable clearances measured between line conductors and vegetation under normal conditions.

The Proposed Project would involve O&M activities, which would consist of monthly and annual inspections, as well as equipment testing and maintenance for new and expanded facilities. High heat or sparks from vehicles or equipment during O&M have the potential to ignite dry vegetation and cause fires. While the Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips, Proposed Project O&M activities would be located within existing SCE owned and/or new ROWs where vegetation would be cleared or trimmed as part of regular O&M. Vehicles and equipment would primarily use existing and proposed roads. SCE would continue to implement its standard fire prevention protocols during O&M activities; comply with applicable laws and regulations; implement additional measures in the event of a Red Flag Warning during operation; and participate with CAL FIRE and other city and county fire agencies in the Red Flag Fire Prevention Program (in compliance with PRC sections 4292 and 4293 relating to vegetation management in subtransmission line corridors). Therefore, this impact would be less than significant.

5.9.4.2.8 Would the project create a significant hazard to air traffic from the installation of new power lines and structures?

Construction

Less than Significant Impact with Mitigation. Prior to construction, SCE will submit the required Notice of Proposed Construction or Alteration to the FAA pursuant to 14 CFR 77.9. If the resultant FAA determination calls for the marking or lighting of construction equipment such as cranes, said determinations would be implemented by SCE. In addition, APM HAZ-3 requires coordination with the FAA regarding construction helicopter flight plans. SCE will coordinate with local airports regarding helicopter operations and flight plans during construction, and thus the Proposed Project would not result in a safety hazard to air traffic with implementation of APM HAZ-3.

Operation

No Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. However, this nominal increase would not result in a significant hazard to air traffic, as O&M activities would be similar in nature to those already occurring in the Proposed Project area. As a result, no impact would occur.

5.9.4.2.9 Would the project create a significant hazard to the public or environment through the transport of heavy materials using helicopters?

Construction

No Impact. Light- and medium-duty helicopters would be used in support of construction of the Proposed Project, including installation of subtransmission structures. The Proposed Project does not include the use of heavy-duty helicopters. SCE, as part of the Proposed Project, would develop and implement a Helicopter Use and Safety Plan in accordance with 14 CFR Part 77, and in coordination with and to be approved by the FAA Flight Standards District Office. SCE would also obtain, as necessary, approval of a Congested Area Plan from the FAA. Through these activities and agency coordination, SCE would eliminate the potential for creating a significant hazard to the public or environment through the transport of heavy materials using helicopters, and no impact would be realized under this threshold.

Operation

No Impact. As discussed in Chapter 3, Proposed Project Description, light- and medium-duty helicopters may be used during O&M activities. As part of the Proposed Project, SCE would develop and implement a Helicopter Use and Safety Plan in accordance with 14 CFR Part 77, and in coordination with and to be approved by the FAA Flight Standards District Office. SCE would also obtain, as necessary, approval of a Congested Area Plan from the FAA. Through these activities and agency coordination, SCE would eliminate the potential for creating a significant hazard to the public or environment through the transport of heavy materials using helicopters. No impact would occur.

5.9.4.2.10 Would the project expose people to a significant risk of injury or death involving unexploded ordinance?

Construction

Less than Significant Impact with Mitigation. A review of the EDR database report indicates that there is one Unexploded Ordnance (UXO) site located on the parcel adjacent to the eastern border of proposed Staging Area 1-2, at the intersection of Lorraine Avenue and 160th Street in North Edwards (EDR 2021). Further, EAFB has a long history of use as a military installation and UXO items are occasionally found throughout the base. Therefore, there is the potential to encounter UXO during Proposed Project activities in these areas. Under APM HAZ-4, construction workers would be trained on the proper protocol for the identification, marking, and avoidance of UXO, as well as notification procedures to arrange for treatment and proper disposal of UXO by a trained specialist should such items be encountered during construction. With implementation of this APM, the Proposed Project would not expose people to a significant risk of injury or death involving UXO, and this impact would be less than significant with mitigation incorporated.

Operation

No impact. As previously described, the Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. O&M activities would occur on existing or new ROWs in areas that have already been disturbed and are unlikely to encounter UXO. Therefore, no impact would occur.

5.9.4.2.11 Would the project expose workers or the public to excessive shock hazards?

Construction

No Impact. The design of Proposed Project components, and the construction of those components, would be compliant with all applicable federal and state regulations and standards. To reduce shock hazards and avoid electrocution of workers or the public, SCE would comply with the provisions found in Title 8 of the CCR, particularly the electrical health and safety regulations found in Chapter 4, Subchapter 5 in the Electrical Safety Orders, Sections 2700-2989, which are relevant to high voltage work. As a result, no impact would occur.

Operation

No Impact. The design of Proposed Project components, and the O&M of those components, would be compliant with all applicable federal and state regulations and standards. To reduce shock hazards and avoid electrocution of workers or the public, SCE would comply with the provisions found in Title 8 of the CCR, particularly the electrical health and safety regulations found in Chapter 4, Subchapter 5 in the

Electrical Safety Orders, Sections 2700-2989, which are relevant to high voltage work. As a result, no impact would occur.

5.9.4.3 Hazardous Materials

The hazardous materials (i.e., chemicals, solvents, lubricants, and fuels) that would be used during construction and operation of the Proposed Project, and an estimate of the quantity of each hazardous material that would be stored on site during construction, are presented in Table 3-9 in Chapter 3, Proposed Project Description.

5.9.4.4 Air Traffic Hazards

Discussions of how the Proposed Project would not conflict with height restrictions identified in the airport land use plan and how the Proposed Project would comply with any FAA or military requirements for the above ground facilities are presented above in Section 5.9.4.2.5.

5.9.4.5 Accident or Upset Conditions

A description of how the Proposed Project components would be designed, constructed, operated, and maintained to minimize potential hazard to the public from the failure of Proposed Project components as a result of accidents or natural catastrophes is presented above in Section 5.9.4.2.2.

5.9.4.6 Shock Hazard

There is no infrastructure along the Proposed Project alignment that may be susceptible to new induced current from the installation of components under the Proposed Project. Where infrastructure that may be susceptible to induced current from components of the Proposed Project is present, this infrastructure is generally crossed by the Proposed Project alignment, rather than running in parallel. The strategies that would be employed to reduce shock hazards and avoid electrocution of workers and the public are presented above in Section 5.9.4.2.11.

5.9.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures identified for Hazards, Hazardous Materials, and Public Safety.

5.9.5.1 Applicant Proposed Measures

The following APMs would be implemented to reduce hazards or hazardous materials impacts associated with the Proposed Project:

- **HAZ-1:** SCE will prepare and implement a HMMP/Hazardous Materials Business Plan during project construction. The program 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 HMMP will address: the types of hazardous materials to be used during the Project, hazardous materials storage, employee training requirements, hazard recognition, fire safety, first aid/emergency medical procedures, hazardous materials release containment/control procedures, hazard communication training, personal protective equipment (PPE) training, and release reporting requirements. It will also include fueling and maintenance procedures for helicopters and construction equipment

- **HAZ-2**: A Soil Management Plan will be developed and implemented for the Proposed Project. The Soil Management Plan will provide guidance for the proper handling, on-site management, and disposal of impacted soil that may be encountered during construction activities.
- **HAZ-3:** Prior to construction, SCE shall consult with the FAA regarding helicopter flight plans that will take place during construction. This consultation will would include, but not be limited to:
  - Providing locations of helicopter construction staging and work areas
  - Establishing designated flight corridors between staging and work areas
  - Means to ensure external load operations avoid occupied structures and roadways
  - Locations of traffic control where external load operations will cross public roadways
  - Locations where Congested Area Plans may be required for filing with the FAA
  - Identifying any flight restrictions recommended/required by the FAA

  The results of this coordination will be provided to the CPUC.

- **HAZ-4**: All workers on the project site shall be required to attend a Worker's Environmental Awareness Training Program (WEAP). The training shall inform all construction personnel of the UXO avoidance measures, including general precautions as well as specific procedures to be followed upon the discovery of UXO. The WEAP training will include, at a minimum, the following topics so crews will understand their obligations:
  - Safety and situational awareness in areas where UXO are likely to be encountered
  - Identification of UXO
  - Work stoppage and work area evacuation
  - Communication protocol
  - Treatment of UXO, including avoiding disturbance of the UXO and flagging the item with a visible marker, if it may be done safely
  - Consequences of non-compliance

5.9.6 Alternatives

For an evaluation of Proposed Project alternatives, see Chapter 6, Comparison of Alternatives.

5.10 Hydrology and Water Quality

This section describes existing hydrology and water quality along the Cal City Substation 115 kV Upgrade Project (Proposed Project) alignment, as well as the potential impacts from construction and operation of the Proposed Project.

Research for this analysis involved a review of the following resources:

- United States Geological Survey (USGS) 7.5 minute quadrangle maps
- United States Fish and Wildlife Service (USFWS) National Wetlands Inventory
- USGS National Hydrography Dataset
- Lahontan Regional Water Quality Control Board (RWQCB) Water Quality Control Plan (Basin Plan)
- 2020-2022 California Integrated Report (Clean Water Act [CWA] Section 303(d) List/305(b) Report)
- Aerial photographs
- Local agency planning documents

5.10.1 Environmental Setting

The Proposed Project is located in Kern County and San Bernardino County in the Mojave Desert region of California on federal, state, private, and municipal land. These lands include unincorporated areas of Kern County and San Bernardino County, City of California City, Edwards Air Force Base (EAFB) controlled by the Department of Defense, and public lands under the jurisdiction of the Bureau of Land Management and the California Department of Fish and Wildlife (CDFW). Approximately 90 percent of the Proposed Project is located within undeveloped open areas, with the remaining 10 percent located within developed areas (including the City of California City).

The Proposed Project transects the Mojave Desert Geomorphic Province. The elevation of the Proposed Project ranges from 2,339 feet near Edwards Substation to 3,007 feet above mean sea level (amsl) at various points. In the National Oceanic and Atmospheric Administration's (NOAA) 2015 Climate Summary, rainfall records from the nearest climatological station to Edwards Substation showed an average annual rainfall of approximately 6.1 inches. Within the vicinity of Edwards Substation, water generally flows from west to east, toward Rogers Lake. Near the Kramer Substation and Holgate Switchyard, water flows from east to west, toward Rogers Lake. In the vicinity of Cal City Substation, water generally flows from south to north (NOAA 2015).

5.10.1.1 Waterbodies

Various waterbodies, including ephemeral drainages and playas, occur throughout the Proposed Project alignment. Named waterbodies and watersheds are shown on Figure 5.10-1. Table 5.10-1 identifies, by Proposed Project component, named waterbodies crossed by the Proposed Project alignment, as well as the water quality classification. The sole named waterbody crossed by the Proposed Project alignment is Cache Creek, a northward-flowing ephemeral creek (dry during most of the year). Also in the Proposed Project vicinity but not crossed by the alignment is Rogers Lake, a dry lakebed.

Figure 5.10-1 Named Waterbodies and Watersheds in the Vicinity of the Proposed Project

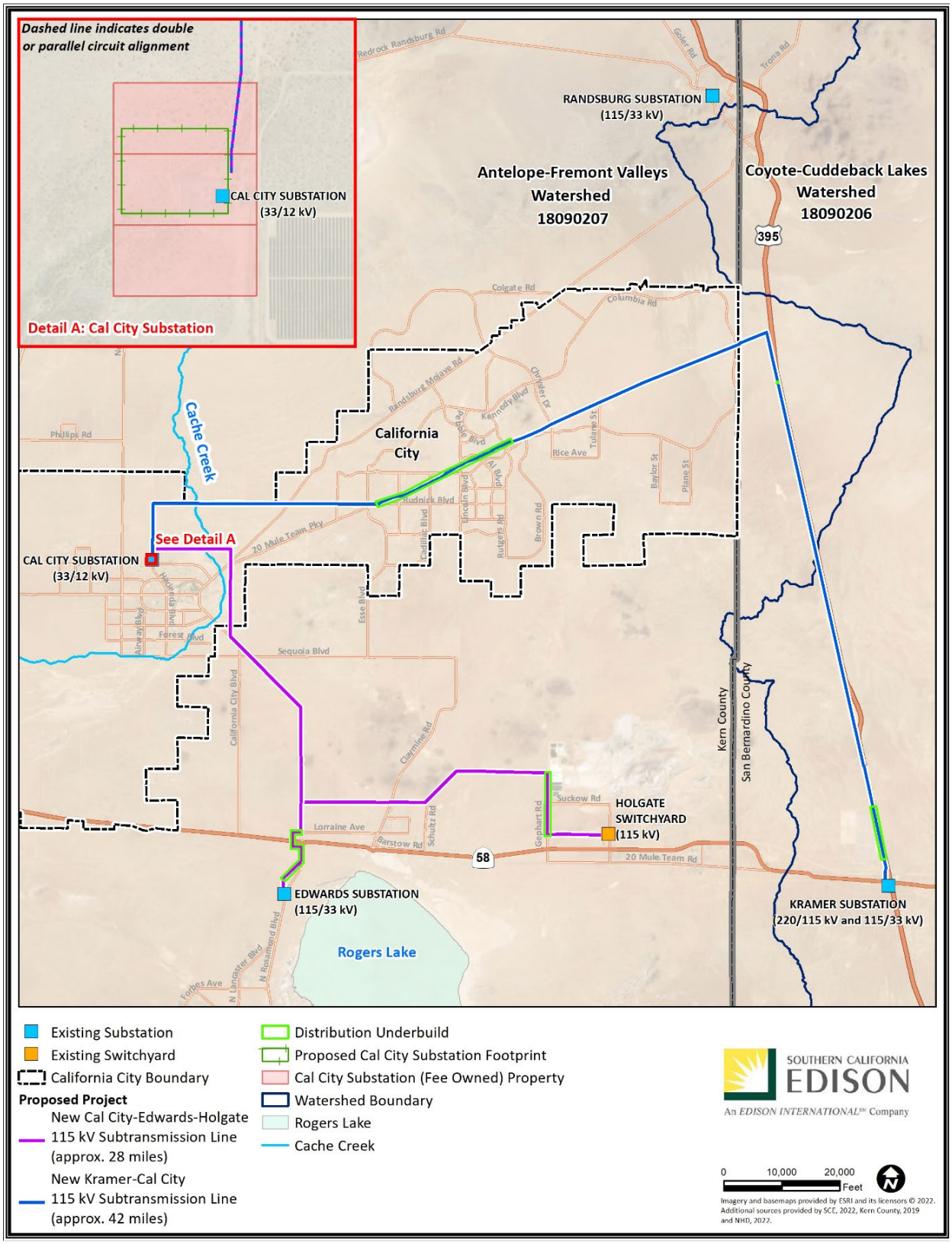


Table 5.10-1 Waterbodies Crossed by the Proposed Project Alignment

Project Component	Waterbody	Water Quality Classification
Kramer-Cal City 115 kV Subtransmission Line and Cal City-Edwards-Holgate 115 kV Subtransmission Line	Cache Creek	Not Impaired

Source: State Water Resources Control Board 2018

In addition to the named waterbodies described above, numerous small, unnamed dry washes are found throughout the Proposed Project area. As currently designed, the Proposed Project would result in approximately 16.01 acres of temporary impacts[1] and approximately 2.03 acres of permanent impacts[2] to waters potentially subject to the jurisdiction of the CDFW and RWQCB were identified based on a desktop review of aquatic delineations completed for other Southern California Edison (SCE) projects and an aquatic resources field survey, described in greater detail in Section 5.4, Biological Resources. No federally jurisdictional waters have been identified in the Proposed Project vicinity that would be impacted by the Proposed Project.

5.10.1.2 Water Quality

The Proposed Project is located in areas covered by the Lahontan RWQCB Lahontan Region Basin Plan (Basin Plan) (RWQCB 1995). The Proposed Project overlays three different hydrologic units designated within the Basin Plan, including the Antelope Hydrologic Unit, Fremont Hydrologic Unit, and the Mohave Hydrologic Unit – Harper Valley Subarea. The Basin Plan identifies beneficial uses and water quality objectives that are the water quality standards for the Region (State Water Resources Control Board [SWRCB] 2021). Beneficial uses identified in the Basin Plan for drainages located within the Proposed Project area are shown in Table 5.10-2.

Table 5.10-2 Beneficial Uses within the Proposed Project Area

Feature	MUN	AGR	PRO	IND	GWR	FRSH	NAV	POW	REC-1	REC-2	COMM	AQUA	COLD	WARM	SAL	WILD	BIOL	RARE	MIGR	SPWN	WQE	FLD	SHELL	EST	WET	LREC-1
Lahontan Region Basin Plan																										
Antelope Hydrologic Unit																										
Rogers Lake Wetlands	x								x	x				x	x	x					x	x				
Minor Surface Waters	x	x			x				x	x	x		x	x		x										
Minor Wetlands	x	x			x	x			x	x				x		x					x	x				
Fremont Hydrologic Unit																										
Cache Creek	x	x			x				x	x				x		x										
Cache Creek 2	x				x				x	x				x		x										
Minor Surface Waters	x	x			x				x	x	x			x		x										
Minor Wetlands	x	x			x	x			x	x				x		x					x	x				

[1] Temporary impacts include impacts to jurisdictional features associated with Proposed Project components resulting in temporary disturbance, including temporary work areas around proposed subtransmission structures and access roads, staging areas, pull-and-tensioning/stringing sites, guard structures, splice sites, distribution pole removal workspaces, and temporary disturbance around Cal City Substation.

[2] Permanent impacts include impacts to jurisdictional features associated with Proposed Project components resulting in permanent disturbance, including proposed subtransmission structures, new or heavily improved access roads, permanent operation and maintenance (O&M) Structure pads, and the expanded Cal City Substation footprint.

Feature	MUN	AGR	PRO	IND	GWR	FRSH	NAV	POW	REC-1	REC-2	COMM	AQUA	COLD	WARM	SAL	WILD	BIOL	RARE	MIGR	SPWN	WQE	FLD	SHELL	EST	WET	LREC-1
Mojave Hydrologic Unit – Harper Valley Subarea																										
Minor Surface Waters	x	x			x				x	x			x	x		x										
Minor Wetlands	x	x			x	x			x	x			x	x		x		x			x	x				

MUN – Municipal and Domestic Supply
AGR – Agricultural Supply
PRO – Industrial Process Supply
IND – Industrial Service Supply
GWR – Ground Water Recharge
FRSH – Freshwater Replenishment
NAV – Navigation
POW Hydropower Generation
REC1 – Water Contact Recreation
REC2 – Non-contact Water Recreation
COMM – Commercial and Sport Fishing
AQUA – Aquaculture
COLD – Cold Freshwater Habitat
WARM – Warm Freshwater Habitat
SAL – Inland Saline Water Habitat
WILD – Wildlife Habitat
BIOL – Preservation of Biological Habitats of Special Significance
RARE – Rare, Threatened or Endangered Species
MGR – Migration of Aquatic Organisms
SPWN – Spawning, Reproduction, and Development
WQE – Water Quality Enhancement
FLD – Flood Peak Attenuation/Flood Water Storage
SHELL- Shellfish harvesting
EST – Estuarine Habitat
WET – Wetland Habitat
LREC-1 Limited Water Contact Recreation

5.10.1.2.1 Impaired Waterbodies

The SWRCB and RWQCB assess water quality data for California's waters every two years to determine if they contain pollutants at levels that exceed protective water quality criteria and standards. This biennial assessment is required under Section 303(d) of the federal CWA. According to the California 2020-2022 Integrated Report, there are no downstream waters that are on the state 303(d) list (SWRCB 2022).

5.10.1.3 Groundwater Basins

No United States Environmental Protection Agency (USEPA)-designated sole source aquifers for drinking water underlie any portion of the Proposed Project alignment (Regional Water Management Group of the Fremont Basin Integrated Regional Water Management Region 2018).

Groundwater resources (basins) are delineated by the California Department of Water Resources (DWR). A basin is defined as an alluvial aquifer or a stacked series of alluvial aquifers with reasonably well-defined boundaries in a lateral direction and having a definable bottom. Groundwater in the region is used primarily for domestic water supply and agricultural purposes. The groundwater basins crossed by the Proposed Project alignment include the Fremont Valley Groundwater Basin, Antelope Valley Groundwater Basin, and Harper Valley Groundwater Basin; these are shown in Figure 5.10-2.

The depth to groundwater across the Proposed Project alignment varies geographically and temporally. While shallow groundwater may be found near drainages and other features (see discussion in Section 5.7, Geology, Soils, and Paleontological Resources), the depth to groundwater across the alignment generally exceeds 100 feet below ground surface.

Figure 5.10-3 shows the depth of groundwater wells in the Proposed Project vicinity by each Public Land Survey System (PLSS) section utilizing DWR well completion reports. The Well Completion Report dataset represents an index of records from the California DWR; the dataset is spatially registered to the center of the PLSS section in which a given well is located. This data is a proxy for depth to groundwater and indicates that groundwater levels range considerably, but generally exceed 100 feet with some wells drilled to depths of 900 feet or more and many wells drilled to depths of 200 to 600 feet (California DWR 2022).

Figure 5.10-2 Groundwater Basins in the Proposed Project Vicinity

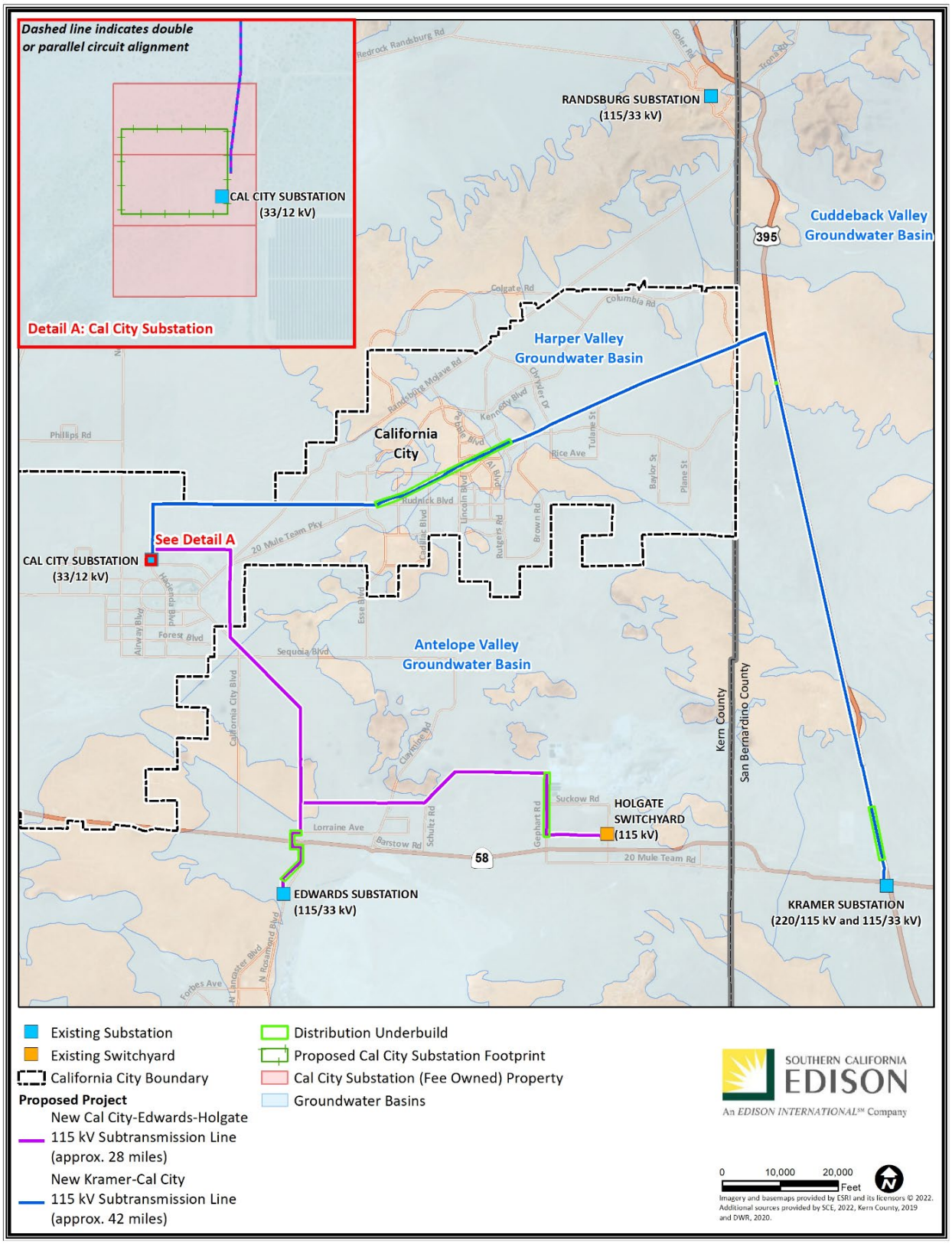
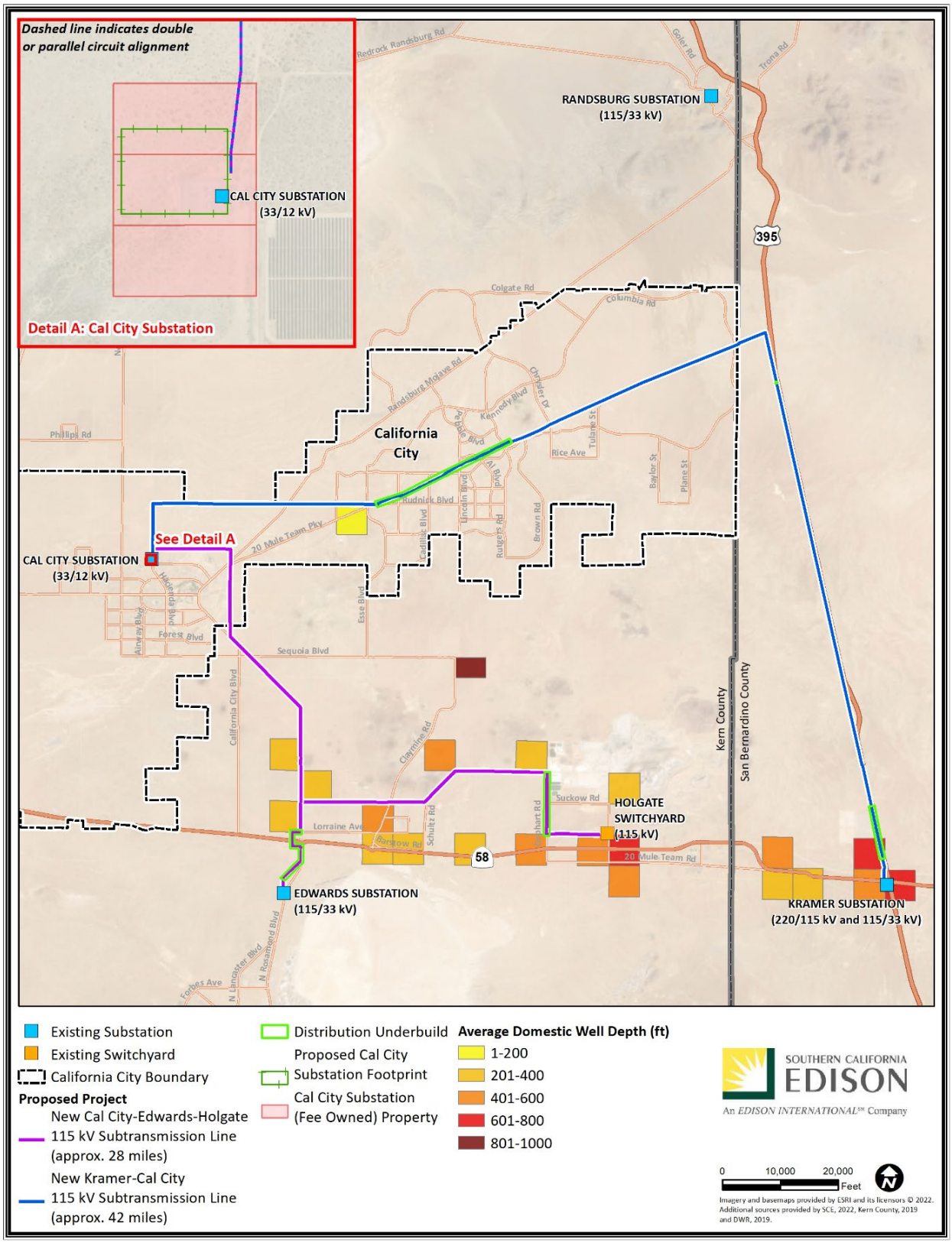


Figure 5.10-3 Groundwater Wells - Domestic Well Depth Per Section



5.10.1.3.1 Fremont Valley Groundwater Basin

The Fremont Valley Groundwater Basin is an approximately 523-square mile groundwater basin located in eastern Kern and northwestern San Bernardino counties. The basin is bounded by the Garlock Fault Zone to the northwest; the Summit Range, Rand Mountains, Lava Mountains, and various buttes and hills to the east; and the Antelope Valley Groundwater Basin to the southwest. Groundwater is generally unconfined in the basin, with water held in Quaternary alluvium and lacustrine deposits. The basin has an estimated storage capacity of approximately 4.8 million acre-feet. Groundwater quality is characterized by moderate to high levels of total dissolved solids (TDS), ranging from approximately 400 to 1,400 milligrams per liter (mg/L), with substantially higher concentrations near Koehn Lake (California DWR 2004a).

5.10.1.3.2 Harper Valley Groundwater Basin

The Harper Valley Groundwater Basin is an approximately 640-square mile groundwater basin located in eastern Kern and western San Bernardino counties. The basin is bounded by Fremont Peak, Black Mountain, and various hill formations to the east; the Lockhart Fault Zone and Harper and Kramer Hills to the west; Mount General, Iron Mountain, and the Waterman Hills to the south; and the Rand Mountains to the north. Groundwater is generally unconfined in the basin, with water held in Quaternary lacustrine and alluvial deposits. The basin has an estimated storage capacity of approximately 7 million acre-feet. Groundwater quality is characterized by moderate to high levels of TDS, specifically high concentrations of boron, sodium, and fluoride (California DWR 2004b).

5.10.1.3.3 Antelope Valley Groundwater Basin

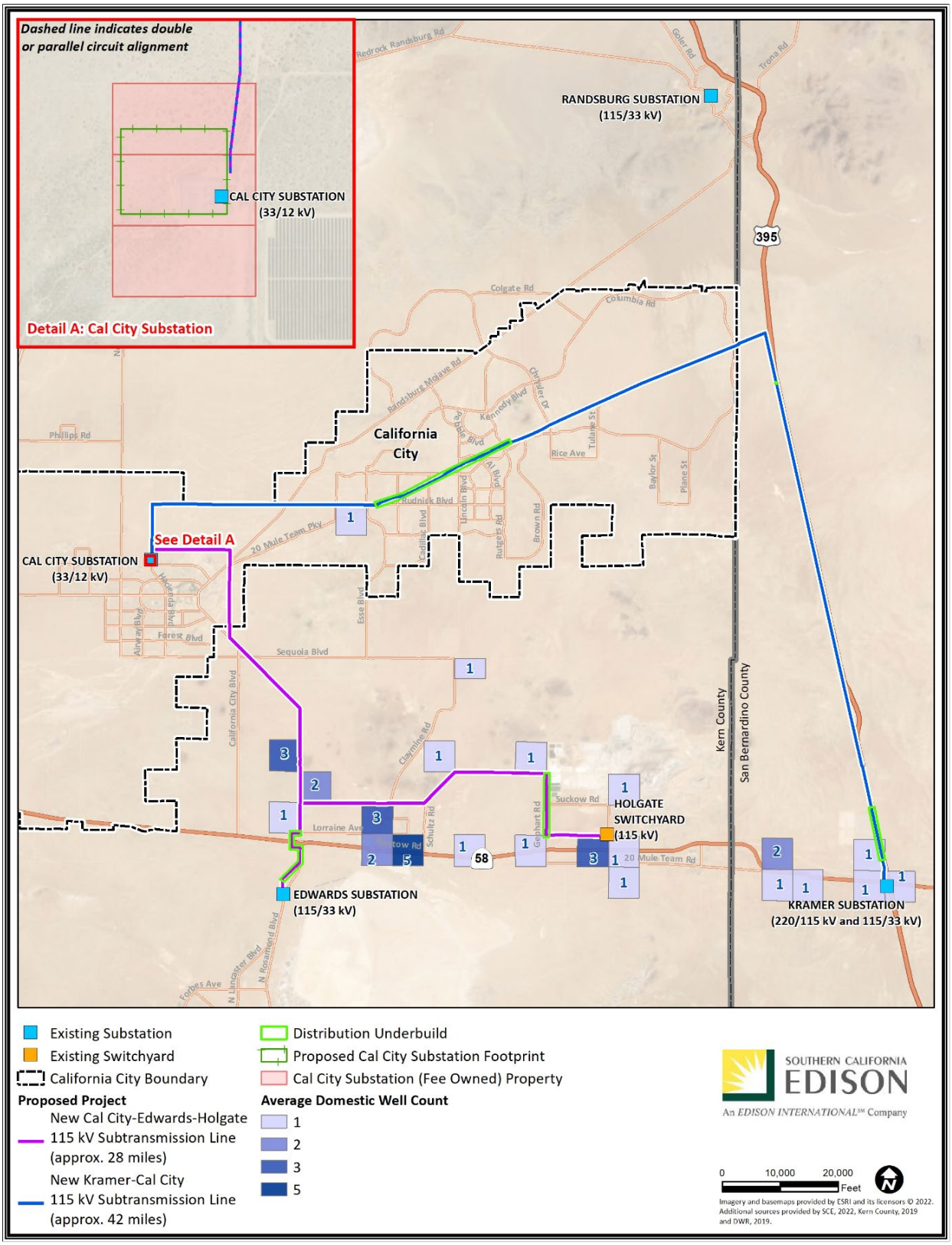
The Antelope Valley Groundwater Basin is an approximately 1,580-square mile groundwater basin spanning portions of Los Angeles, Kern, and San Bernardino counties. The basin is bounded by the Garlock Fault Zone and Tehachapi Mountains to the northwest; the San Andreas Fault Zone and San Gabriel Mountains on the southwest; various ridges, buttes, and hills to the east; and the Fremont Valley Groundwater Basin to the north. Groundwater is generally unconfined in the primary upper aquifer, with a secondary confined lower aquifer beneath it. Water is held in Pleistocene and Holocene age lacustrine and alluvial deposits. The basin has an estimated total storage capacity of approximately 68 to 70 million acre-feet. Groundwater quality is characterized by moderate levels of TDS, with high levels of boron and nitrate reported (California DWR 2004c).

5.10.1.4 Groundwater Wells and Springs

Review of the CDFW's Terrestrial Significant Habitats dataset indicates that there are no springs within 150 feet of any Proposed Project component (CDFW 2020). The water well locations in the vicinity of the Proposed Project as reported by the California DWR[3] are shown on Figure 5.10-4.

[3] California DWR's Well Completion Report spatially registers wells to the center of the PLSS section in which they are located. As such, well data is reported at the PLSS section level.

Figure 5.10-4 Groundwater Wells - Domestic Well Count Per Section



5.10.1.5 Groundwater Management

There are no Groundwater Sustainability Agencies with jurisdiction over the groundwater basins underlying the Proposed Project alignment. Further, no Groundwater Sustainability Plans pursuant to the Sustainable Groundwater Management Act have been adopted for the basins underlying the Proposed Project. Both the Harper Valley and Antelope Valley Groundwater Basins are adjudicated, meaning groundwater extraction rights have been defined pursuant to a court judgment.

The Mojave Water Agency oversees and monitors groundwater extraction from the Harper Valley Groundwater Basin, while the Antelope Valley Watermaster manages the Antelope Valley Groundwater Basin by implementing the basin's adjudication. Three agencies—the City of California City, Mojave Public Utility District, and Antelope Valley-East Kern Water Agency (AVEK)—formed the Fremont Basin Regional Water Management Group in 2014 for coordinated planning and oversight of the Fremont Valley Groundwater Basin. The groundwater basins are shown on Figure 5.10-2.

Water from the groundwater basins identified in Section 5.10.1.3 above may be used during construction of the Proposed Project. Any such water would be obtained by SCE from commercial or municipal purveyors; no groundwater extraction wells would be developed as part of the Proposed Project.

5.10.1.6 Floodplains

Figure 5.10-5 shows the Federal Emergency Management Agency (FEMA) flood hazard zones in the vicinity of the Proposed Project. Based on FEMA's Flood Insurance Rate Maps (FIRMs), the Proposed Project crosses both 100- and 500-year flood zones. These floodplains are represented by a number of different FEMA zones, including Zones A, AE, and AO, which represent 100-year flood zones, and Zones D and X, which represent moderate flood hazard areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood.

5.10.2 Regulatory Setting

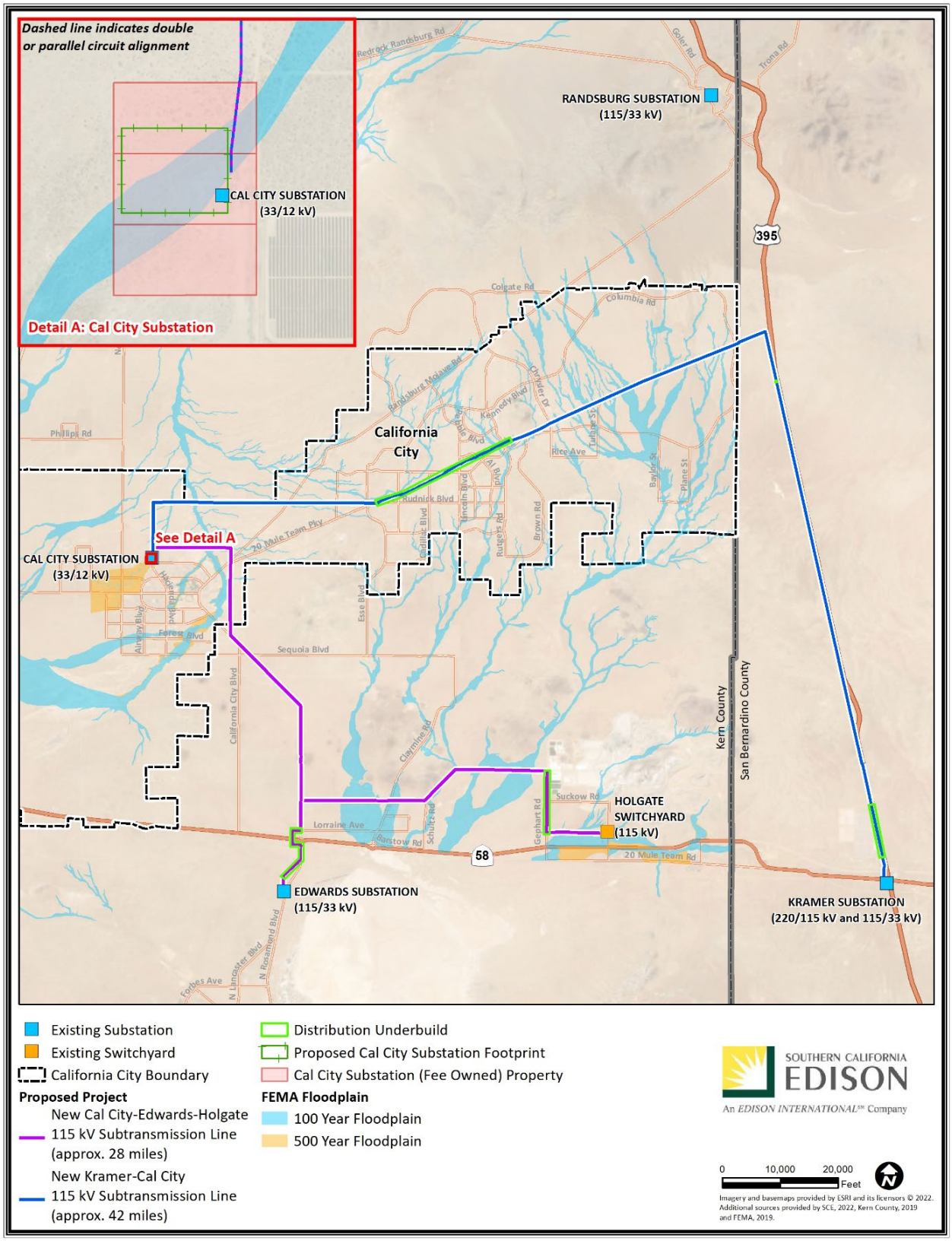
Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

5.10.2.1 Federal

5.10.2.1.1 Clean Water Act

Enacted in 1972, the federal CWA (33 United States Code [U.S.C.] § 1251 *et seq*.) and subsequent amendments outline the basic protocol for regulating discharges of pollutants to waters of the U.S. It is the primary federal law applicable to water quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. Enforced by the USEPA, it was enacted "… to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The CWA authorizes states to adopt water quality standards and includes programs addressing both point and non-point pollution sources. The CWA also established the National Pollutant Discharge Elimination System (NPDES) and provides the USEPA the authority to implement pollution control programs, such as setting wastewater standards for industry and water quality standards for surface waters (see below for a discussion of the NPDES program).

Figure 5.10-5 Flood Zones in the Vicinity of the Proposed Project



In California, programs and regulatory authority under the CWA have been delegated by USEPA to the SWRCB and its nine RWQCBs. Under Section 402 of the CWA, as delegated to the state, a discharge of pollutants to navigable waters is prohibited unless the discharge complies with an NPDES permit. The SWRCB and RWQCBs have developed numeric and narrative water quality criteria to protect beneficial uses of state waters and waterways.

Section 303(d), Impaired Waterbodies and Total Maximum Daily Loads

Section 303(d) of the CWA requires states to identify waters where adopted water quality standards and beneficial uses are still unattained. These lists of prioritized impaired waterbodies, known as the "303(d) lists," are submitted to the USEPA every two years.

The law requires the development of total maximum daily load (TMDL) criteria to improve water quality of impaired waterbodies. TMDLs are the quantities of pollutants that can be assimilated by a waterbody without violating water quality standards. States develop TMDLs for impaired waterbodies to maintain beneficial uses, achieve water quality objectives, and reduce the potential for future water quality degradation. A TMDL must account for point and non-point sources as well as background (natural) sources and is implemented by allocating the total allowable pollutant loading among dischargers. The USEPA defines point source pollution as any contaminant that enters the environment from an easily identified location, such as a discharge pipe or drainage ditch. A non-point source is a diffuse source of pollution that occurs over a wider area or when a specific location of a discharge or release of a contaminant cannot be identified, such as through storm runoff.

Section 404, Placement of Dredge or Fill Material into Waters of the U.S., including Wetlands

The United States Army Corps of Engineers (USACE) is responsible for issuing permits under CWA Section 404 for placement of dredge or fill material into waters of the U.S. Generally, waters of the U.S. can include oceans, bays, rivers, streams (including non-perennial streams with a defined bed and bank), lakes, ponds, and seasonal and perennial wetlands. CWA Section 404 requires Project proponents to obtain a permit from the USACE for all discharges of fill or dredged material into waters of the U.S. before proceeding with a proposed activity. The USACE may issue either an individual permit or a general permit.

Section 401, Water Quality Certification

Section 401 of the CWA specifies that the SWRCB or applicable RWQCB must certify that any federal action meets with state water quality standards, (23 California Code of Regulations § 3830, *et seq*.). Under California's policy of no net loss of wetlands, the SWRCB and RWQCBs require mitigation for dredge and fill impacts to wetlands and waterways (see Section 5.4, Biological Resources). Dredge and fill activities in wetlands and waterways that impact waters of the U.S. require a CWA Section 404 permit from the USACE. A CWA Section 401 water quality certification must be obtained from the affected state prior to issuance of a Section 404 permit.

Section 402, National Pollution Discharge Elimination System

The SWRCB and the RWQCBs implement and enforce the federal NPDES program in California. Established in 1972, the NPDES regulations initially focused on municipal and industrial wastewater discharges, followed by stormwater discharge regulations that became effective in December 1990. NPDES permits provide two levels of control: technology-based limits and water quality-based limits. Technology-based limits are based on the ability of dischargers to treat wastewater, while water quality-based limits are

required if technology-based limits are not sufficient to protect the waterbody. Additionally, stormwater permitting for construction site discharges is described below under state regulations.

Dischargers with water quality-based effluent limitations must achieve water quality standards in the receiving water. Published by the USEPA on May 18, 2000, the California Toxics Rule (CTR) largely reflects the water quality criteria contained in the USEPA's Section 304(a) Gold Book (USEPA 1986) and the later National Recommended Water Quality Criteria (USEPA 2006). With promulgation of the CTR, thee federal water quality criteria are legally applicable in California to inland surface waters, enclosed bays, and estuaries for all purposes and programs under the CWA. NPDES permits must also incorporate TMDL waste load allocations when they are developed.

5.10.2.2 State

5.10.2.2.1 Porter-Cologne Water Quality Control Act (California Water Code § 13000 *et seq.*)

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is the principal law governing water quality regulation in California. The Porter-Cologne Act established the SWRCB and divided California into nine regions, each overseen by a RWQCB. The SWRCB is the primary state agency responsible for protecting the quality of the state's surface and groundwater supplies and has delegated primary implementation authority to the nine RWQCBs. The Porter-Cologne Act assigns responsibility to the SWRCB and the nine RWQCBs for implementing portions of the CWA, including Sections 401 through 402 (see above).

The nine RWQCBs also implement CWA Section 303(d). Under Section 303(d), the RWQCBs identify streams and waters that have "Water Quality Limited Segments," or portions that do not meet water quality standards even after point sources of pollution have installed the minimum required levels of pollution control technology. Pursuant to the CWA, the SWRCB establishes priority rankings for water on the lists and develops TMDL criteria (i.e., the maximum quantity of a particular contaminant that a waterbody can assimilate without experiencing adverse effects) to improve water quality.

Under the Porter-Cologne Act and the NPDES, the SWRCB administers California's stormwater permitting program. This program requires construction projects that will disturb more than 1 acre of land to obtain permit coverage (General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, Order 2009-0009-DWQ as amended by Order 2010-0014-DWQ and 2012-0006-DWQ) and implement stormwater Best Management Practices (BMPs) to manage discharge of sediments and stormwater. The permit requires preparation of a Stormwater Pollution Prevention Plan (SWPPP) and implementation of BMPs, stormwater sampling, and reporting.

The SWRCB and the RWQCBs are responsible for regulating dredge and fill impacts to wetlands and waterways in California to support the state goal of no net loss of wetlands. The SWRCB and the RWQCBs are responsible for issuing CWA Section 401 water quality certifications for federal actions that result in dredge and fill activities in federally jurisdictional wetlands and waterways. Dredge and fill activities in non-federally jurisdictional wetlands and waterways must be authorized under a waste discharge requirement (WDR) issued by the SWRCB or applicable RWQCB.

In April 2019, the SWRCB adopted the State Wetland Definition and Procedures for Discharges for Dredged or Fill Materials to Waters of the State (Procedures), which expanded the statewide definition of "wetlands" subject to dredge or fill regulations and permits to include all waters of the state. Water Code

section 13050(e) defines "waters of the state" as "any surface water or groundwater, including saline waters, within the boundaries of the state," which captures more types of water resources than are regulated as "waters of the U.S." under the CWA. The Procedures apply to waters of the U.S. via the Inland Surface Waters and Enclosed Bays and Estuaries Plan and California Ocean Plan, as well as to all waters of the state as state water quality control policy.

The Porter-Cologne Act requires the development and periodic review of water quality control plans (Basin Plans) that designate beneficial uses of California's major rivers and groundwater basins and establish narrative and numerical water quality objectives for those waters, provide the technical basis for determining WDRs, identify enforcement actions, and evaluate clean water grant proposals. The Basin Plans are updated every three years.

5.10.2.2.2 Lahontan Region Basin Plan

The Proposed Project alignment falls fully within the jurisdiction of the Lahontan RWQCB. The water quality objectives for the Lahontan Region include measures to reduce the potential for contaminants. The Lahontan Region Basin Plan lists restrictions on waste discharges and sediment and erosion control requirements. The Lahontan Region Basin Plan identifies the majority of issues related to water quality within the Region that are a result of non-point sources. The allocation of waters within the Lahontan Region to areas outside the Region are also identified. Because of the size of the Lahontan Region, careful consideration between water quality and water quantity is a primary goal in the planning process for the Region.

5.10.2.2.3 California Fish and Game Code § 1600-1617

California Fish and Game Code section 1600 *et seq*. sets forth guidelines for the protection and conservation of fish and wildlife, including habitat. The law requires any person, state or local governmental agency, or public utility to provide written notification to CDFW before beginning an activity that would substantially modify the bank or bed of a river, stream, or lake (i.e., prior to causing any potential hydrological impacts), and enter into Lake or Streambed Alteration Agreement (LSAA) with CDFW that includes measures to protect fish and wildlife resources. Refer to Section 5.4, Biological Resources, for additional information.

5.10.2.3 Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 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. Accordingly, the following discussion of local land use regulations is provided for informational purposes only.

5.10.2.3.1 Kern County General Plan

The Kern County General Plan Safety Element addresses watersheds, flooding, mudslides, and other hydrology-related topics (Kern County 2009). It does not contain any specific goals or policies that are relevant to the Proposed Project.

5.10.2.3.2 San Bernardino Countywide Policy Plan

The San Bernardino Countywide Policy Plan Natural Resources Element addresses surface water, ground water, and watershed protection; none of the policies associated with these topics are relevant to the Proposed Project (San Bernardino County 2020). The San Bernardino Countywide Policy Plan Hazards Element addresses flood and inundation hazards; none of the policies associated with this topic are relevant to the Proposed Project. The Infrastructure and Utilities Element contains the following goals and policies:

GOAL IU-1 Water Supply. Water supply and infrastructure are sufficient for the needs of residents and businesses and resilient to drought.

Policy IU-1.7 Areas vital for groundwater recharge. We allow new development on areas vital for groundwater recharge when stormwater management facilities are installed on-site and maintained to infiltrate predevelopment levels of stormwater into the ground.

Policy IU-1.8 Groundwater management coordination. We collaborate with watermasters, groundwater sustainability agencies, water purveyors, and other government agencies to ensure groundwater basins are being sustainably managed. We discourage new development when it would create or aggravate groundwater overdraft conditions, land subsidence, or other "undesirable results" as defined in the California Water Code. We require safe yields for groundwater sources covered by the Desert Groundwater Management Ordinance.

Policy IU-1.9 Water conservation. We encourage water conserving site design and the use of water conserving fixtures, and advocate for the adoption and implementation of water conservation strategies by water service agencies. For existing County-owned facilities, we incorporate design elements, building materials, fixtures, and landscaping that reduce water consumption, as funding is available.

GOAL IU-3 Stormwater Drainage. A regional stormwater drainage backbone and local stormwater facilities in unincorporated areas that reduce the risk of flooding.

Policy IU-3.1 Regional flood control. We maintain a regional flood control system and regularly evaluate the need for and implement upgrades based on changing land coverage and hydrologic conditions in order to manage and reduce flood risk. We require any public and private projects proposed anywhere in the county to address and mitigate any adverse impacts on the carrying capacity and stormwater velocity of regional stormwater drainage systems.

Policy IU-3.2 Local flood control. We require new development to install and maintain stormwater management facilities that maintain predevelopment hydrology and hydraulic conditions.

Policy IU-3.3 Recreational use. We prefer that stormwater facilities be designed and maintained to allow for regional open space and safe recreation use without compromising the ability to provide flood risk reduction.

Policy IU-3.4 Natural floodways. We retain existing natural floodways and watercourses on County- controlled floodways, including natural channel bottoms, unless hardening and channelization is the only feasible way to manage flood risk. On floodways not controlled by the County, we encourage the retention of natural floodways and watercourses. Our priority is to reduce flood risk, but we also strive to protect wildlife corridors, prevent loss of critical habitat, and improve the amount and quality of surface water and groundwater resources.

Policy IU-3.5 Fair share requirements. We require new development to pay its fair share of capital costs to maintain adequate capacity of the County's regional flood control systems.

5.10.2.3.3 City of California City General Plan

The City of California City's General Plan Open Space and Conservation Element addresses groundwater quality and flood control, among other topics. None of the goals or policies contained in this Element are relevant to the Proposed Project (City of California City 2009).

5.10.2.3.4 Fremont Valley Basin Integrated Regional Water Management Plan

The California legislature passed the Integrated Regional Water Management Planning (IRWMP) Act (Senate Bill 1672) in 2002 to encourage local agencies to work cooperatively to manage local and imported water supplies, and to improve water quality, quantity, and reliability. In September 2011, the Fremont Basin IRWMP Region was approved by the DWR. The Region's boundaries were later updated in 2018 to incorporate the entirety of the Fremont Valley Groundwater Basin. The Region encompasses 992 square miles in eastern Kern County and western San Bernardino County in the western edge of the Mojave Desert and includes the City of California City (Regional Water Management Group of the Fremont Basin Integrated Regional Water Management Region 2018).

5.10.3 Impact Questions

5.10.3.1 Hydrology and Water Quality Impact Questions

The thresholds of significance for assessing impacts come from the California Environmental Quality Act (CEQA) Environmental Checklist. For hydrology and water quality, the CEQA Checklist asks, would the project:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?
- 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 result in substantial erosion or siltation on-site or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; 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 impede or redirect flood flows?

- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

5.10.3.2 Additional CEQA Impact Questions

There are no CPUC-identified additional CEQA impact questions.

5.10.4 Impact Analysis

5.10.4.1 Hydrology and Water Quality Methodology

Hydrology and water quality data for the Proposed Project vicinity were obtained from multiple federal, state, and local sources. Data was collected in or converted to a geographic information system-compatible format, and the Proposed Project components were overlain to determine the potential impacts to these resources. Aerial photographs were also utilized to assist with this analysis.

5.10.4.2 Hydrology and Water Quality Impact Analysis

5.10.4.2.1 Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Construction

Less than Significant Impact with Mitigation. Construction of the Proposed Project would require ground-disturbing activities that could increase soil erosion rates which, if not properly managed, could potentially result in violation of water quality standards and impacts to beneficial uses in adjacent or downstream waterbodies. The Proposed Project crosses erosion-prone areas and areas with potential for sedimentation. To minimize soil erosion and resulting impacts on water quality, SCE would comply with state stormwater regulations and the terms of ministerial grading permits from county jurisdictions (if such permits are necessary). Because ground disturbance associated with the Proposed Project is anticipated to exceed 1 acre, waste discharge requirements are anticipated to be required for the Proposed Project. SCE would apply for coverage under a General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, Order 2009-0009-DWQ as amended by Order 2010-0014-DWQ. This general permit requires submittal of a Notice of Intent, preparation of project-specific SWPPPs and implementation of site-specific BMPs to address material management, non-stormwater discharge, sediment discharge, and erosion control to meet water quality standards. Site-specific BMPs would be developed to prevent stormwater discharges during construction and could include, but are not limited to, installation of silt fencing, straw wattles, retention basins, sediment stabilization, and good site housekeeping.

Construction of the Proposed Project would not contribute to the degradation of water quality within a 303(d) listed waterbody, as the Proposed Project alignment does not cross a 303(d) listed waterbody. The Proposed Project would cross Cache Creek, but it is not an impaired waterbody. Furthermore, as described in Chapter 3, Proposed Project Description, in order to allow for construction traffic usage and prevent road damage due to uncontrolled water flow, the Proposed Project would include rehabilitation measures to

install new or repair existing drainage structures. Such structures may include wet crossings, water bars, overside drains, and pipe culverts.

Materials used during construction (e.g., diesel fuel, hydraulic fluid, oils, grease, and concrete) have the potential to be transported by stormwater runoff and threaten aquatic life or groundwater quality in the event of spills or leaching. These materials could violate water quality standards if they come in contact with stormwater and/or are transported to nearby water resources or a municipal separate storm sewer system. The general handling, storage, and disposal of potentially hazardous materials are discussed in Section 5.9, Hazards, Hazardous Materials, and Public Safety, and specific measures to manage hazardous materials would be addressed in the SWPPPs. Further, SCE would implement additional measures contained in Applicant Proposed Measures (APMs) HAZ-1 (See Section 5.9, Hazards, Hazardous Materials, and Public Safety) and WET-1 (see Section 5.4, Biological Resources) which would reduce the possibility of materials entering waterbodies and affecting water quality by implementing proper hazardous materials management activities, such as preparing a Hazardous Materials Management Plan, and avoiding and/or minimizing impacts to all state jurisdictional waters, wetlands, and riparian habitat that occur within the Proposed Project area and implementing appropriate BMPs.

Wastewater would be generated by construction workers during construction of the Proposed Project. However, the wastewater generated during the construction period would be contained within portable restrooms and disposed of by a licensed contractor. No wastewater would be discharged from the site. Potential water quality impacts during construction within jurisdictional drainages would be minimized through compliance with the conditions set forth in the federal or state permits and agreements, and coordination with the resource agencies.

Work within streams or drainages may require a WDR from the RWQCB and/or a 1602 Lake or Streambed Alteration Agreement (LSAA) from CDFW. Obtaining permits for dredge and fill activities and compliance with the terms and conditions in these authorizations would ensure that these activities would not violate any water quality standards and would not otherwise substantially degrade surface or groundwater quality. Earth moving activities, including vegetation removal, grading, and construction of new and rehabilitation of existing access roads, have the potential to create stormwater runoff during rain events and violate water quality standards. SCE would obtain all necessary permits and authorizations, including those from the RWQCB and CDFW, and local ministerial permits, prior to construction. SCE would comply with all conditions of approval identified in permits and authorizations. Further, SCE would develop and implement one or more Proposed Project-specific SWPPP(s) that would include BMPs to prevent erosion and sedimentation into wetlands and streams and that would protect water quality during construction. Compliance with such typical conditions is reflected in the measures contained in APM WET-1; through implementation of this APM, SCE would avoid or minimize impacts to all state jurisdictional waters and riparian habitat by siting activities outside these areas to the degree feasible, implementing appropriate BMPs, mitigating for permanent impacts, and performing restoration for temporary impacts. With implementation of the Proposed Project-specific BMPs provided in the SWPPPs and APMs HAZ-1 and WET-1, the Proposed Project would not violate any water quality standards or waste discharge requirements and would not otherwise substantially degrade surface or groundwater quality; therefore, this impact would be less than significant with mitigation incorporated.

Operation

Less than Significant Impact. As presented in Chapter 3, the Proposed Project includes constructing subtransmission lines between existing substations in the vicinity of the City of California City, EAFB, and U.S. 395 where many overhead power lines currently exist. Additionally, the Proposed Project includes

upgrades at existing substations and an expansion of the Cal City Substation. Operation and maintenance (O&M) activities associated with the Proposed Project would be similar to those currently performed by SCE for existing facilities, including, but not limited to, repairing conductors, washing or replacing insulators, repairing or replacing other hardware components, repairing or replacing poles, tree trimming, brush and weed control, and access road maintenance. O&M would also include routine inspections and emergency repair within substations and throughout rights-of-way (ROWs), which would require the use of vehicles and equipment. SCE inspects subtransmission overhead facilities in a manner consistent with CPUC G.O. 165, which requires observation a minimum of once per year, but inspection typically occurs more frequently to ensure system reliability. Following construction of the Proposed Project, O&M activities would consist of monthly and annual inspections, as well as equipment testing and maintenance for new and expanded facilities. SCE currently performs O&M activities for the existing substations and their associated source lines and infrastructure. While it is likely that the Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips, these activities would occur within existing or new ROWs and would not substantially affect water quality.

The Proposed Project would result in an expansion of the existing Cal City Substation, construction of hardened wet crossings along new or heavily-improved access roads, and construction of new subtransmission structures. This would result in an increase of impervious surfaces in the Proposed Project area. Based on the Proposed Project plans, the construction of the expanded Cal City Substation would result in approximately 3.5 acres of additional impervious surface cover. Approximately 15 proposed hardened wet crossings along new or heavily-improved access roads would result in approximately 0.57 acre of additional impervious surface area, and the total footprint from subtransmission structures (based on the pole diameters) would result in an additional approximately 0.75 acre of impervious surface. In total, the Proposed Project would result in up to approximately 4.8 acres of new impervious surface.

Increased impervious area can result in increased runoff that can carry pollutants to downstream waterbodies and adversely affect water quality. Common pollutants associated with utility development that could be discharged during operation of the Proposed Project include automotive chemicals and metals that accumulate on parking areas; fertilizers, pesticides, and herbicides applied to ornamental landscaping; petroleum hydrocarbons spilled by leaky equipment or refueling activities; and trash and debris. Due to the small and generally diffuse nature of impervious surfaces associated with structures along the proposed subtransmission lines, it is not anticipated that this additional impervious surface area would substantially degrade surface or groundwater quality. Expansion of the Cal City Substation, which would include expanded parking/access areas and additional infrastructure, would potentially increase runoff from the site. Current design for the expanded Cal City Substation includes construction of an approximately 1,870-linear-foot concrete diversion channel around the southern, western, and northern perimeter of the proposed expanded Cal City Substation property. The diversion channel would help capture runoff before it enters the expanded Cal City Substation, reducing the potential for runoff to collect pollutants and carry them downstream. Furthermore, runoff from the expanded Cal City Substation would be directed to an on-site detention and water quality basin, providing an opportunity for trash, debris, sediment, and sediment-bound pollutants to settle out of the water column.

O&M activities would be similar in nature to those occurring presently in the area and would not be anticipated to result in substantial water quality degradation. The Proposed Project would increase impervious surface cover due to expansion of the Cal City Substation and new structures along the proposed subtransmission lines. However, during operation, water quality BMPs, including a diversion channel and a detention and water quality basin at Cal City Substation, would capture and treat runoff associated with this increase in impervious surface coverage. The Proposed Project does not include any planned or routine

discharges of water pollutants. For these reasons, operation of the Proposed Project would not violate any water quality standards or waste discharge requirements, nor would it otherwise substantially degrade surface water or groundwater quality. This impact would be less than significant.

5.10.4.2.2 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?

Construction

Less than Significant Impact. During earth-disturbing activities, water would be used to control dust and stabilize unvegetated areas. Water for dust control would be obtained from existing local supplies, which are primarily sourced from groundwater and imported surface water. Construction of the Proposed Project is estimated to require approximately 476 acre-feet of water; this water would be consumed over the approximately 24-month construction duration. Water would be used for dust control, ground compaction, restoration activities, and in the construction of tubular steel pole (TSP) foundations.

The source of construction water is not presently known; as described in Chapter 3, Proposed Project Description, SCE would preferentially purchase recycled water, if and when such supply is available. If recycled water is not available, water would be purchased from local water purveyors. The Proposed Project would not involve construction or operation of any new groundwater extraction wells. Water service providers in the vicinity of the Proposed Project include the City of California City, Mojave Public Utility District, EAFB, and various small community services districts or water districts that serve surrounding unincorporated communities. Many of these water service providers purchase all or a substantial portion of their water supply from AVEK, which sells imported surface water as a State Water Project (SWP) contractor. The use of recycled water or imported surface water purchased through AVEK to meet construction water demand would not involve extraction of groundwater and, therefore, would not decrease groundwater supplies.

In addition to imported water purchased from AVEK, the City of California City has historically relied on groundwater pumped from six wells in the Fremont Valley Groundwater Basin to provide up to 75 percent of the City's potable water supply. According to the City of California City's most current Urban Water Management Plan, the City anticipates having over 6,000 acre-feet of excess groundwater pumping capacity within its existing water rights in 2025, the closest year to Proposed Project construction for which groundwater extraction is estimated (City of California City 2017). The Proposed Project's estimated 476 acre-feet of construction water demand would represent a nominal portion of the City's excess groundwater capacity. Construction water supply is not anticipated to be sourced from the Antelope Valley or Harper Valley Groundwater Basins; these basins are adjudicated, and any groundwater pumped from these basins for construction water supply would need to comply with legally-defined extraction rights based on the basins' safe yields. As such, construction water demand would not substantially decrease groundwater supplies such that the Proposed Project would impede sustainable groundwater management of the underlying basins.

During installation of poles and underground facilities, shallow groundwater may be encountered. In these instances, excavations would be dewatered and either discharged on-site to land or stored in Baker tanks or similar equipment prior to disposal off-site. This water may also supplement other water supplies for dust control. Groundwater dewatered from excavations and discharged to land or used for dust control would infiltrate into the existing groundwater system; during this process some groundwater would be lost to evapotranspiration, but this loss would be minor and would not substantially deplete groundwater supplies.

None of the three groundwater basins underlying the Proposed Project area are managed under a Groundwater Sustainability Plan or subject to the requirements of the Sustainable Groundwater Management Act. As stated above, construction water demand or incidental dewatering of excavations during the approximately 24-month construction period would not substantially deplete groundwater supplies or impede groundwater recharge to the underlying basins. As such, during construction this impact would be less than significant.

Operation

Less than Significant Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing facilities, with additional O&M required at the new or expanded facilities. SCE currently performs O&M activities for the existing substations and their associated lines and infrastructure. It is likely that the Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. Further, O&M activities would be performed within existing or new ROWs and would not extract groundwater or otherwise affect groundwater recharge or supplies.

As described under Section 5.10.4.2.1 above, the Proposed Project would increase the impervious surface coverage in the Proposed Project area due to expansion of the existing Cal City Substation, installation of hardened wet crossings, and construction of new structures. In total, the Proposed Project would result in an increase of up to approximately 4.8 acres of new impervious surface, which is a relatively small addition in relation to the large surrounding area that is generally undeveloped and pervious. The approximately 4.8 acres cover less than 0.01 percent of the total land area in the three groundwater basins underlying in the Proposed Project area. Due to the size of the basins in relation to the amount of impervious surface that would be added as a result of the Proposed Project, the additional impervious surface is unlikely to negatively affect groundwater recharge capacity in the vicinity because opportunity for additional recharge exists in the extensive remaining undeveloped area overlying the three groundwater basins in the Proposed Project area. Furthermore, runoff at the expanded Cal City Substation would be directed to a proposed detention and water quality detention basin, where additional opportunity for groundwater recharge would exist. Consequently, operation of the Proposed Project would not substantially deplete groundwater supplies or interfere with groundwater recharge such that it would impede sustainable groundwater management of the underlying basins. This impact would be less than significant.

5.10.4.2.3 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 result in substantial erosion or siltation on-site or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; 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 impede or redirect flood flows?

Construction

Less than Significant Impact with Mitigation. The Proposed Project crosses one named waterbody, Cache Creek, at two locations, as shown on Figure 5.10-1. The Proposed Project would also cross numerous small, unnamed dry washes, as described in detail in Section 5.4, Biological Resources. The Proposed Project involves vegetation removal and grading and/or blading associated with new and existing access

roads; the installation of new and replacement of existing subtransmission poles and conductor/cable; installation of permanent O&M Structure pads around proposed new subtransmission poles, as needed; expansion of the Cal City Substation; and the establishment and use of temporary staging areas, pull-and-tensioning/stringing sites, splice sites, guard structures, and distribution pole removal workspaces. Installation and expansion of existing and new infrastructure and access roads may result in localized changes to the existing drainage patterns.

Grading of Proposed Project work and staging areas could result in temporary impacts to stream or drainage channels during construction. Based on current design, the Proposed Project would result in approximately 16.01 acres of temporary impacts to potentially jurisdictional features. These features would be returned to near pre-construction topography and grade following construction of the Proposed Project. Construction activities, including grading of construction work areas, new access roads, rehabilitation of existing access roads and spur roads, and construction of TSP foundations, could contribute to minor increases of polluted runoff, erosion and/or siltation during construction. These activities would be temporary, and site-specific SWPPPs would be prepared that would identify BMPs to reduce runoff, which would minimize the potential for on- and off-site erosion, sedimentation, flooding, and pollution. Work within streams or rivers would be avoided to the extent feasible. However, where work within drainages is required, SCE would implement measures contained in APM WET-1 (see Section 5.4, Biological Resources), which requires avoiding or minimizing impacts to all state jurisdictional waters and riparian habitat by siting activities outside these areas, implementing appropriate BMPs, mitigating for permanent impacts, and performing restoration for temporary impacts. Where required, permits pursuant to the Porter-Cologne Act (WDR, stormwater), and California Fish and Game Code section 1602 (LSAA) would be obtained and all conditions of approval would be implemented including, but not limited to, returning all drainage features temporarily impacted during construction to pre-construction conditions. With incorporation of APM WET-1, construction-related impacts to drainage patterns would be less than significant with mitigation incorporated.

Operation

Less than Significant Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing facilities with additional O&M required at the new or expanded facilities. SCE currently performs O&M activities for the existing substations and their associated lines and infrastructure. The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. However, O&M activities would be performed within existing or new ROWs and would not substantially alter drainage patterns.

Based on current design, the Proposed Project would result in approximately 2.03 acres of permanent impacts to potentially state jurisdictional features. Such impacts would result primarily from construction of new permanent access road improvements, including approximately 15 hardened wet crossings, and placement of individual subtransmission structures. Hardened wet crossings along new and existing access roads would generally preserve the direction of flow within drainages, and given the size of individual subtransmission poles, placement of individual structures would not substantially impede flow within drainages. SCE would obtain all necessary permits for impacts to jurisdictional features associated with the Proposed Project and Proposed Project components would be constructed in compliance with such permit requirements.

As described under Section 5.10.4.2.1, above, the Proposed Project would increase impervious surface cover due to expansion of the existing Cal City Substation and construction of new structures. In total, the Proposed Project would result in up to approximately 4.8 acres of new impervious surface. Increases in

impervious surface cover could result in increased polluted runoff, flooding, and erosion or siltation. Given the small scale and diffuse nature of pole structure locations, such increases in impervious surfaces are unlikely to substantially alter drainage patterns in a way that would result in increased on- or off-site polluted runoff, flooding, or erosion or siltation. Expansion of the existing Cal City Substation would occur within a 100-year floodplain; therefore, the proposed expansion would alter drainage patterns in the vicinity of the substation in a manner that would redirect flood flows. Based on current substation designs, the Proposed Project would include an approximately 1,870-linear foot diversion channel around the southern, western, and northern perimeter of the expanded substation property that would capture flood flows before entering Cal City Substation. The proposed substation expansion also includes construction of a detention and water quality basin to capture and treat on-site runoff, minimizing potential for downstream erosion, siltation, flooding, or pollution. As necessary, SCE would submit required documentation pertaining to proposed drainage improvements—including hydraulics analysis—to FEMA for review as part of an application for a Letter of Map Revision or Conditional Letter of Map Revision. Therefore, while the Proposed Project would alter drainage patterns, it would not result in increased on- or off-site polluted runoff, erosion or siltation, flooding, or exceed the capacity of existing or planned stormwater facilities due to the incorporation of drainage and water quality improvements in Proposed Project design. This impact would be less than significant.

5.10.4.2.4 Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Construction

Less than Significant Impact with Mitigation. The Proposed Project alignment is not located within a tsunami zone and there are no large bodies of water that could result in a seiche within the vicinity of the alignment. The Cal City Substation is located in a 500-year floodplain and portions of the Proposed Project alignment are located in a 100-year floodplain, including the Holgate Switchyard. Therefore, some proposed replacement or new subtransmission structures may be installed within areas subject to inundation. During construction, hazardous materials and pollutants may be stored on-site temporarily which could potentially increase the risk of release of pollutants in the event of inundation. Construction activities, including grading of construction work areas, rehabilitation of access roads and spur roads, and construction of TSP foundations, could contribute to minor increases of polluted runoff, erosion and/or siltation during construction. These activities would be temporary, and site-specific SWPPPs would be prepared that would identify BMPs to reduce runoff, which would minimize the potential for on- and off-site erosion, sedimentation, flooding, and pollution. In addition, SCE would implement additional measures contained in APMs HAZ-1 (See Section 5.9, Hazards, Hazardous Materials, and Public Safety) and WET-1 (see Section 5.4, Biological Resources) which would reduce the possibility of materials entering waterbodies and affecting water quality by implementing proper hazardous materials management activities and avoid and/or minimize impacts to all state jurisdictional waters, wetlands, and riparian habitat that occur within the Proposed Project area and implement appropriate BMPs. With implementation of the Proposed Project-specific BMPs provided in the SWPPPs and APMs HAZ-1 and WET-1, construction-related impacts related to the release of pollutants due to Project inundation would be less than significant with mitigation incorporated.

Operation

Less than Significant Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing facilities with additional O&M

required at the new of expanded facilities. SCE currently performs O&M activities for the existing substations and their associated lines and infrastructure. The Holgate Switchyard is located in a 100-year floodplain. However, upgrades at the Holgate Switchyard would remain within the existing footprint, and the Proposed Project would not substantially increase risk of pollutant release at the Holgate Switchyard. At the Cal City Substation, which is located in a 100-year floodplain, the Proposed Project would involve expanding the substation beyond its existing footprint. Operation may require storage of chemicals in support of the expanded substation. SCE would comply with all applicable regulations pertaining to storage and secondary containment of chemicals at the expanded substation. Additionally, the Proposed Project includes construction of diversion channel and water quality basin to reduce the risk of inundation at Cal City Substation. This impact would be less than significant.

5.10.4.2.5 Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Construction

Less than Significant Impact with Mitigation. As stated under Section 5.10.4.2.1, construction of the Proposed Project may require that SCE obtain a WDR from the Lahontan RWQCB. Receipt of this WDR and compliance with all permit conditions would ensure that the Proposed Project does not conflict with the Lahontan RWQCB's Water Quality Control Plan. Furthermore, the Proposed Project does not cross any impaired waterbodies and, therefore, activities would not exacerbate any existing water quality impairments described in the RWQCB's Water Quality Control Plan.

There are no Groundwater Sustainability Agencies with jurisdiction over the groundwater basins underlying the Proposed Project alignment, and no Groundwater Sustainability Plans pursuant to the Sustainable Groundwater Management Act have been adopted for these basins. The Proposed Project would not involve construction or operation of any new groundwater extraction wells and, therefore, would not conflict with the existing adjudications in place for the Antelope Valley and Harper Valley Groundwater Basins described above. In December 2018, the City of California City, AVEK, and MPUD developed the Fremont Valley Basin Groundwater Management Plan. The plan describes the non-adjudicated Fremont Valley Groundwater Basin and outlines resource management strategies focused on agricultural and urban water use efficiency, pollution prevention, recharge area protection, and public outreach. As stated above, given the relatively small volume of groundwater that would be used during construction when compared to the existing groundwater supplies in the area and the limited volume of potential dewatering that may be required, the Proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Proposed Project may impede sustainable groundwater management of the underlying basins. As such, the Proposed Project would not conflict with the goals and strategies outlined in the Fremont Valley Basin Groundwater Management Plan.

With implementation of the Proposed Project-specific BMPs provided in the SWPPPs, implementation of APMs HAZ-1 and WET-1, and with proper disposal of any groundwater encountered during construction activities, the Proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan; therefore, this impact would be less than significant with mitigation incorporated.

Operation

Less than Significant Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated

lines and infrastructure. The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. However, O&M activities would be performed within existing or new ROWs and would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Increases in impervious surface cover and drainage alterations associated with the Proposed Project would not be expected to result in substantial water quality impacts. Furthermore, the Proposed Project does not intersect any impaired waterbodies and, therefore, would not exacerbate any existing water quality impairments described in the RWQCB's Water Quality Control Plan, and no Groundwater Sustainability Plans have been adopted for any of the underlying groundwater basins. Therefore, operation of the Proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan, and this impact would be less than significant.

5.10.4.3 Hydrostatic Testing

Hydrostatic testing is not included as part of the Proposed Project.

5.10.4.4 Water Quality Impacts

Potential water quality impacts associated with the Proposed Project are addressed in the impact analysis above, under Section 5.10.4.2.1.

5.10.4.5 Impermeable Surfaces

Impacts related to impermeable surfaces associated with the Proposed Project are addressed in the impact analysis above, under Sections 5.10.4.2.1, 5.10.4.2.2, and 5.10.4.2.3.

5.10.4.6 Waterbody Crossings

The Proposed Project crosses one named waterbody: Cache Creek.[4] Cache Creek is not listed as impaired for any contaminants pursuant to the most current 303(d) list (SWRCB 2018). Based on current design, the Proposed Project would include 0.02 acre of temporary impacts and 0.04 acre of permanent impacts within Cache Creek, including blading/heavy improvement of an existing access road adjacent to the proposed Kramer-Cal City 115 kV Subtransmission Line and a hardened wet crossing on a new access road adjacent to the proposed Cal City-Edwards-Holgate 115 kV Subtransmission Line (Appendix A depicts waterbody crossings). While placement of work areas, staging areas, access roads, and pole structures would avoid waterbodies to the degree feasible, Cache Creek is not avoidable because the proposed alignment runs east to west, and Cache Creek in this location runs generally south to north. Road rehabilitation that may be required could include the installation of new, or repair of existing, drainage structures such as wet crossings, water bars, overside drains, and pipe culverts to allow for construction traffic usage, as well as to prevent road damage due to uncontrolled water flow. No potential staging areas are currently proposed near the Cache Creek crossings. Subtransmission pole work areas would be located near the proposed alignment crossing of Cache Creek; however, structure work areas have been designed to be located outside of the waterbody, where feasible. No water diversions at Cache Creek will be required during construction because it is classified as an ephemeral creek and it would be crossed such that the direction or flow of the watercourse would not be altered. Dewatering may occur during construction depending on groundwater elevations at the time of construction; however, limited volume of dewatering effluent is anticipated due to

[4] Cache Creek is the only named waterbody to be crossed by the Proposed Project. Numerous dry desert washes occur along the Proposed Project alignment. Impacts associated with crossings of these features are described throughout this section, as well as in Section 5.4, Biological Resources.

the size and nature of the Proposed Project and the anticipated depth to groundwater along the Proposed Project alignment. If needed, excavations would be dewatered using one or more pumps and the water would be either discharged on-site to the surface (if so permitted) or would be stored in Baker tanks or similar equipment prior to disposal off-site. Baker tanks or similar equipment would be placed on the temporary work pad established for new structure installation. Dewatering water may also be used for dust control. The restoration methods to be employed in the areas near waterbody crossings are addressed in Section 5.4, Biological Resources.

5.10.4.7 Groundwater Impacts

As stated under impact Section 5.10.4.2.2, no Groundwater Sustainability Plans pursuant to the Sustainable Groundwater Management Act have been adopted for any of the basins that underlie the Proposed Project alignment. The Proposed Project is not anticipated to generate substantial operational water demand. Construction water demand is estimated at approximately 476 acre-feet for dust control, soil compaction, and TSP foundation construction. As described under Section 5.10.4.2.2, construction water demand would not result in depletion of groundwater supplies or interfere with sustainable groundwater management of any of the underlying groundwater basins. As a result, impacts would be less than significant.

5.10.5 CPUC Draft Environmental Measures

There are no Draft Environmental Measures identified for the Hydrology and Water Quality resource area.

5.10.5.1 Applicant Proposed Measures (APMs)

5.10.5.1.1 Hydrology and Water Quality APMs

Impacts to hydrology or water quality would be reduced to a less than significant level with adherence to APMs included in other impact analysis chapters. No APMs specific to hydrology and water quality are proposed.

5.10.5.1.2 Cross-Referenced APMs

The following APMs would be implemented to reduce hydrology and water quality impacts associated with the Proposed Project:

- **HAZ-1**: SCE will prepare and implement a Hazardous Materials Management Plan (HMMP)/Hazardous Materials Business Plan during project construction. The program 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 HMMP will address:
  - The types of hazardous materials to be used during the project, hazardous materials storage, employee training requirements, hazard recognition, fire safety, first aid/emergency medical procedures, hazardous materials release containment/control procedures, hazard communication training, personal protective equipment (PPE) training, and release reporting requirements. It will also include fueling and maintenance procedures for helicopters and construction equipment.
- **WET-1**: The Proposed Project shall avoid and/or minimize impacts to all state jurisdictional waters, wetlands, and riparian habitat that occur within the Proposed Project area where 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.

The implementation of appropriate Best Management Practices (BMPs) (e.g., silt fencing, straw wattles, secondary containment, avoiding fueling within 100 feet of jurisdictional waters, etc.) shall be utilized to ensure that indirect impacts to jurisdictional waters, wetlands and riparian areas are avoided or minimized. BMPs are also necessary to reduce the risk of an unintended release of sediment or other material into jurisdictional waters. New and upgraded roadways shall use at-grade type stream crossings unless installation or repair of culverts is required. Stockpiled and bermed sediment will be redistributed or removed from the site so as not to alter flows. New poles shall be sited outside stream channels.

If permanent impacts to waters, wetlands, and riparian habitats are unavoidable, they shall be mitigated at a minimum of a 1:1 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 California Department of Fish and Wildlife). Temporary impacts to jurisdictional waters shall be returned to pre-existing contours upon completion of the work.

5.10.6 Alternatives

For an evaluation of Proposed Project alternatives, see Chapter 6, Comparison of Alternatives.

5.11 Land Use and Planning

This section describes land uses in the vicinity of the Cal City Substation 115 kV Upgrade Project (Proposed Project), details the land use and planning regulations that are applicable to the Proposed Project, and evaluates the potential land use-related impacts from construction and operation of the Proposed Project.

Research for this analysis involved a review of the following resources:

- Bureau of Land Management (BLM) Desert Renewable Energy Conservation Plan (DRECP)
- County General Plans
- Local agency planning documents

5.11.1 Environmental Setting

5.11.1.1 Land Use

The Proposed Project is located in Kern County and San Bernardino County in the Mojave Desert region of California on federal, state, private, and municipal land. These lands include unincorporated areas of Kern County and San Bernardino County, City of California City, Edwards Air Force Base (EAFB), controlled by the Department of Defense (DoD), and public lands under the jurisdiction of the BLM and the California Department of Fish and Wildlife (CDFW). Approximately 90 percent of the Proposed Project is located within undeveloped open areas, with the remaining 10 percent located within developed areas (including the City of California City). Kern County, San Bernardino County, and the City of California City have designated lands within the Proposed Project area as either Commercial, Industrial, Public Facilities, Residential, Resource, or State or Federal Land. The proposed Cal City-Edwards-Holgate 115 kV Subtransmission Line component of the Proposed Project would be located approximately 1 mile from the existing Rio Tinto Borax Mine in Kern County. Approximately 2.1 miles of the proposed new Cal City-Edwards-Holgate 115 kV Subtransmission Line and approximately 0.6 mile of the proposed new Kramer-Cal City 115 kV Subtransmission Line would be located on DoD property within or adjacent to EAFB.

Figure 5.11-1 depicts the consolidated land use designations within 1 mile of the Proposed Project and Table 5.11-1 summarizes the general plan land use designations crossed by the Proposed Project as defined by each county or city in its current general plan. Table 5.11-2 summarizes the zoning designations crossed by the Proposed Project as defined by each county or city. Figure 5.11-2 depicts designations within 1 mile of the Proposed Project that have been consolidated into broader categories. Definitions of the specific land use and zoning designations crossed by the Proposed Project have been included in Attachment 5.11-A and Attachment 5.11-B, respectively.

5.11.1.2 Special Land Uses

5.11.1.2.1 Lands Administered by Federal, State, or Local Agencies

Although the Proposed Project area includes lands owned by BLM, DoD, the state, counties, cities, and private parties, the entirety of the Proposed Project is located within the BLM-managed California Desert Conservation Area (CDCA) and is covered by the DRECP. Portions of the Proposed Project within the CDCA and DRECP also cross private and municipal lands. Figure 5.11-3 depicts federal, state, and local land ownership in the vicinity of the Proposed Project. Table 5.11-3 summarizes the federal and state lands crossed by the proposed and existing subtransmission lines. The land use designation for each area crossed is discussed in the subsections that follow.

Table 5.11-1 General Plan Land Use Designations Crossed by the Proposed Project

County/City	Land Use Designation[1]	Approximate Distance Crossed by the Proposed Project (Miles)
Kern County	Commercial	0.1
	Industrial	0.0
	Public Facilities	0.2
	Residential	3.0
	Resource	16.2
	State or Federal Land	3.2
San Bernardino County	Commercial	0.1
	Residential	1.6
	Resource	17.8
City of California City	Public Facilities	22.5
	Residential	2.5

Sources: Kern County 2021, County of San Bernardino 2021, Woods 2021
[1] These designations have been consolidated from those reported in each county and city general plan. Attachment 5.11-A lists the specific land use designations from the general plans.

Table 5.11-2 Consolidated Zoning Designations Crossed by the Proposed Project

Zoning Designation[1]	Approximate Distance Crossed by Proposed Project Component (Miles)	
	Cal City-Edwards-Holgate	Kramer-Cal City
Agriculture	20.9	17.1
Commercial	0.0	0.1
Residential	5.1	3.5
Resource Conservation	0.0	18.5

Sources: Kern County 2021, County of San Bernardino 2021, Woods 2021
[1] These designations have been consolidated from those reported in each county and city general plan. Attachment 5.11-B lists the specific zoning designations from the general plans.

Table 5.11-3 Federal Land Use Designations Crossed by the Proposed Project

Owner/Manager	Land Use Designation	Distance Crossed (Miles)		
		Cal City-Edwards-Holgate	Kramer-Cal City	Total
Bureau of Land Management	California Desert Conservation Area	28.1	41.7	69.8**
	Unclassified*	1.2	12.3	13.5
	Desert Renewable Energy Conservation Plan	28.1	41.7	69.8**
Department of Defense	Edwards Air Force Base	2.1	0.6	2.7

Notes:
* BLM land ownership data does not classify these lands with a specific land designation.
** Total value calculations take into account the fact that approximately 0.34 mile of the proposed Kramer-Cal City 115 kV Subtransmission Line and Cal City-Edwards-Holgate 115 kV Subtransmission Line are parallel to each other.
Sources: BLM 2021a

Figure 5.11-1 General Plan Land Use Designations within 1 Mile of the Proposed Project

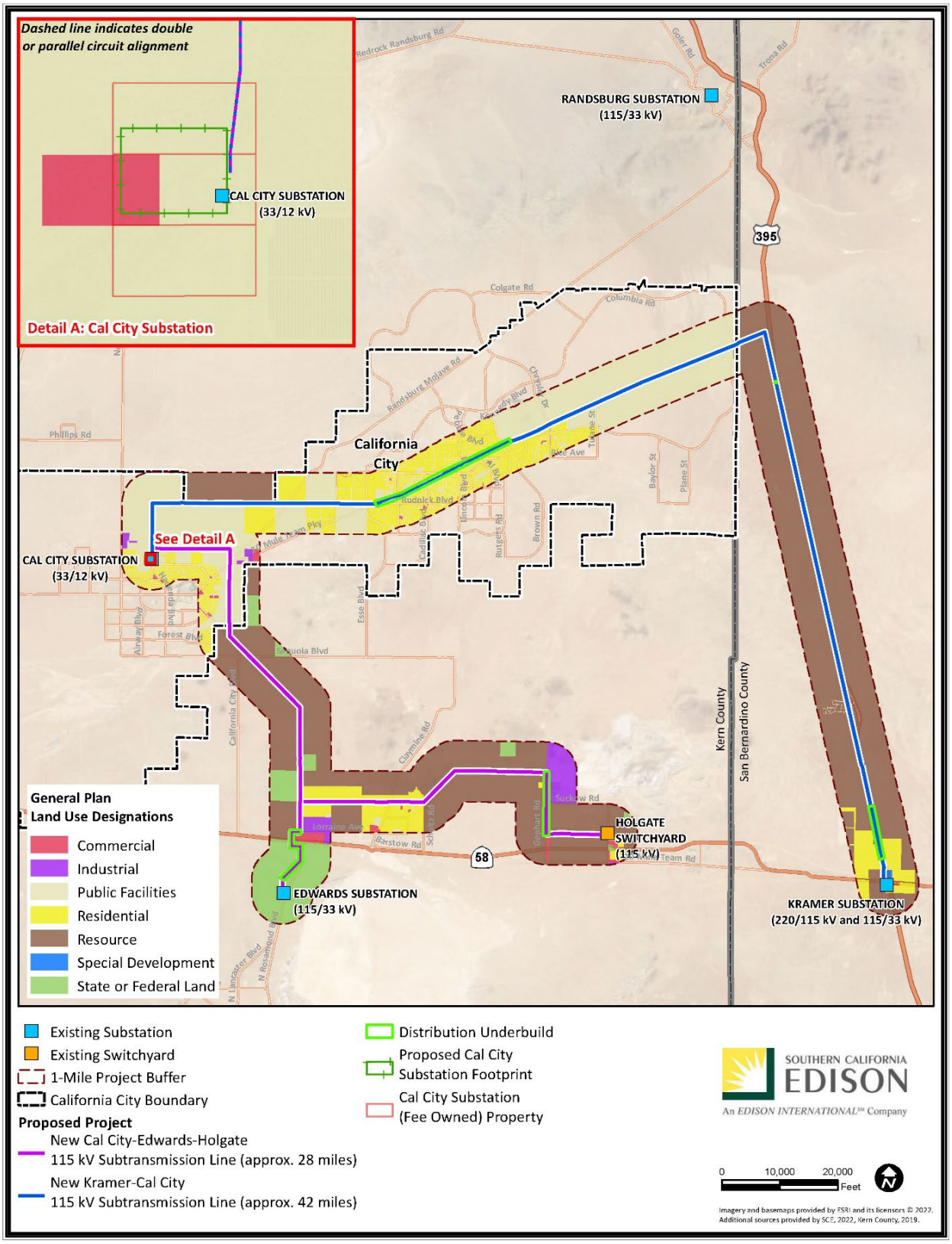


Figure 5.11-2 Zoning Designations within 1 Mile of the Proposed Project

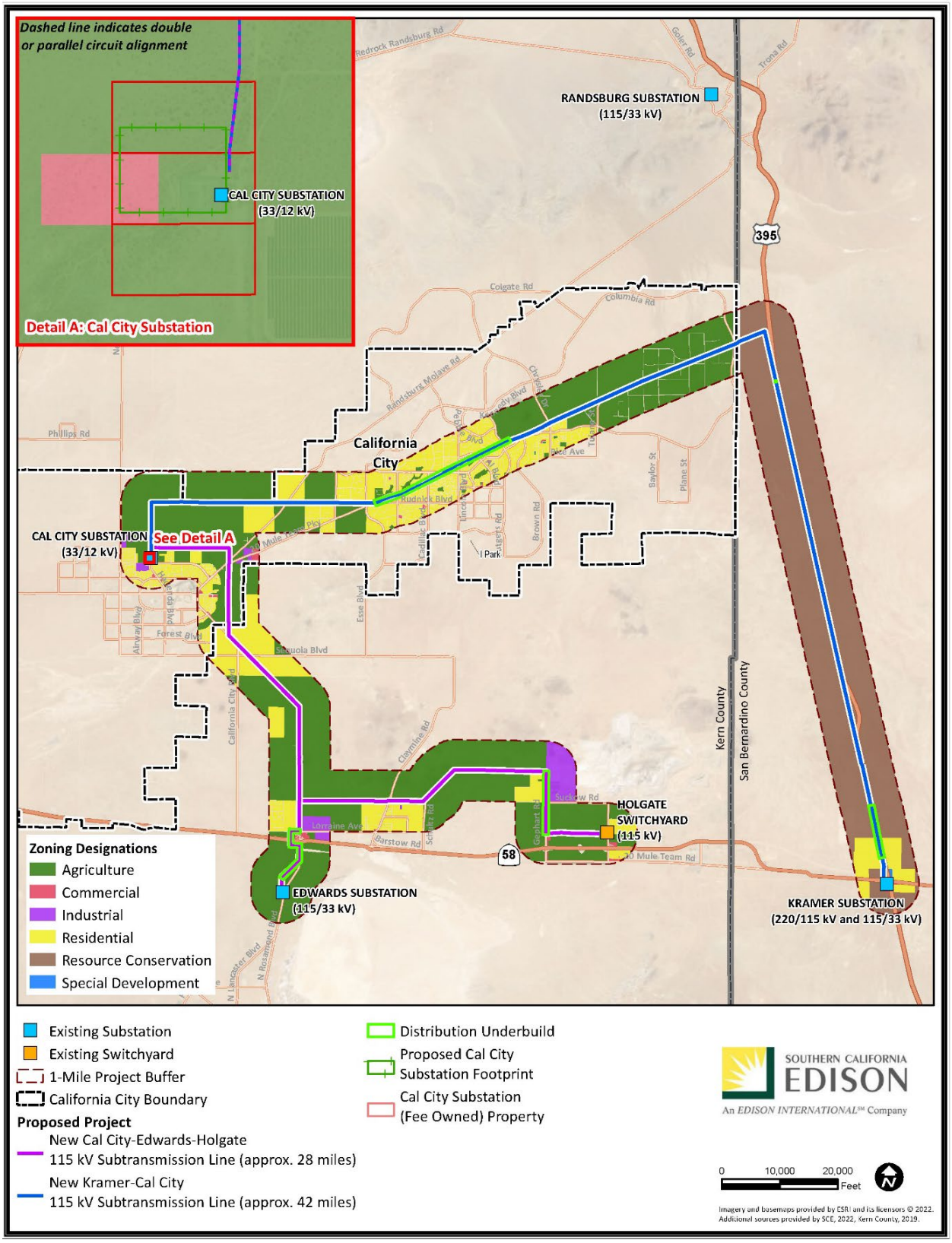
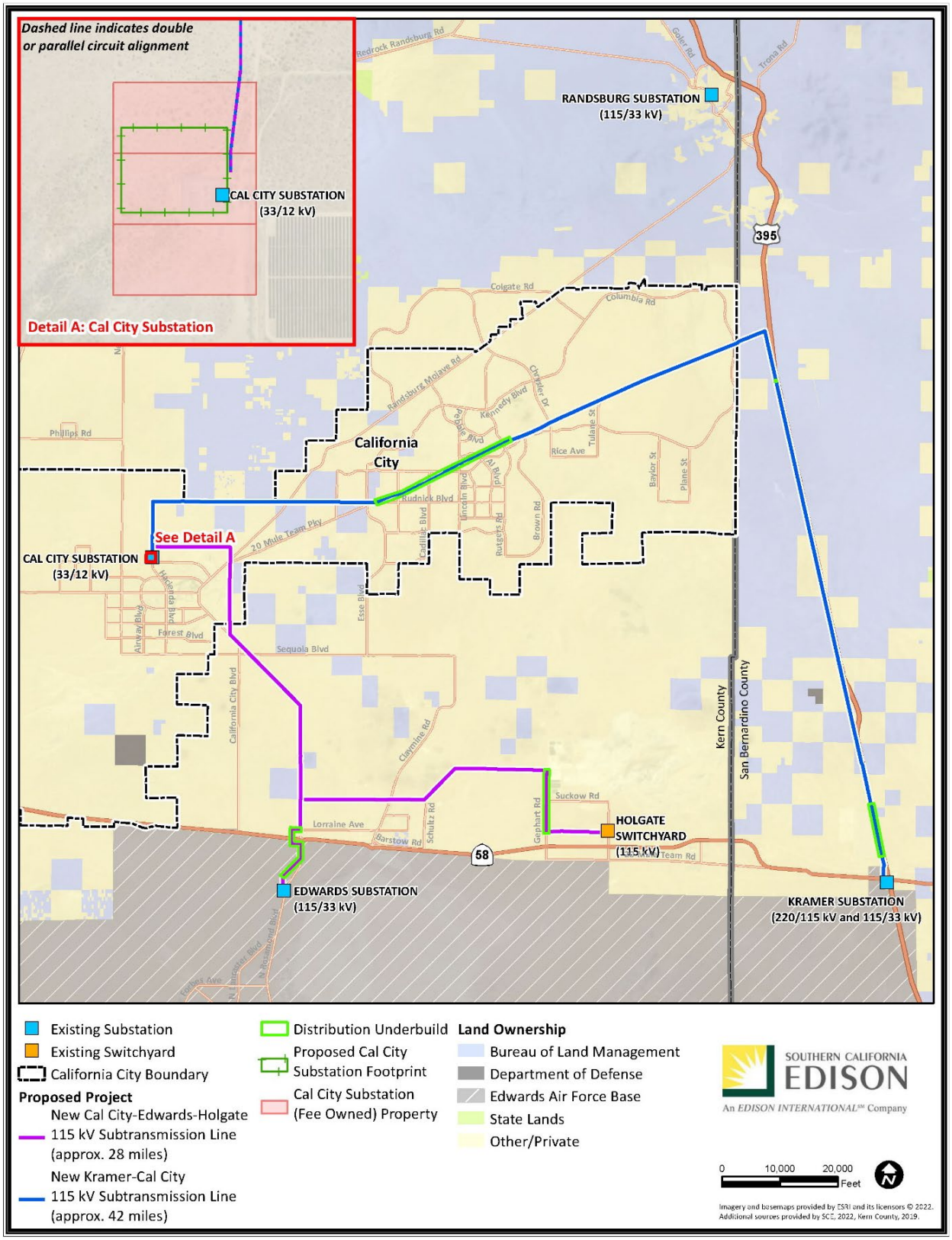


Figure 5.11-3 Land Ownership in Proposed Project Vicinity



Bureau of Land Management

The BLM oversees management of the National Landscape Conservation System, which contains federally recognized conservation lands, such as the following:

- National monuments
- National conservation areas
- Wilderness areas
- Wilderness study areas
- Wild and scenic rivers
- National scenic and historic trails
- Conservation lands of the California desert

In addition, the BLM designates Areas of Critical Environmental Concern (ACECs) as special management areas to protect significant resources. The following subsections describe the BLM-managed special land use areas within 1 mile of the Proposed Project.

CALIFORNIA DESERT CONSERVATION AREA

The entirety of the Proposed Project is located within the CDCA. The CDCA Conservation Plan establishes actions and methodologies for utility development activities within protected areas of the California Desert in order to meet the growing needs of the California population while protecting natural resources. Additional information about the CDCA is provided in Section 5.11.2.1.2, California Desert Conservation Area Plan. Further clarification on actions and methodologies for utility development activities on BLM-administered land in the CDCA is provided in the DRECP Land Use Plan Amendment (LUPA), which is described in the following subsection.

DESERT RENEWABLE ENERGY CONSERVATION PLAN, LAND USE PLAN AMENDMENT

The entirety of the Proposed Project is located on lands managed under the DRECP. Approximately 69.8 miles of the Proposed Project are located on BLM land managed by the DRECP LUPA. The DRECP LUPA establishes Conservation and Management Actions (CMAs) that designate allowable and non-allowable actions for siting, design, pre-construction, construction, maintenance, implementation, operation, and decommissioning activities on BLM-managed land. Additional details regarding the DRECP LUPA are provided in Section 5.11.2.1.3, Desert Renewable Energy Conservation Plan, and Section 5.11.2.1.4, Bureau of Land Management Land Use Plan Amendment.

Areas of Critical Environmental Concern

Desert Tortoise Research Natural ACEC. The Desert Tortoise Research Natural ACEC is located in Kern County and is managed by the Desert Field Office of the BLM. The Desert Tortoise Research Natural ACEC covers approximately 25,345 acres. Although the proposed Kramer-Cal City 115 kV Subtransmission Line is located adjacent to this ACEC, approximately 5.5 acres of workspace would be located within the Desert Tortoise Research Natural ACEC. No structures or new SCE rights-of-way (ROW) would be located within this ACEC.

Fremont-Kramer Desert Wildlife Management Area ACEC. The Fremont-Kramer Desert Wildlife Management Area (DWMA) ACEC is located in Kern County and San Bernardino County and is managed

by the Desert Field Office of the BLM. The Fremont-Kramer DWMA ACEC covers approximately 511,196 acres. Approximately 4.2 miles of the proposed Kramer-Cal City 115 kV Subtransmission Line would be located within the Fremont-Kramer DWMA ACEC.

GENERAL PUBLIC LANDS

The Proposed Project crosses approximately 13.5 miles of lands with an unclassified[1] designation within both Kern County and San Bernardino County.

Department of Defense

EDWARDS AIR FORCE BASE

The Proposed Project crosses approximately 2.7 miles of land controlled by the DoD on which EAFB is located.

5.11.1.2.2 Designated Coastal Zone Management Areas

No portion of the Proposed Project is located in a designated coastal zone management area.

5.11.1.2.3 Designated or Proposed Candidate National or State Wild and Scenic Rivers

No portion of the Proposed Project crosses or is proximate to a designated or proposed candidate national or state wild and scenic river.

5.11.1.2.4 National Landmarks

The Proposed Project is located approximately 1 mile from the edge of Rogers Dry Lake, a designated National Historic Landmark within EAFB.

5.11.1.3 Habitat Conservation Plan

The Proposed Project does not cross any areas covered by a habitat conservation plan (HCP).

5.11.2 Regulatory Setting

Federal, state, and local regulations were reviewed for applicability to the Proposed Project. All applicable regulations have been listed and described in the following subsections. An analysis of the consistency of the relevant land use plans and policies with the Proposed Project is provided in Attachment 5.11-C.

5.11.2.1 Federal

The Proposed Project is located within the CDCA and DRECP managed by the BLM. Components of the Proposed Project are located within BLM-owned lands managed under the DRECP LUPA and the DoD-managed EAFB. Applicable federal land use policies or regulations are included in the following subsections.

[1] BLM land ownership data does not classify these lands into a specific land designation.

Attachment 5.11-C summarizes the Proposed Project's consistency with relevant federal goals and policies. In addition to compliance with the federal regulations described in the following subsections, Project construction will require a ROW Grant and Notice to Proceed (NTP) from BLM.

5.11.2.1.1 Federal Land Policy and Management Act

The Federal Land Policy and Management Act (FLPMA) provides a regulatory framework for the management of BLM land and its use of resources. An important aspect of the FLPMA is that it supports multiple uses on public lands. The BLM also 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 under the FLPMA.

5.11.2.1.2 California Desert Conservation Area Plan

The CDCA is an expanse of land covering approximately 26 million acres in Southern California that was designated by Congress in 1976 through the FLPMA, of which approximately 10.4 million acres are administered by the BLM. The CDCA Plan is a comprehensive, long-range plan for the management, use, development, and protection of lands within the CDCA; it is required as part of the FLPMA and implemented by the BLM. The BLM adopted a LUPA, which amended the CDCA Plan in September 2016 as part of Phase I of the DRECP. The DRECP and the BLM LUPA are discussed in the following sections.

5.11.2.1.3 Desert Renewable Energy Conservation Plan

The DRECP is a multi-phase collaborative planning effort between the California Energy Commission, CDFW, BLM, and the United States (U.S.) Fish and Wildlife Service developed under the California Natural Community Conservation Planning Act (NCCPA) that is meant to accomplish the following:

- Advance federal and state natural resource conservation goals and other federal land management goals;
- Meet the requirements of the federal Endangered Species Act, California Endangered Species Act, NCCPA, 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 identifies existing utility corridors and recognizes CMAs, which restrict siting and construction activities to those existing utility corridors to minimize resource impacts by reducing the need for new, unplanned transmission infrastructure. 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.

5.11.2.1.4 Bureau of Land Management Land Use Plan Amendment

The BLM 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 area. The LUPA Decision Area includes conservation designations and recreation designations throughout the CDCA, including California Desert National Conservation Lands, ACECs, and Wildlife Allocations.[2]

[2] A Record of Decision (ROD) issued in March 2006 approved the West Mojave Plan/Amendment. The ROD referred solely to the BLM's amendment of the CDCA Plan. The HCP component of the West Mojave Plan was never approved by state or local agencies.

5.11.2.1.5 Edwards Air Force Base Integrated Natural Resources Management Plan

The EAFB Integrated Natural Resources Management Plan (INRMP) utilizes an ecosystem management approach to lands under the jurisdiction of the DoD, specifically within EAFB, which serves to protect the properties and functions of natural ecosystems. All projects within EAFB are subject to review under the Air Force Environmental Impact Analysis Process to ensure consistency with the INRMP.

5.11.2.2 State

5.11.2.2.1 California Public Utilities Commission, General Order 131-D

Pursuant to General Order (G.O.) 131-D, the California Public Utilities Commission (CPUC) has sole and exclusive jurisdiction over the siting and design of electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities in California. Under the California Environmental Quality Act (CEQA), the CPUC is the lead agency with respect to such Proposed Project elements within California.

5.11.2.2.2 California Fish and Game Code Wildlife and Natural Areas Conservation Act

The California Fish and Game Code regulates the majority of the CDFW's jurisdiction. Pursuant to section 2700 of the California Fish and Game Code, a public database was established for California natural areas containing valuable wildlife habitat that supports many of the diverse wildlife communities throughout the state. These areas, while not specifically protected under the California Fish and Game Code, were compiled into a publicly accessible database to increase public awareness of Significant Natural Areas, which are further described in section 1932 of the California Fish and Game Code.

5.11.2.3 Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to 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."

Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the counties' and city's regulations are not applicable as the counties and city do not have jurisdiction over the Proposed Project. Accordingly, the following discussion of local land use regulations is provided for informational purposes only. Attachment 5.11-C summarizes the Proposed Project's consistency with relevant local land use goals and policies.

5.11.2.3.1 Kern County

Kern County General Plan

The Land Use, Open Space, and Conservation Element of the Kern County 2009 General Plan provides for a variety of land uses for future economic growth while also assuring the conservation of Kern County's agricultural, natural, and resource attributes. The Proposed Project is located within the Desert Region of Kern County. Due to the aesthetic importance of the California Desert, the Kern County General Plan

outlines additional development standards for projects within the county's designated Desert Region. Specific policies relevant to the Proposed Project are provided in Attachment 5.11-C.

Kern County Zoning Ordinance

The Kern County Zoning Ordinance regulates land uses throughout the unincorporated areas of the county and outlines allowable development within each zoning designation. Pursuant to Section 19.08.090, transmission lines and supporting towers and poles for electricity that are owned and operated by a public utility company under the jurisdiction of the CPUC are a permitted use throughout the county.

5.11.2.3.2 San Bernardino County

San Bernardino Countywide Policy Plan

The Land Use Element of the San Bernardino Countywide Policy Plan functions as a guide to the ultimate pattern of development for San Bernardino County. The Infrastructure and Utilities Element of the San Bernardino Countywide Policy Plan provides guidance on where, when, and how infrastructure and utilities are improved and expanded. Specific policies relevant to the Proposed Project are provided in Attachment 5.11-C.

San Bernardino County Development Code

Division 2: Land Use Zoning Districts and Allowed Land Uses of the San Bernardino County Development Code implements the San Bernardino Countywide Plan. Division 2, Section 82.02.040 of the San Bernardino County Development Code lists utility development as one of the activities exempt from planning permit requirements.

5.11.2.3.3 City of California City

City of California City Final General Plan 2009-2028

The Land Use Element of the City of California City Final General Plan 2009-2028 presents a plan for land uses guided by goals, policies, and implementation measures that resolve to enhance and protect the quality of life in the City of California City. Specific policies relevant to the Proposed Project are provided in Attachment 5.11-C.

City of California City Code of Ordinances

Title 9: Land Use and Development of the City of California City's Code of Ordinances implements the city's General Plan. Section 9-2 of the City of California City Code of Ordinances controls development within each established zoning designation.

5.11.3 Impact Questions

5.11.3.1 Impact Questions

The thresholds of significance for assessing impacts come from the CEQA Environmental Checklist. For land use and planning, the CEQA Checklist asks if the project would:

- Physically divide an established community?

- 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?

5.11.3.2 Additional CEQA Impact Questions

There are no CPUC-identified additional CEQA impact questions.

5.11.4 Impact Analysis

5.11.4.1 Land Use and Planning Methodology

Land use and planning impacts within the Proposed Project area were determined by collecting all applicable data available through the Kern County General Plan, San Bernardino Countywide Plan, and the City of California City General Plan. The Proposed Project was then overlain on this data to determine the potential impacts. Aerial photographs were also used to analyze existing land conditions in the vicinity of the Proposed Project.

5.11.4.2 Land Use and Planning Impact Analysis

5.11.4.2.1 Would the project physically divide an established community?

Construction

No Impact. The Proposed Project would be located primarily in undeveloped rural areas. The main Kern County and San Bernardino County land use designations within the Proposed Project area are Public Facilities, Residential, and Resource. Portions of the proposed overhead subtransmission lines and telecommunication lines would be routed through portions of the City of California City. The Proposed Project includes an expansion of Southern California Edison Company's (SCE's) existing Cal City Substation into surrounding undeveloped land. This expansion would be located on property owned by SCE. Access to businesses and other uses in the area surrounding the Proposed Project would generally be maintained during construction, with the majority of construction occurring within existing or new ROW. Additionally, any lane and/or road closures would be temporary and short-term, and flaggers and other traffic controls would be utilized, as described in Section 5.17, Transportation. These lane and/or road closures are not anticipated to create a physical division between area land uses or within the larger community as alternative routes would be available. While components of the Proposed Project would be within the City of California City, overhead subtransmission lines and the establishment of new ROW easements would not create a physical barrier that would divide an established community. As the existing Cal City Substation would expand into surrounding, undeveloped land owned by SCE, the substation expansion would also not create a physical barrier that would divide an established community. Therefore, no impact would occur as a result of construction of the Proposed Project.

Operation

No Impact. As presented in Chapter 3, the Proposed Project includes the construction of subtransmission lines between existing substations in the vicinity of the City of California City, EAFB, and U.S. 395 where many overhead power lines currently exist. Operation and maintenance (O&M) activities associated with the Proposed Project would be similar to those currently performed by SCE for existing facilities, including, but not limited to, repairing conductors, washing or replacing insulators, repairing or replacing other hardware components, repairing or replacing poles and towers, tree trimming, brush and weed control, and

access road maintenance. O&M would also include routine inspections and emergency repair within substations and throughout ROWs, which would require the use of vehicles and equipment. SCE inspects subtransmission overhead facilities in a manner consistent with CPUC G.O. 165, which requires observation a minimum of once per year, although inspection typically occurs more frequently to ensure system reliability. Following construction of the Proposed Project, O&M activities would consist of monthly and annual inspections, as well as equipment testing and maintenance for new and expanded facilities. SCE currently performs O&M activities for the existing substations and their associated source lines and infrastructure. Overall, the Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. Such activities do not currently divide an established community, nor would they be anticipated to do so as a result of the Proposed Project; therefore, no impact would occur from operation of the Proposed Project.

5.11.4.2.2 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?

Construction

No Impact. As discussed in Section 5.11.2.3, the CPUC's jurisdiction over electric power line projects and substations preempts local jurisdictions from regulating the Proposed Project. However, SCE considers local and state land use plans and policies as part of its routing and siting process, and has performed a consistency review of federal, state, and local plans and policies as described in Attachment 5.11-C.

The Proposed Project would be constructed in existing and new ROWs located on federal, state, municipal, and private lands within Kern County, San Bernardino County, and the City of California City. As presented in Section 5.11.2, Regulatory Setting, the construction of electric infrastructure as included in the Proposed Project is not prohibited in the land uses designated in the Kern County General Plan, San Bernardino Countywide Plan, or the City of California City General Plan. While portions of the proposed Kramer-Cal City 115 kV Subtransmission Line and/or its associated workspaces would be located within the Desert Tortoise Research Natural Area ACEC and the Fremont-Kramer DWMA ACEC delineated by the DRECP LUPA, the Proposed Project would be consistent with federal, state, and local policies and land use goals as described in Attachment 5.11-C.

The Proposed Project crosses BLM lands designated as CDCA. The DRECP LUPA recognizes valid existing rights, such as those held by SCE, and existing utility corridors outlined in the DRECP LUPA that would be utilized for portions of the Proposed Project. The DRECP also allows for the application for and the acquisition of additional land rights for electric and natural gas facilities to meet the growing energy needs throughout the state. The proposed Kramer-Cal City 115 kV Subtransmission Line component would be partially within existing DRECP utility corridors along U.S. 395. The proposed Cal City-Edwards-Holgate 115 kV Subtransmission Line would be located completely outside of existing utility corridors and would, therefore, require SCE to obtain additional land rights. The BLM would evaluate the applicability of valid existing rights and new land acquisition applications on a case-by-case basis, and in situations where the BLM retains authority to require design features or mitigation, the BLM would apply DRECP LUPA decisions to the extent authorized by the relevant statutes and regulations. The Proposed Project would comply with all conditions and measures included in federal authorizations for the purpose of avoiding or mitigating an environmental effect. Therefore, construction of the Proposed Project would be consistent with the applicable land use policies from the LUPA as described in Attachment 5.11-C.

Therefore, construction of the Proposed Project would be consistent with each of these plans and no impact would occur as a result of construction of the Proposed Project.

Operation

No Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. O&M activities would occur within existing or new ROWs. The establishment of new ROWs would not conflict with any land use plan or policy. No environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect would occur from operation of the Proposed Project.

5.11.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures identified for the land use and planning resource area.

5.11.5.1 Applicant Proposed Measures

No impact or less-than-significant impacts would occur as a result of the Proposed Project. As such, there are no applicant proposed measures.

5.11.6 Alternatives

For an evaluation of Proposed Project alternatives, see Chapter 6, Comparison of Alternatives.

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ATTACHMENT 5.11-A: DEFINITIONS OF LAND USE DESIGNATIONS CROSSED BY THE PROPOSED PROJECT

Attachment 5.11-A: Definitions of Land Use Designations Crossed by the Proposed Project

Consolidated Land Use Designation	General Plan Land Use Designation	Land Use Code Definition
Kern County		
Commercial	6.3	Highway Commercial. Uses which provide services, amenities, and accommodations at key locations along major roadways to visitors and through traffic.
Public Facilities	3.3	Other Facilities: Existing facilities used for public or semi-public services.
Residential	5.2	16 Dwelling Units/Net Acre Maximum. Primarily intended for small multiple-family structures which require a full array of urban services, with a minimum of 2,722 square feet of site area per unit and yielding a maximum of 16 units per net acre.
	5.3	10 Dwelling Units/Net Acre Maximum. Urban, single-family development on lots with a minimum average size of 1/10 of an acre, yielding a maximum of 10 units per net acre.
	5.4	4 Dwelling Units/Net Acre Maximum. Urban, single-family development on lots with a minimum average size of 1/4 net acre.
	5.7	Minimum 5 Gross Acres/1 Dwelling Unit Maximum. Designated in the outlying, less densely settled areas, often characterized with physical constraints, and not requiring connections to public water and sewer infrastructure.
Resource	8.2	Resource Reserve. Areas of mixed natural resource characteristics, such as rangeland, woodland, and wildlife habitat which occur within an established County water district. Minimum parcel size is 20 acres gross, except lands subject to a Williamson Act Contract/Farmland Security Zone Contract, in which case the minimum parcel size shall be 80 acres gross.
	8.3	Extensive Agriculture (Minimum 80 or 20 acres). Agricultural uses involving large amounts of land with relatively low value-per-acre yields, such as livestock grazing, dry land farming, and woodlands. Minimum parcel size is 20 acres gross, except lands subject to the Williamson Act Contract in which case the minimum parcel size shall be 80 acres gross.
	8.5	Resource Management (Minimum 20 acres). Primarily open space lands containing important resource values, such as wildlife habitat, scenic values, or watershed recharge areas. Other lands with this resource attribute are undeveloped, non-urban areas that do not warrant additional planning within the foreseeable future because of current population, marginal physical development, or no subdivision activity.
State or Federal Land	1.1	State and Federal Land. Non-jurisdictional lands within the county owned and managed by federal or state agencies.
San Bernardino County		
Commercial	CR	Rural Commercial
Residential	RL	Rural Living
Resource	RC	Resource Conservation
City of California City		
Public Facilities	Controlled Development	Designated for specific land development planning that is consistent with the goals, objectives, and policies of the General Plan.

Consolidated Land Use Designation	General Plan Land Use Designation	Land Use Code Definition
Residential	Estate Residential	Estate Residential. Land designated for single-family detached residential development at a density not to exceed one dwelling unity for each 2 acres of land
	Medium Density Residential	Medium Density Residential. Land designated for single-family residential development attached or detached housing not to exceed six dwelling units per acre of land.
	High Density Residential	High Density Residential. Land designated for single- and multiple-family residential development attached and/or detached housing from six to 40 dwelling units per acre of land.

Source: City of California City 2009, San Bernardino County 2020, Kern County 2009

ATTACHMENT 5.11-B: DEFINITIONS OF ZONING DESIGNATIONS CROSSED BY THE PROPOSED PROJECT

Attachment 5.11-B: Definitions of Zoning Designations Crossed by the Proposed Project

Zoning Designation	Zoning Code	Zoning Code Definition
Kern County		
Agriculture	A-1	Limited Agriculture District
	A-1 FPS	Limited Agriculture District Floodplain Secondary Combining District
	A-1 H	Limited Agriculture District Airport Approach Height Combining District
	A-1 MH	Limited Agriculture District Mobilehome Combining District
Commercial	CH PD	Highway Commercial District Precise Development Combining District
Residential	E [1/2]	Estate District – minimum parcel size ½ acre
	E [2 ½]	Estate District – minimum parcel size 2.5 acres
	E [2 ½] MH	Estate District Mobilehome Combining District – minimum parcel size 2.5 acres
	E [20]	Estate District – minimum parcel size 20 acres
	PL	Platted Lands District
	PL MH	Platted Lands District Mobilehome Combining District
	PL RS	Platted Lands District Residential Suburban Combining District
	R-2 PD	Medium Density Residential District Precise Development Combining District
San Bernardino County		
Commercial	CR	Rural Commercial
Residential	RL-40	Rural Living – minimum 40 acres
	RL-5	Rural living – minimum 5 acres
Resource Conservation	RC	Resource Conservation
City of California City		
Agriculture	O/RA	Open Space/Residential Agricultural
Residential	R-1	Medium Density Residential
	R-4	Estate Residential
	RM-1	High Density Residential

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ATTACHMENT 5.11-C: RELEVANT LAND USE PLANS AND POLICIES CONSISTENCY ANALYSIS TABLE

Attachment 5.11-C: Relevant Land Use Plans and Policies Consistency Analysis Table

Plan or Policy	Consistent (Yes/No)	Explanation
Federal Land Policy and Management Act		
Sec. 501. [43 U.S.C. 1761] (a) The Secretary, with respect to the public lands (including public lands, as defined in section 103(e) of this Act, which are reserved from entry pursuant to section 24 of the Federal Power Act (16 U.S.C. 818)) [P.L. 102-486, 1992] and, the Secretary of Agriculture, with respect to lands within the National Forest System (except in each case land designated as wilderness), are authorized to grant, issue, or renew rights-or-way over, upon, under, or through such lands for– (4) systems for generation, transmission, and distribution of electric energy, except that the applicant shall also comply with all applicable requirements of the Federal Energy Regulatory Commission under the Federal Power Act, including part I thereof (41 Stat. 1063, 16 U.S.C. 791a- 825r) [P.L. 102-486, 1992];	Yes	The Cal City Substation 115 kV Upgrade Project (Proposed Project) would be constructed within existing or new Southern California Edison (SCE) rights-of-way (ROWs). The Proposed Project would be located within the California Desert Conservation Area (CDCA) and the Desert Renewable Energy Conservation Plan (DRECP), which fall under the jurisdiction of the Bureau of Land Management (BLM). SCE would secure ROW grants from the BLM to construct the Proposed Project within its jurisdiction. SCE would comply with all applicable requirements of the Federal Energy Regulatory Commission under the Federal Power Act through adherence to the ROW Grant conditions. Therefore, the Proposed Project would be consistent with this policy.
California Desert Conservation Area Conservation Plan		
Decision Criteria 1: Minimize the number of separate rights-of-way by utilizing existing rights-of-way as a basis for planning corridors	Yes	As part of a Proposed Project, two new 115 kV subtransmission lines would require approximately 69.8 miles of new or modified rights-of-way (ROWs) in order to provide service to the electrical needs area (ENA). To the extent practical, existing SCE ROWs would be expanded to accommodate these facilities. The Proposed Project telecommunication lines would be located along the two new 115 kV subtransmission lines and would utilize the ROWs for those facilities to the extent possible. Therefore, the Proposed Project would be consistent with this policy.
Decision Criteria 2: Encourage joint use of corridors for transmission lines, canals, pipelines, and cables	Yes	In many locations, portions of the two new 115 kV subtransmission lines would be located parallel to existing power lines and a portion of the Kramer-Cal City 115 kV Subtransmission Line would be partially within existing DRECP utility corridors along U.S. 395. The Proposed Project telecommunication lines would be located along the two new 115 kV subtransmission lines and would utilize the existing ROWs for those facilities to the extent possible. Therefore, the Proposed Project would be consistent with this policy.
Decision Criteria 3: Provide alternative corridors to be considered during processing of applications	Yes	Chapter 4, Description of Alternatives, of the Proponent's Environmental Assessment (PEA) provides a discussion of alternatives to the Proposed Project and the selection process, including alternative corridors considered for the Proposed Project. Therefore, the Proposed Project would be consistent with this policy.
Decision Criteria 4: Avoid sensitive resources wherever possible	Yes	The Proposed Project would be constructed within modified and/or new ROWs within the CDCA and DRECP lands under the jurisdiction of the BLM, including portions within existing DRECP corridors along U.S. 395. As discussed in Chapter 6, Comparison of Alternatives of the PEA, alternatives to the Proposed Project were considered but were determined to impact more sensitive resources than the Proposed Project. The Proposed Project would be constructed to avoid sensitive resources to the extent feasible. Therefore, the Proposed Project would be consistent with this policy.
Decision Criteria 5: Conform to local plans whenever possible	Yes	As discussed in Section 5.11, Land Use and Planning of the PEA in Section 5.11.4, Impact Analysis, construction of the Proposed Project would not conflict with an applicable land use plan, policy, or regulation of a local agency with jurisdiction over the Proposed Project area. Therefore, the Proposed Project is consistent with this policy.
Decision Criteria 7: Complete the delivery-systems network	Yes	The CDCA adopted decision criteria from the California Energy Commission to ensure the development standards for the necessary utility infrastructure remained consistent throughout the state in order to meet the needs of the growing population while protecting California's natural resources. The California Energy Commission and the California Public Utilities Commission promote the scoping and design of a project that provides additional infrastructure to complete or add to an existing utility delivery network. The Proposed Project is needed to safely deliver electric power to the ENA. In addition, the Proposed Project would increase capacity and power flow between four existing SCE substations. Therefore, the Proposed Project would be consistent with this policy.
Decision Criteria 8: Consider ongoing projects for which decisions have been made, for example, the Intermountain Power Project	Yes	SCE owns and operates several electric transmission, subtransmission, and distribution facilities within the Proposed Project area. In order to meet the energy demand for the surrounding areas, the Proposed Project would expand the capacity at four of its existing substations within the CDCA and would expand its existing subtransmission infrastructure to provide an expanded and reliable energy network for customers within the ENA. The Proposed Project would increase capacity and power flow between four existing SCE substations. Ongoing projects for which decisions have been made will not achieve the same end and are not suitable alternatives to the Proposed Project. Therefore, the Proposed Project is consistent with this policy.
Decision Criteria 9: Consider corridor networks which take into account power needs and alternative fuel resources	Yes	The Energy Production and Utility Corridor Element of the CDCA Plan establishes a network of joint use planning corridors intended to meet the projected utility service needs at the time the plan was written. These corridors provide pre-approved utility avenues throughout the CDCA. The proposed Cal City-Kramer 115 kV Subtransmission Line would be located within existing corridor networks under the CDCA DRECP along U.S. 395. Therefore, the Proposed Project would be consistent with this policy.
Desert Renewable Energy Conservation Plan		
Apply limitations to the development of large-scale ROWs in areas identified for conservation (conservation areas and SRMAs).	Yes	While the Proposed Project would be located within Areas of Critical Environmental Concern (ACECs), development in these locations would generally be located along existing disturbed roadways or within existing utility corridors. The Proposed Project is anticipated to result in less than 0.2 acre of temporary disturbance and less than 0.1 acre of permanent disturbance to lands owned or managed by the BLM within the Desert Tortoise Research Natural ACEC. Within the Fremont-Kramer Desert Wildlife Management Area ACEC, the Proposed Project is anticipated to result in approximately 24.7 acres of temporary disturbance and approximately 9.2 acres of permanent disturbance to lands owned or managed by the BLM. Such disturbance would contribute approximately 0.001 percent of the Desert Tortoise Research Natural ACEC's 0.1-percent disturbance cap and approximately 0.01 percent to the Fremont-Kramer Desert Wildlife Management Area ACEC's 0.5-percent disturbance cap. Given the minimal amount of disturbance on BLM-owned

Plan or Policy	Consistent (Yes/No)	Explanation
		land within each ACEC and that such disturbance would generally be concentrated along previously-disturbed roadway and utility corridors, it is not anticipated that the Proposed Project would cause either ACEC to exceed its respective disturbance cap. Should the BLM determine that disturbance within either ACEC exceeds the applicable cap, ground disturbance mitigation would be applied, as prescribed in Section II.2.1 of the DRECP Land Use Plan Amendment. The Proposed Project would not be located within any SRMAs. Therefore, the Proposed Project would be consistent with this policy.
LUPA-LANDS-8: The CDCA Plan requirement that new transmission lines of 161kV or above, pipelines with diameters greater than 12 inches, coaxial cables for interstate communications, and major aqueducts or canals for interbasin transfers of water will be located in designated utility corridors, or considered through the plan amendment process outside of designated utility corridors, remains unchanged. The only exception is that transmission facilities may be located outside of designated corridors within DFAs without a plan amendment. This CMA does not apply the Bishop and Bakersfield RMPs.	Yes	Two new 115 kV subtransmission lines and three new telecommunication lines would be constructed within existing or new ROWs as part of the Proposed Project. The Proposed Project would not require construction of transmission lines of 161 kV or above. No new pipelines, coaxial communication cables, or water resource infrastructure constructed. Therefore, the Proposed would be Project would be consistent with this policy.
ACEC-DIST-1: Development in Areas of Critical Environmental Concern (ACECs) is limited by specified ground disturbance caps which are the total ground disturbance (existing [past and present] plus future). The specific ACEC ground disturbance caps are delineated in each of the individual ACEC Special Unit Management Plans (Appendix B). The ground disturbance caps will be used, managed and implemented following the methodology for California Desert National Conservation Lands and ACECs identified in Section II.2 and repeated in CMAs NLCS-DIST- 2, and ACEC-DIST-2.	Yes	The majority of the Proposed Project's land disturbance would be temporary. SCE would clean up all areas that would be temporarily disturbed by construction of the Proposed Project (e.g., material staging yards, construction setup areas, and stringing sites) to as close to pre-construction conditions as feasible, or to the conditions agreed upon between the landowner and SCE following the completion of construction of the Proposed Project. If restoration and/or revegetation occurs within sensitive habitats, a habitat restoration and/or revegetation plan(s) would be developed by SCE with the appropriate resource agencies and implemented after construction is complete. Proposed construction activities would result in long-term disturbances within the approximately 25,345-acre Desert Tortoise Research Natural ACEC and the approximately 511,196-acre Fremont-Kramer Desert Wildlife Management Area ACEC. As described previously, the Proposed Project would contribute toward ground disturbance caps within these ACECs, but is not expected to cause an exceedance of these caps because long-term disturbance on BLM-owned land within each ACEC would be minimal and generally concentrated along previously-disturbed roadway and utility corridors. Should the BLM determine that disturbance within either ACEC exceeds the applicable cap, ground disturbance mitigation would be applied, as prescribed in Section II.2.1 of the DRECP Land Use Plan Amendment. Therefore, the Proposed Project would be consistent with this policy.
ACEC-LANDS-1: Renewable energy activities are not allowed. ACECs are right-of-way avoidance areas for all other land use authorizations, except when identified as right-of-way exclusion areas in the individual unit's Special Management Plan (Appendix B). Transmission is allowed. Re-powering of an existing wind facility is allowed if the re-power project remains within the existing approved wind energy ROW and reduces environmental impacts.	Yes	The Proposed Project's Kramer-Cal City 115 kV Subtransmission Line is considered a transmission facility. As a result, its construction within the Fremont-Kramer Desert Wildlife Management Area ACEC is allowed. No new structures or SCE ROW are proposed within the Desert Tortoise Research Natural ACEC. Therefore the Proposed Project would be consistent with this policy.
WILD-LANDS-2: Applications for use authorizations that provide a benefit to the management area or serve public interests may be allowed, unless prohibited by statute.	Yes	The Proposed Project would not be located within designated wild lands. Therefore, the Proposed Project would be consistent with this policy.
DFA-LANDS-7: Transmission facilities are an allowable use and will not require a plan amendment within DFAs.	Yes	The Proposed Project's two new 115 kV subtransmission lines are considered transmission facilities; therefore, it would be consistent with this policy.
Edwards Air Force Base Integrated Natural Resources Management Plan		
The Edwards Air Force Base (EAFB) Integrated Natural Resources Management Plan (INRMP) utilizes an ecosystem management approach to lands under the jurisdiction of the Department of Defense (DoD), specifically within EAFB, which serves to protect the properties and functions of natural ecosystems. All projects within EAFB are subject to review under the Air Force Environmental Impact Analysis Process (EIAP) to ensure consistency with the INRMP.	Yes	Approximately 2.1 miles of new Cal City-Edwards-Holgate 115 kV Subtransmission Line, approximately 0.6 mile of new Kramer-Cal City 115 kV Subtransmission Line, and accompanying telecommunication line would be located within EAFB, which is managed by the DoD. The Proposed Project would require authorization from the DoD to be constructed and would be reviewed by EAFB to ensure compatibility with the INRMP during issuance of that authorization. Therefore, the Proposed Project would be consistent with this plan.
Kern County 2009 General Plan		
Section 1.4 Public Facilities and Services **Goals: Public Facilities and Services** 7. Facilitate the provision of reliable and cost-effective utility services to residents of Kern County.	Yes	The Proposed Project additions to SCE's existing electric grid would facilitate the provision of reliable and cost-effective utility services to the ENA, which includes the City of California City and surrounding portions of unincorporated Kern County and EAFB. Therefore, the Proposed Project would be consistent with this goal.
San Bernardino Countywide Policy Plan		
Policy LU-4.7 Dark skies. San Bernardino minimizes light pollution and glare to preserve views of the night sky, particularly in the Mountain and Desert regions where dark skies are fundamentally connected to community identities and local economies. The county also promotes the preservation of dark skies to assist the military in testing, training, and operations.	Yes	As discussed in Chapter 3, Proposed Project Description, of the PEA, construction activities associated with the Proposed Project would not occur at night and the installed subtransmission lines would not create a new light source. Thus, the Proposed Project would be consistent with this policy.

Plan or Policy	Consistent (Yes/No)	Explanation
Policy IU-5.4 Electric transmission lines. San Bernardino County supports the maintenance of the 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.	Yes	The Proposed Project would improve the capacity and stability of electric utility services to residents of the ENA and other regions within southern California. Therefore, the Proposed Project would be consistent with this policy.
Policy IU-5.6 Dig once approach. San Bernardino County encourages 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.	Yes	SCE would coordinate with other infrastructure, telecommunication, and utility projects and providers within the Proposed Project existing and new ROWs to ensure improvements are made concurrently or in such a manner that minimizes service disruption to the surrounding communities. Therefore, the Proposed Project would be consistent with this policy.
City of California City 2009-2028 General Plan		
Land Use Element Goal 1: To facilitate and implement growth and development coordinated with the provision of infrastructure, public facilities, and public services.	Yes	In order to meet the growing electricity need within the City of California City and the surrounding unincorporated areas, the Proposed Project would construct additional subtransmission, distribution, and substation infrastructure to improve upon the existing electric transmission and distribution systems in the ENA. As the Proposed Project would increase capacity and transmission of SCE's existing electric infrastructure to meet the forecasted need, and would improve electric service to residents of the City of California City, the Proposed Project would be consistent with this goal.

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5.12 Mineral Resources

This section describes the mineral resources in the vicinity of the Cal City Substation 115 kV Upgrade Project (Proposed Project), as well as the potential impacts to mineral resources from construction and operation of the Proposed Project.

According to the United States (U.S.) Geological Survey (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 and quantity, and of such a grade or quality, that it has reasonable prospects for economic extraction, either currently or in the future. Mineral resources include oil, natural gas, and metallic and non-metallic deposits. Mineral resources data were obtained from the following sources:

- USGS
- California Department of Conservation (DOC)
- California Geological Survey (CGS)
- San Bernardino Countywide Policy Plan Kern County General Plan
- City of California City General Plan

The following subsections describe the mineral resources that exist along the Proposed Project alignment. These discussions are divided by geopolitical boundaries. The locations of active mines within 1 mile of the Proposed Project are presented in Figure 5.12-1.

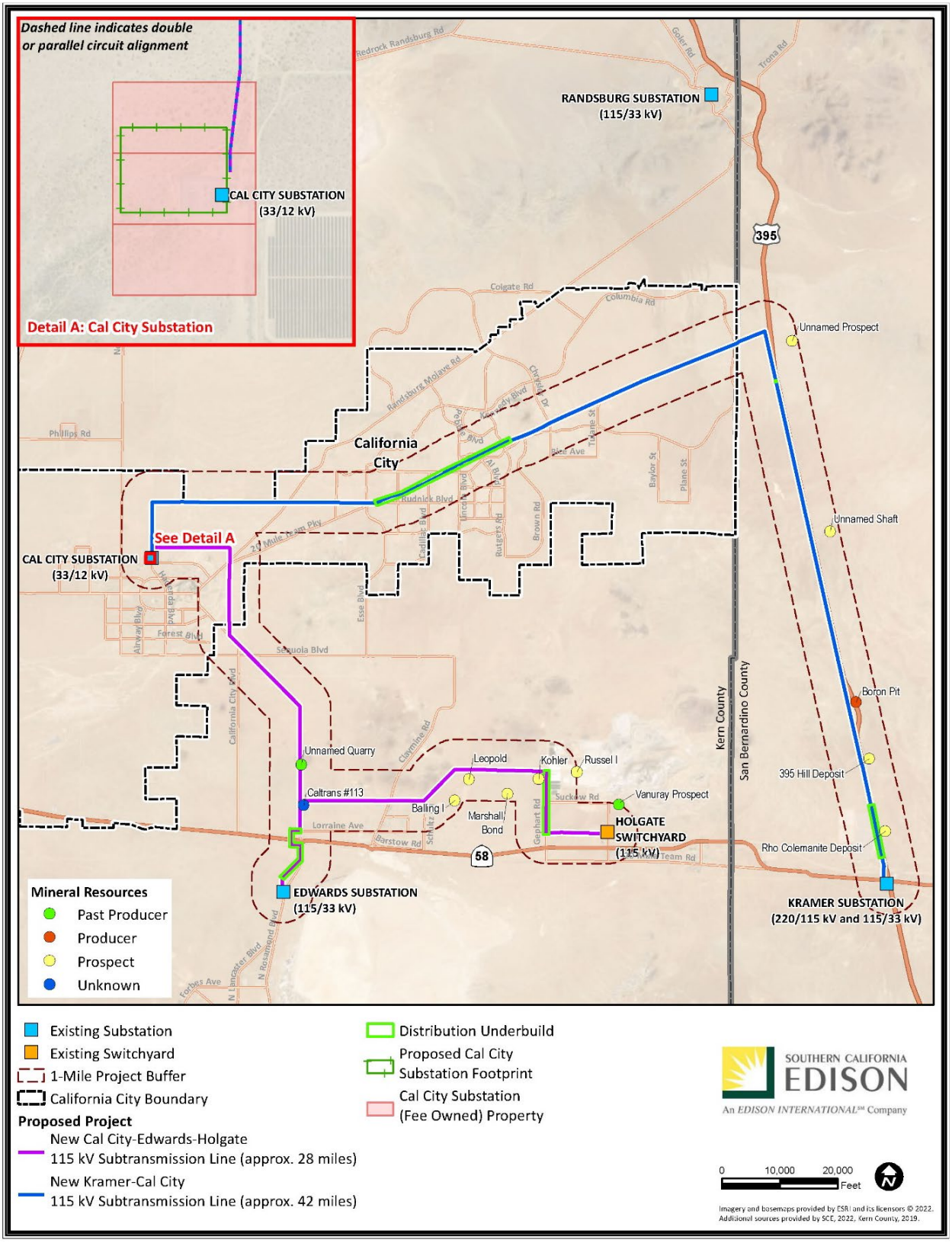
5.12.1 Environmental Setting

The Proposed Project is located in Kern County and San Bernardino County in the Mojave Desert region of California on federal, state, private, and municipal land. These lands include unincorporated areas of Kern County and San Bernardino County, City of California City, Edwards Air Force Base (EAFB) controlled by the Department of Defense, and public lands under the jurisdiction of the Bureau of Land Management and the California Department of Fish and Wildlife. Approximately 90 percent of the Proposed Project is located within undeveloped open areas, with the remaining 10 percent located within developed areas (including the City of California City). The proposed Cal City-Edwards-Holgate 115 kV Subtransmission Line is located approximately 1 mile from the existing Rio Tinto Borax Mine in Kern County. The environmental setting section describes mineral resources in the Proposed Project area.

5.12.1.1 Mineral Resources

The Proposed Project is located within the Mojave Geomorphic Province (CGS 2002). The Mojave Geomorphic Province has historically produced mineral resources, such as gold, copper, and zinc. Several mineral surveys have been conducted within this province. In addition to active and past mined areas of the province, other areas of the province are anticipated to contain an abundance of these mineral resources according to the USGS (USGS 2007).

Figure 5.12-1 Mineral Resources Producers, Past Producers, and Prospects within 1 Mile of the Proposed Project



The DOC, Division of Mines and Geology, and the California State Mining and Geology Board (SMGB) are responsible for the administration of the classification designation process for inventorying mineral lands. Areas are classified based on geologic factors without regard to existing land use and land ownership. The following are the six Mineral Resource Zone (MRZ) categories defined by the SMGB (SMGB 1988):

- **MRZ-1:** An area where adequate information indicates that no significant mineral deposits[1] are present, or where it is judged that little likelihood exists for their presence.
- **MRZ-2a:** An area where adequate information indicates that significant measured or indicated mineral reserves are present.
- **MRZ-2b:** An area where geologic information indicates that significant inferred resources or demonstrated subeconomic resources are present.
- **MRZ-3a:** An area likely to contain undiscovered mineral deposits similar to known deposits in the same producing district or region (hypothetical resources).
- **MRZ-3b:** An area judged to be a favorable geologic environment for mineral resource occurrences, but where mineral discoveries have not been made in the region (speculative resources).
- **MRZ-4:** An area where geologic information does not rule out either the presence or absence of mineral resources.

The DOC Geologic Energy Management Division (CalGEM) oversees the drilling, operation, maintenance, and plugging and abandonment of oil, natural gas, and geothermal wells in California, and tracks all known oil and gas wells. Based on a review of data from the DOC CalGEM, two oil wells are located within 1 mile of the Proposed Project, as detailed in Figure 5.12-2 and Table 5.12-2.

The following subsections describe mineral resources in the vicinity of the Proposed Project in more detail.

5.12.1.1.1 Kern County

The Kern County General Plan's Conservation Element designates specific mineral resource zones for active extraction or resource conservation. Several active mines that stimulate the local economy exist within the county. However, the nearest mapped MRZ would be approximately 36 miles northwest of the proposed Kramer-Cal City 115 kV Subtransmission Line. Therefore, the Proposed Project would not cross nor be proximate to areas designated as MRZs in Kern County (DOC 2021a).

5.12.1.1.2 San Bernardino County

The Natural Resources Element of the San Bernardino Countywide Policy Plan delineates specific policies related to mineral resource extraction and preservation within the county. Mineral resources contribute to economic growth and development within the county. The nearest mapped MRZ would be approximately 50 miles southeast of the proposed Cal City-Edwards-Holgate 115 kV Subtransmission Line. Therefore, the Proposed Project would not cross nor be proximate to areas designated as MRZs in San Bernardino County (DOC 2018).

5.12.1.1.3 Active Mining Claims

The only active mining claim within 1 mile of any portion of the Proposed Project would be the Rio Tinto Borax Mine, an active mining claim in southeastern Kern County, which is located approximately 1 mile

[1] Deposits that are marketable under present technologic and economic conditions or which can be estimated to exist in the foreseeable future, and that contain more than 5 million dollars' worth of aggregate material in 1978-equivalent dollars.

from the Cal City-Edwards-Holgate 115 kV Subtransmission Line. The Proposed Project does not cross any known active mining claims (DOC 2021a).

5.12.1.1.4 Active Mines

The DOC's Office of Mine Reclamation provides oversight for local governments as they administer the California Surface Mining and Reclamation Act (SMARA) within each local government jurisdiction. Based on a review of published sources and data from the USGS Mineral Resources Data System, one active mine[2] is located approximately 1 mile from the Proposed Project in Kern County. This open pit mine produces primarily borates along with other aggregate materials, including sand and gravel (DOC 2021a). The Proposed Project alignment does not cross any active mineral extraction activity sites in Kern County or San Bernardino County (DOC 2021a and SMGB 2021c).

Additionally, the USGS Mineral Resources Data System (USGS 2021a) identifies 13 sites with either mineral resource producers, past producers, or prospects within 1 mile of the Proposed Project, as detailed in Figure 5.12-1 and Table 5.12-1.

5.12.1.1.5 Resource Recovery Sites

Several mineral resource recovery sites are located within 1 mile of the Proposed Project alignment; these include active, decommissioned, and abandoned mines, as detailed in Figure 5.12-1 and Table 5.12-1.

As described in Section 5.12.1.1 above, the DOC CalGEM oversees the drilling, operation, maintenance, and plugging and abandonment of oil, natural gas, and geothermal wells in California; it also tracks all known oil and gas wells. Based on a review of data from the DOC CalGEM, two oil wells are located within 1 mile of the Proposed Project, as detailed in Figure 5.12-2 and Table 5.12-2. The Proposed Project alignment does not cross any resource recovery sites in Kern County or San Bernardino County (CalGEM 2021).

5.12.2 Regulatory Setting

Federal, state, and local regulations were reviewed for applicability to the Proposed Project and are described below.

5.12.2.1 Federal

5.12.2.1.1 Surface Mining Control and Reclamation Act of 1977

The Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. §§ 1201-1328) established a program for regulating surface coal mining and reclamation activities. It also established mandatory, uniform standards for these activities on state and federal lands, including a requirement that adverse impacts on fish, wildlife, and related environmental values be minimized. Additionally, it created the Abandoned Mine Reclamation Fund for use in reclaiming and restoring land and water resources adversely affected by mining practices.

[2] Active mines are defined as U.S. mineral and metal operations that are monitored by the National Minerals Information Center of the USGS, surveyed by the USGS, and considered to be currently active as of 2003.

Figure 5.12-2 Oil Wells Located within 1 Mile of the Proposed Project

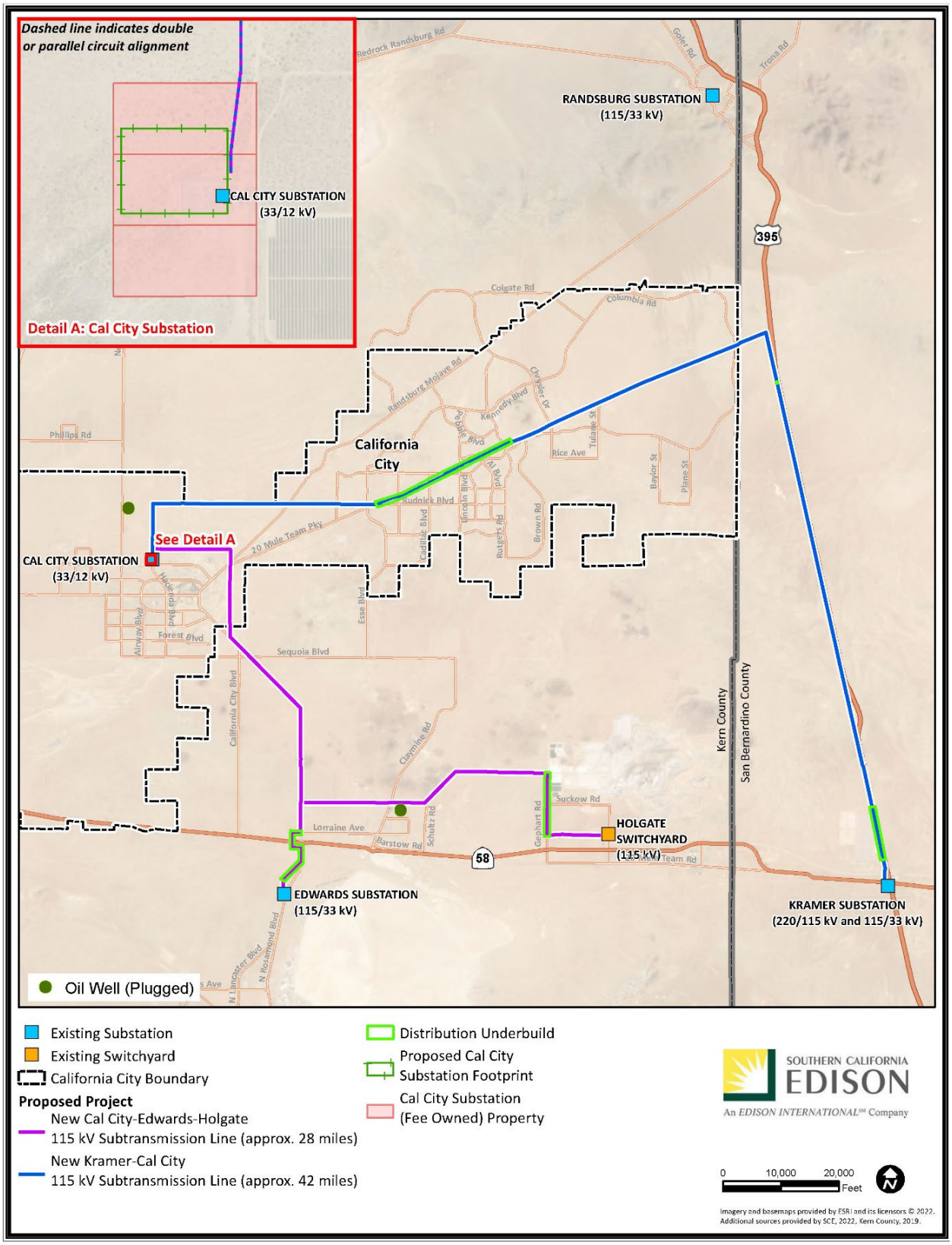


Table 5.12-1 Mineral Resources Producers, Past Producers, and Prospects Within 1 Mile of the Proposed Project

Mineral Prospect/ Past Mining Activity	Status[1]	Commodity	Approximate Distance to Nearest Proposed Project Component (Miles)	Nearest Proposed Project Component
Kern County				
Russel I[2]	Prospect	Boron-Borates	1.0	Cal City-Edwards-Holgate
Marshall Bond	Prospect	Boron-Borates	0.8	Cal City-Edwards-Holgate
Balling I	Prospect	Boron-Borates	0.8	Cal City-Edwards-Holgate
Leopold	Prospect	Boron-Borates	0.3	Cal City-Edwards-Holgate
California Department of Transportation #113	Unknown	Sand and Gravel	0.1	Cal City-Edwards-Holgate
Vanuray Prospect[2]	Past Producer	Uranium	1.0	Cal City-Edwards-Holgate
Kohler	Prospect	Boron-Borates	0.2	Cal City-Edwards-Holgate
Unnamed Quarry	Past Producer	Stone, Crushed/Broken	< 0.1	Cal City-Edwards-Holgate
San Bernardino County				
395 Hill Deposit	Prospect	Boron-Borates	0.3	Kramer-Cal City
Boron Pit	Producer	Sand and Gravel	0.30	Kramer-Cal City
Unnamed Prospect	Prospect	Feldspar and Perlite	0.8	Kramer-Cal City
Unnamed Shaft	Prospect	Gold and Silver	0.7	Kramer-Cal City
Rho Colemanite Deposit	Prospect	Boron-Borates	0.3	Kramer-Cal City

Sources: USGS 2021a, USGS 2021b, USGS 2022

[1] Mineral Prospect/Past Mining Activity status is determined by the USGS and reported in its Mineral Resources Data System. This data system describes metallic and non-metallic mineral resource deposits and their status at the time the data was added to the MRDS database. The status terms include:

- Occurrence: Ore mineralization found in outcrop, shallow pits, or isolated drill hole. Grade, tonnage, and extent of mineralization are unknown. No production and little or no activity since discovery other than routine claim maintenance.
- Prospect: Development beyond the occurrence stage (e.g., surface trenching, adits, shafts, drill holes, geophysics, geochemistry, or geological mapping) where enough data has been gathered to estimate grade and tonnage.
- Producer: A mine that was in production at the time the data was entered, including intermittent and seasonal producers.
- Past Producer: A former producer that was closed at the time of data entry with no known plans to re-open.
- Plant: A mineral processing plant such as a smelter, refiner, or beneficiation plant that is active or inactive.
- Unknown: The grade, tonnage, and extent of the mineralization are unknown and there has been no production and little or no activity since discovery (other than routine claim maintenance).

[2] The Rio Tinto Borax Mine is represented by the Russel I and Vanuray Prospect. Both identified mineral prospects/past mining activities are within the Rio Tinto Borax Mine and are approximately 1 mile from the Proposed Project.

Table 5.12-2 Oil Wells Located Within 1 Mile of the Proposed Project

Mineral Prospect/ Past Mining Activity	Status	Approximate Distance to Nearest Proposed Project Component (Miles)	Relative Location and Nearest Proposed Project Component
National Security Oil Company (Co.)	Plugged	0.8	Kramer-Cal City
Kendall Development Co., Limited	Plugged	0.3	Cal City-Edwards-Holgate

Source: DOC 2021a

5.12.2.2 State

5.12.2.2.1 California Surface Mining and Reclamation Act (Public Resources Code § 2710 *et seq*.)

The protection of regionally significant mineral resource deposits is one of the main emphases of SMARA. The law specifically mandates a two-phased process, commonly referred to as classification and designation, for mineral resources. The CGS is responsible under SMARA for carrying out the classification phase of the process.

SMARA requires the State Geologist (who is the chief administrator of CGS) to classify lands into MRZs based on the known or inferred mineral resource potential of that land. The classification process is based solely on geology, without regard to land use or ownership. The primary goal of mineral land classification is to help ensure that the mineral resource potential of land is recognized and considered in the land use planning process. MRZ definitions are provided in Section 5.12.1.1, Mineral Resources.

The SMGB is responsible for the second phase, which allows it to identify areas within a production-consumption region that contain significant deposits of certain mineral resources that may be needed to meet the region's future demand.

5.12.2.3 Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (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 counties' and city's regulations are not applicable as the counties and city do not have jurisdiction over the Proposed Project. Accordingly, the following discussion of local land use regulations is provided for informational purposes only.

5.12.2.3.1 Kern County General Plan

The Land Use, Open Space, and Conservation Element of the Kern County General Plan contains the following goals related to mineral resources:

Section 1.9 – Resource

GOAL 1 To contain new development within an area large enough to meet generous projections of foreseeable need, but in locations which will not impair the economic strength derived from the petroleum, agriculture, rangeland, or mineral resources, or diminish the other amenities which exist in the County.

GOAL 2 Protect areas of important mineral, petroleum, and agricultural resource potential for future use.

5.12.2.3.2 San Bernardino Countywide Policy Plan

The Natural Resources Element of the San Bernardino Countywide Policy Plan includes the following goal and policy related to mineral resources:

GOAL NR-6 Mineral Resources. Establishes MRZs that allow extraction industries to continue supporting the regional and national economy while minimizing the negative impacts on the public and natural environment.

Policy NR-6.1 Mineral Resource Areas. Conserve land areas 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.

5.12.2.3.3 City of California City General Plan

The City of California City General Plan Open Space and Conservation Element specifies that there are no mineral resources within the City General Plan Planning Area and there are no goals or policies specific to mineral resources in the General Plan.

5.12.3 Impact Questions

5.12.3.1 Mineral Resources Impact Questions

The thresholds of significance for assessing impacts come from the California Environmental Quality Act (CEQA) Environmental Checklist. For mineral resources, the CEQA Checklist asks, 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?
- 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?

5.12.3.2 Additional CEQA Impact Questions

There are no CPUC-identified additional CEQA impact questions.

5.12.4 Impact Analysis

5.12.4.1 Mineral Resources Methodology

Mineral resources data in the Proposed Project vicinity were obtained from multiple federal, state, and local sources. The data were collected in or converted to a GIS-compatible format and the Proposed Project components were overlain to determine the potential impacts to these resources. Aerial photographs were also utilized to assist with this analysis.

5.12.4.2 Mineral Resources Impact Analysis

5.12.4.2.1 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?

Construction

No Impact. The Rio Tinto Borax Mine, an active borate open pit mine within Kern County, is located approximately 1 mile from the proposed Cal City-Edwards-Holgate 115 kV Subtransmission Line and Southern California Edison Company's (SCE's) existing Holgate Switchyard. The new subtransmission and telecommunication lines would be constructed adjacent to existing access roads and would not encroach on this active mine. Because the Proposed Project components would not be located within the existing Rio Tinto Borax Mine boundaries, construction would not result in the loss of availability of these resources and no impacts to the mine would occur. The Proposed Project would not be located within any mapped MRZs; therefore, it would not cross any known mineral resources that would be of value to the region and the residents of the state. No impact would occur.

Operation

No Impact. As presented in Chapter 3, the Proposed Project includes constructing subtransmission lines between existing substations in the vicinity of the City of California City, EAFB, and U.S. 395 where many overhead power lines currently exist. Operation and maintenance (O&M) activities associated with the Proposed Project would be similar to those currently performed by SCE for existing facilities, including, but not limited to, repairing conductors, washing or replacing insulators, repairing or replacing other hardware components, repairing or replacing poles and towers, tree trimming, brush and weed control, and access road maintenance. O&M would also include routine inspections and emergency repair within substations and throughout rights-of-ways (ROWs), which would require the use of vehicles and equipment. SCE inspects subtransmission overhead facilities in a manner consistent with CPUC G.O. 165, which requires observation a minimum of once per year, but inspection typically occurs more frequently to ensure system reliability. Following construction of the Proposed Project, O&M activities would consist of monthly and annual inspections, as well as equipment testing and maintenance for new and expanded facilities. SCE currently performs O&M activities for the existing substations and their associated source lines and infrastructure. Overall, the Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. Because routine O&M activities would occur within existing or new ROWs and would not reduce the availability of known mineral resources, no impact would occur.

5.12.4.2.2 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?

Construction

No Impact. The Proposed Project would not be located within or in proximity to a MRZ or a mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. However, as reported in Table 5.12-1 and Table 5.12-2, the Proposed Project would be located within 1 mile of mineral resource sites, as mapped by the USGS MRDS program and the DOC Mines Online program. None of the Proposed Project components would cross these sites. As a result, construction activities would not affect the availability of a locally important mineral resource recovery site and no impact would occur.

Operation

No Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. All planned activities would be performed within existing or new ROWs. The Proposed Project is not located within or in proximity to established MRZs and O&M activities would not occur within MRZ areas. While the Proposed Project would be located within 1 mile of multiple mineral resource recovery sites, the Proposed Project would not cross these sites. As a result, routine O&M activities anticipated under the Proposed Project would not reduce the availability of locally important mineral resource recovery sites and no impact would occur.

5.12.5 CPUC Draft Environmental Measures

No CPUC Draft Environmental Measures have been identified for the Mineral Resources resource area.

5.12.5.1 Applicant Proposed Measures

No impacts to mineral resources would occur as a result of the Proposed Project. As such, there are no applicant proposed measures.

5.12.6 Alternatives

For an evaluation of Proposed Project alternatives, see Chapter 6, Comparison of Alternatives.

5.13 Noise

This section describes existing noise-sensitive land uses in the area of the Cal City Substation 115 kV Upgrade Project (Proposed Project), as well as the potential impacts related to noise and vibration from construction and operation of the Proposed Project.

Research for this analysis involved a review of the following resources:

- the Federal Transit Administration's (FTA's) Transit Noise and Vibration Impact Assessment,
- the United States (U.S.) Forest Service's (USFS's) Sound Measurements of Helicopters during Logging Operations at Southwestern Oregon Timber Sales,
- aerial photography, and
- local agency planning documents.

5.13.1 Environmental Setting

The Proposed Project is located in Kern County and San Bernardino County in the Mojave Desert region of California on federal, state, private, and municipal land. These lands include unincorporated areas of Kern County and San Bernardino County, City of California City, Edwards Air Force Base (EAFB) controlled by the Department of Defense, and public lands under the jurisdiction of the Bureau of Land Management and the California Department of Fish and Wildlife. Approximately 90 percent of the Proposed Project is located within undeveloped open areas, with the remaining 10 percent located within developed areas (including the City of California City). The environmental setting section describes the sensitive receptors in the vicinity of the Proposed Project and existing noise conditions in the Proposed Project area.

5.13.1.1 Noise Sensitive Land Uses

As described previously, the Proposed Project is located in the City of California City and unincorporated Kern and San Bernardino counties. Proposed Project-related construction and operation activities would occur mainly along existing roadways and open space areas; however, some Proposed Project activities would be conducted in the vicinity of residences in the City of California City and unincorporated Kern County. Existing noise sources in proximity to these potentially noise-sensitive receptors include community noise, roadway and highway noise, industrial noise, and airport noise.

The definition of a sensitive receptor varies by jurisdiction. For the purposes of this analysis, the defined sensitive receptors and noise-sensitive land uses contained in the *California City General Plan*, *Kern County General Plan*, and *San Bernardino Countywide Policy Plan* are used. These sensitive receptors include:

- residences,
- schools,
- hospitals and retirement homes,
- houses of worship, and
- parks and recreational facilities.

Few sensitive receptors are located along the Proposed Project alignment. No hospitals, nursing homes, or libraries are located within 1,000 feet of the Proposed Project. Within 1,000 feet of the Proposed Project,

there are approximately 51 residences, one place of worship, and one school. Sensitive receptor locations within 1,000 feet of the Proposed Project are depicted on Figure 5.13-1.

5.13.1.2 Noise Setting

5.13.1.2.1 Noise Background

Noise is defined as an unpleasant or unwanted sound. Whether a sound is considered unpleasant depends on the individual who hears the sound, as well as the setting and circumstance under which the sound is heard. The unit of sound measurement is the decibel (dB). The dB scale is a logarithmic measure used to quantify sound power or sound pressure. A number of factors affect the perception of sound, including the actual level of noise, the frequencies involved, the period of exposure to the sound, and changes or fluctuations in the sound level during exposure. The human ear is not uniformly sensitive to all noise frequencies. To measure sound in a manner that accurately reflects human perception, several measuring systems or scales have been developed. The "A-weighting" scale, which is the most commonly used scale, was devised to correspond with the ear's sensitivity. The A-weighting scale uses sound pressure levels from 31.5 hertz to 8 kilohertz for the purpose of determining the human response to sound. The resulting unit of measure is the A-weighted decibel (dBA). However, the relative loudness of a noise source is correlated with human perception and is usually different than what is measured. Generally, a 3 dBA increase in ambient noise levels is considered the minimum threshold at which most people can detect a change in the noise environment; a 5 dBA increase in community noise is considered perceptible by the average human ear; and an increase of 10 dBA is perceived as a doubling of the ambient noise level. As a point of reference, a conversation between two people would typically measure 60 to 65 dBA, and prolonged noise levels above 85 dBA can cause hearing loss.

Ambient noise levels from various sources vary over time, so they are generally expressed as an equivalent noise level (Leq) over a specified period of time as the noise level varies. Leq values are commonly expressed for 1-hour periods, but different averaging times may be specified.

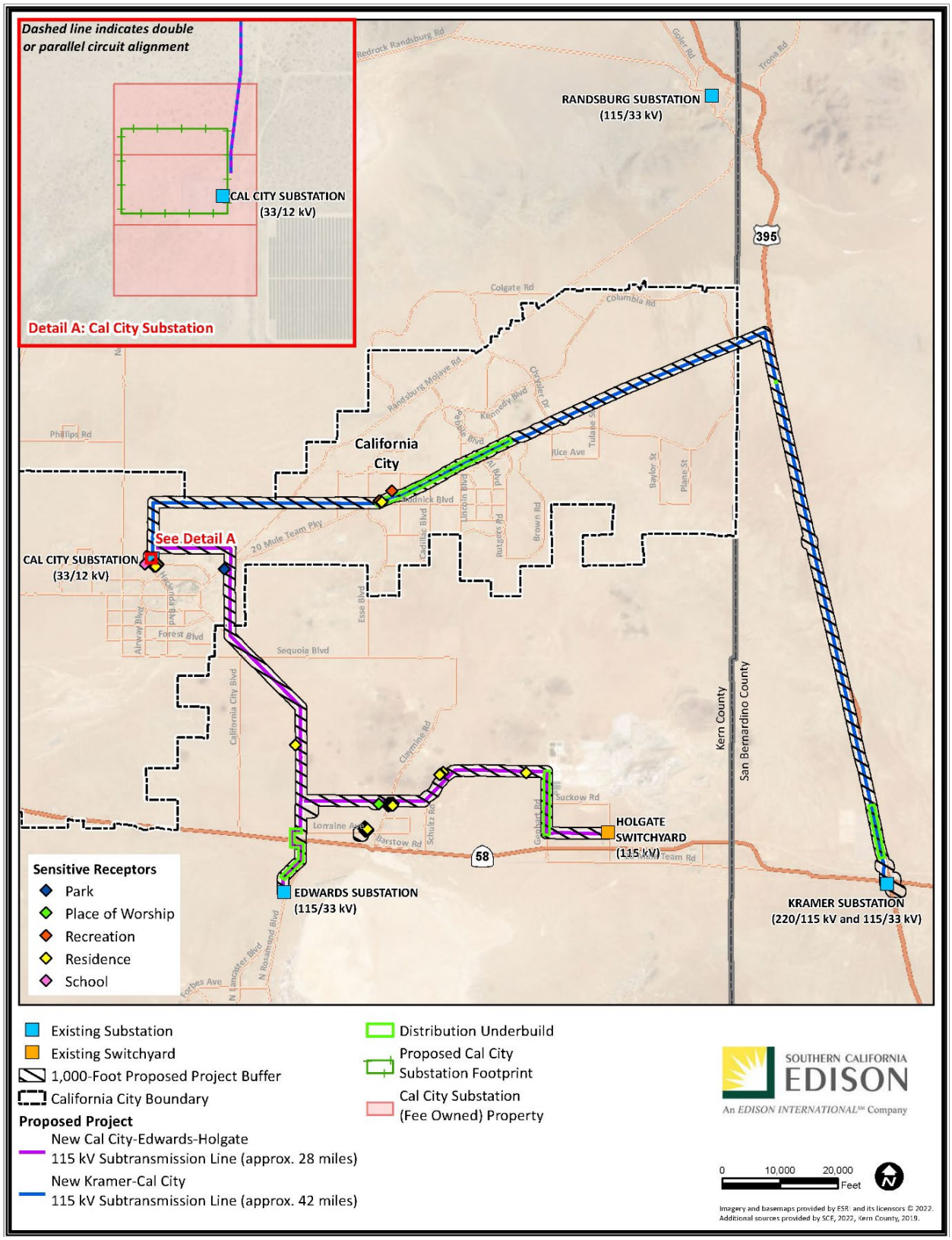
For the evaluation of community noise effects, the Community Noise Equivalent Level (CNEL) is often used. It represents the average dBA level during a 24-hour day with a 5 dB penalty for the period from 7:00 p.m. to 10:00 p.m., and a 10 dB penalty for the period from 10:00 p.m. to 7:00 a.m. Another noise descriptor termed the Day-Night Average Sound Level (Ldn) is also used. The Ldn is a calculated 24-hour weighted average, where sound levels during nighttime hours from 10:00 p.m. to 7:00 a.m. have an added 10 dB weighting. The Ldn is similar to the CNEL, except there is no penalty for the noise level occurring during the nighttime hours.

5.13.1.2.2 Existing Noise Levels

The Proposed Project alignment is generally located in uninhabited areas with few stationary anthropogenic noise sources. The primary existing source of noise in the Proposed Project area is vehicular traffic on highways and local streets, including the following:

- U.S. Route 395 (U.S. 395) adjacent to portions of the proposed Kramer-Cal City 115 kV Subtransmission Line, and
- California State Route (SR) 58 adjacent to and crossed by the proposed Cal City-Edwards-Holgate 115 kV Subtransmission Line and Kramer-Cal City 115 kV Subtransmission Line.

Figure 5.13-1 Noise-Sensitive Receptors



Where the alignment runs parallel to or crosses roadways, ambient noise greater than 65 dBA CNEL can be expected within approximately 275 feet of the roadway; beyond this distance, ambient noise levels would be less than 65 dBA CNEL. Additional noise sources include railroad tracks adjacent to SR-58, as well as aircraft traffic from California City Municipal Airport and EAFB.

To characterize the existing ambient noise levels in the vicinity of sensitive noise receptors, 24-hour noise monitoring was conducted at the following two locations as depicted in Figure 5.13-2:

- approximately 300 feet south of the Cal City Substation, along the substation's existing access road and approximately 440 feet north of the intersection of Mendiburu Road and Hacienda Boulevard, and
- approximately 165 feet west of the intersection of Suckow Road and Claymine Road.

The results of the noise monitoring are presented in Table 5.13-1.

Table 5.13-1 Noise Monitoring Results

Location	Date	Lmin (dBA)	Lmax (dBA)	Leq (dBA)
1	March 2 to 3, 2022	30.6	73.5	60.0
2	March 3 to 4, 2022	37.0	71.7	59.5

Notes: Lmin is the lowest time-weighted sound level measured, Lmax is the highest time-weighted sound level measured, Leq is the average sound level measured during a specific period of time

5.13.2 Regulatory Setting

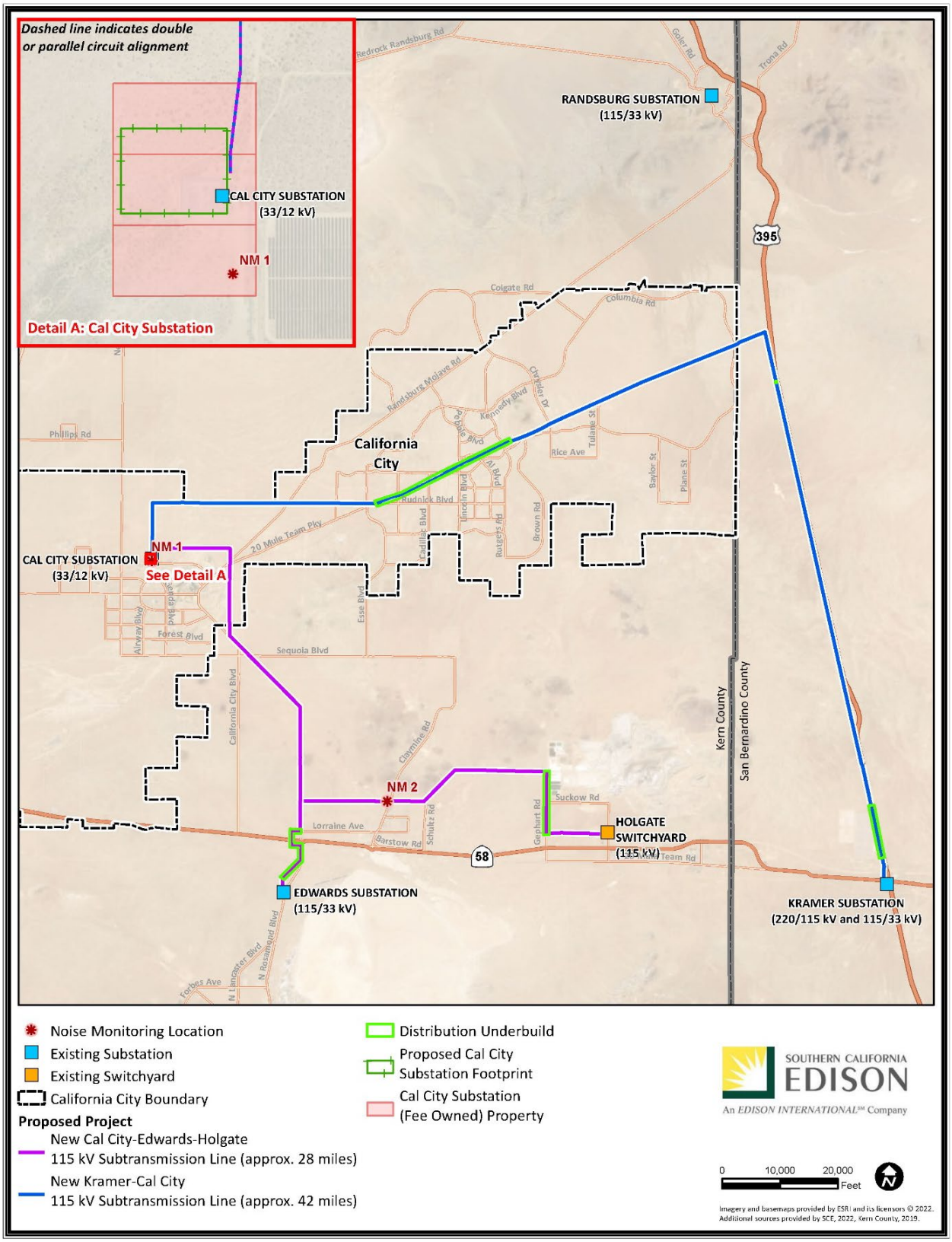
Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

5.13.2.1 Federal

5.13.2.1.1 Environmental Protection Agency

The U.S. Environmental Protection Agency (USEPA) has developed and published criteria for environmental noise levels with a directive to protect public health and welfare with an adequate margin of safety (USEPA 1974). The *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety* was developed to be used as an acceptable guideline when no other local, county, or state standard has been established. However, the USEPA criterion is not meant to substitute for agency regulations or standards in cases where states and localities have developed criteria according to their individual needs and situations.

Figure 5.13-2 Noise Monitoring Locations



5.13.2.1.2 Federal Transit Administration

The FTA has developed vibration impact thresholds for noise-sensitive buildings, residences, and institutional land uses (FTA 2018). These thresholds are 80 vibration dB (VdB) at residences and buildings where people normally sleep (e.g., nearby residences and daycare facilities) and 83 VdB at institutional buildings (e.g., schools and churches). These thresholds apply to conditions where there are an infrequent number of events per day. The FTA has also identified construction vibration damage criteria to differing types of buildings and structures as shown in Table 5.13-2.

Table 5.13-2 Construction Vibration Damage Criteria

Building/Structural Category	Peak Particle Velocity (Inches per Second)	Vibration Level*
I. Reinforced concrete, steel, or timber (no plaster)	0.5	102
II. Engineered concrete and masonry (no plaster)	0.3	98
III. Non-engineered timber and masonry buildings	0.2	94
IV. Buildings extremely susceptible to vibration damage	0.12	90

* Note: Root mean square (RMS) velocity is measured in dB, and VdB are 1 micro-inch per second.

5.13.2.2 State

5.13.2.2.1 California Noise Control Act

The California Noise Control Act states that excessive noise is a serious hazard to public health and welfare, and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also recognizes that continuous and increasing bombardment of noise exists in urban, suburban, and rural areas. This act declares that the State of California has the responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. The Office of Noise Control in the Department of Health Services provides assistance to local communities developing local noise control programs and works with the Governor's Office of Planning and Research to provide guidance for the preparation of the required noise elements in city and county general plans.

5.13.2.3 Local

The California Public Utilities Commission (CPUC) has sole and exclusive jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (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 counties' and city's regulations are not applicable as the counties and city do not have jurisdiction over the Proposed Project. Accordingly, the following discussion of local land use regulations is provided for informational purposes only.

5.13.2.3.1 Kern County

Kern County Code of Ordinances

Title 8, Health and Safety, Chapter 8.36 – Noise Control, details prohibitions on the generation of construction noise in unincorporated Kern County. The ordinance reads as follows:

> Section 8.36.020 - Prohibited sounds.
>
> It is unlawful for any person to do, or cause to be done, any of the following acts within the unincorporated areas of the county:
>
> H. To create noise from construction, between the hours of nine (9:00) p.m. and six (6:00) a.m. on weekdays and nine (9:00) p.m. and eight (8:00) a.m. on weekends, which is audible to a person with average hearing faculties or capacity at a distance of one hundred fifty (150) feet from the construction site, if the construction site is within one thousand (1,000) feet of an occupied residential dwelling except as provided below:
>
> 1. The development services agency director or his designated representative may for good cause exempt some construction work for a limited time.
>
> 2. Emergency work is exempt from this section.

Kern County General Plan

The major purpose of the Noise Element of the Kern County General Plan is to establish reasonable standards for maximum desired noise levels in Kern County and to develop an implementation program that could effectively deal with a noise problem. Section 3.2 of the Noise Element identifies residential areas, schools, convalescent and acute care hospitals, parks and recreational areas, and churches as noise-sensitive land uses.

The Noise Element does not establish standards for construction activities.

Kern County Airport Land Use Compatibility Plan

The Kern County Airport Land Use Compatibility Plan establishes procedures and criteria by which Kern County and the affected incorporated cities can address compatibility issues when making planning decisions regarding airports and the land uses around them. The plan serves as a guidance document for the regulation of land uses around the various public use airports found in the county.

5.13.2.3.2 San Bernardino County

San Bernardino Countywide Policy Plan

The Hazards Element of the San Bernardino Countywide Policy Plan contains the following specific goals and policies focused on reducing noise to a level consistent with health and quality of life goals:

- Policy HZ-2.8 Proximity to Noise-Generating Uses: We limit or restrict new noise-sensitive land uses in proximity to existing conforming noise-generating uses and planned industrial areas.
- Policy HZ-2.9 Control Sound at the Source: We prioritize noise mitigation measures that control sound at the source before buffers, sound walls, and other perimeter measures.

San Bernardino County Code of Ordinances

Title 8 of the San Bernardino County Code of Ordinances governs noise. Section 83.01.080(c) provides daytime (i.e., 7:00 a.m. to 10:00 p.m.) and nighttime (i.e., 10:00 p.m. to 7:00 a.m.) noise standards for stationary noise sources affecting various land uses. Section 83.01.080(g) exempts temporary construction, maintenance, repair, or demolition activities between 7:00 a.m. and 7:00 p.m., except on Sundays and federal holidays. Table 5.13-3 provides a summary of noise standards for stationary noise in San Bernardino County. Table 5.13-4 provides a summary of noise standards for noise from mobile sources that may adversely affect adjacent properties in San Bernardino County.

Table 5.13-3 San Bernardino County Noise Standards for Stationary Noise Sources

Noise Zone	Time	Allowable Noise Level (dBA)
Residential	7:00 a.m. – 10:00 p.m.	55
	10:00 p.m. – 7:00 a.m.	45
Professional Services	7:00 a.m. – 10:00 p.m.	55
	10:00 p.m. – 7:00 a.m.	55
Other Commercial	7:00 a.m. – 10:00 p.m.	60
	10:00 p.m. – 7:00 a.m.	60
Industrial	7:00 a.m. – 10:00 p.m.	70
	10:00 p.m. – 7:00 a.m.	70

Source: San Bernardino County 2020a

Table 5.13-4 San Bernardino County Standards for Adjacent Mobile Noise Sources

Land Uses		L_{dn} (or CNEL) dBA	
Category	**Uses**	**Interior[1]**	**Exterior[2]**
Residential	Single-Family, Duplex Units	45	65
	Mobile Home	45	65
Commercial	Hotel, Motel, and Transient Lodging	45	65
	Commercial Retail, Bank, and Restaurants	50	N/A
	Office Building, Research and Development, and Offices	45	65
	Amphitheater, Hall, Auditorium, and Theater	45	65
Institutional	Hospital, School, Church, and Library	45	65
Open Space	Park	N/A	65

Source: San Bernardino County 2020a

Notes: "N/A" = Not applicable. An exterior noise level of up to 65 dBA (or CNEL) is allowed, provided that exterior noise levels are substantially mitigated through a reasonable application of the best available noise-reduction technology, and interior noise exposure does not exceed 45 dBA (or CNEL) with windows and doors closed. Requiring that windows and doors remain closed to achieve an acceptable interior noise level would necessitate the use of air conditioning or mechanical ventilation.

[1] The indoor environment excludes bathrooms, kitchens, toilets, closets, and corridors.

[2] The outdoor environment is limited to hospital/office building patios, hotel and motel recreation areas, mobile home parks, multi-family private patios or balconies, park picnic areas, private yards of single-family dwellings, and school playgrounds.

5.13.2.3.3 City of California City

City of California City General Plan

The Noise Element of the City of California City General Plan contains the following policy focused on reducing noise to a level consistent with health and quality of life goals:

- N.14: The City shall restrict the hours of activity per Title 5, Article 4, Noise and Vibration, Section 5-1.407 of the California City Municipal Code:

- (d) Noise sources associated with or vibration created by construction, repair or remodeling of real property or during authorized seismic surveys under the following conditions:
  - The activities occur between the hours of 6:00 a.m. and 8:00 p.m. between May 15 and September 15 of each year or between the hours of 7:00 a.m. and 8:00 p.m. during the remainder of the year.
  - The activities do not take place on Sundays or Federal holidays.

City of California City Noise Ordinance

Article 4, Noise and Vibration, of the City of California City Noise Ordinance includes policies to prohibit unnecessary, excessive, and annoying noise and vibration. More specifically, the ordinance identifies exterior noise standards as summarized in Table 5.13-5.

Table 5.13-5 City of California City Exterior Noise Standards

Land Use Type	Time Interval	Allowable Exterior Noise Level (dBA)
Single-, double-, or multiple-family residential (i.e., R-1, R-2, R-3, and R-4) more than 600 feet from a major roadway	10:00 p.m.—7:00 a.m.	45
	7:00 a.m.—10:00 p.m.	50
Single-, double-, or multiple-family residential (i.e., R-1, R-2, R-3, and R-4) within 600 feet of a major roadway	10:00 p.m.—7:00 a.m.	50
	7:00 a.m.—10:00 p.m.	55
Commercial (i.e., C-1, C-2, etc.)	10:00 p.m.—7:00 a.m.	60
	7:00 a.m.—10:00 p.m.	65
Industrial or manufacturing (i.e., M-1, M-2, etc., or 1-1, 1-2, etc.)	Any time	70

Source: City of California City 2022

The City of California City prohibits anyone from creating noise that causes the noise level measured at a property line to exceed the noise standards presented in Table 5.13-5 as follows:

- the noise standard for a cumulative period of more than 30 minutes in any hour, or
- the noise standard plus 5 dBA for a cumulative period of more than 15 minutes in any hour, or
- the noise standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour, or
- the noise standard plus 15 dBA for a cumulative period of more than 1 minute in any hour, or
- the noise standard plus 20 dBA for any period of time.

Section 5-1.407 of the City of California City Noise Ordinance provides the following activities that are exempt from its restrictions:

- Activities conducted on public parks, public playgrounds and public or private school grounds including, but not limited to, school athletic and school entertainment events.
- Occasional outdoor gatherings, public dances, shows and sporting and entertainment events, if the events are conducted pursuant to a permit or license issued by the City [of California City].
- Mechanical device, apparatus or equipment used, related to or connected with emergency machinery, vehicle, work or warning alarm or bell, provided the sounding of bell or alarm on building or motor vehicle shall terminate its operation within 30 minutes of being activated.
- Noise sources associated with or vibration created by construction, repair or remodeling of real property or during authorized seismic surveys under the following conditions:

- The activities occur between the hours of 6:00 a.m. and 8:00 p.m. between May 15 and September 15 of each year or between the hours of 7:00 a.m. and 8:00 p.m. during the remainder of the year.
- The activities do not take place on Sundays or federal holidays.
- The noise level created by such activities does not exceed 60 dBA plus the limits specific herein as measured on residential property.
- A vibration does not endanger the public health, welfare, and safety.

The *City of California City Noise Ordinance* also prohibits the creation of vibration on an adjoining property that exceeds 0.05 inch per second RMS vertical velocity.

5.13.3 Impact Questions

5.13.3.1 Noise Impact Questions

The significance criteria for assessing the impacts from noise are determined from the California Environmental Quality Act (CEQA) Environmental Checklist. For noise, the CEQA Checklist asks, 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?
- Generation of excessive groundborne vibration or groundborne noise levels?
- 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?

5.13.3.2 Additional CEQA Impact Questions

There are no CPUC-identified additional CEQA impact questions.

5.13.4 Impact Analysis

5.13.4.1 Noise Methodology

Potential noise levels from Proposed Project construction were evaluated by calculating the average Leq for each phase of construction and comparing them to applicable thresholds. The results of these calculations are presented in Section 5.13.4.3 and detailed further in Appendix M. Existing literature was reviewed to identify potential vibration levels for construction equipment use. Aerial imagery was reviewed to identify potential noise-sensitive receptors.

5.13.4.2 Noise Impact Analysis

5.13.4.2.1 Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction

Less than Significant with Mitigation. No local land use plans, policies, or regulations requiring discretionary approval would apply to the Proposed Project because, pursuant to G.O. 131-D, the CPUC has sole and exclusive jurisdiction over the siting and design of such facilities. As a result, the following local noise policy and ordinance consistency analysis is provided for informational purposes only.

Construction activities would require the temporary use of various types of noise-generating construction equipment; Table 5.13-6 provides a list of the typical construction equipment involved in Proposed Project activities. In addition, up to two helicopters[1] would be used in some locations to assist with the installation of new poles and the stringing of conductor and cable. Helicopter operations could be expected to generate noise levels of up to approximately 88 dBA at a distance of 150 feet (USFS 2022). These noise levels were applied to the construction equipment lists provided in Chapter 3, Proposed Project Description, and composite noise levels for each activity were generated. A detailed list of the assumptions used is provided in Appendix M. The resulting activity-specific noise contours distances are presented in Table 5.13-7.

Table 5.13-6 Typical Construction Equipment Noise Levels

Equipment	Noise Level (dBA) at 50 feet
Backhoe	80
Concrete mixer	85
Pump truck	82
Crane, mobile	85
Dozer	85
Excavator	85
Generator	82
Grader	85
Man lift	85
Loader	80
Paver	85
Roller	85
Scraper	85
Trucks	55 to 84

Source: Federal Highway Administration (FHWA) 2006

[1] For modeling purposes, it was assumed that one light-duty helicopter would be used during cable/conductor installation and one medium-duty helicopter would be used for structure installation.

Table 5.13-7 Construction Activity Noise Generation

Construction Operation	Contour Distance (feet)				
	75 dBA Leq	70 dBA Leq	65 dBA Leq	60 dBA Leq	55 dBA Leq
Subtransmission Line Construction					
Staging Areas	77.3	137.5	244.6	434.9	773.4
Civil Crew (Road Work, Foundations, Ducts)	196.2	348.9	620.4	1,103.3	1,961.9
Civil Crew (Road Maintenance)	59.9	106.6	189.5	337.0	599.2
Structure Installation	260.8	463.8	824.8	1,466.7	2,608.2
Install Conductor/Cable	239.9	426.6	758.6	1,349.1	2,399.1
All-Dielectric Self-Supporting/Optical Ground Wire (ADSS/OPGW) Splicing	–	79.7	141.7	252.0	448.1
Restoration (at end of construction activities)	108.2	192.5	342.3	608.7	1,082.4
Substation Construction					
Cal City Substation Civil Crew (Site Grading)	283.1	503.4	895.2	1,591.9	2,830.9
Cal City Substation Civil Crew (Channel Install and Additions)	217.3	386.5	687.2	1,222.1	2,173.2
Cal City Substation Civil Crew (Foundation)	200.6	356.7	634.3	1,128.0	2,005.8
Cal City Substation Electrical Crew	182.1	323.9	575.9	1,024.1	1,821.2
Cal City Substation Maintenance Crew	–*	–	–	–	–
Cal City Substation Test Crew	–	–	–	–	–
Cal City Substation Test Crew and Wireman (Cutover)	–	–	–	–	–
Cal City Substation Demolition - Test Crew	–	–	–	–	–
Cal City Substation Demolition - Maintenance Crew	–	–	–	–	–
Cal City Substation Demolition - Electrical Crew	182.1	323.9	575.9	1,024.1	1,821.2
Cal City Substation Demolition - Civil Crew	116.0	206.3	366.8	652.4	1,160.1
Holgate Switchyard Civil Crew	92.9	165.2	293.8	522.4	928.9
Holgate Switchyard Electrical Crew	85.6	152.3	270.8	481.6	856.5
Kramer Substation Civil Crew (Foundations)	118.3	210.4	374.2	665.4	1,183.3
Kramer Substation Electrical Crew	109.9	195.5	347.7	618.2	1,099.4
Edwards Substation Civil Crew (Foundations)	133.3	237.1	421.6	749.8	1,333.3
Edwards Substation Electrical Crew	122.8	218.4	388.4	690.7	1,228.3

*Note: "--" indicates that the average noise level of the construction operation is lower than the associated noise contour value.

To the extent feasible, construction activities would generally occur between 7:00 a.m. and 7:00 p.m. from Monday through Saturday or during the hours established in local ordinances and/or in any ministerial permits obtained. The anticipated work schedule may also vary in winter months when construction activities are generally concluded prior to sunset. However, at limited times, some construction along the Proposed Project alignment may be required or completed outside these hours. In these instances, SCE would notify the appropriate local agency or agencies and inform them of the description of the work, location, and anticipated construction hours as described in Applicant-Proposed Measure (APM) NOI-1. The dates and locations of such work have not been determined at this time.

As described in Section 5.13.2, Kern County has not established a numerical threshold for noise generated from construction activities, so long as construction does not occur between the hours of 9:00 p.m. and 6:00 a.m. on weekdays and between the hours of 9:00 p.m. and 8:00 a.m. on weekends when within 1,000 feet of an occupied residential dwelling. As described previously, construction will generally occur outside of these restricted hours within Kern County. Southern California Edison Company (SCE) would also

implement APM NOI-1. This measure would require that SCE adhere to the applicable construction time restrictions identified by each jurisdiction or notify the appropriate jurisdiction if work will occur outside the specified timeframes. Should construction activities occur within Kern County and within 1,000 feet of an occupied residence, they will not begin before 8:00 a.m. on weekends without notifying Kern County prior to the work and therefore will not conflict with Kern County noise regulations.

As described in Section 5.13.2, San Bernardino County exempts temporary construction, maintenance, repair, or demolition activities from all numerical noise thresholds when conducted between 7:00 a.m. and 7:00 p.m., except on Sundays and federal holidays. Because Proposed Project construction will typically occur during these exempted times and days as required by APM NOI-1, construction in San Bernardino County will not conflict with or exceed applicable standards. SCE will notify the County of any noise-generating construction activities that may occur between 7:00 p.m. and 7:00 a.m. in advance.

As described in Section 5.13.2, generating construction noise in the City of California City is allowed when the activities occur between the hours of 6:00 a.m. and 8:00 p.m. between May 15 and September 15 of each year or between the hours of 7:00 a.m. and 8:00 p.m. during the remainder of the year; it is also allowed as long as work does not take place on Sundays or federal holidays and the noise level does not exceed 60 dBA plus the limits specified in Table 5.13-5. Construction will typically be restricted to the hours allowed by the City of California City as required by APM NOI-1. The occupied residence that is closest to construction activities within the City of California City is located approximately 140 feet southeast of subtransmission line construction along Twenty Mule Team Parkway near the intersection of Rudnick Boulevard. The noisiest construction process associated with subtransmission line construction would be the structure installation process. This process was estimated to have an Leq of 89.3 dBA and would typically consist of multiple pieces of construction equipment staged at a structure site. Should one of these sites be located along the alignment and near this residence, the noise level at the residence would be approximately 80.4 dBA. This noise level would not exceed the applicable City of California City threshold for construction of 110 dBA (60 dBA plus the applicable exterior noise limit of 50 dBA). As a result, construction activities within the City of California City would not conflict with or exceed applicable standards.

With the implementation of APM NOI-1, SCE would confine construction activities to the daytime, weekday, and weekend hours established by Kern County, San Bernardino County, and the City of California City. Should activities be required outside of these hours, SCE would notify the appropriate local agencies of the planned work activities. With these restrictions in place, construction activities would not conflict with or exceed applicable standards and impacts would be less than significant with mitigation.

Operation

No Impact. No local land use plans, policies, or regulations requiring discretionary approval would apply to the Proposed Project because, pursuant to G.O. 131-D, the CPUC has sole and exclusive jurisdiction over the siting and design of such facilities. As a result, the following local noise policy and ordinance consistency analysis is provided for informational purposes.

Operation and maintenance (O&M) activities associated with the Proposed Project would be similar to those currently performed by SCE for existing facilities, including, but not limited to, repairing conductors, washing or replacing insulators, repairing or replacing other hardware components, repairing or replacing poles and towers, tree trimming, brush and weed control, and access road maintenance. O&M would also include routine inspections and emergency repair within the substations, switchyard, and throughout rights-of-way, which would require the use of vehicles and equipment. SCE inspects subtransmission overhead

facilities in a manner consistent with CPUC G.O. 165, which requires observation a minimum of once per year, but inspection typically occurs more frequently to ensure system reliability. Following construction of the Proposed Project, O&M activities would consist of monthly and annual inspections, as well as equipment testing and maintenance for new and expanded facilities. The noise generated by vehicles inspecting the new subtransmission lines would be consistent with existing traffic along public roadways. As a result, these activities would not contribute significantly to existing ambient noise levels and would be consistent with local standards.

The sound of corona is a phenomenon associated with all energized overhead electric power lines. Modern power lines are designed, constructed, and maintained so that, during dry conditions, they operate below the corona-inception voltage and generate a minimum of corona-related noise. Corona levels (and audible noise levels) are highest during heavy rain, when the conductors are wet, but the noise generated by the rain is usually greater than the noise generated by corona. The Electric Power Research Institute has conducted several studies measuring the noise emissions from transmission line facilities due to corona. These studies have indicated that a 138 kV overhead power line would be expected to generate corona levels of approximately 33.5 dBA directly below the conductors. The new Kramer-Cal City 115 kV Subtransmission Line and Cal City-Edwards-Holgate 115 kV Subtransmission Line would operate at 115 kV; therefore, they would be expected to generate less than 33.5 dBA. At this noise level, the corona associated with the operation of the lines would also be below the noise level criteria applicable to residential or other noise-sensitive land uses in the Proposed Project area. Therefore, noise levels from the Proposed Project's lines and equipment inspecting these lines would not result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or the applicable standards of other agencies.

Expansion of the existing Cal City Substation would involve the installation of six new transformers with a National Electrical Manufacturer Association (NEMA) rating of 69 dBA and two 33 kV ground banks with a NEMA rating of 54 dBA. When combined, this equipment would generate approximately 76.8 dBA at a distance of 1 foot. The nearest residential parcel to the substation's noise-generating equipment is located approximately 900 feet southeast of the existing substation. At this distance, the transformers would generate noise levels of less than 20 dBA. This level would be well below the 45 dBA external noise threshold established by the City of California City for residences not near a major roadway between the hours of 10:00 p.m. and 7:00 a.m. As a result, the operation of the substation will be consistent with all local standards and there would be no impact.

5.13.4.2.2 Would the project generate excessive groundborne vibration or groundborne noise levels?

Construction

Less than Significant Impact. There are no standards related to construction-generated groundborne vibration or groundborne noise levels in Kern County or San Bernardino County. The *City of California City Noise Ordinance* prohibits the creation of vibration on an adjoining property that exceeds 0.05 inch per second RMS vertical velocity.

Construction activities associated with the Proposed Project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels because they are below applicable thresholds that are considered excessive. Excavators, augers, dump trucks, backhoes, and other general construction equipment would generate infrequent and temporary groundborne vibration during construction activities. The threshold of vibration perception for most humans is around 65 VdB. As described in Section

5.13.2.1.2, levels below 80 VdB would be acceptable at residences and other buildings where people normally sleep and levels below 83 VdB would be acceptable for institutional land uses with primarily daytime use (FTA 2018). For human annoyance, there is some relationship between the number of events and the degree of annoyance caused by the vibration. More frequent vibration events, or events that last longer, would be more annoying to building occupants. To account for this effect, the FTA's *Guidance Manual* includes higher VdB impact thresholds for infrequent events, noting that vibration of 80 VdB is "acceptable only if there are an infrequent number of events per day." Based on the approach set forth in the FTA guidelines, and because activities at any single construction work area would be infrequent and temporary, this analysis adopts a threshold of significance of 83 VdB for groundborne vibration impacts for work in Kern County and San Bernardino County, neither of which have established a threshold of significance.

Vibration impacts associated with construction would primarily affect those receptors located closest to pole installation sites, and those located near conductor installation locations. Vibration calculations based on the FTA guidelines are provided in Table 5.13-8.

Table 5.13-8 Vibration Source Levels for Typical Construction Equipment

Equipment	Vibration Level at 25 feet (VdB)
Large bulldozer	87
Caisson drilling	87
Loaded trucks	86
Jackhammer	79
Small bulldozer	58

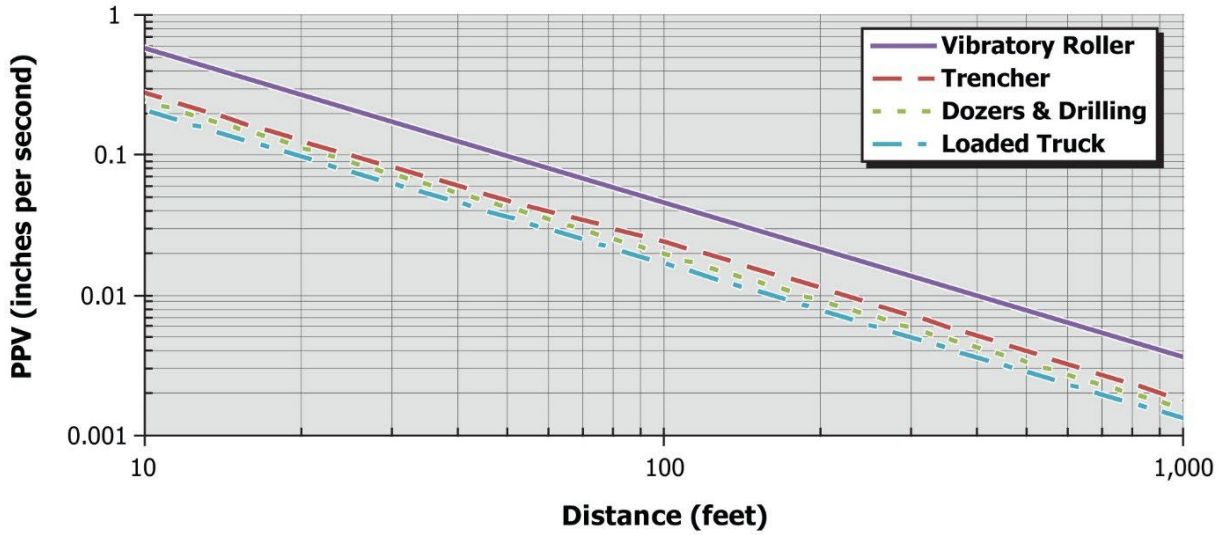
Source: FTA 2018

Construction activities within unincorporated Kern County and unincorporated San Bernardino County would occur as near as approximately 330 feet to an occupied residence situated near the intersection of Claymine Road and Suckow Road. Screening-level calculations indicate that vibration levels associated with these activities would attenuate to a level of less than 54 VdB at the nearest potentially inhabitable structure given the intervening distance.[2] This analysis shows that vibration levels at all identified sensitive receptors in Kern County and San Bernardino County would be below the threshold of 83 VdB.

The *Transportation and Construction Vibration Guidance Manual* prepared by the California Department of Transportation (Caltrans) correlates the use of construction equipment with vibration amplitudes as a function of distance as shown in Figure 5.13-3. Within the City of California City, the nearest noise sensitive receptor to construction activities would be an occupied residence located approximately 140 feet southeast of the Kramer-Cal City 115 kV Subtransmission Line near the intersection of Twenty Mule Team Parkway and Rudnick Road. At this distance, a vibratory roller would generate vibration levels of approximately 0.03 inch per second, which is well below the City of California City's 0.5 inch per second threshold. Because all construction vibration levels would be below applicable thresholds, impacts would be less than significant.

[2] The following equation estimates the vibration level Lv at any distance (D): Lv(D) = Lv(25 feet) – 30Log(D/25), where: Lv(D) = vibration level at a given distance D (in feet). For a distance of 330 feet, Lv(D) = 87 – 30Log(330/25) = 87 – 33.6 = 53.4 VdB.

Figure 5.13-3 Vibration Levels from Construction Equipment



Source: Caltrans 2013

Operation

Less than Significant Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure The Proposed Project would result in a nominal increase in O&M activities, including an approximate increase of 60 annual vehicle trips to facilitate the increased maintenance and inspection activities. These activities would generate vibration levels that are lower than the vibration levels of construction. Operation of transformers at the expanded Cal City Substation may produce groundborne vibration; however, these vibrations would be perceptible only in the immediate vicinity (i.e., within 25 feet) of the transformer pad, if at all. No other component of the Proposed Project would generate vibrations during operation. Therefore, the Proposed Project's operation would not result in the exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels, and impacts would be less than significant.

5.13.4.2.3 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?

Construction

No Impact. One public airport, California City Municipal Airport (22636 Airport Way, City of California City), is located 2 miles west of the Proposed Project. No portion of the Proposed Project is located within the planning boundary of the California City Municipal Airport. The Proposed Project area is not within the California City Municipal Airport Compatibility Zones, as noted in the *Kern County Airport Land Use Compatibility Plan*. There are no private airstrips in proximity to the Proposed Project. Portions of both proposed subtransmission lines would be located on EAFB. While this facility is located within 2 miles of the Proposed Project, it is not a public airport or public-use airport.

The Proposed Project would be located outside the identified 65 dBA CNEL contour for the California City Municipal Airport. As a result, construction crews working on the Proposed Project would not be exposed

to excessive airport noise levels. During construction activities, construction equipment use would be the dominant noise source in the area; therefore, construction crews would not be exposed to excessive noise levels from public airport traffic. In addition, there are no residences in close proximity to these facilities. As a result, no impact would occur.

Operation

No Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. As described previously, the Proposed Project would be located outside of the 65 dBA CNEL contour for the California City Municipal Airport and is not located within the vicinity of any other public airports or private airstrips. As a result, there would be no impact.

5.13.4.3 Noise Levels

5.13.4.3.1 Noise Levels for Each Piece of Equipment

Table 5.13-9 identifies each phase of construction, the equipment used in each construction phase, and the length of each phase at any single location.

5.13.4.3.2 Estimated Cumulative Equipment Noise Levels

Estimated cumulative equipment noise levels are presented in Table 5.13-9.

5.13.4.3.3 Phases of Operation

As discussed in Section 5.13.4.2.1; the corona associated with the operation of the lines would be below the noise level criteria applicable to residential or other noise-sensitive land uses in the Proposed Project area.

Table 5.13-9 Construction Noise Levels

Equipment Required (Quantity)	Equipment Noise Level (Leq at 50 feet dBA)	Phase Noise Level (Leq at 50 feet dBA)	Phase Duration at Each Location (Days)	Nearest Noise-Sensitive Receptor	Noise Level at Nearest Receptor (Leq dBA)	Exceeds Noise Standard at Nearest Noise-Sensitive Receptor?	Distance to Not Exceed Standard (Feet)
Staging Areas							
1-Ton Truck, 4x4 (4)	44.0	78.8	150	The Church of Jesus Christ of Latter-day Saints 330 feet from Staging Area 1-3	62.4	No	N/A
Rough-terrain (R/T) Forklift (4)	69.0						
Generator (4)	76.8						
Water Truck (4)	73.0						
Civil Crew (Road Work, Foundations, Ducts)							
1-Ton Truck, 4x4 (7)	47.0	86.9	3	Residence 140 feet from work along Twenty Mule Team Parkway	77.9	No	N/A
Backhoe/Front Loader (4)	75.1						
Track Type Dozer (2)	80.1						
Motor Grader (2)	80.1						
Lowboy Truck/Trailer (1)	70.0						
3/4-Ton Truck, 4x4 (7)	47.0						
Boom/Crane Truck (1)	73.1						
Auger Truck/Drill Rig (2)	74.8						
Water Truck (2)	73.0						
Excavator (1)	77.0						
Dump Truck (1)	73.0						
Concrete Mixer Truck (7)	80.1						
Civil Crew (Road Maintenance)							
Motor Grader (1)	74.0	76.6	3	Residence 140 feet from work along Twenty Mule Team Parkway	67.6	No	N/A
Water Truck (1)	73.0						
1-Ton Truck, 4x4 (1)	44.0						
Structure Installation							
3/4-Ton Truck, 4x4 (7)	44.0	86.6	2	Residence 140 feet from work along Twenty Mule Team Parkway	77.7	No	N/A
Boom/Crane Truck (7)	74.8						
Flat Bed Pole Truck (1)	79.1						
Water Truck (2)	73.0						
Backhoe/Frontloader (4)	75.1						
Manlift/Bucket Truck (14)	80.1						
1-Ton Truck, 4x4 (7)	41.0						

Equipment Required (Quantity)	Equipment Noise Level (Leq at 50 feet dBA)	Phase Noise Level (Leq at 50 feet dBA)	Phase Duration at Each Location (Days)	Nearest Noise-Sensitive Receptor	Noise Level at Nearest Receptor (Leq dBA)	Exceeds Noise Standard at Nearest Noise-Sensitive Receptor?	Distance to Not Exceed Standard (Feet)
Compressor Trailer (1)	78.0						
R/T Crane (7)	75.1						
Medium-Duty Helicopter (1)	97.0						
Install Conductor/Cable							
3/4-Ton Truck, 4x4 (7)	44.0	88.6	20	Residence 140 feet from work along Twenty Mule Team Parkway	79.7	No	N/A
1-Ton Truck, 4x4 (7)	41.0						
Manlift/Bucket Truck (14)	80.1						
Boom/Crane Truck (7)	76.1						
Dump Truck (1)	73.0						
Wire Truck/Trailer (2)	47.0						
Sock Line Puller (2)	78.0						
Bull Wheel Puller (1)	78.0						
Hydraulic Rewind Puller (1)	78.0						
Static Truck/ Tensioner (2)	78.0						
Backhoe/Front Loader (4)	72.0						
Track Type Dozer (2)	77.0						
Water Truck (2)	73.0						
Light-Duty Helicopter (1)	90.0						
Conductor Splicing Rig (1)	78.0						
Fiber Splicing Lab (1)	78.0						
ADSS/OPGW Splicing							
Manlift/Bucket Truck (1)	74.0	74.0	20	Residence 140 feet from work along Twenty Mule Team Parkway	65.1	No	N/A
Splice Lab Truck (1)	47.0						
Foreman Truck (1)	47.0						
Restoration							
1-Ton Truck, 4x4 (2)	50.1	81.7	1	Residence 140 feet from work along Twenty Mule Team Parkway	72.8	No	N/A
Backhoe/Front Loader (1)	75.1						
Motor Grader (1)	77.0						
Water Truck (1)	73.0						
Drum Type Compactor (1)	74.0						
Lowboy Truck/Trailer (1)	73.0						

Equipment Required (Quantity)	Equipment Noise Level (Leq at 50 feet dBA)	Phase Noise Level (Leq at 50 feet dBA)	Phase Duration at Each Location (Days)	Nearest Noise-Sensitive Receptor	Noise Level at Nearest Receptor (Leq dBA)	Exceeds Noise Standard at Nearest Noise-Sensitive Receptor?	Distance to Not Exceed Standard (Feet)
Cal City Substation Civil Crew (Site Grading)							
Water Truck (6)	86.6	90.1	83	Residence 780 feet from the substation	66.2	No	N/A
Grader (2)	81.0						
Dump Trucks (4)	79.1						
Compactor (3)	74.8						
980 Loader/Scraper (3)	84.5						
Tractors/Backhoe (2)	76.0						
Survey Truck (1)	41.0						
Soils Test Crew Truck (1)	41.0						
3/4 Crew Pick-up Truck (3)	45.8						
Cal City Substation Civil Crew (Channel Install & Additions)							
Water Truck (2)	81.8	87.8	87	Residence 780 feet from the substation	63.9	No	N/A
Tractors/Backhoe (2)	76.0						
Grader (2)	81.0						
Dump Trucks (4)	79.1						
Compactor (1)	70.0						
980 Loader/Scraper (1)	79.8						
Excavator (1)	79.8						
Survey Truck (1)	41.0						
Soils Test Crew Truck (1)	41.0						
3/4 Crew Pick-up Truck (4)	47.0						
Cal City Substation Civil Crew (Foundation)							
Driller (2)	79.8	87.1	123	Residence 780 feet from the substation	63.2	No	N/A
3/4 Crew Pick-up Truck (3)	45.8						
14-Ton Crane (2)	78.8						
Dump Trucks (4)	76.0						
Tractors/Backhoe (2)	77.8						
Forklift (2)	76.0						
Ditch Digger (1)	79.0						
Generator (2)	80.8						
Cal City Substation Electrical Crew							
Truck Crane (2)	78.8	86.2	190	Residence 780 feet from the substation	62.4	No	N/A
Foreman Truck (1)	41.0						
Manlifts (4)	82.8						

Equipment Required (Quantity)	Equipment Noise Level (Leq at 50 feet dBA)	Phase Noise Level (Leq at 50 feet dBA)	Phase Duration at Each Location (Days)	Nearest Noise-Sensitive Receptor	Noise Level at Nearest Receptor (Leq dBA)	Exceeds Noise Standard at Nearest Noise-Sensitive Receptor?	Distance to Not Exceed Standard (Feet)
5-Ton Truck (1)	41.0						
3/4 Crew Pick-up Truck (4)	47.0						
14-Ton Crane (2)	78.8						
Forklift (2)	76.0						
150-Ton Crane (1)	75.8						
Cal City Substation Maintenance Crew							
3/4 Crew Pick-up Truck (1)	41.0	41.0	39	Residence 780 feet from the substation	17.2	No	N/A
Cal City Substation Test Crew							
3/4 Crew Pick-up Truck (1)	48.0	48.0	39	Residence 780 feet from the substation	24.1	No	N/A
Cal City Substation Test Crew and Wireman (Cutover)							
3/4 Crew Pick-up Truck (1)	48.0	51.0	20	Residence 780 feet from the substation	27.2	No	N/A
3/4 Crew Pick-up Truck (1)	48.0						
Cal City Substation Demolition - Test Crew							
3/4 Crew Pick-up Truck (1)	48.0	51.0	10	Residence 780 feet from the substation	27.2	No	N/A
3/4 Crew Pick-up Truck (1)	48.0						
Cal City Substation Demolition - Maintenance Crew							
3/4 Crew Pick-up Truck (1)	48.0	48.0	10	Residence 780 feet from the substation	24.1	No	N/A
Cal City Substation Demolition - Electrical Crew							
Truck Crane (2)	78.8	86.2	40	Residence 780 feet from the substation	62.4	No	N/A
Foreman Truck (1)	41.0						
Manlifts (4)	82.8						
3/4 Crew Pick-up Truck (4)	47.0						
14-ton Crane (2)	78.8						
Forklift (2)	76.0						
150-Ton Crane (1)	75.8						
Cal City Substation Demolition - Civil Crew							
3/4 Crew Pick-up Truck (3)	45.8	82.3	58	Residence 780 feet from the substation	58.4	No	N/A
Dump Trucks (4)	76.0						
Tractors/Backhoe (3)	79.5						
Forklift (2)	76.0						

Equipment Required (Quantity)	Equipment Noise Level (Leq at 50 feet dBA)	Phase Noise Level (Leq at 50 feet dBA)	Phase Duration at Each Location (Days)	Nearest Noise-Sensitive Receptor	Noise Level at Nearest Receptor (Leq dBA)	Exceeds Noise Standard at Nearest Noise-Sensitive Receptor?	Distance to Not Exceed Standard (Feet)
Holgate Switchyard Civil Crew							
3/4 Crew Pick-up Truck (4)	47.0	80.4	6	None within 1,000 feet	N/A	N/A	N/A
Tractors/Backhoe (1)	73.0						
Ditch Digger (1)	79.0						
Dump Trucks (1)	70.0						
Holgate Switchyard Electrical Crew							
3/4 Crew Pick-up Truck (4)	47.0	79.7	19	None within 1,000 feet	N/A	N/A	N/A
14-ton Crane (1)	74.0						
Manlifts (1)	76.8						
Forklift (1)	73.0						
Kramer Substation Civil Crew (Foundations)							
3/4 Crew Pick-up Truck (4)	47.0	82.5	29	None within 1,000 feet	N/A	N/A	N/A
14-Ton Crane (1)	75.8						
Dump Trucks (1)	70.0						
Tractors/Backhoe (1)	74.8						
Forklift (1)	73.0						
Ditch Digger (1)	79.0						
Kramer Substation Electrical Crew							
Foreman Truck (1)	41.0	81.8	102	None within 1,000 feet	N/A	N/A	N/A
Manlifts (2)	79.8						
3/4 Crew Pick-up Truck (4)	47.0						
14-Ton crane (1)	75.8						
Forklift (1)	73.0						
Edwards Substation Civil Crew (Foundations)							
Truck Drill Rig (1)	75.8	83.5	37	None within 1,000 feet	N/A	N/A	N/A
3/4 Crew Pick-up Truck (6)	48.8						
14-Ton Crane (1)	75.8						
Dump Trucks (2)	73.0						
Tractors/Backhoe (1)	74.8						
Forklift (1)	73.0						
Ditch Trencher (1)	79.0						

Equipment Required (Quantity)	Equipment Noise Level (Leq at 50 feet dBA)	Phase Noise Level (Leq at 50 feet dBA)	Phase Duration at Each Location (Days)	Nearest Noise-Sensitive Receptor	Noise Level at Nearest Receptor (Leq dBA)	Exceeds Noise Standard at Nearest Noise-Sensitive Receptor?	Distance to Not Exceed Standard (Feet)
Edwards Substation Electrical Crew							
Manlifts (2)	79.8	82.8	132	None within 1,000 feet	N/A	N/A	N/A
3/4 Crew Pick-up Truck (7)	49.5						
14-Ton crane (1)	75.8						
Forklift (1)	73.0						
150-Ton Crane (1)	75.8						

Note: Proposed Project-related construction activities are exempt from all noise standards in Kern County and San Bernardino County when conducted within appropriate time frames; therefore, work in these jurisdictions that is limited to the allowable construction timeframes would not be considered in excess of established standards. SCE will provide notification as appropriate for work outside of the established timeframes.

5.13.4.3.4 Manufacturer's Specifications for Equipment

The specific models of construction equipment to be used during construction and operation of the Proposed Project are not known at this time; therefore, the manufacturer's specifications for such equipment cannot be provided. Equipment will be operated using manufacturer-installed noise-control devices. If requested by the CPUC, SCE would provide the manufacturer's specifications for specific models of construction equipment at the time such construction equipment is identified.

5.13.4.3.5 Approaches to Reduce Impacts from Noise

SCE has designed and incorporated APM NOI-1 into the Proposed Project to minimize potential impacts to noise-sensitive receptors.

5.13.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures identified for the Noise resource area.

5.13.5.1 Applicant-Proposed Measures

5.13.5.1.1 Noise Applicant-Proposed Measure

NOI-1: SCE shall employ the following noise-control techniques, at a minimum, to reduce construction noise exposure at noise-sensitive receptors during construction:

- Construction activities shall be confined to daytime, weekday and weekend hours established by Kern County, San Bernardino County, and the City of California City. 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.
- 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 (FTA 2006).
- 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.

5.13.6 Alternatives

For an evaluation of Proposed Project alternatives, see Chapter 6, Comparison of Alternatives.

5.14 Population and Housing

This section describes the population and housing in the area of the Cal City Substation 115 kV Upgrade Project (Proposed Project), as well as the potential impacts to population and housing from construction and operation of the Proposed Project.

Research for this analysis involves a review of the following resources:

- California Department of Finance demographics projections
- United States (U.S.) Census Bureau population and housing data
- Local agency planning documents

5.14.1 Environmental Setting

The Proposed Project is located in Kern County and San Bernardino County in the Mojave Desert region of California on federal, state, private, and municipal land. These lands include unincorporated areas of Kern County and San Bernardino County, City of California City, Edwards Air Force Base (EAFB) controlled by the Department of Defense (DoD), and public lands under the jurisdiction of the Bureau of Land Management (BLM) and the California Department of Fish and Wildlife. Approximately 90 percent of the Proposed Project is located within undeveloped open areas, with the remaining 10 percent located within developed areas (including the City of California City). More specifically, the Proposed Project is located in the following jurisdictions:

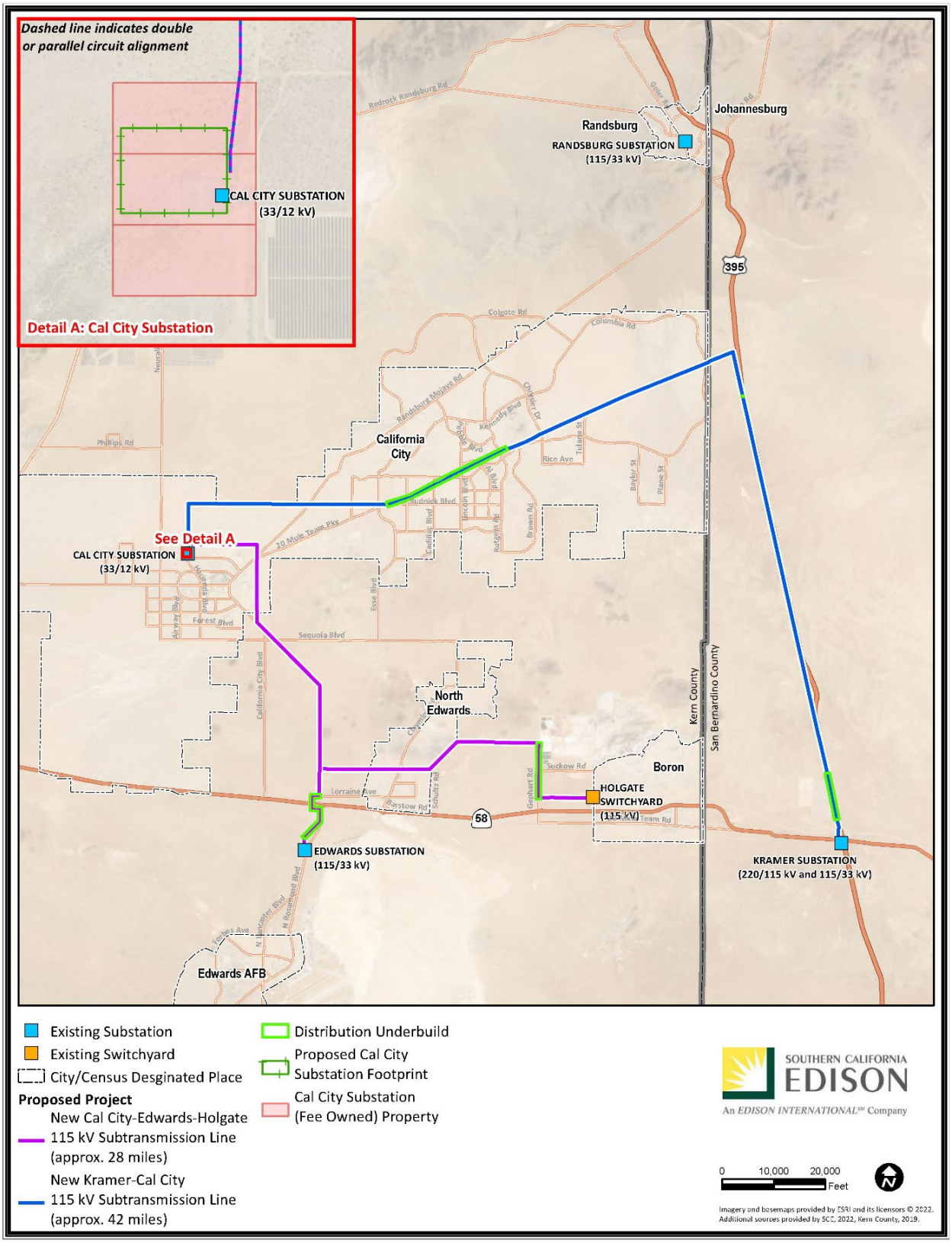
- Unincorporated Kern County
- Unincorporated San Bernardino County
- City of California City
- North Edwards Census-designated place (CDP)
- Boron CDP

Figure 5.14-1 illustrates the locations of these areas with respect to the Proposed Project. Population and housing data for these areas have been obtained from the U.S. Census Bureau and California Department of Finance and are presented in the following subsections.

5.14.1.1 Population Estimates

Historical and projected future population data (where available) are presented in Table 5.14-1. According to the U.S. Census Bureau, from 2010 to 2020, the City of California City population grew by approximately 6 percent, the Kern County population grew by approximately 8.4 percent, and the San Bernardino County population grew by approximately 6.8 percent. The California Department of Finance projects that, by 2030, the Kern County population will increase by approximately 11.6 percent and the San Bernardino County population will increase by approximately 8.4 percent. No population projections are available for the City of California City.

Figure 5.14-1 Cities and Census-Designated Places



5.14.1.2 Housing Estimates

Housing data and vacancy rates for the Proposed Project area are presented in Table 5.14-2. While vacancy rates in the Proposed Project area have declined in the past 10 years, these rates are greater than the federal standard vacancy rate of 5 percent. As a result, housing is not considered limited in the Proposed Project area. Temporary housing and accommodations are available in the City of California City and Boron CDP and can support a relatively minor temporary influx of construction workers.

Table 5.14-1 Historical and Projected Population Data in the Proposed Project Area[1]

Year	Kern County[2]	San Bernardino County	City of California City	North Edwards	Boron
2000	661,645	1,709,434	8,321	1,343	2,039
2010	842,069	2,044,890	14,120	1,058	2,253
2020	912,975	2,184,112	14,973	1,054	2,086
2030	1,019,221	2,368,002	Information Not Available (INA)	INA	INA
2040	1,127,781	2,536,592	INA	INA	INA

Sources: California Department of Finance 2020, U.S. Census Bureau 2020.
[1] The California Department of Finance provides projected population data for California counties. Population data is available for the City of California City up to 2020. Specific plans for North Edwards CDP and Boron CDP do not discuss population data. As such, projected 2030 and 2040 population data for the City of California City, North Edwards CDP, and Boron CDP are not included in this table.
[2] The historical and projected population data for Kern County is inclusive of all incorporated and unincorporated areas. As such, population data for North Edwards CDP and Boron CDP are included within the Kern County population, as well as separately in their own column.

Table 5.14-2 Housing Data in the Proposed Project Area

Type	Kern County	San Bernardino County	City of California City	North Edwards	Boron
2010					
Total Units	284,367	699,637	5,210	557	1,208
Vacant Units	29,757	88,019	1,108	140	316
Vacancy Rate	10.5%	12.6%	21.3%	25.1%	26.2%
2020					
Total Units	301,009	731,899	5,196	563	1,051
Vacant Units	19,511	64,063	568	113	220
Vacancy Rate	6.5%	8.8%	10.9%	20.1%	20.9%

Source: U.S. Census Bureau 2020.

5.14.1.3 Approved Housing Development

There are currently no approved or proposed housing development projects within 1 mile of the Proposed Project. The only known development in the area involves the construction of single-family homes which are developed individually and sporadically.

5.14.2 Regulatory Setting

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

5.14.2.1 Federal

There are no federal regulations related to population and housing that are relevant to the Proposed Project. However, federal authorizations would be required because a portion of the land within the Proposed Project area is under the jurisdiction of the BLM and DoD.

5.14.2.2 State

There are no state regulations related to population and housing that are relevant to the Proposed Project.

5.14.2.3 Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (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 counties' and city's regulations are not applicable as the counties and city do not have jurisdiction over the Proposed Project. Accordingly, the following discussion of local land use regulations is provided for informational purposes only.

5.14.2.3.1 Kern County General Plan

The 2015-2023 Housing Element Update of the Kern County General Plan sets forth planning strategies to support the development of adequate housing for all income segments. The Housing Element provides context regarding the needs and constraints for housing in Kern County and establishes goals, policies, and programs related to housing needs. This element of the Kern County General Plan does not contain specific goals or policies that are relevant to the Proposed Project.

5.14.2.3.2 San Bernardino Countywide Policy Plan

The 2021-2029 Housing Element of the San Bernardino Countywide Policy Plan sets forth planning strategies to support the production of housing consistent with the vision specified for the county. In addition, the Housing Element establishes goals, policies, and programs related to housing needs. This element does not contain specific goals or policies that are relevant to the Proposed Project.

5.14.2.3.3 City of California City General Plan

The 2015-2023 Housing Element of the City of California City General Plan sets forth planning strategies to support the existing and projected housing needs of all economic segments of the community. The Housing Element establishes goals, policies programs, and action plans to facilitate and encourage the provision of safe, adequate housing for current and future residents of all income levels. This element of the City of California City General Plan does not contain specific goals or policies that are relevant to the Proposed Project.

5.14.3 Impact Questions

5.14.3.1 Population and Housing Impact Questions

The thresholds of significance for assessing impacts come from the California Environmental Quality Act (CEQA) Environmental Checklist. For population and housing, the CEQA Checklist asks, would the project:

- Induce substantial unplanned population growth in the area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of new roads or other infrastructure)?
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

5.14.3.2 Additional CEQA Impact Questions

There are no CPUC-identified additional CEQA impact questions.

5.14.4 Impact Analysis

5.14.4.1 Population and Housing Methodology

Impacts to population and housing within the Proposed Project area are determined using data from the U.S. Census Bureau in combination with housing plans available from the Kern County General Plan, San Bernardino Countywide Policy Plan, and City of California City General Plan.

5.14.4.2 Population and Housing Impact Analysis

5.14.4.2.1 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)?

Construction

No Impact. During the peak construction periods, Southern California Edison Company (SCE) anticipates that an average of 97 and a maximum of 140 construction personnel would be working at any given time, and some of these crew members would likely commute from the surrounding areas, including Kern and San Bernardino counties. Some construction crew members may not be able to commute from surrounding areas and may be required to relocate on a temporary basis to the Proposed Project area. Construction would be temporary and last approximately 24 months, and the workforce would be relatively small. Given the small number of positions required for construction of the Proposed Project and the short term of the construction period, construction of the Proposed Project would not induce substantial population growth. If the need for temporary accommodations arose, adequate lodging options would be available in the surrounding area, including hotels and resorts, lodges, and campgrounds within Kern and San Bernardino counties. Therefore, no permanent or long-term population growth in the area would occur due to construction of the Proposed Project, and there would be no impact.

Construction of the Proposed Project is not expected to increase the desirability or affordability of the area or facilitate population growth in the area. By design, the Proposed Project would accommodate the existing and forecasted demand of the electric needs area as defined in Chapter 2, Introduction. While the

populations of Kern and San Bernardino counties and the City of California City may increase slightly during the construction phase, the increase would be temporary and would not cause a permanent increase in population. The Proposed Project would not directly induce any permanent population growth because it does not involve the construction of any new homes or businesses and is necessary to accommodate existing and forecasted electric demand. Therefore, no permanent population growth resulting from construction of the Proposed Project would occur, and there would be no impact.

Operation

No Impact. As presented in Chapter 3, the Proposed Project includes constructing subtransmission lines between existing substations in the vicinity of the City of California City, EAFB, and U.S. 395 where many overhead power lines currently exist. Operation and maintenance (O&M) activities associated with the Proposed Project would be similar to those currently performed by SCE for existing facilities, including, but not limited to, repairing conductors, washing or replacing insulators, repairing or replacing other hardware components, repairing or replacing poles and towers, tree trimming, brush and weed control, and access road maintenance. O&M would also include routine inspections and emergency repair within substations and throughout ROWs, which would require the use of vehicles and equipment. SCE inspects subtransmission overhead facilities in a manner consistent with CPUC G.O. 165, which requires observation a minimum of once per year, but inspection typically occurs more frequently to ensure system reliability. Following construction of the Proposed Project, O&M activities would consist of monthly and annual inspections, as well as equipment testing and maintenance for new and expanded facilities. SCE currently performs O&M activities for the existing substations and their associated source lines and infrastructure. Overall, the Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips.

SCE anticipates that routine O&M needs can be met by existing staff and/or contract personnel, and that no new personnel would relocate to the area in response to the Proposed Project. As previously discussed, the Proposed Project would be built to accommodate existing and forecasted demand and electrical needs of the City of California City and to ensure reliability of the system; therefore, the Proposed Project would not induce population growth in the area either directly or indirectly. As a result, the Proposed Project is not expected to cause a direct or indirect increase in population growth. As such, no impact to population growth would occur as a result of operation of the Proposed Project.

5.14.4.2.2 Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Construction

No Impact. Construction would occur primarily within existing or new ROWs, and within existing access roads or new permanent access roads for the Proposed Project. In addition, Proposed Project facilities and temporary construction areas would be sited to avoid existing housing. The nearest residential area is located approximately 0.1 mile south of the Cal City Substation in the City of California City. Construction of the Proposed Project would not require displacement of any existing people or housing units. As a result, no replacement housing would be constructed and no impact would occur.

Operation

No Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure.

The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. As previously discussed, Proposed Project facilities would be sited to avoid existing housing. No houses would be displaced and the construction of replacement housing to facilitate O&M activities would not be required. As a result, there would be no impact from operation of the Proposed Project.

5.14.4.3 Impacts to Housing

As described previously, the Proposed Project would be constructed within existing or new ROWs. These ROWs do not contain existing homes. In addition, any temporary construction areas outside of these ROWs would also be located in areas that do not contain existing housing. As a result, no homes would be demolished or relocated to construct the Proposed Project. Following construction, these ROWs would preclude the construction of future housing; therefore, O&M activities would not require the demolition or relocation of future housing. Thus, no housing impacts would occur as a result of the Proposed Project, and no impact would occur.

5.14.4.4 Workforce Impacts

As described previously, SCE expects that an average of 97 and a maximum of 140 workers per day would be required to construct the Proposed Project. The number of construction personnel who may work on the Proposed Project and who currently reside within the impact area is unknown and unknowable, as are the numbers of construction personnel who would temporarily relocate to the Proposed Project area. O&M is anticipated to occur on an as-needed basis and no new permanent employment opportunities are anticipated to be created.

5.14.4.5 Population Growth Inducing

Information regarding the Proposed Project's growth-inducing impacts is provided in Section 7.2.1, Growth-Inducing Impacts.

5.14.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures identified for Population and Housing.

5.14.5.1 Applicant Proposed Measures

No impacts to population or housing would occur as a result of the Proposed Project. As such, there are no applicant proposed measures.

5.14.6 Alternatives

For an evaluation of Proposed Project alternatives, see Chapter 6, Comparison of Alternatives.

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5.15 Public Services

This section describes the public services in the vicinity of the Cal City Substation 115 kV Upgrade Project (Proposed Project), as well as the potential impacts to public services from construction and operation of the Proposed Project.

Information in this section is organized by the public service type and the providers of those services in each jurisdiction within the Proposed Project area. Research for this analysis involved a review of the following resources:

- Local agency planning documents
- County and city police and fire department websites
- School district websites
- Aerial imagery

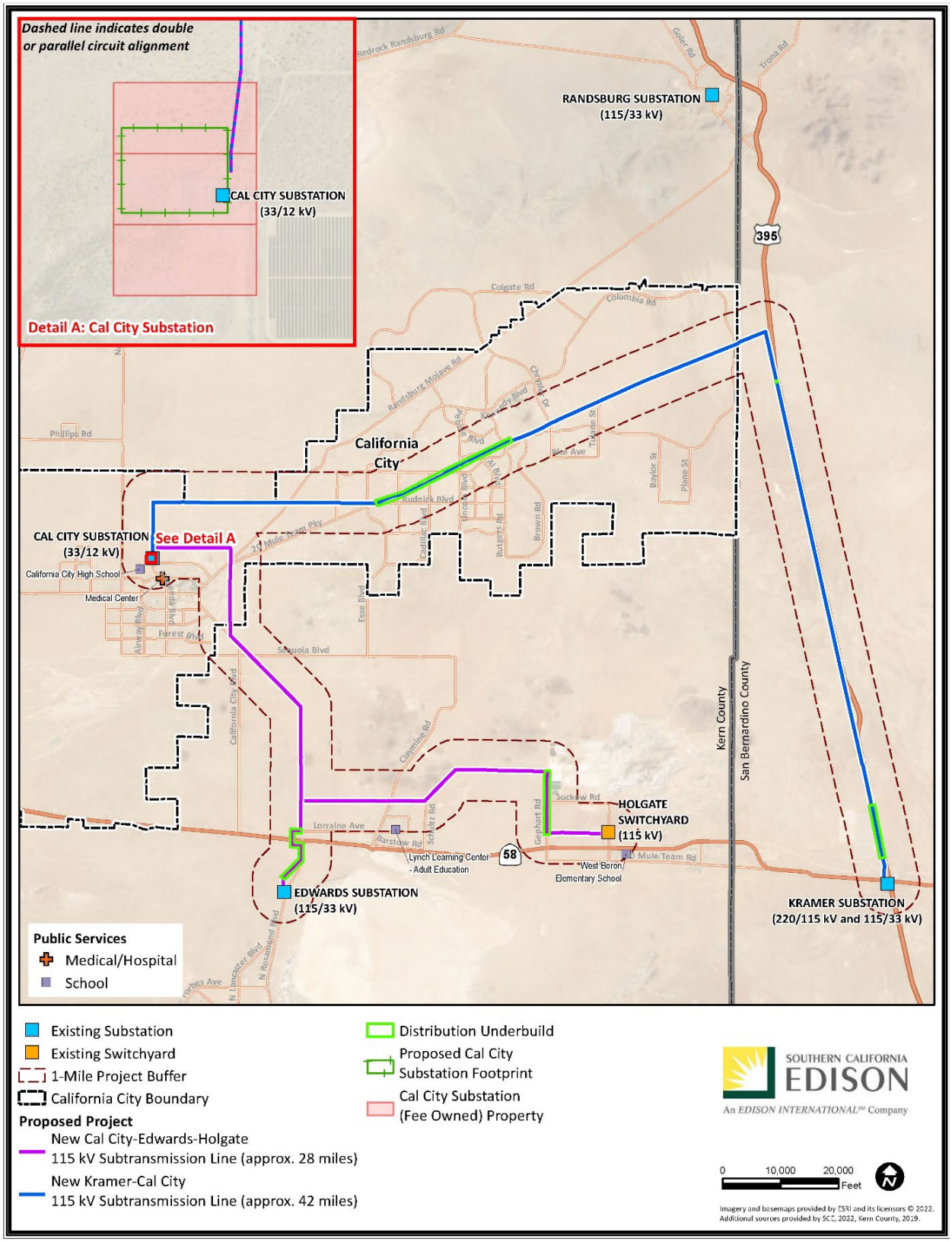
5.15.1 Environmental Setting

The Proposed Project is located in Kern County and San Bernardino County in the Mojave Desert region of California on federal, state, private, and municipal land. These lands include unincorporated areas of Kern County and San Bernardino County, City of California City, Edwards Air Force Base (EAFB) controlled by the Department of Defense (DoD), and public lands under the jurisdiction of the Bureau of Land Management (BLM) and the California Department of Fish and Wildlife (CDFW). Approximately 90 percent of the Proposed Project is located within undeveloped open areas, with the remaining 10 percent located within developed areas (including the City of California City). The environmental setting section describes the existing public services in the Proposed Project area. Public services facilities within 1 mile of the Proposed Project are shown on Figure 5.15-1.

5.15.1.1 Police

Law enforcement in the vicinity of the Proposed Project is provided by a number of different agencies. The Proposed Project runs along United States (U.S.) Route 395 and California State Route 58, where the California Highway Patrol (CHP) provides law enforcement services. The San Bernardino Sheriff's Department (SBSD) provides law enforcement services for all other portions of the Proposed Project alignment within San Bernardino County. The Proposed Project also traverses Kern County, including unincorporated North Edwards and Boron, where the Kern County Sheriff's Office (KCSO) provides law enforcement services. The California City Police Department provides law enforcement services for all portions of the Proposed Project alignment within city limits. The Proposed Project includes Edwards Substation, approximately 2.1 miles of the proposed Cal City-Edwards-Holgate 115 kV Subtransmission Line alignment, and approximately 0.6 mile of the proposed Kramer-Cal City 115 kV Subtransmission Line alignment on EAFB, where the EAFB 95th Security Forces provide law enforcement services. No law enforcement stations are located within 1 mile of the Proposed Project.

Figure 5.15-1 Public Services within 1 Mile of the Proposed Project



5.15.1.2 Fire Protection

Similar to law enforcement, fire protection in the vicinity of the Proposed Project is provided by a number of agencies. These agencies include both local and federal fire protection providers; however, the Proposed Project does not overlap with any applicable state fire protection responsibility areas. Stations 14 and 17 of the Kern County Fire Department (KCFD) provide fire protection services in Kern County and provide mutual aid services to the City of California City, North Edwards, and Boron. The San Bernardino County Fire Protection District provides fire protection services to San Bernardino County; however, the closest stations are approximately 20 miles from the Proposed Project. The California City Fire Department (CCFD) provides fire protection services in the City of California City. The EAFB Fire Department provides fire protection within the base, including Edwards Substation. No fire protection services facilities are located within 1 mile of the Proposed Project.

5.15.1.3 Schools

The Proposed Project alignment crosses the Mojave Unified and Muroc Joint Unified school districts. The Mojave Unified School District serves students in the City of California City and the unincorporated community of Mojave. The Muroc Unified School District serves Boron, North Edwards, and EAFB. Three schools are located within 1 mile of the Proposed Project, as summarized in Table 5.15-1 and depicted on Figure 5.15-1.

Table 5.15-1 Schools within 1 Mile of the Proposed Project

School	Location	District	Grades	Approximate Distance to the Proposed Project Alignment (Miles)	Nearest Proposed Project Component
California City High School	City of California City	Mojave Unified School District	9-12	0.2	Cal City Substation
Lynch Learning Center for Adult Education	North Edwards	Muroc Joint Unified School District	N/A	0.9	Cal City-Edwards-Holgate
West Boron Elementary School	Boron	Muroc Joint Unified School District	K-6	0.9	Cal City-Edwards-Holgate

Sources: Mojave Unified School District 2021, Muroc Joint Unified School District 2021.

5.15.1.4 Parks

There are two BLM Special Recreation Management Areas within 1 mile of the proposed Kramer-Cal City 115 kV Subtransmission Line. Approximately 11 miles of this component is located within BLM land and an additional approximately 8 miles of the alignment is directly adjacent to BLM land. There are two CDFW ecological reserves, and four county and local parks within 1 mile of the Proposed Project. These areas are shown in Figure 5.16-1 in Section 5.16, Recreation. Section 5.16, Recreation also provides more information on the parks and recreational facilities in the vicinity of the Proposed Project.

5.15.1.5 Hospitals

Due to the remote location of the Proposed Project, no hospitals are located within 1 mile of the Proposed Project. The closest major hospitals to the Proposed Project are Antelope Valley Hospital in Lancaster,

Barstow Community Hospital in Barstow, and Ridgecrest Regional Hospital in Ridgecrest. These hospitals are all located more than 25 miles from the Proposed Project. The East Kern Health Care District is located in the City of California City and manages four facilities that provide health care services to the City of California City residents. A Medi-Cal Center, which operates under the guidance of the California Department of Health Care Services, also provides health care services in the City of California City area. EAFB 412th Medical Group provides health care services for the base and its beneficiary population. The health care facility located within 1 mile of the Proposed Project is listed in Table 5.15-2 and the location of the facility is shown on Figure 5.15-1.

Table 5.15-2 Health Care Facilities within 1 Mile of the Proposed Project

Health Care Facility	Location	Approximate Distance to the Proposed Project Alignment (Miles)	Nearest Proposed Project Component
Medi-Cal Center	City of California City	0.8	Cal City Substation

Sources: 412th Medical Group 2021, California Department of Health Care Services 2021, East Kern Health Care District 2021.

5.15.1.6 Libraries

There are no public or private libraries within 1 mile of the Proposed Project. The closest public library—the Rosamond Public Library—is located approximately 19 miles southwest of the proposed Cal City-Edwards-Holgate 115 kV Subtransmission Line and Southern California Edison Company's (SCE's) existing Edwards Substation.

5.15.1.7 Documented Performance Objectives and Data

In 2019, the CCFD responded to a total of 2,857 incidents including fires, emergency medical service (EMS) and rescue, hazardous conditions, and public services. The average CCFD EMS response time was documented as 6 minutes and 55 seconds, with a goal of 8 minutes or less. The CCFD also reported emergency response times for mutual aid resources in the City of California City. KCFD Station 14's average response time was 18 minutes, KCFD Station 17's average response time was 27 minutes, and the EAFB Fire Department's average response time was 30 minutes. Emergency response times for other police and emergency health care services, including the CHP, KCSO, SBSD, CCPD, and EAFB 95th Security Forces, have not been documented.

5.15.2 Regulatory Setting

Federal, state, and local regulations were reviewed for applicability to the Proposed Project and are described below.

5.15.2.1 Federal

A review of the Code of Federal Regulations and the Federal Emergency Management Agency, the U.S. Department of Health and Human Services, and the U.S. Department of Education websites revealed that there are no federal regulations or policies related to public services that are relevant to the Proposed Project. However, federal authorizations would be required because the Proposed Project would traverse land under the jurisdiction of the BLM and the DoD.

5.15.2.2 State

5.15.2.2.1 California Public Utilities Commission, General Order 95, Section 35

Section 35 of California Public Utilities Commission (CPUC) General Order (G.O.) 95 covers all aspects of design, construction, and Operation and maintenance (O&M) of electrical power lines, as well as fire safety hazards.

5.15.2.2.2 California Code of Regulations, Title 14, Sections 1250 to 1258

Title 14, Sections 1250 to 1258 of the California Code of Regulations (CCR) provide specific clearance standards to be maintained by utility companies between electric power lines and all vegetation.

5.15.2.2.3 California Fire Code

24 CCR Part 9 is known as the California Fire Code. This code provides provisions for planning, precautions, and preparations for fire safety and fire protection during various activities, including, but not limited to, construction and demolition, as well as requirements for buildings and guidelines for working with flammable chemicals and materials. As such, the California Fire Code was reviewed for this analysis.

5.15.2.2.4 California Public Resources Code Sections 4292 and 4293

California Public Resources Code (PRC) section 4292 states:

> "[A]ny 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, lightening 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."

PRC section 4293 states:

> "[A]ny 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 72,000 volts, four feet
>
> (b) For any line which is operating at 72,000 or more volts, but less than 110,000 volts, six feet
>
> (c) For any line which is operating at 110,000 or more volts, 10 feet
>
> In every case, such distance shall be sufficiently great to furnish the required clearance at any position of the wire, or conductor when the adjacent air temperature is 120 degrees Fahrenheit, or less. Dead trees, old decadent or rotten trees, trees weakened by decay or disease and trees or portions thereof that are leaning toward the line which may contact the line from the side or may fall on the line shall be felled, cut, or trimmed so as to remove such hazard."

5.15.2.2.5 Red Flag Fire Prevention Program

Like PRC sections 4292 and 4293, red-flag warnings and fire-weather watches aim to prevent fire events and reduce the potential for substantial damage. The National Weather Service issues the red-flag warnings and fire-weather watches. When extreme fire weather or behavior is present or predicted in an area, a red-flag warning or fire-weather watch may be issued to advise local fire agencies that these conditions are present.

5.15.2.3 Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to 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."

Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the counties' and city's regulations are not applicable as the counties and city do not have jurisdiction over the Proposed Project. Accordingly, the following discussion of local land use regulations is provided for informational purposes only.

5.15.2.3.1 Kern County General Plan Safety Element

The Safety Element of the Kern County General Plan contains goals and policies for the protection of the community from any risks associated with environmental hazards, including the following policies that are relevant to the Proposed Project:

Section 4.6 – Wildland and Urban Fire

Policy 1 Require discretionary projects to assess impacts on emergency services and facilities.

Policy 6 All discretionary projects shall comply with the adopted Fire Code and the requirements of the Fire Department.

5.15.2.3.2 San Bernardino Countywide Policy Plan

The Personal and Property Protection Element of the San Bernardino Countywide Policy Plan contains the following goal and policies for fire protection and emergency response:

GOAL PP-3 Fire and Emergency Medical. Reduced risk of death, injury, property damage, and economic loss due to fires and other natural disasters, accidents, and medical incidents through prompt and capable emergency response.

Policy PP-3.1 Fire and emergency medical services. We maintain a sufficient number and distribution of fire stations, up-to-date equipment, and fully-trained staff to respond effectively to emergencies.

Policy PP-3.7 Fire safe design. We require new development in the Fire Safety Overlay to comply with additional site design, building, and access standards to provide enhanced resistance to fire hazards.

5.15.2.3.3 City of California City General Plan

The Safety Element of the City of California City General Plan addresses safety through goals, policies, and implementation measures that seek to reduce the potential for the loss of life, injuries, and property damage associated with natural and human induced hazards. The Safety Element contains the following implementation measures that are relevant to the Proposed Project:

- Implementation Measure S-23: The City shall require that new development proposals demonstrate the availability of fire, police, emergency response, and solid waste disposal services during the environmental review and discretionary approval process.
- Implementation Measure S-25: The following measures shall be implemented to ensure adequate fire and police protection services in the incorporated areas of the City:
  a) All new development proposals shall be reviewed by the California City Fire Department and the California City Police Department to ensure the continuation of adequate levels of service.
  b) If additional Fire Department or Police Department station sites are determined to be required, sites shall be identified and mechanisms to obtain these sites shall be defined. These shall include, but not be limited to, the dedication of land for such purposes or payment of proportional share of fees as a condition of development.
  c) The City will continue to work with local organizations and the County Sheriff's Department and Fire Department to continue administration of the Mojave Desert Community Response Plan.

5.15.3 Impact Questions

5.15.3.1 Public Services Impact Questions

The thresholds of significance for assessing impacts come from the CEQA Environmental Checklist. For public services, the CEQA Checklist asks, would the project:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities—the construction of which could cause significant environmental impacts—in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:
  - Fire protection,
  - Police protection,
  - Schools,
  - Parks, or
  - Other public facilities?

5.15.3.2 Additional CEQA Impact Questions

There are no CPUC-identified additional CEQA impact questions.

5.15.4 Impact Analysis

5.15.4.1 Public Services Methodology

Impacts to public services in the vicinity of the Proposed Project are determined using data from local emergency services providers, schools, and health care facilities, in combination with safety plans available

from the Kern County General Plan, San Bernardino Countywide Policy Plan, and City of California City General Plan.

5.15.4.2 Public Services Impact Analysis

5.15.4.2.1 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?

Construction

No Impact.

Emergency Providers. The Proposed Project would not cause substantial changes to service ratios, response times, or other objectives for emergency providers in the area. Fire, emergency, and police services currently serve, and would continue to serve, the areas in and around the Proposed Project alignment.

The Proposed Project would not require the expansion of fire protection services. Work areas would be cleared of vegetation, or have vegetation trimmed, before staging construction equipment, thus minimizing the probability of fire during construction. Although the need for police services may arise during construction, such a need would not exceed the capacity of the existing providers in the vicinity of the Proposed Project and would not require the provision of service beyond existing capacities.

It is anticipated temporary lane and/or road closures may be required during construction over or adjacent to public roads near the Proposed Project alignment. These temporary closures would be coordinated with local agencies and emergency providers through the encroachment permit process and any required traffic control plans. It is anticipated that these permits would require the application of appropriate traffic control measures during this work to ensure that potential changes to service ratios are minimized. As a result, acceptable response times would be maintained, the Proposed Project would not require the provision of any new or alteration of existing emergency provider facilities, and no impact would occur.

Schools. As discussed in Section 5.14, Population and Housing, SCE anticipates that an average of 97 construction personnel would be working at any given time, and some of these crew members would likely commute from the surrounding areas, including San Bernardino and Kern counties. Some construction crew members may not be able to commute from surrounding areas and may be required to relocate on a temporary basis to the Proposed Project area. Construction would be temporary and last approximately 24 months, and because the workforce would be relatively small and would likely commute from the surrounding areas, construction of the Proposed Project would not result in a temporary increase in the area's population. Therefore, the Proposed Project would not result in a significant new or increased demand for school services, no new schools would be constructed, and no impact would occur.

Other Public Facilities. Proposed Project construction activities would not require the expansion of or result in an adverse impact to other types of public facilities, including parks, hospitals, and libraries. As discussed in Section 5.14, Population and Housing, the Proposed Project would not result in substantial population growth in the area, and would not create an increased demand for public facilities.

As discussed in Section 5.16, Recreation, nine recreational facilities would potentially be affected by construction-generated noise, traffic congestion, or access limitations. Given the limited duration of

construction and the availability of other recreational facilities in the vicinity of the Proposed Project, any resulting increase in the use of nearby recreational facilities would be brief and temporary and would have a negligible effect on the condition of the nearby parks. Further, the recreational facilities would not be physically altered, nor would the Proposed Project permanently affect trails or facility use. The surrounding land would remain accessible for open access.

Construction of the Proposed Project would not increase local population growth or result in the need for new hospitals or hospital expansion. Therefore, no impacts to hospital facilities would result.

No other public facilities are located within 1 mile of the Proposed Project. The closest public library—the Rosamond Public Library—is located approximately 19 miles southwest of the proposed Cal City-Edwards-Holgate 115 kV Subtransmission Line and SCE's existing Edwards Substation. The Proposed Project would not increase the local population or otherwise result in a change that would necessitate alteration or expansion of the public library or other existing public services. As a result, there would be no impact to other public facilities due to construction of the Proposed Project.

Operation

No Impact. As presented in Chapter 3, the Proposed Project includes constructing subtransmission lines between existing substations in the vicinity of the City of California City, EAFB, and U.S. 395 where many overhead power lines currently exist. O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing facilities, including, but not limited to, repairing conductors, washing or replacing insulators, repairing or replacing other hardware components, repairing or replacing poles and towers, tree trimming, brush and weed control, and access road maintenance. O&M would also include routine inspections and emergency repair within substations and throughout rights-of-way, which would require the use of vehicles and equipment. SCE inspects subtransmission overhead facilities in a manner consistent with CPUC G.O. 165, which requires observation a minimum of once per year, but inspection typically occurs more frequently to ensure system reliability. Following construction of the Proposed Project, O&M activities would consist of monthly and annual inspections, as well as equipment testing and maintenance for new and expanded facilities. SCE currently performs O&M activities for the existing substations and their associated source lines and infrastructure. Overall, the Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. As discussed previously, O&M activities would not require additional full-time personnel; therefore, O&M would not cause an increase in the use of existing public services, nor would they result in a need for new fire protection or law enforcement services. The Proposed Project would be built to meet the electrical needs of the City of California City and to ensure reliability of the system; therefore, the Proposed Project would not induce population growth in the area either directly or indirectly or create a need for additional fire or police protection. As a result, no impact would occur during O&M of the Proposed Project.

5.15.4.3 Emergency Response Times

As described previously, the Proposed Project would not typically impede ingress and egress of emergency vehicles; any temporary lane or road closures associated with work over or adjacent to public roadways would be coordinated with local jurisdictions through the applicable encroachment permit processes. In addition, all traffic control measures required by these authorizations would be implemented. Therefore, the Proposed Project would not impact emergency providers' ability to maintain acceptable emergency response times during construction or O&M and no impact would occur.

5.15.4.4 Displaced Population

As presented in Section 5.14, Population and Housing, the Proposed Project would neither create permanent employment nor displace people. Therefore, the provision of new public services to serve displaced populations or new employees would not be required.

5.15.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures identified for the public services resource area.

5.15.5.1 Applicant Proposed Measures

No impacts to public services would occur as a result of the Proposed Project. As such, there are no applicant proposed measures.

5.15.6 Alternatives

For an evaluation of Proposed Project alternatives, see Chapter 6, Comparison of Alternatives.

5.16 Recreation

This section describes recreation resources in the area of the Cal City Substation 115 kV Upgrade Project (Proposed Project), as well as the potential impacts to recreation that could result from construction and operation of the Proposed Project.

Research for this analysis involved a review of the following resources:

- Federal, state, and local agency planning documents
- Aerial imagery

5.16.1 Environmental Setting

The Proposed Project is located in Kern County and San Bernardino County in the Mojave Desert region of California on federal, state, private, and municipal land. These lands include unincorporated areas of Kern County and San Bernardino County, City of California City, Edwards Air Force Base (EAFB) controlled by the Department of Defense, and public lands under the jurisdiction of the Bureau of Land Management (BLM) and the California Department of Fish and Wildlife (CDFW). Approximately 90 percent of the Proposed Project is located within undeveloped open areas, with the remaining 10 percent located within developed areas (including the City of California City). The following subsections describe the existing recreation resources in the Proposed Project area.

5.16.1.1 Recreational Setting

The Proposed Project alignment crosses the City of California City, and unincorporated areas of Kern and San Bernardino counties, including North Edwards and Boron. Generally, dispersed recreation on public lands is the primary recreational opportunity available in the area. Parks and recreation facilities in proximity to the Proposed Project alignment were identified. These facilities are discussed by jurisdiction in the following subsections, are listed in Table 5.16-1, and shown on Figure 5.16-1.

Table 5.16-1 Parks and Recreational Facilities within 1 Mile of the Proposed Project

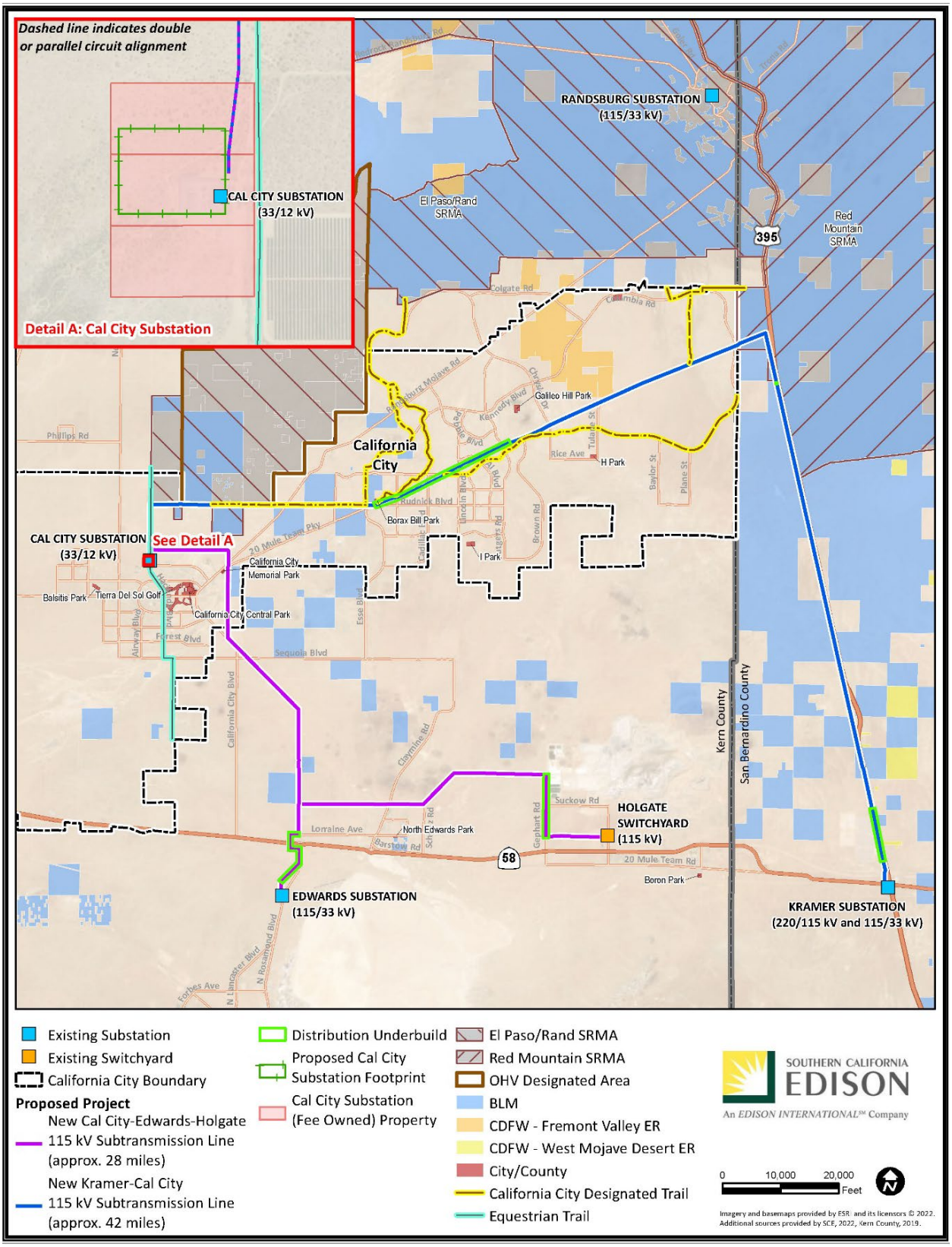
Park	Jurisdiction	Approximate Distance to the Proposed Project Alignment (Miles)	Nearest Proposed Project Component
Bureau of Land Management[1]	Bureau of Land Management	Within for approximately 15.5 miles and adjacent for approximately 4.9 miles	Kramer-Cal City and Cal City-Edwards-Holgate
Borax Bill Park & Station	City of California City	Adjacent for approximately 0.3 mile	Kramer-Cal City
California City Memorial Park	City of California City	< 0.1 mile	Cal City-Edwards-Holgate
El Paso/Rand Special Recreation Management Area and Bureau of Land Management off-highway vehicle-designated area	Bureau of Land Management	Within for approximately 1.3 miles and adjacent for approximately 2.8 miles	Kramer-Cal City
Equestrian Trail	City of California City	Adjacent for approximately 1.8 miles	Kramer-Cal City, Cal City-Edwards-Holgate, and Cal City Substation

[1] Note: the distances provided for BLM land are inclusive of the El Paso/Rand and Red Mountain Special Recreation Management Areas.

Park	Jurisdiction	Approximate Distance to the Proposed Project Alignment (Miles)	Nearest Proposed Project Component
Fremont Valley Ecological Reserve	California Department of Fish and Wildlife	Within for approximately <0.1 mile	Kramer-Cal City
Galileo Hill Park	City of California City	0.8 mile	Kramer-Cal City
Red Mountain Special Recreation Management Area	Bureau of Land Management	Within for approximately 2.6 miles and adjacent to for approximately 3.3 miles	Kramer-Cal City
West Mojave Desert Ecological Reserve	California Department of Fish and Wildlife	Adjacent for approximately 0.3 mile	Kramer-Cal City

Sources: City of California City 2018, California Protected Areas Database 2021, Data Basin 2015.

Figure 5.16-1 Parks and Recreational Facilities in Proposed Project Vicinity



5.16.1.1.1 Federal Lands

Bureau of Land Management

Federal lands used for recreation in the vicinity of the Proposed Project consist of lands administered by the BLM Ridgecrest field office. Recreation on these lands is generally dispersed, and not associated with developed infrastructure. In addition, the entire Proposed Project alignment is within the California Desert Conservation Area (CDCA), which is managed by the California Desert District of the BLM. Recreational activities in the California Desert District include hiking, hunting, camping, land sailing, sightseeing, and the use of recreational off-highway vehicles (OHVs).

Special Recreation Management Areas (SRMAs) are high-priority areas for outdoor recreation opportunities defined in the BLM *Land Use Planning Handbook*. SRMAs help the BLM direct recreation program priorities toward areas with high resource values, high levels of public concern, or significant amounts of recreational activity.

As shown in Figure 5.16-1, the proposed Kramer-Cal City 115 kV Subtransmission Line would be located within the El Paso/Rand SRMA for approximately 1.3 miles and directly adjacent to the El Paso/Rand SRMA for approximately 2.8 miles. Additionally, the proposed Kramer-Cal City 115 kV Subtransmission Line would also be located within the Red Mountain SRMA for approximately 2.6 miles and directly adjacent to the Red Mountain SRMA for approximately 3.3 miles.

The El Paso/Rand SRMA includes a BLM OHV-designated area north of Rudnick Boulevard. Of the 4 miles that the Kramer-Cal City alignment runs within and alongside the El Paso/Rand SRMA, the Proposed Project would be directly adjacent to this OHV-designated area for approximately 3 miles.

5.16.1.1.2 State Lands

California Department of Fish and Wildlife

State lands used for recreation in the vicinity of the Proposed Project consist of two CDFW ecological reserves. The proposed Kramer-Cal City 115 kV Subtransmission Line would be within the Fremont Valley Ecological Reserve for approximately 0.1 mile and directly adjacent to the West Mojave Desert Ecological Reserve for approximately 0.3 mile. The Fremont Valley Ecological Reserve covers approximately 4,100 acres and offers wildlife viewing opportunities. The West Mojave Desert Ecological Reserve covers approximately 18,000 acres and offers wildlife viewing, hiking, and seasonal hunting opportunities.

5.16.1.1.3 Local

Local recreational resources in the vicinity of the Proposed Project consist of multiple parks within the City of California City, North Edwards, and Boron. Borax Bill Park & Station, an OHV park, is located directly adjacent the proposed Kramer-Cal City 115 kV Subtransmission Line for approximately 0.3 mile on Twenty Mule Team Parkway. Additionally, California City Central Park, Tierra Del Sol Golf Course, and North Edwards Park are located approximately 1 mile from the Proposed Project alignment.

The City of California City has a network of OHV roads that extend beyond the OHV-designated parks in the area. Within the City of California City, many roads that were originally planned when the city was conceived have become street legal roads, dirt OHV roads, and City of California City designated trails. Borax Bill Park & Station is a gateway park for much of this OHV recreation. The Kramer-Cal City alignment is adjacent to many of these roads as it approaches the City of California City. In addition, the

Kramer-Cal City alignment would be located parallel to Rudnick Boulevard, which is a City of California City designated trail, for approximately 7.0 miles.

Equestrian trails are another recreation resource present within the vicinity of the Proposed Project. One equestrian trail runs parallel to 90th Street and Hacienda Boulevard and is directly adjacent to the Cal City Substation, the proposed Kramer-Cal City 115 kV Subtransmission Line for approximately 1.8 miles, and the proposed Cal City-Edwards-Holgate 115 kV Subtransmission Line for approximately 0.3 mile.

5.16.2 Regulatory Setting

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

5.16.2.1 Federal

5.16.2.1.1 Federal Land Policy and Management Act

Under the Federal Land Policy and Management Act (FLPMA) of 1976 (43 U.S.C. § 1701 *et seq*.), land management agencies are required to manage federally owned public lands in a manner that protects the quality of resources, and the FLPMA supports multiple uses on public lands. The FLPMA designated the approximately 26 million-acre CDCA in Southern California, of which approximately 10.4 million acres are managed by the BLM. The FLPMA provides a framework for the BLM to manage resources in perpetuity and led to the development of the CDCA Plan, which acts as the BLM's land use guide for the management of public lands and resources.

5.16.2.1.2 California Desert Conservation Area

The CDCA Plan, which was adopted in 1980 and has since been amended, is a comprehensive, long-range plan for the management, use, development, and protection of lands within the CDCA that is required as part of the FLPMA and implemented by the BLM. The CDCA Plan contains a Recreation Element, in which the BLM encourages applicants to provide and manage recreation facilities to support all desert users. In addition, the CDCA plan also includes a Motorized-Vehicle Access Element, in which the BLM encourages the designation and management of routes for motorized vehicle access to minimize harm to the desert resources and users.

5.16.2.1.3 Desert Renewable Energy Conservation Plan

The Desert Renewable Energy Conservation Plan (DRECP) is a collaborative effort between the California Energy Commission, CDFW, BLM, and U.S. Fish and Wildlife Service (USFWS) to:

- Advance federal and state natural resource conservation goals and other federal land management goals
- Meet the requirements of the federal Endangered Species Act, California Endangered Species Act, Natural Community Conservation Planning Act, and FLPMA
- 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 includes two types of recreation designations: SRMAs and Extensive Recreation Management Areas. The Proposed Project is located

entirely within the DRECP Plan Area and within and adjacent to two SRMAs, as described in Section 5.16.1.1.1, Federal Lands.

5.16.2.1.4 The Wilderness Act of 1964

The Wilderness Act of 1964 (16 U.S.C. Ch. 23) 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 (NWPS) that coordinates the wilderness activities of four federal agencies: the U.S. Forest Service, BLM, National Park Service, and USFWS. The NWPS 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.

5.16.2.2 State

5.16.2.2.1 California Department of Fish and Wildlife

The mission of the CDFW is to manage California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public. The CDFW manages wildlife and recreation areas, two of which—the Fremont Valley Ecological Reserve and West Mojave Desert Ecological Reserve—are adjacent to the Proposed Project, as discussed in Section 5.16.1.1.2, State Lands.

5.16.2.3 Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (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 counties' and city's regulations are not applicable as the counties and city do not have jurisdiction over the Proposed Project. Accordingly, the following discussion of local regulations is provided for informational purposes only.

5.16.2.3.1 Kern County General Plan

The Land Use, Open Space, and Conservation Element of the Kern County General Plan provides for a variety of land uses for future economic growth while also assuring the conservation of Kern County's agricultural, natural, and resource attributes. This element of the Kern County General Plan contains the following policy that is relevant to the Proposed Project:

Section 1.4 Public Facilities and Services

Policy 4 The provision of parks and recreational facilities of varying size, function, and location to serve County residents will be encouraged. Special attention will be

directed to providing linear parks along creeks, rivers, and streambeds in urban areas.

5.16.2.3.2 San Bernardino Countywide Policy Plan

The Natural Resources Element of the San Bernardino Countywide Policy Plan sets standards and applies designations to preserve the varied natural resources across the unincorporated lands, including the following goal and policies that are relevant to the Proposed Project:

GOAL NR-3 Open Space, Parks, and Recreation. A system of well-planned and maintained parks, trails, and open space that provides recreation opportunities for residents, attracts visitors from across the region and around the country, and preserves the natural environment.

Policy NR-3.1 Open space preservation. We regulate land use and coordinate with public and nongovernmental agencies to preserve open space areas that protect natural resources, function as a buffer against natural hazards or between land uses, serve as a recreation or tourist destination, or are central to the identity of an unincorporated community.

Policy NR-3.12 Rights-of-way and easements. We consider reserving portions of rights-of-way and easements found to be unnecessary for the ultimate buildout of roadways or flood control facilities for use as local pedestrian, bicycle, and/or equestrian trails.

5.16.2.3.3 City of California City General Plan

The Open Space and Conservation Element of the City of California City General Plan provides goals, policies, and implementation measures that seek to preserve and protect open space resources and conservation resources in the city. The Open Space and Conservation Element of the City of California City General Plan contains the following implementation measure that is relevant to the Proposed Project:

- Implementation Measure OS-1: Develop open-space corridors along utility easements, drainages, slopes, and other natural features, whenever possible.

5.16.3 Impact Questions

5.16.3.1 Recreation Impact Questions

The thresholds of significance for assessing impacts come from the California Environmental Quality Act (CEQA) Environmental Checklist. For recreation resources, the CEQA Checklist asks, 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?
- Include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

5.16.3.2 Additional CEQA Impact Questions

The CPUC has identified additional CEQA significance criteria. These additional CEQA significance criteria ask, would the project:

- Reduce or prevent access to a designated recreation facility or area?

- Substantially change the character of a recreational area by reducing the scenic, biological, cultural, geologic, or other important characteristics that contribute to the value of recreational facilities or areas?
- Damage recreational trails or facilities?

5.16.4 Impact Analysis

5.16.4.1 Recreation Methodology

Parks and recreation areas in the vicinity of the Proposed Project alignment were identified by reviewing general plans and other documents developed by the City of California City, Kern County, and San Bernardino County, along with EAFB and BLM land management documents. The Proposed Project components were then overlain these resources to identify potential impacts from the construction and operation and maintenance (O&M) phases.

5.16.4.2 Recreation Impact Analysis

5.16.4.2.1 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?

Construction

No Impact. The use of parks and recreational facilities is closely tied to population; as population increases, the use of existing parks and recreational facilities can be expected to increase proportionally. Similarly, the loss of existing parks and recreational facilities may result in a concentration of use at remaining parks and facilities.

As presented in Section 5.14, Population and Housing, the Proposed Project would not directly or indirectly induce substantial unplanned population growth. Construction of the Proposed Project is anticipated to occur for approximately 24 months, and during peak times, Southern California Edison Company (SCE) expects to utilize up to 140 workers per day. During construction, local parks may be used by workers during their lunch or break periods, or during non-working hours for any workers that may temporarily relocate to the area; however, the duration of construction activities and the number of construction workers would not result in a significant increase in the use of existing parks or recreational facilities. The limited increase in the use of parks and recreational facilities by workers during construction and the lack of substantial population growth resulting from the Proposed Project would not result in either a significant increase in the use of existing parks or recreational facilities or the occurrence or acceleration of substantial physical deterioration to existing parks and recreational facilities. Therefore, no impact would occur as a result of construction of the Proposed Project.

Operation

No Impact. As presented in Chapter 3, the Proposed Project includes constructing subtransmission lines between existing substations in the vicinity of the City of California City, EAFB, and U.S. 395 where many overhead power lines currently exist. O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing facilities, including, but not limited to, repairing conductors, washing or replacing insulators, repairing or replacing other hardware components, repairing or replacing poles and towers, tree trimming, brush and weed control, and access road maintenance. O&M would also include routine inspections and emergency repair within substations and throughout rights-of-

way (ROWs), which would require the use of vehicles and equipment. SCE inspects subtransmission overhead facilities in a manner consistent with CPUC G.O. 165, which requires observation a minimum of once per year, but inspection typically occurs more frequently to ensure system reliability. Following construction of the Proposed Project, O&M activities would consist of monthly and annual inspections, as well as equipment testing and maintenance for new and expanded facilities. SCE currently performs O&M activities for the existing substations and their associated source lines and infrastructure. Overall, the Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. The Proposed Project is required to meet the projected electric demand that is already exceeding capacity of the existing facilities and improve overall reliability. As such, O&M work for the Proposed Project would be growth-accommodating, not growth-inducing, and therefore would not directly increase demand for recreational facilities.

5.16.4.2.2 Would the project include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Construction and Operation

No Impact. The Proposed Project would not result in a population increase and would not require the construction or expansion of any recreational facilities. As a result, there would be no adverse physical effect on the environment from the construction of new—or expansion of existing—recreational facilities, and no impact would occur.

5.16.4.2.3 Would the project reduce or prevent access to a designated recreation facility or area?

Construction

Less than Significant Impact with Mitigation. The construction required for the Proposed Project would require temporary access restrictions and/or road closures to allow for construction to occur safely. Parks and recreation areas affected by construction-related access restrictions would include the BLM OHV-designated area north of Rudnick Boulevard, Borax Bill Station & Park north of Twenty Mule Team Parkway, Fremont Valley Ecological Reserve, and West Mojave Desert Ecological Reserve, all of which are directly adjacent to the Proposed Project alignment. The use of temporary workspaces and installation of permanent access roads required for construction of the Proposed Project would lead to temporary access restrictions and closures along Twenty Mule Team Parkway and Rudnick Boulevard. However, these access restrictions and closures would be temporary and localized in the area of construction work. While construction activities would limit access to recreation facilities in these locations, recreation facilities would not require closure.

In addition to OHV-designated parks, an extensive network of street legal roads, dirt OHV roads, and City of California City designated trails are located adjacent to the Proposed Project in the vicinity of Twenty Mule Team Parkway. Due to their proximity to the Proposed Project, access to these facilities would be temporarily restricted in the vicinity of active construction due to the use of temporary construction workspaces and installation of permanent access roads. Because construction in these locations would proceed in a generally linear fashion, where crews would be in one location for a maximum of two weeks at a time, and the ample alternative facilities in the Proposed Project vicinity, these temporary access restrictions would not restrict overall OHV use in the area. Additionally, access to portions of Rudnick

Boulevard, a City of California City designated trail, would be temporarily limited due to the Proposed Project alignment running directly adjacent to the trail.

Expansion of the Cal City Substation and installation of new subtransmission lines may temporarily limit access to a portion of an existing equestrian trail parallel to Hacienda Boulevard. While direct access to portions of the trail in the vicinity of Proposed Project activities may be limited during construction, suitable alternative trail options exist in the vicinity of this work. Following completion of Proposed Project construction, direct access to the trail along Hacienda Boulevard would be restored.

To reduce the potential impacts associated with access restrictions to these recreation areas and facilities, SCE would implement Applicant Proposed Measure (APM) REC-1. APM REC-1 would require SCE to coordinate with recreation facility owners prior to any temporary access restrictions to ensure that facility users are aware of upcoming restrictions and can still access the facility through the use of alternative roads. In addition, SCE would prepare and implement the required traffic control plans in accordance with required encroachment permits. These traffic control plans would ensure that the appropriate traffic controls (e.g., flaggers, cones, detours) are implemented to facilitate safe access to recreation facilities as required by the appropriate state agency and/or local government. With the implementation of APM REC-1 and required traffic control plans, impacts caused by the reduction of access to recreational facilities would be less than significant.

Operations

Less than Significant Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. The O&M activities for the Proposed Project may require temporary access restrictions and/or road closures to allow for O&M work to occur safely. However, these closures would be temporary and localized in the area of active O&M work. In addition, there are sufficient alternate roads and recreational facilities within the Proposed Project area for users to access during temporary access restrictions and road closures for O&M work. As a result, O&M activities would not significantly reduce or prevent access to recreational facilities within the Proposed Project area, and impacts would be less than significant.

5.16.4.2.4 Would the project substantially change the character of a recreational area by reducing the scenic, biological, cultural, geologic, or other important characteristics that contribute to the value of recreational facilities or areas?

Construction

No Impact. The Proposed Project alignment is located adjacent to lands managed by the BLM and CDFW that are or may be used for recreation. As presented in Section 5.1, Aesthetics; Section 5.4, Biological Resources; Section 5.5, Cultural Resources; and Section 5.7, Geology, Soils, and Paleontological Resources, the Proposed Project would not substantially change the character of any recreational area as no significant and unavoidable impacts to these resource areas have been identified at this time. Given that the construction activities associated with the Proposed Project would not substantially change the character of nearby recreational areas, no impacts would occur during construction activities.

Operations

No Impact. As described previously, SCE is currently performing O&M activities, including inspections, on existing infrastructure along portions of the Proposed Project alignment and on other existing infrastructure within the region. As discussed in Section 5.1, Aesthetics; Section 5.4, Biological Resources; Section 5.5, Cultural Resources; and Section 5.7, Geology, Soils, and Paleontological Resources, while the Proposed Project would require additional O&M work, these activities would not substantially change the character of any given recreational area as no significant and unavoidable impacts to these resource areas have been identified at this time. Given O&M activities are currently located along the Proposed Project alignment and new O&M work would not substantially change the character of recreation facilities, no impacts would occur during Proposed Project operation.

5.16.4.2.5 Would the project damage recreational trails or facilities?

Construction

Less than Significant Impact. As described previously, the Proposed Project would be constructed parallel to Rudnick Boulevard, which is an existing City of California City designated trail, and multiple other roads used for OHV activities in the vicinity of Twenty Mule Team Parkway. Additionally, construction of the Proposed Project may temporarily obstruct use of an existing equestrian trail parallel to Hacienda Boulevard. SCE would ensure that designated trails and OHV areas are returned to pre-construction conditions following the completion of construction. During this restoration process, sufficient alternative trails, OHV areas, and recreational facilities would be available to users. Given that SCE would restore recreation trails and facilities if damaged during construction and that sufficient alternative recreation resources exist in the area, impacts would be less than significant.

Operation

No Impact. The Proposed Project's O&M activities would occur within with SCE's existing or new ROWs. As a result, O&M work would not cause damage to recreational trails or facilities, and no impact would occur.

5.16.5 CPUC Draft Environmental Measures

No additional CPUC Draft Mitigation Measures are proposed for the recreation resource area.

5.16.5.1 Applicant Proposed Measures

The following APM would be implemented to reduce recreation impacts associated with the Proposed Project:

- REC-1: When temporary closures to recreational areas are necessary for construction activities, SCE will coordinate those closures with recreational facility owners.

5.16.6 Alternatives

For an evaluation of Proposed Project alternatives, see Chapter 6, Comparison of Alternatives.

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5.17 Transportation

This section describes the existing transportation system in the Cal City Substation 115 kV Upgrade Project (Proposed Project) area, as well as the potential impacts to transportation from construction and operation of the Proposed Project.

Research for this analysis involved a review of the following resources:

- California Department of Transportation (Caltrans) vehicle traffic volume counts,
- regional planning agency transit websites, and
- local agency planning documents.

5.17.1 Environmental Setting

The Proposed Project is located in Kern County and San Bernardino County in the Mojave Desert region of California on federal, state, private, and municipal land. These lands include unincorporated areas of Kern County and San Bernardino County, City of California City, Edwards Air Force Base (EAFB) controlled by the Department of Defense, and public lands under the jurisdiction of the Bureau of Land Management and the California Department of Fish and Wildlife. Approximately 90 percent of the Proposed Project is located within undeveloped open areas, with the remaining 10 percent located within developed areas (including the City of California City). This section describes the regional and local transportation systems in relation to the Proposed Project area.

5.17.1.1 Circulation System

The Proposed Project's regional transportation system is comprised of highways and county and local roads. United States (U.S.) Highway 395 (U.S. 395), State Route- (SR-) 58, and SR-14 provide regional access to the area. The Proposed Project crosses and/or is located adjacent to U.S. 395, SR-58, and numerous county and local roads.

5.17.1.2 Existing Roadways and Circulation

The existing named roadways that may be used to access the Proposed Project alignment and to transport materials during construction (or that are otherwise crossed by the Proposed Project alignment) are presented in Table 5.17-1.

5.17.1.3 Transit and Rail Services

Public transportation in the City of California City consists of fixed route bus lines provided by Kern Regional Transit linking the City of California City with the town of Mojave and the cities of Tehachapi, Ridgecrest, Bakersfield, Rosamond, Lancaster, and Palmdale. One bus route, the 240 – Boron-Mojave route, would be crossed by the Proposed Project alignment along SR-58. This route operates four trips in each direction each Monday, Wednesday, and Friday.

Union Pacific Railroad (UPRR) operates two branch lines in Kern County and near the Proposed Project—the Lone Pine Subdivision between Mojave and the community of Searles Valley, as well as the Oak Creek Industrial Lead between Mojave and the CalPortland Mojave Plant. Burlington Northern Santa Fe (BNSF) operates one main line in Kern County and San Bernardino County near the Proposed Project area—Mojave Subdivision, which connects Bakersfield to Mojave. Neither the UPRR line nor the BNSF line provides passenger services.

Table 5.17-1 Existing Roadways

Roadway	Jurisdiction/ Ownership	Number of Lanes	Traffic Volume (Monthly Average Daily Traffic [MADT])	Distance to Proposed Project Feature (Miles)
Kramer-Cal City 115 kV Subtransmission Line				
U.S. 395	Caltrans	2	121,000-154,000	0
SR-58	Caltrans	4	12,200-43,500	0
Pipeline Road	San Bernardino County	2	31,500-39,000	0
Farmington Road	San Bernardino County	Not available (N/A)	N/A	0
Marshall Street	San Bernardino County	N/A	N/A	0
Balsamo Road	San Bernardino County	N/A	N/A	0
Wadena Road	San Bernardino County	N/A	N/A	0
Waseca Road	San Bernardino County	N/A	N/A	0
Locust Road/Seneca Road	San Bernardino County	2	N/A	0
Chaska Road	San Bernardino County	N/A	N/A	0
Rosewood Boulevard	San Bernardino County	N/A	N/A	0
Fremont Peak Road	San Bernardino County	N/A	N/A	0
Kramer Station Road	San Bernardino County	N/A	N/A	0
Twenty Mule Team Parkway	San Bernardino County/ City of California City	N/A	N/A	0
Columbia Road	City of California City	N/A	N/A	0
Arcadia Street	City of California City	N/A	N/A	0
Temple Street	City of California City	N/A	N/A	0
Baylor Street	City of California City	N/A	N/A	0
Churchill Street	City of California City	N/A	N/A	0
Occidental Street	City of California City	N/A	N/A	0
Tulane Street	City of California City	N/A	N/A	0
Pomona Street	City of California City	N/A	N/A	0
Bucknell Road	City of California City	N/A	N/A	0
Brown Road	City of California City	N/A	N/A	0
Rutgers Road	City of California City	2	N/A	0
Antelope Drive West	City of California City	N/A	N/A	0
Lincoln Boulevard	City of California City	N/A	N/A	0
South Columbia Road	City of California City	N/A	N/A	0
Oldsmobile Boulevard	City of California City	N/A	N/A	0
Cadillac Boulevard	City of California City	N/A	N/A	0
Chrysler Drive	City of California City	N/A	N/A	0
Bill Street	City of California City	N/A	N/A	0
Esse Boulevard	City of California City	2	N/A	0
Rudnick Boulevard	City of California City	2	N/A	0
Oscar Avenue	City of California City	N/A	N/A	0
156th Street	City of California City	N/A	N/A	0.01
155th Street	City of California City	N/A	N/A	0.01
152nd Street	City of California City	N/A	N/A	0
Virginia Boulevard	City of California City	N/A	N/A	0
140th Street	City of California City/ Kern County	N/A	N/A	0
Randsburg Mojave Road	City of California City	N/A	N/A	0
J Street	City of California City	N/A	N/A	0.16

Roadway	Jurisdiction/ Ownership	Number of Lanes	Traffic Volume (Monthly Average Daily Traffic [MADT])	Distance to Proposed Project Feature (Miles)
130th Street	City of California City	N/A	N/A	0
C Street	City of California City	N/A	N/A	0.01
120th Street	Kern County	N/A	N/A	0
Elmer Circle	Kern County	N/A	N/A	0.01
115th Street	Kern County	N/A	N/A	0.01
114th Street	Kern County	N/A	N/A	0.01
111th Street	Kern County	N/A	N/A	0.01
110th Street	Kern County	N/A	N/A	0
90th Street	City of California City	N/A	N/A	0
Hans Boulevard	City of California City	N/A	N/A	0
Lindbergh Boulevard	City of California City	N/A	N/A	0
Cal City-Edwards-Holgate 115 kV Subtransmission Line				
Hacienda Boulevard	City of California City	2	N/A	0.16
Mendiburu Road	City of California City	2	N/A	0.16
Proctor Boulevard	City of California City	2	N/A	0
Tamarack Avenue	Kern County/ City of California City	N/A	N/A	0
Sandy Avenue	Kern County	N/A	N/A	0
California City Boulevard	Kern County	2	18,100-19,700	0.01
Sequoia Boulevard	Kern County	N/A	N/A	0
125th Street	Kern County	N/A	N/A	0
Regent Avenue	Kern County	N/A	N/A	0
Rosewood Boulevard	Kern County	N/A	N/A	0
Dacre Avenue	Kern County	N/A	N/A	0.01
Joshua Avenue	Kern County	N/A	N/A	0
Desert View Avenue	Kern County	N/A	N/A	0
East Blair Avenue	Kern County	N/A	N/A	0
Mission Avenue	Kern County	N/A	N/A	0
Locust Avenue	Kern County	N/A	N/A	0.01
Birch Avenue	Kern County	N/A	N/A	0.01
Elm Avenue	Kern County	N/A	N/A	0.01
Leticia Avenue	Kern County	N/A	N/A	0.01
Suckow Road	Kern County	N/A	N/A	0
Bernard Avenue	Kern County	N/A	N/A	0
Glendower Avenue	Kern County	N/A	N/A	0
Bellaire Avenue	Kern County	N/A	N/A	0
Lorraine Avenue	Kern County	N/A	N/A	0
Desert Sage Avenue	Kern County	N/A	N/A	0
SR-58	Caltrans	4	12,200-43,500	0
Muroc Road	Kern County	N/A	N/A	0
North Rosamond Boulevard	Kern County	2	23,600-36,500	0
Castle Butte Drive	Kern County	N/A	N/A	0
La Mesa Street	Kern County	N/A	N/A	0
157th Street	Kern County	N/A	N/A	0
160th Street	Kern County	N/A	N/A	0
Fox Street	Kern County	N/A	N/A	0.01
Clement Street	Kern County	N/A	N/A	0
Lamel Street	Kern County	N/A	N/A	0.01
Davenport Street	Kern County	N/A	N/A	0

Roadway	Jurisdiction/ Ownership	Number of Lanes	Traffic Volume (Monthly Average Daily Traffic [MADT])	Distance to Proposed Project Feature (Miles)
Clay Mine Road	Kern County	2	16,500-18,000	0
Granada Street	Kern County	N/A	N/A	0
Gulf Street	Kern County	N/A	N/A	0
Flint Street	Kern County	N/A	N/A	0
Schultz Road	Kern County	N/A	N/A	0
Gephart Road	Kern County	2	N/A	0
Borax Road	Kern County	2	N/A	0.04

Source: Caltrans 2020a
Note: Roadways with the number of lanes reported as N/A have a dirt surface and no lane markings

5.17.1.4 Bicycle Facilities

The Proposed Project is located within Caltrans Districts 8 and 9. Bicyclists are allowed on U.S. 395; however, bicycles are prohibited along SR-58 in the vicinity of the Proposed Project. There are no county-designated bikeways within the vicinity of the Proposed Project in Kern County or San Bernardino County. There are more than 10 miles of existing bikeways in the City of California City, including a Class I shared-use path and Class II bicycle lanes on California City Boulevard, North Loop Boulevard, South Loop Boulevard, and Hacienda Boulevard. None of these bicycle facilities are crossed by the Proposed Project.[1]

5.17.1.5 Pedestrian Facilities

There are no important pedestrian facilities, including walkways, crossed by the Proposed Project alignment that contribute to the circulation system. Due to the remote location of much of the alignment, existing streets do not have sidewalks or other pedestrian facilities.

5.17.1.6 Vehicle Miles Traveled

Table 5.17-2 presents a summary of the average daily vehicle miles traveled (VMT) in 2020 in the City of California City, Kern County, and San Bernardino County.

Table 5.17-2 Vehicle Miles Traveled

Jurisdiction	Average Daily Vehicle Miles Traveled in 2020	Average Daily Vehicle Miles Traveled per Capita in 2020
City of California City	328,150	23.4
Kern County	23,007,850	25.8
San Bernardino County	55,966,930	25.9

Source: Caltrans 2020b

5.17.2 Regulatory Setting

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

[1] Because the Proposed Project does not intersect any existing bicycle routes, a map of these features has not been included.

5.17.2.1 Federal

5.17.2.1.1 Code of Federal Regulations

Code of Federal Regulations (CFR) Title 49, Subtitle B includes procedures and regulations pertaining to interstate and intrastate transport (including hazardous materials program procedures) and provides safety measures for motor carriers and motor vehicles that operate on public highways.

5.17.2.1.2 Hazardous Materials Transportation Act of 1974

The Hazardous Materials Transportation Act of 1974 directs the U.S. Department of Transportation (DOT) to establish criteria and regulations regarding safe storage and transportation of hazardous materials. The DOT would primarily deal with the transportation of hazardous materials on roadways in the Proposed Project area. Section 5.9, Hazards, Hazardous Materials, and Public Safety addresses the transportation of hazardous materials, types of materials defined as hazardous, and the treatment of hazardous materials associated with the Proposed Project.

5.17.2.2 State

5.17.2.2.1 State CEQA Guidelines, Section 15064.3, Determining the Significance of Transportation Impacts.

In response to Senate Bill 743 (Steinberg, 2013), this section of the CEQA guidelines established "vehicle miles traveled" (VMT) as 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 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 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 Proposed Project would potentially conflict or be inconsistent with CEQA Guidelines section 15064.3(b), and potentially result in a significant impact if it would generate more than 110 permanent automobile trips per day.

5.17.2.2.2 California Streets and Highways Code

Caltrans manages state highways in California. The use of California state highways for reasons other than normal transportation purposes may require written authorization 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 rights-of-way (ROWs). Caltrans reviews all requests from utility companies that plan to conduct activities within state highway ROWs. Caltrans' encroachment permits may include conditions or restrictions that limit when construction activities can occur within or above roadways that are under the jurisdiction of Caltrans. 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.

Caltrans prepared a document, *Guide for the Preparation of Traffic Studies*, that describes when a traffic impact study is needed. The intent of this guide is to provide a starting point and a consistent basis upon which Caltrans evaluates traffic impacts to state highway facilities. The applicability of the guide for local streets and roads (non-state highways) is at the discretion of the affected jurisdiction.

5.17.2.2.3 California Transportation Commission

The California Transportation Commission (CTC) was established in 1978 out of a growing desire for a single, unified California transportation policy. The CTC is responsible for programming and allocating funds for the construction of highway, passenger rail, active transportation, aeronautics, and transit improvements throughout California. The CTC advises and assists the Secretary of the California State Transportation Agency and the state legislature in formulating and evaluating state policies and plans for California's transportation programs. The CTC is also an active participant in the initiation and development of state and federal legislation that seeks to secure financial stability for the state's transportation needs.

5.17.2.2.4 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.

5.17.2.2.5 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.

5.17.2.3 Local

The California Public Utilities Commission (CPUC) has sole and exclusive jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (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 city regulations are not applicable as the counties and city do not have jurisdiction over the Proposed Project. Accordingly, the following discussion of local land use regulations is provided for informational purposes only.

5.17.2.3.1 Kern Council of Governments Regional Transportation Plan

The Kern Council of Governments (COG) is an association of city and county governments created to address regional transportation issues. Its member agencies include Kern County and 11 incorporated cities within Kern County. The Kern COG is responsible for developing and updating a variety of transportation plans, determining priority projects, allocating federal and state funds to implement the plans, and assuring money accepted for improving plans is properly utilized.

The Kern COG's Regional Transportation Plan, last updated in 2018, is a long-term (more than 20-year) general plan for the region's transportation network, and it encompasses projects for all types of travel, including aviation and freight movement. The plan assesses the environmental impacts of proposed projects and establishes air quality conformity as required by federal regulations.

The Kern COG is required to periodically update the Regional Transportation Plan to ensure that the transportation system addresses the transportation and traffic plans for Kern County in a manner that is consistent with the applicable federal and state requirements.

5.17.2.3.2 Kern County General Plan

The Kern County General Plan's Circulation Element includes the following goal:

- Maintain a minimum Level of Service (LOS) D for all roads throughout [Kern] County unless the roads are part of an adopted Community Plan or Specific Plan which utilizes Smart Growth policies that encourage efficient multi-modal movements.

5.17.2.3.3 San Bernardino Countywide Policy Plan

The San Bernardino Countywide Policy 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."

5.17.2.3.4 Congestion Management Program for San Bernardino County

The 2016 Update to the San Bernardino County Congestion Management Program (CMP) was developed by the San Bernardino Associated Governments (SANBAG). With the exception of several roadway segments that were designated LOS F in 2001, all CMP segments are required to operate at LOS E or better.

5.17.2.3.5 City of California City General Plan

The City of California City General Plan's Circulation Element includes the following policy:

- Plan and provide a street and highway system to move people and goods in an orderly, safe, and efficient manner. Level of Service classification C or better shall be maintained for arterial and collector streets.

5.17.3 Impact Questions

5.17.3.1 Transportation Impact Questions

The significance criteria for assessing the impacts to transportation and traffic come from the CEQA Environmental Checklist. For transportation, the CEQA Checklist asks, would the project:

- Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?
- Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- Result in inadequate emergency access?

5.17.3.2 Additional CEQA Impact Questions

The CPUC has identified additional CEQA significance criteria. These additional CEQA significance criteria ask:

- Would the project create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations?
- Would the project interfere with walking or bicycling accessibility?
- Would the project substantially delay public transit?

5.17.4 Impact Analysis

5.17.4.1 Transportation Methodology

Impacts to transportation within the Proposed Project area were determined by evaluating the existing modes of transportation and evaluating the potential hazards or delays to these services and facilities from construction and operation and maintenance (O&M) activities. Using the information provided in Chapter 3, Proposed Project Description, an estimate of VMT was generated for the construction and O&M phases of the Proposed Project. Appendix N contains the data used to generate this estimate.

Additionally, for the purpose of this analysis, as described in Section 5.17.2.2.1, the Proposed Project would potentially conflict or be inconsistent with CEQA Guidelines section 15064.3(b), and potentially result in

a significant impact related to VMT, if it would generate more than 110 permanent automobile trips per day.

5.17.4.2 Transportation Impact Analysis

5.17.4.2.1 Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Construction

Less than Significant Impact. Proposed Project-related traffic would be temporary during the approximately 24-month construction period. Construction activities would include the movement of light-duty, medium-duty, and heavy-duty vehicles (including oversize vehicles such as cranes) along U.S. 395, SR-58, and various county- and city-maintained roads. The Proposed Project alignment also spans unpaved roads and trails that may be used by cyclists, off-highway vehicles, equestrians, 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[2] may be used to transport equipment and workers to work locations. Helicopter landing zones would be strategically located to access the Proposed Project alignment. Helicopter use activities would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Although traffic may be temporarily disrupted at times along various roadways throughout the Proposed Project area during construction, construction activities would not be expected to contribute a substantial amount of vehicle traffic to these roadways. Construction traffic would be temporary, and any traffic increase would be negligible in the largely undeveloped Proposed Project vicinity. Due to the temporary nature of any traffic impacts, construction-related traffic would not conflict with the Kern COG Regional Transportation Plan, Kern County General Plan Circulation Element, San Bernardino County CMP, San Bernardino Countywide Policy Plan Transportation and Mobility Element, City of California City General Plan Circulation Element, 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 undeveloped areas but would span public transit routes, bicycle lanes and trails, equestrian trails, and pedestrian facilities. Use of these facilities could be interrupted when construction occurs adjacent and/or over these facilities. However, interruptions of use would be temporary and short-term, lasting only a few days in any one location. Thus, the Proposed Project would not conflict with any program, plan, ordinance, or policy addressing the circulation system. As such, impacts during construction would be less than significant.

Operation

No Impact. As presented in Chapter 3, the Proposed Project includes constructing subtransmission lines between existing substations in the vicinity of the City of California City, EAFB, and U.S. 395 where many overhead power lines currently exist. O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing facilities, including, but not limited to, repairing

[2] SCE assumes that one light-duty helicopter would be used during cable/conductor installation and one medium-duty helicopter would be used for structure installation. However, there is the possibility that two light-duty helicopters would be used during cable/conductor installation.

conductors, washing or replacing insulators, repairing or replacing other hardware components, repairing or replacing poles and towers, tree trimming, brush and weed control, and access road maintenance. O&M would also include routine inspections and emergency repair within substations and throughout rights-of-way, which would require the use of vehicles and equipment. SCE inspects subtransmission overhead facilities in a manner consistent with CPUC G.O. 165, which requires observation a minimum of once per year, but inspection typically occurs more frequently to ensure system reliability. Following construction of the Proposed Project and associated road improvements, O&M activities would consist of monthly and annual inspections, as well as equipment testing and maintenance for new and expanded facilities. SCE currently performs O&M activities for the existing substations and their associated source lines and infrastructure. Overall, the Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. Along the new subtransmission lines, these activities would typically be conducted from SCE-maintained access or spur roads, or permanent O&M structure pads at the base of select Proposed Project structures. At substations, these activities would occur within the substation property. Consequently, the Proposed Project would not conflict with a program, plan, policy, or ordinance addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, and there would be no impact.

5.17.4.2.2 Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Construction

Less than Significant Impact. As described in Section 5.17.2.2.1, CEQA Guidelines section 15064.3 states that 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.

As presented in Chapter 3, Proposed Project Description, SCE anticipates that construction of the Proposed Project would take approximately 24 months, and that up to 140 workers could be working along the Proposed Project alignment or at the substations on any given day.

Construction would generally take place between the hours of 7:00 a.m. to 7:00 p.m. or in accordance with local ordinances, where feasible. The types of vehicles used may include, but are not limited to, 0.75- and 1-ton trucks, dump trucks, bucket trucks, auger trucks, compressor trailers, and water trucks during construction. Larger pieces of equipment may include, but not be limited to, sock line pullers, tensioning machines or "bull wheel" pullers, backhoe/front loaders, lowboy trucks/trailers, rough-terrain cranes, graders, and dozers. Construction of the Proposed Project would result in a temporary increase in VMT from employee and truck trips during the approximately 24-month construction period. The 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." Construction VMT would be temporary, would cease upon completion of construction, and would not contribute to permanent per capita VMT. Therefore, Proposed Project construction would not exceed the 110-permanent trip increase threshold and would not conflict or be inconsistent with CEQA Guidelines section 15074.3(b), and impacts would be less than significant.

Operation

Less than Significant Impact. As presented in Chapter 3, Proposed Project Description, the Proposed Project is designed to accommodate the forecasted load growth in the Electrical Needs Area and would not

extend electrical service to any new locations. In addition, the Proposed Project does not include any new infrastructure (such as publicly accessible roads) that could induce population growth during operations.

As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. The Proposed Project would result in a nominal increase in O&M activities, including an approximate increase of 60 vehicle trips annually to facilitate the increased maintenance and inspection activities.

Because the operation of the Proposed Project infrastructure would not induce any population growth and the Proposed Project would introduce fewer than 110 average daily vehicle trips during O&M activities, impacts would be less than significant.

5.17.4.2.3 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)?

Construction

Less than Significant Impact. The Proposed Project does not include design features that would increase hazards or incompatible uses during construction. Existing access roads would be used to the extent feasible during construction and new permanent access roads would be created. 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 Proposed Project work areas could damage road surfaces, shoulders, and curbs. To minimize the potential impact of hazards related to inadvertent damage, roads utilized for construction would be improved as needed. As previously discussed, temporary road closures may be necessary during construction of the Proposed Project. Temporary road closures and encroachment into public roadways could increase hazards if appropriate safety measures are not in place (e.g., proper signage, orange cones, and flaggers). However, SCE would prepare and implement any required traffic control plans in accordance with each jurisdiction's required encroachment permit conditions. With encroachment permit implementation, potential hazards resulting from road closures would be minimal. In addition, construction activity would be conducted primarily from SCE-maintained or new access roads. Ingress/egress points between public roadways and these SCE-maintained access roads would be designed and constructed in accordance with all applicable standards. Ingress/egress locations at the substations would not change substantially as a part of the Proposed Project. As a result, the Proposed Project would not introduce any hazards in the form of geometric design features or incompatible uses during construction and impacts would be less than significant.

Operation

No Impact. The Proposed Project does not include geometric design features that would increase hazards or incompatible uses during operation. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. Along the subtransmission lines, these activities would typically be conducted from SCE-maintained access or spur roads, or O&M structure pads located at select structures. Road and/or lane closures are not anticipated during these regularly planned activities. All substation O&M activities would be conducted within the respective substation properties. These O&M activities would not include the introduction of any new geometric design features, nor would they include incompatible uses; therefore, no impact would occur.

5.17.4.2.4 Would the project result in inadequate emergency access?

Construction

Less than Significant Impact. Construction activities may require temporary road and/or lane closures on public roads in residential areas and would involve the movement of oversize vehicles that could affect emergency vehicle access to and along the Proposed Project alignment. Temporary activities across roadways could disrupt the operations of emergency service providers. However, SCE will prepare and implement traffic control plans in accordance with required encroachment permits. These plans will require SCE to accommodate emergency service provider vehicles by immediately stopping work and allowing safe passage. In addition, guard structures would be set up next to highway and road crossings and would not impede emergency access. If an emergency vehicle, or helicopter, approached during Proposed Project helicopter activities, the SCE helicopter would be able to quickly maneuver out of the way for safe passage of the emergency responders. As previously discussed in Section 5.9, Hazards, Hazardous Materials, and Public Safety, the designated evacuation routes in the vicinity of the Proposed Project alignment are U.S. 395 and SR-58. The Proposed Project would cross SR-58 overhead in two locations; however, guard structures would be set up adjacent to the highway and would not result in a road closure of SR-58 in these two areas.

During planning for and construction of the Proposed Project, road and/or lane closures, limitations on the direction of travel, and vehicle movements along and use of public roads and access roads would be communicated to and coordinated with the appropriate agencies and landowners, as necessary. Equipment placed on access or spur roads and in construction work areas would be situated or attended to facilitate emergency vehicle access. SCE would also obtain the appropriate permits from the local jurisdictions, land management agencies, and Caltrans, as applicable, for construction activities that would encroach upon any public ROW or easement. Coordinating with emergency responders in advance and maintaining emergency access on arterial roads would ensure that inadequate emergency access would not occur. Therefore, construction of the Proposed Project would not result in inadequate emergency access and this impact would be less than significant.

Operation

No Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. .The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. Along the subtransmission lines, these activities would typically be conducted from SCE-maintained access or spur roads, or O&M structure pads located at select structures. Road and/or lane closures are not anticipated during these regularly planned activities. Substation O&M activities would be conducted within the respective substation properties. Finally, no new features would be constructed as part of the Proposed Project that would restrict emergency access. These O&M activities would not inhibit emergency access; therefore, no impact would occur.

5.17.4.2.5 Would the project create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations?

Construction

Less than Significant Impact. The Proposed Project would not include the incompatible uses of or alteration to any public roads. Construction traffic would utilize roadways along which pedestrians, cyclists,

other motorists, and transit operations may be present. In addition, temporary road and/or lane closures may be required to facilitate construction. These activities may reduce the availability of pedestrian or bicycle facilities and may introduce delays in public transit operations. However, SCE will prepare and implement traffic control plans in accordance with required encroachment permits. These plans would require that construction activities be coordinated with local agencies and emergency providers and that appropriate traffic controls be implemented to maintain pedestrian and bicycle access and to reduce potential traffic delays for public transit operations. Therefore, construction of the Proposed Project would not create a potentially significant hazardous condition for other users of public roads or associated infrastructure and impacts would be less than significant.

Operation

No Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. Along the subtransmission lines, these activities would typically be conducted from SCE-maintained access or spur roads, or O&M structure pads located at select structures. Road and/or lane closures are not anticipated during these regularly planned activities. All substation O&M activities would be conducted within the respective substation properties. Because these activities would typically be conducted from Proposed Project-specific roads or pads, they would not affect people walking, bicycling, driving, or utilizing public transit; therefore, no impact would occur.

5.17.4.2.6 Would the project interfere with walking or bicycling accessibility?

Construction

Less than Significant Impact. As described in Section 5.17.1.4, limited pedestrian sidewalks and bicycle trails or lanes exist in the Proposed Project area due to its remote location. Use of these facilities could be temporarily interrupted when construction occurs adjacent and/or over these facilities. However, interruptions of use would be temporary and short-term, lasting only a few days in any one location. Further, alternative routes and/or notices of closures would be provided in accordance with the required traffic control plans. Thus, impacts associated with walking and bicycling accessibility would be less than significant.

Operation

No Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. As described in Section 5.17.1.4, limited bicycle facilities exist in the Proposed Project area along California City Boulevard, North Loop Boulevard, South Loop Boulevard, and Hacienda Boulevard. While portions of the Proposed Project would be located adjacent to California City Boulevard, existing bicycle facilities are not located along that section of roadway. As a result, O&M activities occur within existing facilities and from existing roadways and generally do not interfere with pedestrian or bicycle accessibility. When it is necessary for a pedestrian or bicycle facility to be temporarily obstructed by O&M activities, an alternate route is identified at the direction of the applicable jurisdiction. As a result, O&M activities would not interfere with pedestrian accessibility, and no impact would occur.

5.17.4.2.7 Would the project substantially delay public transit?

Construction

Less than Significant Impact. As described in Section 5.17.1.3, the Proposed Project would cross one bus route along SR-58. Potential traffic impacts along SR-58 would be limited to the installation of new conductor and cable associated with the proposed Cal City-Edwards-Holgate 115 kV Subtransmission Line. During the conductor installation process, SCE may be required to halt traffic along SR-58 using flaggers or other traffic controls for a period of 10 to 15 minutes while each conductor is being pulled across the roadway. Alternatively, SCE may install guard structures or stage construction equipment on either side of the road to avoid any traffic interruptions. Because the potential interruption in service, if required, would be limited in duration and the Proposed Project only intersects with one existing bus route, impacts would be less than significant.

Operation

No Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. These activities are not anticipated to impact traffic directly along SR-58, the only location where the Proposed Project intersects with an existing public transit route. As a result, no impacts are anticipated.

5.17.4.3 Vehicle Miles Traveled

The Proposed Project is not located within 0.5 mile of a major transit stop or a high-quality transit corridor. The construction activities described in Chapter 3, Proposed Project Description, are anticipated to generate a maximum of 160 daily vehicle roundtrips and an average of 115 daily vehicle roundtrips across the breadth of the Proposed Project. These daily vehicle roundtrips are inclusive of each worker making two daily trips in a personal vehicle (i.e., one trip in the morning to a staging yard, and one return trip in the evening, for a maximum of 140 roundtrips per day). The remaining daily vehicle roundtrips would account for medium- and heavy-duty vehicle movements associated with construction. The VMT generated by the Proposed Project during construction is summarized in Table 5.17-3. When compared to the average daily VMT in the City of California City in 2020, the Proposed Project would represent a maximum anticipated daily increase of 5.4 percent. O&M activities would result in approximately 60 additional one-way, 100-mile-long trips,[3] totaling an increase of approximately 6,000 VMT annually. When compared to the annual VMT in the City of California City in 2020, O&M activities would result in an anticipated increase of approximately 0.005 percent. The increase in VMT would be distributed across the breadth of the Proposed Project; therefore, the increases in VMT from construction and O&M would not likely be realized entirely within the City of California City.

[3] An average trip distance of 100 miles was approximated by reviewing the total length of the Proposed Project and proximity to existing SCE facilities in the vicinity of the Proposed Project.

Table 5.17-3 Construction VMT

Trip Type	Maximum Daily VMT	Total Approximate VMT
Worker Commutes	16,800	6,308,280
Construction Vehicles	2,120	662,300
Total	17,560	6,970,580

Note: Daily VMT will vary depending on the on factors such as material availability, resource availability, and construction scheduling. The maximum daily total sum of VMT across vehicle classes has been presented. Total VMT has been approximated using the activity levels and schedule presented in Chapter 3, Project Description.

5.17.4.4 Traffic Impact Analysis

A traffic impact study has not been prepared for the Proposed Project. The Proposed Project would not result in any noticeable long-term or permanent increases in traffic, would not generally result in an increase in peak hour trips given the typical work hours of construction crews, is not a development project, and would not result in any land use changes.

5.17.4.5 Hazards

Neither the construction phase nor the O&M phase of the Proposed Project would generate any permanent traffic hazards. Temporary road and/or lane closures may occur along roadways crossed or adjacent to construction, as listed in Table 5.17-1. SCE will prepare and implement a traffic control plan in accordance with encroachment permit requirements. These plans will reduce the potential hazards by notifying landowners of the planned construction activities, require SCE to coordinate construction activities with emergency service providers, and implement applicable traffic control measures.

5.17.4.6 Accessibility

There are no existing bicycle lanes that would be crossed by the Proposed Project alignment and no developed pedestrian walkways or transit stops that would be closed during construction.

5.17.4.7 Transit Delay

As described previously, one existing bus route along SR-58 crosses the Proposed Project. This bus route could be delayed during the installation of conductor and cable across SR-58; however, any potential road closures in this location would be limited to approximately 15 minutes at a time and could be eliminated through the use of guard structures. In addition, any potential closures would generally occur outside of the normal operating hours of this route.

5.17.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures identified for transportation.

5.17.5.1 Applicant Proposed Measures

No impact or less than significant impacts would occur as a result of the Proposed Project. As such, there are no applicant-proposed measures.

5.17.6 Alternatives

For an evaluation of Proposed Project alternatives, see Chapter 6, Comparison of Alternatives.

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5.18 Tribal Cultural Resources

This section describes the tribal cultural resources potentially of importance to California Native American tribes in the vicinity of the Cal City Substation 115 kV Upgrade Project (Proposed Project), as well as the potential impacts that may result from construction and operation of the Proposed Project. See Section 5.5, Cultural Resources, for a discussion of cultural resources more broadly, including archaeological and built environment resources.

Assembly Bill (AB) 52 (Gatto; Stats. 2014, ch. 532), which was enacted in September 2014, sets forth both procedural and substantive requirements for analysis of tribal cultural resources, as defined in Public Resources Code (PRC) section 21074, and consultation with California Native American tribes.

This section is based on information obtained primarily through a literature review completed in support of a Cultural Resources Technical Report (CRTR) currently under review by the Bureau of Land Management (BLM). The results of the records search and survey would identify historical and archaeological resources in the Proposed Project area and determine their eligibility for the National Register of Historic Places (NRHP) and/or California Register of Historic Resources (CRHR). The results of the records search and survey would be considered during the final design of the Proposed Project to minimize impacts to tribal cultural resources during construction.

5.18.1 Environmental Setting

The Proposed Project is located in Kern County and San Bernardino County in the Mojave Desert region of California on federal, state, private, and municipal land. These lands include unincorporated areas of Kern and San Bernardino counties, City of California City, Edwards Air Force Base controlled by the Department of Defense (DoD), and public lands under the jurisdiction of the BLM and the California Department of Fish and Wildlife (CDFW). Approximately 90 percent of the Proposed Project is located within undeveloped open areas, with the remaining 10 percent located within developed areas (including the City of California City). The environmental setting section describes the existing tribal cultural resources in the Proposed Project area.

5.18.1.1 Outreach to Tribes

PRC section 5097.91 established the Native American Heritage Commission (NAHC), the duties of which include taking inventory of places of religious or social significance to Native Americans and identifying known graves and cemeteries of Native Americans on private lands. PRC section 5097.98 specifies a protocol to follow when the NAHC is notified of a discovery of Native American human remains from a county coroner.

On July 27, 2021, Rincon Consultants submitted a request to the NAHC for a Sacred Lands File (SLF) search within the Proposed Project area on behalf of SCE. The NAHC responded on August 24, 2021, stating that the SLF results were positive and provided a list of 24 contacts; these contacts are provided in Appendix E. The California Public Utilities Commission (CPUC) will perform additional NAHC and tribal outreach activities in accordance with AB 52 at a later date.

5.18.1.2 Tribal Cultural Resources

The Proposed Project is located in Kern and San Bernardino counties in the Mojave Desert region of California. This region is discussed in detail in Section 5.5.1, Cultural Resources Environmental Setting.

The CRTR is currently under review by BLM. The results of the records search and survey as part of the CRTR would identify archaeological resources in the Proposed Project area and the outreach to tribes that will be performed in accordance with AB 52 will identify tribal cultural resources in the Proposed Project area.

5.18.1.3 Prehistoric Background

The prehistoric cultural setting of the Area of Potential Effects (APE) is relevant to the Mojave Desert cultural history. The prehistory of the region encompasses a period of more than 14,000 calibrated years before the present (cal BP), from the Terminal Pleistocene Period through the Late Holocene Period prior to European contact.

Several chronological sequences have been proposed by archaeologists to describe cultural change in Southern California (Jones and Klar 2007, Moratto 2004). Sutton et al. (2007) devised an updated Mojave Desert culture history, dividing it into four temporal periods: Pleistocene, Early Holocene, Middle Holocene, and Late Holocene. Here, we use a modified version of Sutton et al.'s (2007) Mojave Desert chronology that incorporates updated dates and information regarding the Terminal Pleistocene and Early Holocene Periods (i.e., Grayson 2011; Rosencrance 2019; Smith et al. 2020).

A discussion of the chronology and key characteristics of this cultural area is presented in Section 5.5, Cultural Resources.

5.18.1.4 Ethnographic Study

The Proposed Project is within a transitional zone that was occupied by multiple cultural groups including the Serrano, Kitanemuk and Tataviam (cf., Bean and Smith 1978; Blackburn and Bean 1978; Kroeber 1925; Sutton 1988). All of these groups are more closely associated with portions of the surrounding mountains—Serrano to the northeast, Kitanemuk to the northwest, Tataviam to the southwest—but all of them likely visited the Antelope Valley floor as part of their resource exploration strategies. Ethnographic boundaries in the Mojave Desert are loosely defined, owing to the highly mobile nature of desert settlement and resource extraction strategies, as well as the variety of interpretations presented by previous researchers. For a discussion of each cultural group, refer to Section 5.5.1.2.2, Cultural Resources Summary—Ethnographic Background.

5.18.2 Regulatory Setting

The primary federal and state laws, regulations, and policies that pertain to the Proposed Project are summarized in Section 5.5, 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 California Register of Historical Resources (CRHR) or local register of historical resources (see Section 5.5, for more information about the CRHR); or (2) a resource that the California Environmental Quality Act (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) (see 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 are defined in PRC section 21074 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:
   - Included or determined to be eligible for inclusion in the CRHR.
   - 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 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.
   - 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).

5.18.3 Impact Questions

5.18.3.1 Tribal Cultural Resources Impact Questions

The thresholds of significance for assessing impacts come from the CEQA Environmental Checklist. For tribal cultural resources, the CEQA Checklist asks, would the Proposed 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:
  - 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)?
  - 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?

5.18.3.2 Additional CEQA Impact Questions

There are no CPUC-identified additional CEQA impact questions.

5.18.4 Impact Analysis

5.18.4.1 Tribal Cultural Resources Methodology

The impact analysis is based on information obtained primarily through a literature review completed in support of a CRTR, currently under review by the BLM.

5.18.4.2 Tribal Cultural Resources Impact Analysis

5.18.4.2.1 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 listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

Construction

No Determination. The CPUC will consult with eligible tribes under PRC section 21080.3.1 once the Application is complete. Impacts on tribal cultural resources are not addressed in this PEA because under AB 52, the CPUC must identify these resources during consultation. Therefore, no tribal cultural resources have been identified, and the impacts associated with tribal cultural resources have not been determined.

A potential impact would occur if a tribal cultural resource is located within an area subject to disturbance. SCE would avoid impacts to known tribal cultural resources to the greatest extent possible through implementation of APMs TCR-1 and TCR-2. APM TCR-1 would require an archaeological monitor, and tribal monitor that is culturally affiliated with the Proposed Project area, to be present for ground-disturbing activities within or directly adjacent to identified tribal cultural resources. APM TCR-2 would require development and implementation of a Tribal Engagement Plan. Further, as outlined in Section 5.5, Cultural Resources, APMs CUL-1, CUL-2, CUL-3, CUL-4, and CUL-5 would be implemented.

Prior to construction, SCE would implement applicant proposed measure APM CUL-1, which includes the preparation and implementation of a Cultural Resources Management Plan (CRMP). The primary objectives of the CRMP would be the management, avoidance, and/or minimization of potential significant impacts to cultural resources. The CRMP would require the demarcation of all Environmentally Sensitive Areas (ESAs) with proper signage prior to construction. Signage would include protective fencing, flagging, or other markers to protect ESAs from inadvertent trespass during construction within 50 feet of ground- disturbing activities. The CRMP would specify monitoring requirements for the identification of cultural resources during construction and would outline procedures to implement during the inadvertent discovery of cultural resources. The CRMP would also specify roles and responsibilities of jurisdictional agencies for the long-term management of identified cultural resources in the APE. All potentially NRHP or CRHR eligible or archaeologically sensitive sites identified during records searches and field surveys would be evaluated to determine eligibility for listing under the CRHR and/or the NRHP. All potentially archaeologically sensitive sites within the APE would be considered ESAs and avoided pursuant to APM CUL-2.

Pursuant to APM CUL-2, SCE would perform cultural resource surveys prior to construction for any Proposed Project areas that were not previously surveyed, which may include new or modified staging areas, pull sites, or other work areas. Cultural resources discovered during these surveys would be subject to the mitigation measures and requirements specified in the CRMP. Prior to construction, SCE would implement APM CUL-3, which involves a worker environmental awareness program (WEAP) to train construction personnel by a qualified archaeologist regarding the recognition of possible buried cultural resources (i.e., prehistoric and/or historical artifacts, objects, or features) during construction. The WEAP would provide construction personnel with instruction on compliance with APMs and mitigation measures

developed after pre-construction surveys. Additional objectives of the WEAP include instruction on the roles of cultural resource monitors and the appropriate treatment of ESAs. Further, SCE would deploy monitors pursuant to APM CUL-4 which involves conducting construction monitoring by a qualified archaeologist.

As outlined in APM CUL-5, in the event that Native American remains are inadvertently discovered on federal lands, Native American Graves Protection and Repatriation Act (NAGPRA) requires that the responsible federal agency must be immediately notified by telephone and in writing. Following the receipt of the written notification, the federal agency must certify the receipt of it within three days. The activity that resulted in the discovery must be stopped immediately after discovery and may not resume until 30 days after the applicable federal agency certifies the receipt of the notification. The federal agency would also be responsible for taking immediate steps, if necessary, to further secure and protect the remains and/or items that were discovered. During this process, the federal agency would notify any most likely descendants (MLDs) or applicable Native American tribes of the discovery, obtain written confirmation of the notification, and initiate consultation, if necessary. Following consultation, the federal agency would prepare, approve, and sign a written NAGPRA Plan of Action (43 CFR 10.3 and 10.5), which would specify the treatment, care, and handling of the discovered remains and cultural resources.

As outlined in APM CUL-5, in the event Native American remains are inadvertently discovered and the discovery is not on federal land, the County Coroner and CPUC shall be notified immediately and the remains shall be treated in accordance with Health and Safety Code section 7050.5, CEQA Guidelines section 15064.5(e), and PRC section 5097.98. SCE shall assist and support the BLM and DoD 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, DoD, or CDFW. SCE shall comply with and implement all required actions and studies that result from such consultations.

Operation

No Determination. Operation and maintenance (O&M) activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated source lines and infrastructure. Following construction of the Proposed Project, O&M activities would consist of monthly and annual inspections, as well as equipment testing and maintenance for new and expanded facilities. SCE is not the CEQA Lead Agency responsible for tribal consultations under PRC section 21080.3.1, and SCE has not performed any tribal consultation. Therefore, no tribal cultural resources have been identified, and the impacts associated with tribal cultural resources have not been determined.

5.18.4.2.2 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 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?

Construction

No Determination. The CPUC will consult with eligible tribes under PRC section 21080.3.1 once the Application is complete. Impacts on tribal cultural resources are not addressed in this PEA because under AB 52, the CPUC must identify these resources during consultation. Therefore, no tribal cultural resources have been identified, and the impacts associated with tribal cultural resources have not been determined.

A potential impact would occur if a tribal cultural resource is located within an area subject to disturbance. SCE would avoid impacts to known tribal cultural resources to the greatest extent possible through implementation of APMs TCR-1 and TCR-2. Further, as outlined in Section 5.5, Cultural Resources, APMs CUL-1, CUL-2, CUL-3, CUL-4, and CUL-5 would be implemented and, through doing so, impacts to potential tribal cultural resources would be avoided or mitigated.

Operation

No Determination. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. SCE is not the CEQA Lead Agency responsible for tribal consultations under PRC section 21080.3.1, and SCE has not performed any tribal consultation. Therefore, no tribal cultural resources have been identified, and the impacts associated with tribal cultural resources have not been determined.

5.18.4.3 Information Provided by Tribes

SCE has not performed outreach to Tribes. As detailed in Section 5.18.1.1 Outreach to Tribes, Rincon Consultants, on behalf of SCE, requested a SLF search within the Proposed Project area from the NAHC. A NAHC response was received stating that the SLF results were positive and provided a list of 24 contacts. The contacts from the SLF search are provided in Appendix E. The CPUC will also perform additional NAHC and tribal outreach activities at a later date.

5.18.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures identified for Tribal Cultural Resources.

5.18.5.1 Applicant Proposed Measures

5.18.5.1.1 Tribal Cultural Resources APM

The following APMs would be implemented to reduce impacts associated with the Proposed Project.

- **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

identified tribal cultural resources. The archaeological and tribal monitors will consult the Cultural Resource Management Plan (CRMP; APM CUL-1) 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 CPUC 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).

5.18.5.1.2 Cross-Referenced APMs

The following APMs would be implemented to reduce tribal cultural resources impacts associated with the Proposed Project in addition to the tribal cultural resources-specific APMs described previously:

- **CUL-1: Develop a Cultural Resource Management Plan (CRMP).** SCE shall prepare and submit for approval a Cultural Resource Management Plan (CRMP) to guide all cultural resource management activities during Proposed 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 CPUC and BLM for review and approval at least 90 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 NRHP- and CRHR-eligible properties in or within 100 feet (30.5 meters) of the Proposed Project's Area of Potential Effects/Area of Potential Impacts (APE/API). 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 (ESAs), 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, 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 CPUC prior to implementation.
  - **Data Analysis and Reporting:** The CRMP shall detail methods for data analysis in a regional context, reporting of results within one 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 CPUC and dissemination of reports to appropriate repositories.

- **CUL-2: Avoid Environmentally Sensitive Areas (ESA)**. SCE shall perform cultural resource surveys for any portion of the Proposed Project's APE/API 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 or as outlined in the CRMP.
- **CUL-3: 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 paleontological resources (i.e., fossils), 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 Worker's Environmental Awareness Training Program (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-4: Conduct Construction Monitoring**. Archaeological monitoring shall occur as outlined in the CRMP. Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historic and prehistoric resources that could occur within the Proposed Project areas. The qualifications of the principal archaeologist and monitors shall be approved by the CPUC and BLM. Monitoring reports shall be submitted to the CPUC on a monthly basis. A Tribal Participant may be required at culturally sensitive locations in consultation with the CPUC and/or as outlined in the CRMP.
- **CUL-5: 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 federal agency and County Coroner (California Health and Safety Code section 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 CFR 10) and the Archaeological Resources Protection Act (43 CFR 7). If the remains are not on federal land, the County Coroner and CPUC shall be notified immediately and the remains shall be treated in accordance with Health and Safety Code section 7050.5, CEQA Guidelines section 15064.5(e), and Public Resources Code section 5097.98. SCE shall assist and support the BLM and DoD 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, DoD, or CDFW. SCE shall comply with and implement all required actions and studies that result from such consultations.

5.18.6 Alternatives

For an evaluation of Proposed Project alternatives, see Chapter 6, Comparison of Alternatives.

5.19 Utilities and Service Systems

This section describes the utilities and service systems in the vicinity of the Cal City Substation 115 kV Upgrade Project (Proposed Project), as well as the potential impacts of construction and operation of the Proposed Project.

Research for this analysis involved a review of the following resources:

- California Department of Resources Recycling and Recovery (CalRecycle) Solid Waste Information System (SWIS) database
- United States Department of Transportation (U.S. DOT) National Pipeline Mapping System (NPMS) database
- Local agency and public utility planning documents, including but not limited to Urban Water Management Plans (UWMPs)

5.19.1 Environmental Setting

The Proposed Project is located in Kern County and San Bernardino County in the Mojave Desert region of California on federal, state, private, and municipal land. These lands include unincorporated areas of Kern County and San Bernardino County, City of California City, Edwards Air Force Base (EAFB) controlled by the Department of Defense, and public lands under the jurisdiction of the Bureau of Land Management and the California Department of Fish and Wildlife. Approximately 90 percent of the Proposed Project is located within undeveloped open areas, with the remaining 10 percent located within developed areas (including the City of California City).

The environmental setting section describes the existing utility and service systems (electric, natural gas, water, sewage and wastewater treatment, solid waste services, and other utilities) in the Proposed Project vicinity.

5.19.1.1 Utility Providers

Utility providers that serve the areas along the Proposed Project alignment are as follows:

- Electricity: SCE
- Natural gas: Southern California Gas Company (SoCalGas) and Pacific Gas and Electric Company (PG&E)
- Water: Antelope Valley-East Kern Water Agency (AVEK; wholesaler), Mojave Water Agency (MWA; wholesaler), City of California City (retailer), Mojave Public Utility District (MPUD; retailer), North Edwards Water District (retailer), Boron Community Services District (CSD; retailer), and Desert Lake CSD (retailer)
- Sewer/Wastewater Treatment: City of California City, MPUD, Boron CSD, Desert Lake CSD

5.19.1.2 Utility Lines

The following sections describe existing utility infrastructure in the vicinity of the Proposed Project.

5.19.1.2.1 Water

Water supply infrastructure is generally concentrated in the City of California City and along the southern portion of the Proposed Project alignment near AVEK's North Feeder, EAFB Feeder, and Cal City Feeder

lines, which generally follow Lorraine Avenue, North Rosamond Boulevard, and California City Boulevard, respectively. Water providers near the Proposed Project alignment are listed above under Section 5.19.1.1, Utility Providers.

5.19.1.2.2 Natural Gas

The Proposed Project is located within the service territory of SoCalGas and PG&E. Natural gas lines that occur near the Proposed Project are shown in Figure 5.19-1. Natural gas transmission pipelines generally occur parallel to State Route 58 (SR-58) and U.S. Highway 395 (U.S. 395), with additional pipelines extending toward EAFB. The proposed Kramer-Cal City 115 kV Subtransmission Line intersects two existing natural gas lines in the vicinity of Kramer Junction and parallels an existing natural gas pipeline along U.S. 395. The existing natural gas pipeline is located across U.S. 395 from the proposed Kramer-Cal City 115 kV Subtransmission Line, approximately 315 feet east of the proposed Subtransmission Line alignment and outside of proposed and existing SCE right-of-way (ROW). The City of California City is not served by a natural gas transmission pipeline.

5.19.1.2.3 Sewer/Wastewater

Sewer pipelines are largely absent from the Proposed Project vicinity as wastewater collection in the unincorporated areas of Kern and San Bernardino counties is primarily provided by septic systems. The City of California City has a sewage collection system that consists of numerous gravity lines and lift stations, some of which may cross the Proposed Project ROW in the immediate vicinity of the City of California City urban center. Sewage is collected into sewage mains and delivered to the City's sanitary facility located in the northeast part of the City on Nelson Drive (City of California City 2022).

The City of California City owns and operates a 1-million-gallon-per-day (MGD) capacity wastewater treatment plant (WWTP). The WWTP serves only the residents of the City. The WWTP is currently operating at approximately 0.63 MGD. The City of California City does not have any septage receiving facilities in the WWTP, and the facility is not designed for the high bed and solids loading received from septic tank pumping (City of California City 2017a). According to the 2002 California City Sewer Master Plan, 66 percent of the City of California City residents utilize onsite wastewater treatment and disposal (septic tanks and leach lines). Other WWTPs in the region, including the Lancaster Water Reclamation Plant operated by Los Angeles County Sanitation Districts, accept septic tank and portable toilet waste.

5.19.1.2.4 Electrical

Within the Proposed Project vicinity, electrical power is provided by SCE. The Proposed Project alignment crosses numerous transmission, subtransmission, and distribution lines that are not related to or included as part of the Proposed Project scope. These lines are displayed in Figure 5.19-2.

5.19.1.2.5 Stormwater

Stormwater conveyance infrastructure in the vicinity of the Proposed Project is generally limited to the area in and around the City of California City. The City of California City maintains over 200 storm drain structures and approximately 40 miles of drainage pipes and ditches. While not mapped, stormwater facilities are generally concentrated along paved, public roadways.

5.19.1.2.6 Telecommunications

Telephone service is generally provided in the Proposed Project vicinity by AT&T.

Figure 5.19-1 Approximate Location of Existing Natural Gas Infrastructure

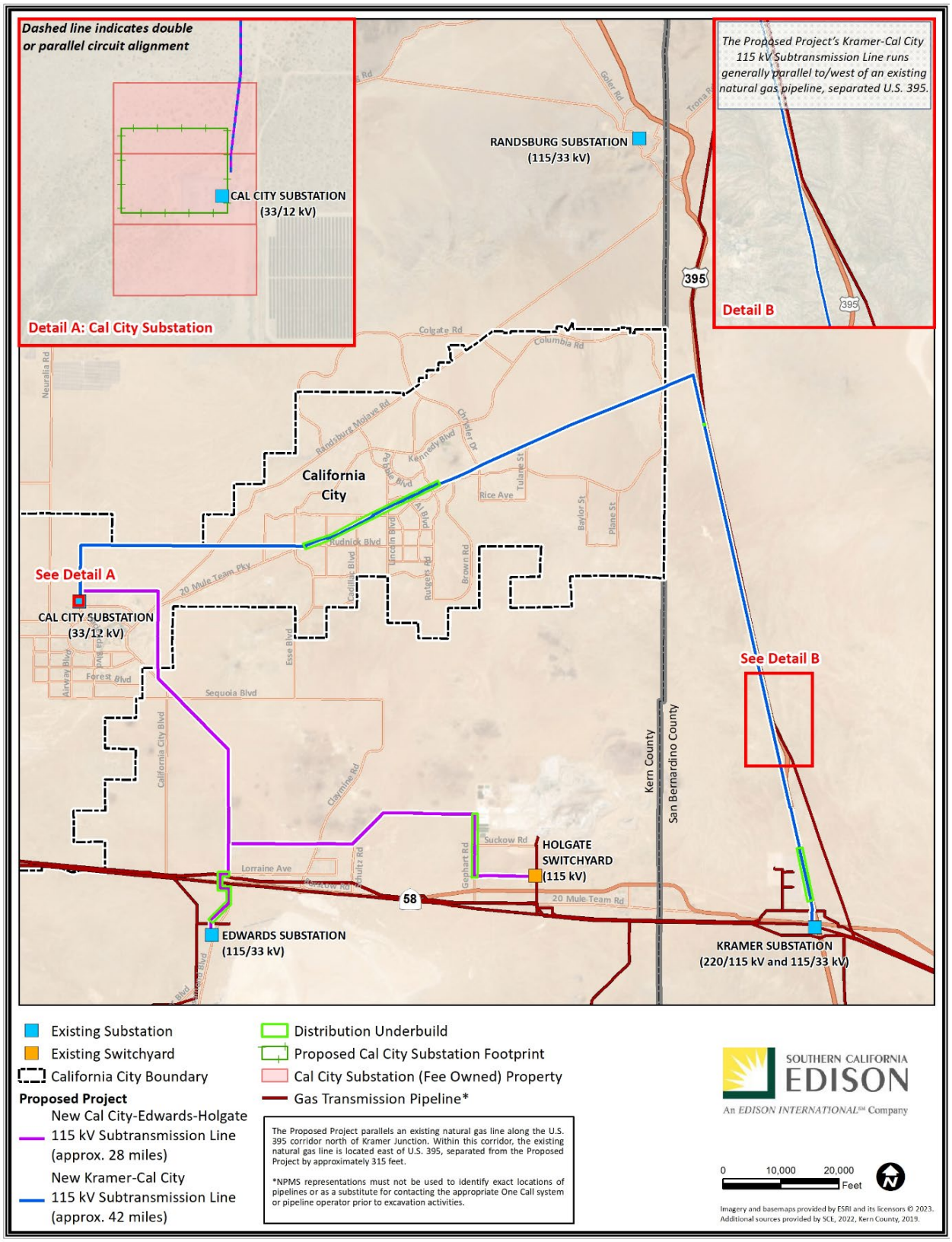
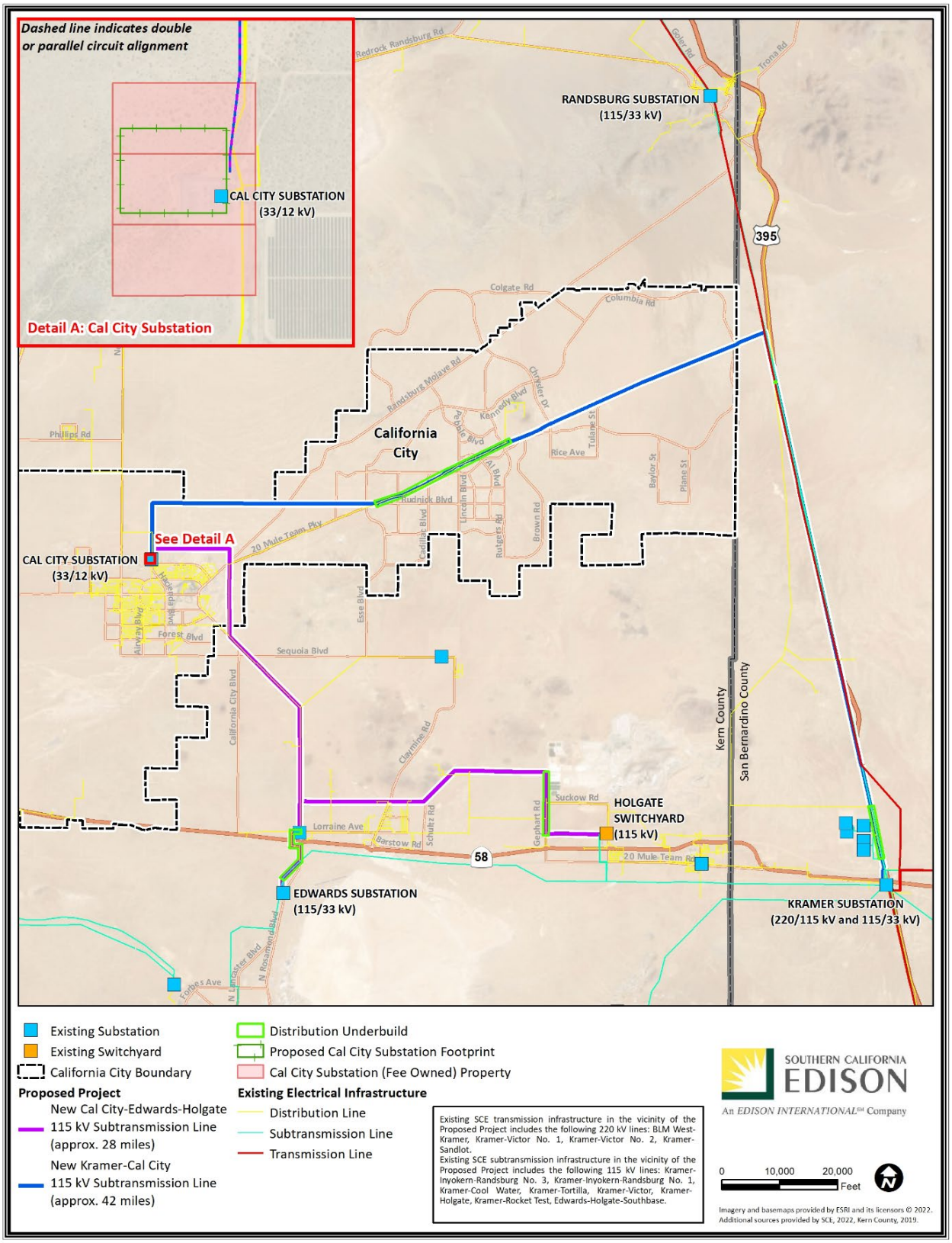


Figure 5.19-2 Existing Electrical Infrastructure



5.19.1.3 Approved Utility Projects

Utility projects within 2 miles of the Proposed Project alignment are listed in Chapter 7, Cumulative Impacts and Other CEQA Considerations.

5.19.1.4 Water Supplies

Numerous water suppliers serve the Proposed Project area, including AVEK, MWA, the City of California City, and multiple smaller CSDs or water districts. Many water suppliers in the region obtain all or a substantial portion of their supply through imported surface water purchased from AVEK. Therefore, the discussion below focuses on AVEK, MWA, and the City of California City, the three primary water suppliers in the vicinity of the Proposed Project.

5.19.1.4.1 Antelope Valley – East Kern Water Agency

AVEK is a water wholesaler that serves 27 retail water agencies and water companies, as well as agricultural customers, in the greater Antelope Valley region. AVEK customers in the vicinity of the Proposed Project include the City of California City, EAFB, MPUD, U.S. Borax, Boron CSD, and Desert Lake CSD. AVEK's service area spans approximately 2,400 square miles, including portions of Los Angeles, Kern, and Ventura counties and covers over 320,000 people.

AVEK sells imported surface water as a State Water Project (SWP) contractor. Other supplies available to AVEK include banked surface water stored in groundwater banks, as well as Antelope Valley Groundwater Basin overlying production rights under the basin's 2015 adjudication.[1]

According to AVEK's 2020 UWMP, in 2025—the closest year to Proposed Project construction for which supply and demand estimates are available—AVEK has an anticipated total water demand of 44,440 acre-feet per year (AFY) and an anticipated total water supply of 91,080 AFY, resulting in an excess supply of approximately 46,640 AFY. The UWMP states that AVEK has sufficient supplies in normal years and could use available supplies to add to groundwater storage for dry periods. For example, excess SWP water could be used for groundwater recharge/banking when available, or unused groundwater rights could be carried over for use in future years (AVEK 2021).

5.19.1.4.2 Mojave Water Agency

The portion of the Proposed Project within San Bernardino County falls within MWA's service area. MWA serves approximately 4,900 square miles in San Bernardino County, including the City of Barstow, the unincorporated community of Lucerne Valley, and the Victor Valley region (MWA 2021). MWA manages the underlying Mojave River Groundwater Basin as watermaster under the basin's adjudication. However, like AVEK, MWA also serves as a water wholesaler to various retail agencies, small and rural domestic water systems, agricultural users, and other industrial/recreational users within its service area, predominantly using imported surface water from the SWP and groundwater supply. According to MWA's 2020 UWMP, in 2025—the closest year to Proposed Project construction for which supply and demand estimates are available—MWA has an anticipated total water demand of approximately 130,800 AFY and an anticipated total water supply of 158,541 AFY, resulting in an excess supply of approximately 27,741 AFY.

[1] While AVEK has a 3,550 AFY production right under the Antelope Valley Groundwater Basin's 2015 adjudication, the agency has not pumped any of its production rights in the past five years, relying instead on SWP water and banked groundwater to meet demand.

5.19.1.4.3 City of California City

The City of California City is a water retailer, serving approximately 14,000 residents within the City boundaries (City of California City 2017). The City maintains approximately 313 miles of water main lines serving over 4,400 active connections. The City primarily obtains water from six groundwater wells overlying the Fremont Valley Groundwater Basin and imported SWP water purchased from AVEK. The City's WWTP also produces tertiary treated effluent used for golf course irrigation. According to the City's 2015 UWMP, in 2025—the closest year to Proposed Project construction for which supply and demand estimates are available—the City has an anticipated total water demand of approximately 6,689 AFY and an anticipated total water supply of 10,508 AFY, resulting in an excess supply of approximately 3,819 AFY.

5.19.1.5 Landfills and Recycling

The Kern County Public Works Department operates seven landfills throughout the county (Kern County 2022). In addition, the San Bernardino County Department of Public Works also regulates landfills throughout the county. The nearest municipal/public landfill to the Proposed Project is the Boron Sanitary Landfill, which is located approximately 3.5 miles southeast of Holgate Switchyard. The Boron Sanitary Landfill has a permitted capacity of 1 million cubic yards, and a remaining capacity of 191,380 cubic yards; the facility is slated for closure in 2048 (CalRecycle 2019). Other landfills in the vicinity include the EAFB Main Base Sanitary Landfill (remaining capacity of 1,078,875 cubic yards; closure date 2028) and Mojave-Rosamond Sanitary Landfill (remaining capacity of 76 million cubic yards; closure date 2123). Table 5.19-1 summarizes landfills in the vicinity of the Proposed Project alignment. In addition to landfill facilities described herein, numerous transfer and recycling facilities are located in the vicinity of the Proposed Project. Figure 5.19-3 shows public solid waste facilities in the vicinity of the Proposed Project alignment.

5.19.2 Regulatory Setting

Federal, state, and local regulations were reviewed for applicability to the Proposed Project. Section 5.10, Hydrology and Water Quality, provides a detailed discussion of regulations related to water quality and stormwater discharge, which are not discussed further in this section.

5.19.2.1 Federal

5.19.2.1.1 Clean Water Act

The CWA was originally enacted in 1948 and has been amended numerous times, with significant expansions in 1972 and 1977. The CWA's main objectives are to maintain and restore the chemical, physical, and biological integrity of waters through the authorization of standards. Authority for the implementation and enforcement of the CWA lies primarily with the United States Environmental Protection Agency (USEPA) and its delegated state and local agencies, namely the State Water Resources Control Board (SWRCB), and in the Proposed Project area, the Lahontan Regional Water Quality Control Board (RWQCB).

5.19.2.1.2 Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) regulates public water systems that supply drinking water (42 United States Code [USC] section 300(f) et seq.; 40 Code of Federal Regulations [CFR] section 141 et seq). The principal objective of the federal SDWA is to ensure that water from the tap is potable (safe and satisfactory for drinking, cooking, and hygiene). The main components of the federal SDWA are to:

- Ensure that water from the tap is potable
- Prevent contamination of groundwater aquifers that are the main source of drinking water for a community
- Regulate the discharge of wastes into underground injection wells pursuant to the Underground Injection Control program (see 40 CFR 144)
- Regulate distribution systems

5.19.2.2 State

5.19.2.2.1 California Health and Safety Code § 25150.7(d)(1)

The California Health and Safety Code requires treated wood waste to be disposed of in either a Class I hazardous waste landfill or in a composite-lined portion of a solid waste landfill that meets RWQCB-specified requirements.

5.19.2.2.2 Integrated Waste Management Act of 1989

The Integrated Waste Management Act of 1989, also known as Assembly Bill (AB) 939, mandates that California's jurisdictions divert 50 percent of their solid waste from landfills. CalRecycle is under the umbrella of the California EPA and is responsible for the implementation of AB939.

5.19.2.2.3 California Code of Regulations (Title 27)

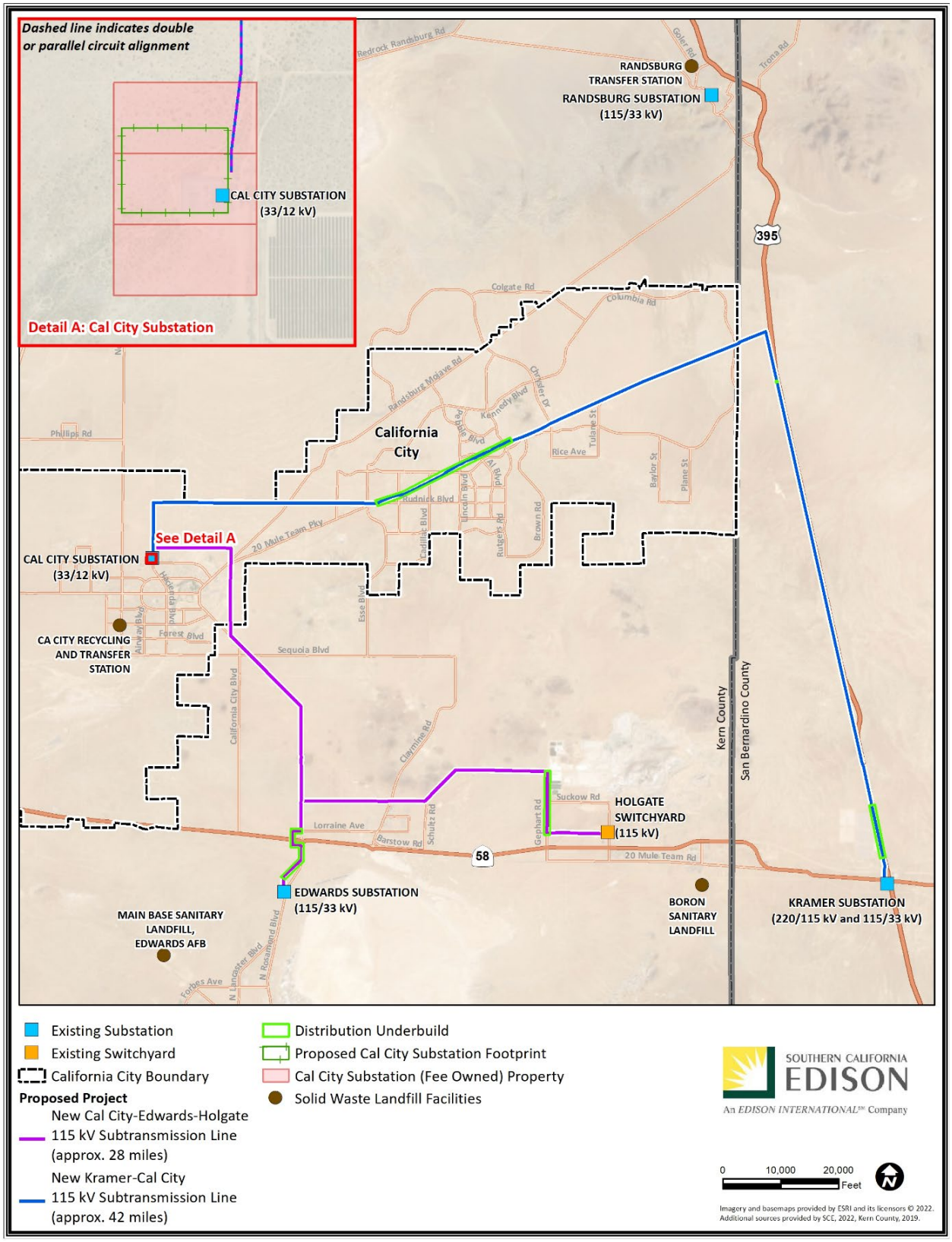
Title 27 (Environmental Protection) of the California Code of Regulations defines regulations for the treatment, storage, processing, and disposal of solid waste. The SWRCB maintains and regulates compliance with Title 27 (Environmental Protection) of the California Code of Regulations. The compliance of the Proposed Project would be enforced by the Lahontan RWQCB.

Table 5.19-1 Landfill Capacities

Landfill	Location	Total Maximum Permitted Capacity (Cubic Yards)	Total Estimated Capacity Used (Cubic Yards)	Remaining Capacity (Cubic Yards)	Estimated Date to Close	Distance from Proposed Project	Nearest Proposed Project Component
Boron Sanitary Landfill	Boron (unincorporated Kern County)	1,057,000	865,620	191,380	2048	3.5 miles southeast	Holgate Switchyard
Edwards Air Force Base Main Base Sanitary Landfill	EAFB (unincorporated Kern County)	2,250,000	1,171,125	1,078,875	2028	4.0 miles southwest	Edwards Substation
Mojave – Rosamond Sanitary Landfill	Mojave (unincorporated Kern County)	78,000,000	1,689,703	76,310,297	2123	13.9 miles west	Edwards Substation

Source: CalRecycle 2019
N/A = Not Available

Figure 5.19-3 Solid Waste Facilities in the Proposed Project Vicinity



5.19.2.3 Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 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. Accordingly, the following discussion of local land use regulations is provided for informational purposes only.

5.19.2.3.1 Kern County General Plan

Kern County recognizes the importance of economical and efficient delivery of public services and has developed goals and policies related to utilities and service systems (Kern County 2009). The Kern County General Plan's Land Use, Open Space, and Conservation Element contains the following:

Section 1.4 – Public Services and Facilities

GOAL 5 Ensure that adequate supplies of quality (appropriate for intended use) water are available to residential, industrial, and agricultural users within Kern County.

GOAL 6 Provide a healthful and sanitary means of collecting, treating, and disposing of sewage and refuse for the residents and industries of Kern County.

GOAL 7 Facilitate the provision of reliable and cost-effective utility services to residents of Kern County.

GOAL 10 Ensure landfill capacity for Kern County residents and industries.

5.19.2.3.2 Kern County and Incorporated Cities Integrated Waste Management Plan

The Kern County and Incorporated Cities Integrated Waste Management Plan addresses issues pertaining to nonhazardous waste disposal and other waste facilities (Kern County 2015). The plan was established in response to the California Integrated Waste Management Act of 1989 (AB 939) and includes the following solid waste elements: Source Reduction and Recycling Element, Household Hazardous Waste Element, Non-disposal Facility Element, Countywide Siting Element, and the Countywide Integrated Waste Management Summary Plan.

5.19.2.3.3 San Bernardino Countywide Policy Plan

The San Bernardino Countywide Policy Plan provides the policy framework and establishes the long-range vision for how and where the unincorporated areas will grow, and establishes goals, policies, and programs to foster healthy, livable, and sustainable communities (San Bernardino County 2020). The Infrastructure and Utilities Element contains the following goals and policies relevant to the Proposed Project:

Goal IU-1 Water Supply. Water supply and infrastructure are sufficient for the needs of residents and businesses and resilient to drought.

Policy IU-1.3 Recycled water. We promote the use of recycled water for landscaping, groundwater recharge, direct potable reuse, and other applicable uses in order to supplement groundwater supplies.

Goal IU-4 Solid Waste. Adequate regional landfill capacity that provides for the safe disposal of solid waste, and efficient waste diversion and collection for unincorporated areas.

Policy IU-4.1 Landfill capacity. We maintain a minimum ongoing landfill capacity of 15 years to serve unincorporated waste disposal needs.

Policy IU-4.3 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.

Goal IU-5 Power and Communications. Unincorporated area residents and businesses have access to reliable power and communication systems.

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-5.3 Underground facilities. We encourage new and relocated power and communication facilities to be located underground when feasible, particularly in the Mountain and Desert regions.

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-5.5 Energy and fuel facilities. We encourage the development and upgrade of energy and regional fuel facilities in areas that do not pose significant environmental or public health and safety hazards, and in a manner that is compatible with military operations and local community identity.

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.

5.19.2.3.4 San Bernardino Countywide Integrated Waste Management Plan

The Countywide Integrated Waste Management Plan is comprised of the County's and the cities' solid waste reduction planning documents, an Integrated Waste Management Summary Plan, and a Countywide Siting Element (CSE) (San Bernardino County 2018). The Summary Plan describes the steps to be taken by local agencies, acting independently and in concert, to achieve the state-mandated diversion rate by integrating strategies aimed toward reducing, reusing, recycling, diverting, and marketing solid waste generated within the County. The CSE identifies how the County and the cities within would meet their

long-term disposal capacity needs for a 15-year planning period to safely handle solid waste generated in the County that cannot be reduced, recycled, or composted.

5.19.2.3.5 City of California City General Plan

The City of California City General Plan is a state-mandated comprehensive, long-range document that comprises the official statement of the City toward the future character and quality of development within its planning area (City of California City 2009). The Open Space and Conservation Element contains the following goals and policies related to utilities and service systems:

Goal. Ensure an adequate water supply for existing residents and businesses and planned growth and development.

Goal. Encourage conservation of energy resources.

Policy. New development proposals shall implement Best Management Practices (BMP's) under the National Pollution Discharge Elimination System (NPDES) permit. These practices are designed to reduce pollution runoff during construction of new projects and rehabilitation projects.

5.19.3 Impact Questions

5.19.3.1 Utility and Service System Impact Questions

The thresholds of significance for assessing impacts come from the California Environmental Quality Act (CEQA) Environmental Checklist. For utilities and service systems, the CEQA Checklist asks, would the project:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- 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?
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

5.19.3.2 Additional CEQA Impact Questions

The CPUC has identified the following additional CEQA impact question:

- Would the project increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts?

5.19.4 Impact Analysis

5.19.4.1 Utilities and Service Systems Methodology

Utilities and service system impacts were evaluated based upon a review of UWMPs, data from San Bernardino County, Kern County, and the City of California City, regulatory requirements that apply to areas crossed by the Proposed Project, and the potential for the Proposed Project to affect utility infrastructure.

5.19.4.2 Utilities and Service Systems Impact Analysis

5.19.4.2.1 Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Construction

Less than Significant Impact. While water and wastewater facilities are located in the vicinity of the Proposed Project alignment, the Proposed Project has been designed in a manner to avoid requiring relocation of such facilities. This includes avoiding the urban core of the City of California City, where water and wastewater lines and laterals are most concentrated. Relocation of such facilities during construction would not be required.

During construction, approximately 476 acre-feet (AF) of water would be required for dust control, ground compaction, restoration activities, and construction of tubular steel pole foundations. It is anticipated that water would be purchased from local/municipal water purveyors and trucked to the Proposed Project site or obtained from a nearby meter/hydrant. Therefore, construction of new or expanded water conveyance infrastructure to support temporary construction water supply is not anticipated.

As described in Chapter 3, Proposed Project Description, an estimated 31,475 gallons of liquid waste would be generated during construction and disposed of at existing WWTPs in the vicinity of the Proposed Project. Liquid waste is expected to be generated at portable toilets and new sewer/wastewater infrastructure would not be required to accommodate this waste stream during construction. Assuming a 24-month construction duration and six working days per week, construction liquid waste generation would average approximately 1,311 gallons per month, or 50 gallons per day. While the California City WWTP is not equipped to handle septage or portable toilet waste, other WWTPs in the region are available to accept such waste. For example, the Lancaster Water Reclamation Plant accepts approximately 85,000 gallons of septage waste each month and has a maximum daily permitted capacity of 18 MGD (RWQCB 2022). Therefore, the Proposed Project's small volume of liquid waste could be accommodated by WWTPs in the region.

With the exception of Cal City Substation, construction of the Proposed Project would not require or result in the relocation or expansion of stormwater drainage facilities. As discussed in Section 5.10, Hydrology and Water Quality, the Proposed Project would implement Best Management Practices (BMPs), as required by the Proposed Project's Stormwater Pollution Prevention Plan (SWPPP) intended to reduce construction-related stormwater runoff such that new or expanded stormwater infrastructure would not be required. Further, existing stormwater management features (e.g., access roadside ditches and water bars) would be re-established during access road maintenance activities; this would obviate the need for new stormwater management features.

The Proposed Project scope includes construction of new electrical and telecommunications infrastructure, as well as new stormwater infrastructure in the form of a proposed detention and water quality basin and diversion channel at the expanded Cal City Substation. As needed, temporary electrical service and meters may also be installed for electrical power at staging areas where existing distribution facilities are available. All of these new or expanded facilities, if required, would be installed within the Proposed Project's disturbance footprint. As such, they would not increase the Proposed Project's disturbance area and would not be anticipated to result in substantial environmental impacts beyond those described within this PEA.

The Proposed Project would not require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities beyond those described and evaluated elsewhere in this PEA document. Therefore, for the reasons described above, impacts under this threshold would be less than significant.

Operation

No Impact. As presented in Chapter 3, the Proposed Project includes constructing subtransmission lines between existing substations in the vicinity of the City of California City, EAFB, and U.S. 395 where many overhead power lines currently exist. Additionally, the Proposed Project includes upgrades at existing substations/switchyards and an expansion of the Cal City Substation. Operation and maintenance (O&M) activities associated with the Proposed Project would be similar to those currently performed by SCE for existing facilities, including, but not limited to, repairing conductors, washing or replacing insulators, repairing or replacing other hardware components, repairing or replacing poles and towers, tree trimming, brush and weed control, and access road maintenance. O&M would also include routine inspections and emergency repair within substations and throughout ROWs, which would require the use of vehicles and equipment. SCE inspects subtransmission overhead facilities in a manner consistent with CPUC G.O. 165, which requires observation a minimum of once per year, but inspection typically occurs more frequently to ensure system reliability. Following construction of the Proposed Project, O&M activities would consist of monthly and annual inspections, as well as equipment testing and maintenance for new and expanded facilities. SCE currently performs O&M activities for the existing substations and their associated source lines and infrastructure. While it is likely that the Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips, these activities would occur within existing or new ROWs and would not be expected to result in the need for new or expanded utilities or service systems. As such, no impact would occur.

5.19.4.2.2 Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Construction

No Impact. There are no reasonably foreseeable future developments associated with the Proposed Project and no substantial new long-term permanent water supply is anticipated to be required. Water would be used during construction of the Proposed Project to control dust on access roads and at work areas, in the construction of concrete foundations, and for washing equipment, among other uses. It is estimated that approximately 476 AF of water would be required during the construction period. The exact source of this temporary water supply is not known at this time, but likely to be obtained from water suppliers in the region, specifically, City of California City, AVEK, or MWA.

During recent dry and multiple dry years, the volumes of groundwater pumped by AVEK and MWA in the vicinity of the Proposed Project was less than the planned pumping volume, with a combined surplus of more than 50,956 AFY over these years. Additionally, the City of California City projects surplus supply in normal, single dry, and multiple dry years through 2040 (City of California City 2017b). Given the short construction schedule during which water would be required, and that supplies exceed current local demand along the Proposed Project alignment, the Proposed Project would have sufficient water supplies available, and therefore, no impact would occur under this threshold.

Operation

No Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. As stated above, O&M activities could include washing insulators, however, water demand for washing would be minimal and would not have a substantial impact on the water supply. The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. However, these activities would not be anticipated to result in substantially increased water demand.

As described above, the City of California City has identified surplus water supply for normal, single dry, and multiple dry years through 2040. Given the minimal amount of operational water demand that would be generated by the Proposed Project and the availability of additional supply from regional water suppliers, no impact would occur.

5.19.4.2.3 Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Construction

No Impact. Portable toilets would be provided for on-site use by construction workers and would be maintained by a licensed sanitation contractor. Minimal wastewater would be generated, and construction of the Proposed Project would not result in discharge of concentrated wastewater or large volumes of wastewater to a wastewater treatment provider. SCE would work with SCE-approved vendors and subcontractors for the handling of wastewater.

As previously discussed under Section 5.19.4.2.1, construction of the Proposed Project would generate approximately 31,475 gallons of liquid waste in total, or approximately 50 gallons of liquid waste per day, to be disposed of at nearby WWTPs. While California City WWTP is not presently equipped to handle septage or portable toilet waste, the Lancaster Water Reclamation Plant operated by Los Angeles County Sanitation District accepts and treats septage waste, receiving approximately 85,000 gallons of septage per month (RWQCB 2022). Portable toilet liquid waste generated by the Proposed Project would account for less than 2 percent of the monthly septage disposed of at the Lancaster Water Reclamation Plant, and less than 0.01 percent of the facility's daily permitted capacity of 18 MGD. Because of the excess capacity available at existing wastewater treatment plants, and because of the small volume of wastewater that would be transported for treatment during Proposed Project construction, the Proposed Project would not exceed the capacity of the wastewater treatment provider, and no impact would occur under this threshold.

Operation

No Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. However, O&M activities would not generate new large amounts of wastewater to be processed by the local wastewater provider, as such activities would generally be consistent with those already occurring in the Proposed Project vicinity to serve existing SCE infrastructure. Given the approximately 0.37 MGD of remaining capacity at the California City WWTP and capacity of other WWTPs in the region, the Proposed Project would not be expected to exceed the capacity of the wastewater treatment provider, and no impact would occur under this threshold.

5.19.4.2.4 Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Construction

Less than Significant Impact. As described in Chapter 3, Proposed Project Description, construction of the Proposed Project would generate solid waste in the form of metals (e.g., from the removed metal structures), wood poles, wood pallets, cardboards/papers (e.g., from material packaging), worker-generated solid waste (e.g., food and food packaging), and organic waste (e.g., removed vegetation). There are no state or local standards that establish numerical thresholds related to the generation of solid waste. However, Assembly Bill 341 established a policy goal for the state that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020; the Bill also notes that this goal shall remain at 50 percent for local jurisdictions. Both Kern County and San Bernardino County have Countywide Integrated Waste Management Plans, which include Source Reduction and Recycling Elements intended to identify opportunities for focused diversion efforts based on each County's waste streams. Both jurisdictions exceed the 50 percent diversion goal, according to the most recent iterations of these plans (Kern County 2015, San Bernardino County 2018).

The final disposition site of recyclable materials has not been determined at this time, as the selection of such site may depend upon market conditions at the time of construction. Appropriate disposal facilities for non-metallic recyclable materials and non-recyclable materials are available at various sites in Kern and San Bernardino counties, including the Boron Sanitary Landfill (located south of Boron in unincorporated Kern County), California City Recycling and Transfer Station (located in City of California City), McKittrick Waste Treatment Site (located in McKittrick), Mojave-Rosamond Sanitary Landfill (located south of Mojave in unincorporated Kern County), Ridgecrest Recycling & Sanitary Landfill (located west of Ridgecrest in unincorporated Kern County), and Tehachapi Sanitary Landfill (located east of Tehachapi in unincorporated Kern County). A number of landfills may be used, and adequate capacity exists for the Proposed Project. For example, the Boron Sanitary Landfill has 191,380 cubic yards of permitted capacity remaining, while the Mojave-Rosamond Sanitary Landfill has an estimated remaining capacity of 76,310,297 cubic yards. Much of the material generated during construction of the Proposed Project would be diverted from local landfill disposal through recycling of carboard/paper, wood, and worker-generated solid waste.

The Proposed Project involves upgrades to existing substations and construction of new subtransmission lines; however, existing structures may require removal or replacement where proposed subtransmission lines approach existing substations. Additionally, existing distribution wood poles would be removed along

portions of the Proposed Project alignment where distribution underbuild is proposed. In total, approximately 253 wood poles—totaling approximately 1,325 cubic yards in volume[2]—have been identified for removal or replacement as part of the Proposed Project. If required, existing treated wood poles removed for the Proposed Project would be either reused by SCE, returned to the manufacturer, disposed of in a Class I hazardous waste landfill, and/or disposed of in the lined portion of a RWQCB-certified municipal landfill, as described in Chapter 3, Proposed Project Description. If disposed of as hazardous waste, poles would be disposed of at Clean Harbors Buttonwillow, LLC, 2500 West Lokern Road, in unincorporated Kern County, or Kettleman Hills Hazardous Waste Facility, which is located at 35251 Old Skyline Rd, in Kettleman City (unincorporated Kings County). The Kettleman Hills Hazardous Waste Facility has a remaining capacity of approximately 15,600,000 cubic yards, of which the volume of wood poles requiring disposal under the Proposed Project would account for less than 0.01 percent. Although the remaining capacity for Clean Harbors Buttonwillow, LLC is not provided, its closure date is anticipated for 2040 and, therefore, it is assumed that there is remaining capacity at the Clean Harbors Buttonwillow, LLC facility.

Because of the small volume of solid waste that would be generated, the large surplus capacity available at disposal facilities in San Bernardino and Kern counties, and the fact that both counties exceed their target solid waste diversion rates, construction of the Proposed Project would not generate solid waste in excess of the capacity of local infrastructure or impair solid waste reduction goals at the state or local level. This impact would be less than significant.

Operation

No Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure. The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips, and therefore would result in a nominal increase in generation of solid waste such as cardboards/papers from material packaging, worker-generated food and food packaging, and organic waste. Given the substantial remaining capacity at local solid waste facilities and the nominal increase in operational solid waste anticipated, O&M activities would not generate large amounts of solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. No impact would occur.

5.19.4.2.5 Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Construction

No Impact. As previously discussed, solid waste produced during construction would be disposed in one or more licensed landfill(s). Management and disposal of solid waste would comply with all applicable federal, state, and local statutes and regulations. Thus, the Proposed Project would not violate any solid waste statutes or regulations. Therefore, no impact is anticipated during construction of the Proposed Project.

Operation

No Impact. As previously described, O&M activities associated with the Proposed Project would be similar to those currently performed by SCE for existing substations and their associated lines and infrastructure.

[2] Assumes an average diameter of approximately 18 inches per wood pole and height of approximately 80 feet.

The Proposed Project would result in a nominal increase in O&M activities, such as increased maintenance and inspection trips. However, O&M activities would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. No impact would occur.

5.19.4.2.6 Would the project increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts?

Construction

No Impact. No aspect of construction would increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts, as construction would not include activities that would introduce or increase electrical interference along existing pipeline facilities. As such, no impact would occur.

Operation

Less than Significant Impact. Collocated pipelines sharing, paralleling, or crossing high voltage power line ROWs may be subject to electrical interference from electrostatic coupling, electromagnetic inductive, and conductive effects. If the interference effects are high enough, they may compromise the integrity of these collocated pipelines. The severity of interference effects is a function of the electric lines' operating amperage, the separation distance between the electric line and pipeline, the resistivity of the soil, the length of collocation, and the angle at which the electric line and pipeline cross each other.

As shown on Figure 5.19-1, above, the 115 kV subtransmission lines included as part of the Proposed Project intersect or parallel existing natural gas pipelines in the area, specifically near U.S. 395. Along U.S. 395, the proposed Kramer-Cal City 115 kV Subtransmission Line would be located within an existing utility corridor; the proposed line would be located west of existing SCE-operated 115 kV subtransmission and 220 kV transmission lines, and across U.S. 395 from existing natural gas lines[3]. Given the separation between the proposed Kramer-Cal City 115 kV Subtransmission Line and existing natural gas line across U.S. 395, and the fact that the voltage of the new line would be equal-to or lower than those that currently exist in the utility corridor, this Proposed Project component is not anticipated to increase the rate of corrosion of adjacent utility lines.

The proposed Cal City-Edwards-Holgate 115 kV Subtransmission Line intersects existing natural gas pipelines between Lorraine Avenue and Edwards Substation. Given the anticipated operating amperage of the proposed 115 kV line and the minimal length of collocation where the Proposed Project and existing pipelines intersect, it is not anticipated that this Proposed Project component would increase the rate of corrosion of adjacent utilities. As necessary and appropriate, SCE would implement applicable standards of the National Electrical Safety Code pertaining to the need for interference analysis and anti-corrosion/cathodic protection, pending final design and engineering. Therefore, the operation of the infrastructure installed as part of the Proposed Project would not substantially increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts, and this impact would be less than significant.

[3] The proposed Kramer-Cal City 115 kV Subtransmission Line intersects two existing natural gas lines in the vicinity of Kramer Junction and parallels an existing natural gas pipeline along U.S. 395. The existing natural gas pipeline is located across U.S. 395 from the proposed Kramer-Cal City 115 kV Subtransmission Line, approximately 315 feet east of the proposed Subtransmission Line alignment.

5.19.4.3 Utility Relocation

No conflicts with existing non-Proposed Project utility lines are anticipated based on current Proposed Project design and known locations of utility lines; therefore, no utilities would require relocation.

5.19.4.4 Waste

The types of waste that would be generated under the Proposed Project and the disposal of treated wood poles are addressed in Section 5.19.4.2.4. The approximate volumes and masses of waste that would be generated under the Proposed Project are discussed in Section 3.5.14.1.3; the potential for this waste to be disposed of, reused, and recycled is discussed in Section 3.5.14.1.4.

5.19.4.5 Water Supply

5.19.4.5.1 Estimate of the amount of water required for project construction and operation, and potential water supply source(s)

The estimated amount of water required for Proposed Project construction is provided above in Section 5.19.4.2.2. Nominal increases in operational water demand are anticipated associated with minor increases in O&M activities. Operational water demand associated with the Proposed Project is described in Section 5.19.4.2.2. The potential water supply sources include the water purveyors and utilities listed above in Section 5.19.1.2.1. In addition, wastewater treatment plants may be a source of construction water supply (i.e., a source of reclaimed or recycled water) for the Proposed Project. The water supply sources will be identified by SCE's construction contractor during the pre-construction planning process.

5.19.4.5.2 Evaluation of the ability of the water supplier to meet the project demand under a multiple dry year scenario

Because individual water suppliers are not identified at this time, SCE has examined the regional UWMPs across the Proposed Project alignment to assess the ability of water suppliers operating in the areas covered by those UWMPs to meet the Proposed Project's demands under a multiple dry year scenario. The UWMPs reviewed include the City of California City 2015 UWMP, the AVEK 2020 UWMP, and the MWA 2020 UWMP.

The City of California City's 2015 UWMP encompasses the portion of the Proposed Project within the City of California City, including Cal City Substation. The Plan forecasts excess supply from 2020 through 2040 under a multiple dry year scenario ranging from approximately 4,091 AFY in 2020 to 2,396 AFY in 2040. This excess supply suggests that the water supplier would have the ability to meet the small, short-term demand of the Proposed Project for work within the City's water service area.

AVEK's service area covers the entirety of the Proposed Project alignment within Kern County[4]. The water wholesaler serves multiple, smaller water retailers in the vicinity of the Proposed Project. AVEK's 2020 UWMP forecasts balanced or excess supply from 2020 through 2040, ranging from 0 to 11,480 AFY of excess supply under a multiple dry year scenario. The supplier does not forecast any supply deficiencies in a multiple dry year scenario. This balanced or excess supply suggests AVEK has the ability to meet

[4] While the City of California City is its own water supplier, it purchases a portion of its water supply from AVEK and falls within AVEK's service area.

increasing demand over time, and would have the ability to meet the small, short-term demand of the Proposed Project for work within its service area.

MWA's service area covers the entirety of the Proposed Project alignment within San Bernardino County. The water wholesaler serves multiple, smaller water retailers, generally to the south and east of the Proposed Project. Like AVEK, MWA's 2020 UWMP forecasts balanced or excess supply from 2020 through 2065, ranging from 0 to 8,434 AFY of excess supply under a multiple dry year scenario. The supplier does not forecast any supply deficiencies in a multiple dry year scenario. This balanced or excess supply suggests MWA has the ability to meet increasing demand over time, and would have the ability to meet the small, short-term demand of the Proposed Project for work within its service area.

Given that all of the water providers--including water wholesalers—that serve the Proposed Project area forecast balanced or excess supply during a multiple dry year scenario, water suppliers would be able to meet the Proposed Project's minimal anticipated demand.

5.19.4.5.3 Analysis of the Proposed Project meeting the criteria for consideration as a project subject to Water Supply Assessment Requirements under Water Code section 10912

The Proposed Project does not meet the criteria for consideration as a project subject to Water Supply Assessment Requirements under Water Code section 10912. Section 10912 states:

For the purposes of this part, the following terms have the following meanings:

(a) "Project" means any of the following:

(1) A proposed residential development of more than 500 dwelling units.

(2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.

(3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.

(4) A proposed hotel or motel, or both, having more than 500 rooms.

(5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.

(6) A mixed-use project that includes one or more of the projects specified in this subdivision.

(7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.

The Proposed Project does not meet the definition of a "Project" under (1) through (6). Regarding (7): According to the California Department of Water Resources (DWR's) *Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001 to assist water suppliers, cities, and counties in integrating water and land use planning*…it is generally acknowledged that one acre-foot (AF) of water can serve two to three households on an annual basis. As presented above, it is estimated that the Proposed Project would demand approximately 476 AF of water over the estimated up to 24-month construction period and negligible new water demand during operations. The Proposed Project would not demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project, and thus the Proposed Project does not meet the criteria for consideration as a project subject to Water Supply

Assessment Requirements under Water Code section 10912. Accordingly, no Water Supply Assessment has been developed for the Proposed Project.

5.19.4.6 Cathodic Protection

The potential for the Proposed Project to result in corrosion to adjacent utility lines is discussed in detail in Section 5.19.4.2.6, above. Given the nature of the Proposed Project and limited collocation with adjacent pipeline facilities, construction and operation of the Proposed Project is not anticipated to require cathodic protection.

5.19.5 CPUC Draft Environmental Measures

Attachment 4 of the CPUC's *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and PEAs* includes CPUC Draft Environmental Measure 5.19, Notify Utilities with Facilities Above and Below Ground. As described above, the Proposed Project would not result in any potentially significant impacts to utilities and service systems, and no environmental measures are necessary to reduce impacts below a level of significance.

5.19.5.1 Applicant Proposed Measures

No potentially significant impacts to utilities and service systems would occur as a result of the Proposed Project. As such, there are no applicant proposed measures.

5.19.6 Alternatives

For an evaluation of Proposed Project alternatives, see Chapter 6, Comparison of Alternatives.

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5.20 Wildfire

This section describes the wildfire risk in the area of the Cal City Substation 115 kV Upgrade Project (Proposed Project), as well as the potential impacts that may result during construction and operation of the Proposed Project.

Research for this analysis involved a review of the following resources:

- California Public Utilities Commission (CPUC) High Fire-Threat District Map
- California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zone maps
- CAL FIRE California Fire Perimeters maps
- U.S. Forest Service (USFS) Missoula Fire Sciences Laboratory fire regimes of blackbrush shrubland communities
- USFS Missoula Fire Sciences Laboratory fire regimes of creosotebush shrubland communities
- Local agency planning documents

5.20.1 Environmental Setting

The Proposed Project is located in Kern County and San Bernardino County in the Mojave Desert region of California and traverses federal, state, private, and municipal land. These lands include unincorporated areas of Kern County and San Bernardino County, City of California City, Edwards Air Force Base controlled by the Department of Defense, and public lands under the jurisdiction of the Bureau of Land Management and the California Department of Fish and Wildlife. Approximately 90 percent of the Proposed Project is located within undeveloped open areas, with the remaining 10 percent located within developed areas (including the City of California City). The Proposed Project is located in the Mojave Desert with natural and semi-natural vegetation communities. The Proposed Project would traverse developed areas, shrubland, and desert scrub. The environmental setting section describes the existing wildfire setting in the Proposed Project area.

5.20.1.1 High Fire Risk Areas and State Responsibility Areas

Within California, Fire Hazard Severity Zones (FHSZs) are designated by the Department of Forestry and Fire Protection (CAL FIRE). CAL FIRE uses a five-tiered ranking system to assess the threat to people based on fuel hazard, wildland fire potential, and housing density. The tiers, from lowest to highest threat, are termed little or no threat, moderate threat, high threat, very high threat, and extreme threat. FHSZs are administered by the federal, state, or local government that is financially responsible for preventing and suppressing wildfires in a given area, and are categorized into the following three groups:

- Federal Responsibility Areas (FRA): The federal government is financially responsible for wildfire suppression.
- State Responsibility Areas (SRA): The state is financially responsible for wildfire suppression.
- Local Responsibility Areas (LRA): Cities or counties are financially responsible for wildfire suppression.

Table 5.20-1 provides the length of the Proposed Project alignment within the FHSZs and within the federal, state, or local responsibility areas. As shown in Table 5.20-1, the Proposed Project would be located within LRA and FRA, but not within an SRA. The nearest SRA is located approximately 5.8 miles to the west of the proposed Kramer-Cal City 115 kV Subtransmission Line.

As shown in Figure 5.20-1, the Proposed Project alignment is entirely within a Moderate FHSZ. Additionally, the CPUC produces a High Fire-Threat District (HFTD) map to show areas where there is an elevated (Tier 2) or extreme (Tier 3) risk from wildfires associated with overhead utility power lines or overhead utility power line facilities also supporting communication facilities. The CPUC HFTD map also indicates areas (Zone 1) in direct proximity to communities, roads, and utility lines where there is a direct threat to public safety. The Proposed Project is not within a HFTD Tier 2 or 3 area or Zone 1 (CPUC 2022). SCE has not independently identified any fire hazard severity zone areas along the Proposed Project alignment.

Table 5.20-1 Miles of Proposed Project Alignment within Designated Fire Hazard Severity Zones and Responsibility Areas

Project Component	Total Alignment Length (miles)	Very High FHSZ (miles)	Moderate FHSZ (miles)	SRA (miles)	LRA (miles)	FRA (miles)	CPUC HFTD
Kramer-Cal City 115 kV Subtransmission Line	42.1	0	42.1	0	27.5	14.5	0
Cal City-Edwards-Holgate 115 kV Subtransmission Line	28.1	0	28.1	0	24	4.1	0

Abbreviations:
CPUC HFTD: California Public Utilities Commission High Fire-Threat District
FHSZ: Fire Hazard Safety Zone
FRA: Federal Responsibility Area
LRA: Local Responsibility Area
SRA: State Responsibility Area

Figure 5.20-2 presents the wildland urban interface (WUI) data in the Proposed Project vicinity. WUI is the area where houses meet or intermingle with undeveloped wildland vegetation. This makes the WUI a focal area for human-environment conflicts such as wildland fires. Figure 5.20-2 shows that the Proposed Project alignment primarily extends through areas with vegetation but no habitation, areas of no to very low vegetation and no habitation, and minimal areas of low interface (primarily near the City of California City).

Figure 5.20-1 Fire Hazard Severity Zones in the Proposed Project Vicinity

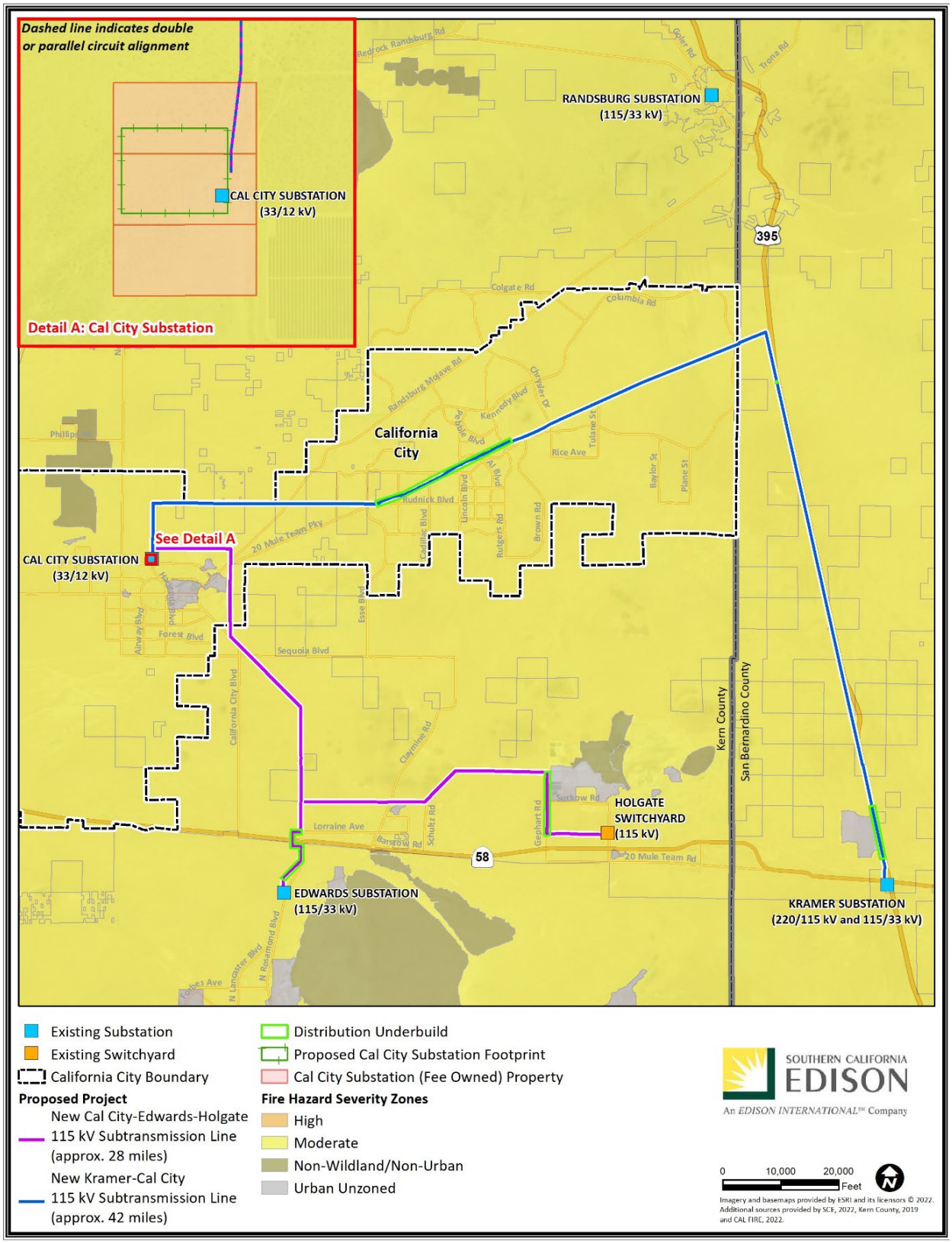
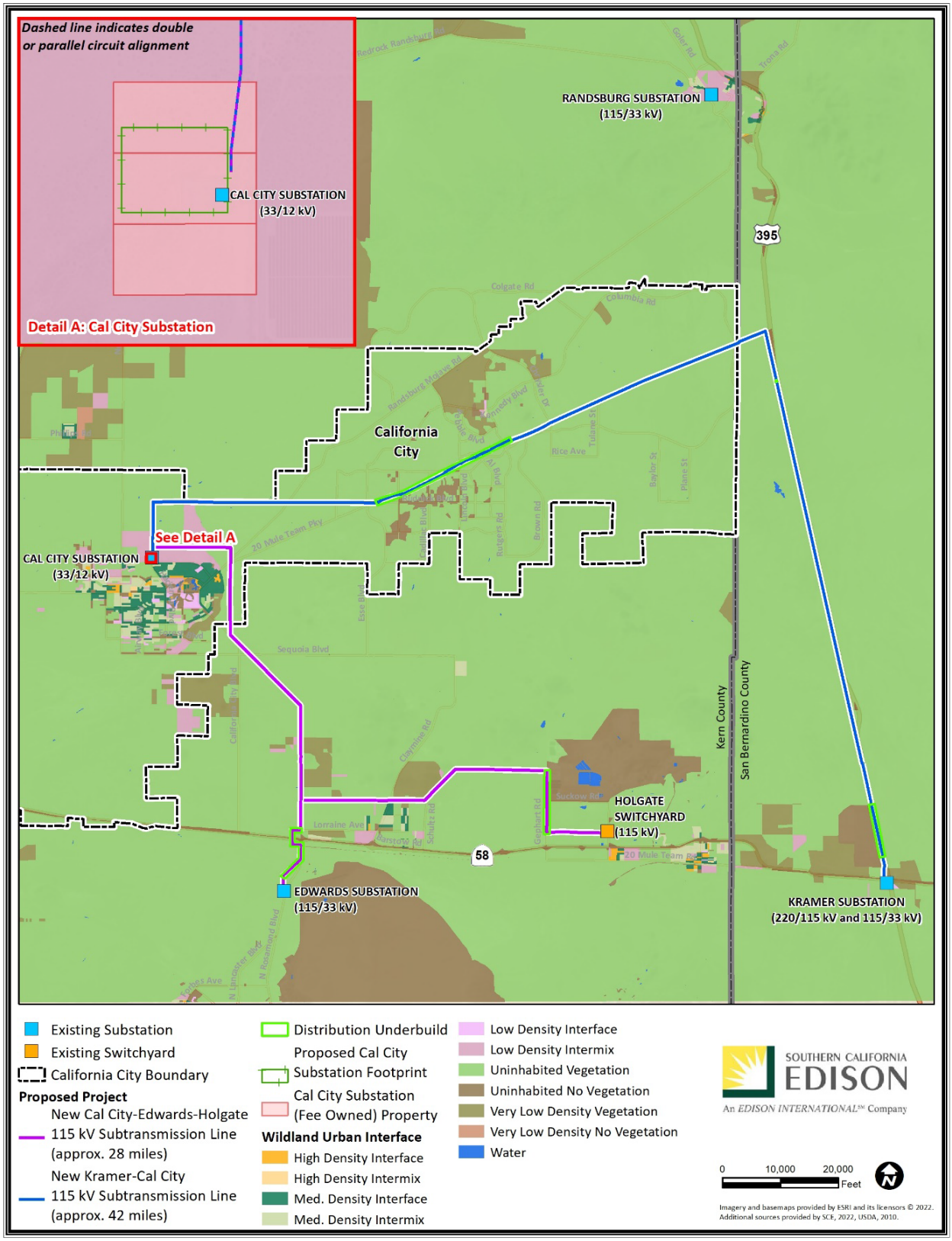


Figure 5.20-2 Wildland Urban Interface in the Proposed Project Vicinity



5.20.1.2 Fire Occurrence

According to the CAL FIRE online historical fire map, no historical fires have overlapped or been located within 1 mile of the Proposed Project alignment (CAL FIRE 2022a).

5.20.1.3 Fire Risk

As part of the process of predicting potential behavior and effects of wildland fires, forest/fire scientists have developed fire behavior fuel models. These models use descriptions of fuel properties and climate to calculate fire behavior potentials. Anderson's original fire behavior fuel model contained 13 fuel properties. The Scott and Burgan Fire Behavior Fuel Model expanded the range of fuel models to improve predictions outside of the original, with 40 classifications of fuel. Scott and Burgan Fire Behavior Fuel Model data for the area along the Proposed Project alignment are presented in Figure 5.20-3.

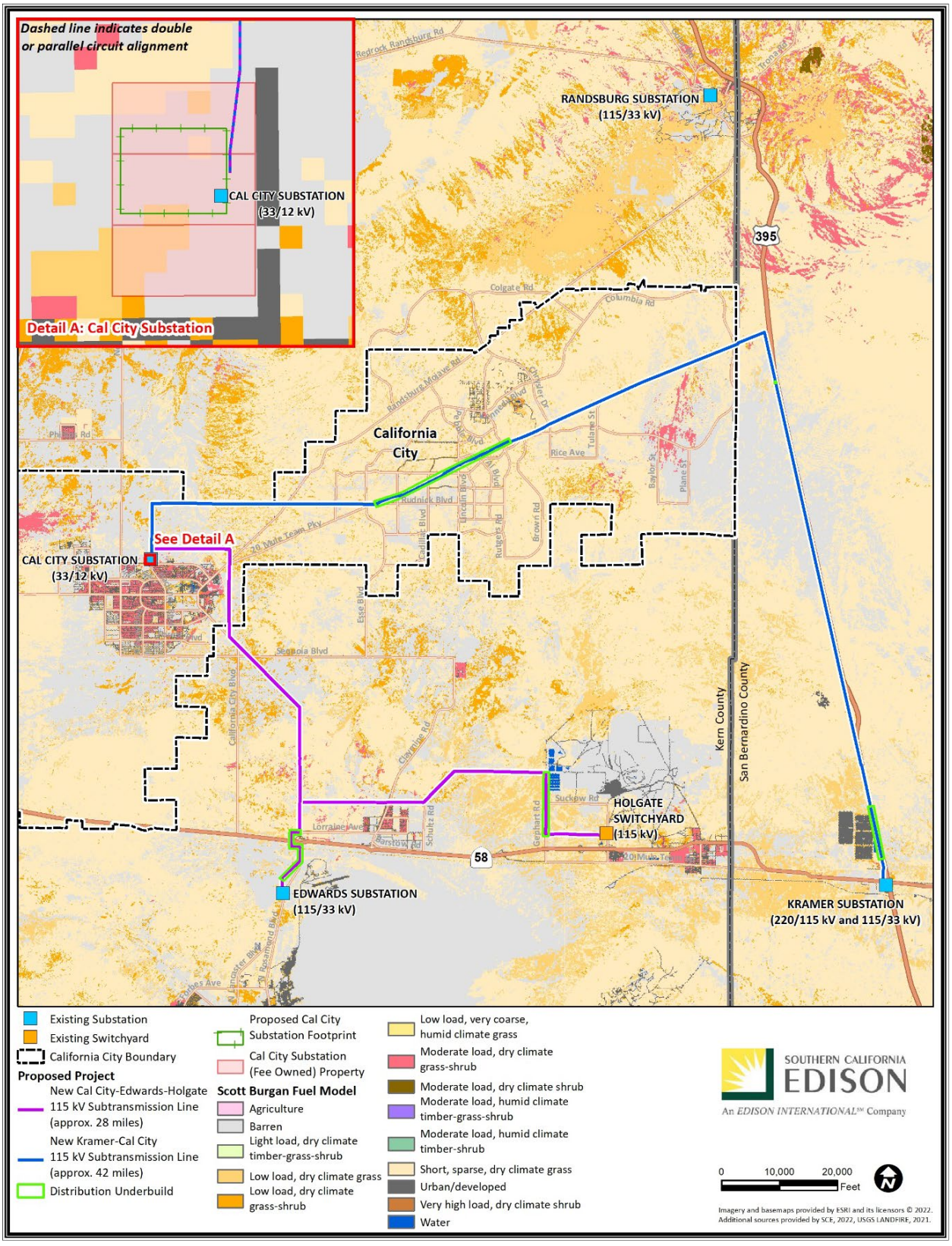
Table 5.20-2 below lists those vegetation types included in the U.S. Department of Agriculture (USDA) Fire Effects Information System (FEIS) that are found along the Proposed Project alignment. FEIS provides synthesized scientific information about fire effects on individual ecosystems, how often fire might occur in individual ecosystems and how long it takes individual ecosystems to recover (replacement) (USDA 2022). Vegetation community mapping is also shown on Figure set 5.4-1 in Section 5.4, Biological Resources. Based on the vegetation types and plant communities that the Proposed Project crosses, potential fires would vary in severity; however, the frequency of fires occurring within these vegetation types and plant communities is low. Therefore, the vegetation types and plant communities that the Proposed Project crosses do not present a high fire risk. Wind direction and speed, relative humidity, and temperature for representative weather stations along the alignment for the previous 5 years, gathered hourly, and digital elevation models of topography are attached in Appendix O. Ten-year publicly available data is not available at this time.

Table 5.20-2 USDA Fire Effects Information System Vegetation Types on Proposed Project Alignment

Vegetation Types/Plant Community	Fire Interval[1]	Fire Severity[2] (Percentage of Fires)			High Risk[3]
		Replacement	Mixed	Low	
Shrub/Blackbrush Shrubland Communities	270-833 years	100	0	0	No
Desert Shrub/Sonora-Mojave Creosotebush-White Bursage Desert Scrub	316-800 years	55-100	0-45	0	No

[1]Average historical fire-return interval derived from LANDFIRE succession modeling (labeled "MFRI" in LANDFIRE).
[2]Percentage of fires in three fire severity classes, derived from LANDFIRE succession modeling. Replacement severity fires cause >75% kill or top-kill of the upper canopy layer; mixed-severity fires cause 26%-75%; low-severity fires cause <26%
Sources: USDA 2012a and USDA 2012b.
[3]Fire risk determined based on vegetation types and plant communities fire interval and fire severity data.

Figure 5.20-3 Scott and Burgan Fire Behavior Fuel Modeling



5.20.1.4 Values at Risk

Communities near the Proposed Project alignment are identified in Section 5.14, Population and Housing, and are shown on Figure 5.14-1. Table 5.20-3 shows values (facilities, structures, residences) within 1,000 feet of the Proposed Project alignment based on a review of aerial maps.

Table 5.20-3 Values at Risk Along the Proposed Project Alignment

Values at Risk	Building Material and Vulnerability	Approximate Distance from Alignment	Nearest Proposed Project Component
Kramer Solar Plant	Metal/Steel Low vulnerability	80 feet	Kramer-Cal City
Borax Bill Park and Station	Metal/Steel Low vulnerability	216 feet	Kramer-Cal City
Residential Use	Wood and other materials consistent with Residential Use Medium vulnerability	208 feet	Kramer-Cal City
Residential Use	Wood and other materials consistent with Residential Use Medium vulnerability	500 feet	Kramer-Cal City
Residential Use	Wood and other materials consistent with Residential Use Medium vulnerability	333 feet	Kramer-Cal City
The Church of Jesus Christ of Latter-day Saints	Wood and other materials consistent with Residential Use Medium vulnerability	507 feet	Cal City-Edwards-Holgate
Residential Community	Wood and other materials consistent with Residential Use Medium vulnerability	591 feet	Cal City-Edwards-Holgate
Residential Use	Wood and other materials consistent with Residential Use Medium vulnerability	77 feet	Cal City-Edwards-Holgate
U.S. Borax Inc, Clean Energy fuels – Boron Plant	Metal/Steel Low vulnerability	500 feet	Cal City-Edwards-Holgate

5.20.1.5 Evacuation Routes

Evacuation routes for southeastern Kern County are State Route (SR) 58 and U.S. 395 (Kern County 2009a). Designated evacuation routes for San Bernardino County are Interstates 10, 15, 210 and 215 and SR 30, 60, 66, 71 and 83 (San Bernardino County 2017a). Of these, only SR 58 and U.S. 395 are in the vicinity of the Proposed Project. The proposed new Kramer-Cal City 115 kV Subtransmission Line, and the proposed new Cal City-Edwards-Holgate 115 kV Subtransmission Line cross SR 58. The Proposed Project would not cross any roads that lack a secondary point of access or exit. Additional information about emergency response plans and evacuation plans are addressed in Section 5.9, Hazards, Hazardous Materials, and Public Safety.

5.20.2 Regulatory Setting

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

5.20.2.1 Federal

There are no federal regulations applicable to the Proposed Project.

5.20.2.2 State

5.20.2.2.1 California Public Utilities Commission General Order 95, Section 35

Section 35 of CPUC General Order (G.O.) 95 covers all aspects of design, construction, and operation and maintenance of electrical power lines, as well as fire safety hazards.

5.20.2.2.2 California Code of Regulations, Title 14, Sections 1250 to 1258

14 CCR sections 1250 to 1258 provide specific clearance standards to be maintained by utility companies between electric power lines and all vegetation.

5.20.2.2.3 Senate Bill 901

Senate Bill 901, enacted in 2018, adopted new provisions of Public Utilities Code section 8386 requiring all electric utilities to prepare, submit and implement annual wildfire mitigation plans that describe the utilities' plans to construct, operate and maintain their electrical lines and equipment in a manner that will help minimize the risk of catastrophic wildfires associated with those electrical lines and equipment.

5.20.2.2.4 Health and Safety Code § 13009

Health and Safety Code section 13009 permits CAL FIRE to file civil actions to recover fire suppression costs from a party who causes a fire (1) negligently, or (2) in violation of a law or an order to correct a fire hazard. CAL FIRE established a Civil Cost Recovery Program to satisfy the statute's intent to assign financial responsibility to culpable parties and to prevent fires through deterrence.

5.20.2.2.1 California Public Resources Code Sections 4292 and 4293

California Public Resources Code (PRC) section 4292 states:

> "[A]ny 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, lightening 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."

PRC section 4293 states:

> "[A]ny 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 72,000 volts, four feet
>
> (b) For any line which is operating at 72,000 or more volts, but less than 110,000 volts, six feet
>
> (c) For any line which is operating at 110,000 or more volts, 10 feet

In every case, such distance shall be sufficiently great to furnish the required clearance at any position of the wire, or conductor when the adjacent air temperature is 120 degrees Fahrenheit, or less. Dead trees, old decadent or rotten trees, trees weakened by decay or disease and trees or portions thereof that are leaning toward the line which may contact the line from the side or may fall on the line shall be felled, cut, or trimmed so as to remove such hazard."

5.20.2.2.2 Red Flag Fire Warning and Weather Watches

Like PRC sections 4292 and 4293, red-flag warnings and fire-weather watches aim to prevent fire events and reduce the potential for substantial damage. When extreme fire weather or behavior is present or predicted in an area, a red-flag warning or fire-weather watch may be issued to advise local fire agencies that these conditions are present. The National Weather Service issues the red flag warnings and fire weather watches and the CAL FIRE has provided safety recommendations for preventing fires, including clearing and removing vegetation, and ensuring the proper use of equipment.

5.20.2.2.1 Division of California Occupational Safety and Health, Department of Industrial Relations

The Division of California Occupational Safety and Health (Cal/OSHA) protects workers and the public from safety hazards. Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations. These regulations concern the use of hazardous materials in the workplace, including preparation of emergency action and fire prevention plans.

Cal/OSHA also enforces hazard communication program regulations. Cal/OSHA standards are generally more stringent than federal regulations. Construction workers and operational employees within the project alignment would be subject to these requirements.

5.20.2.2.2 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 California. 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 CalFire units develop fire plans, which are major strategic documents that establish a set of tools for each CalFire 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 (CAL FIRE 2019).

5.20.2.2.1 Power Line Fire Prevention Field Guide 2021 Edition

CAL FIRE, the state's three investor-owned utilities (Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company), 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 the safety of the public, the guide details fire hazard reduction maintenance procedures for the safety of conductors and certain hardware (CAL FIRE 2021).

5.20.2.3 Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to 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."

Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the counties' and city's regulations are not applicable as the counties and city do not have jurisdiction over the Proposed Project. Accordingly, the following discussion of local regulations is provided for informational purposes only.

5.20.2.3.1 Kern County General Plan

The Safety Element of the Kern County General Plan contains goals and policies for the protection of the community from any risks associated with environmental hazards, including the following policies that are relevant to the Proposed Project:

Section 4.6 – Wildland and Urban Fire

Policy 1	Require discretionary projects to assess impacts on emergency services and facilities.
Policy 6	All discretionary projects shall comply with the adopted Fire Code and the requirements of the Fire Department.

5.20.2.3.2 San Bernardino Countywide Policy Plan

The Personal and Property Protection Element of the San Bernardino Countywide Policy Plan contains the following goal and policies for fire protection and emergency response:

Goal PP-3	Fire and Emergency Medical. Reduced risk of death, injury, property damage, and economic loss due to fires and other natural disasters, accidents, and medical incidents through prompt and capable emergency response.
Policy PP-3.1	Fire and emergency medical services. We maintain a sufficient number and distribution of fire stations, up-to-date equipment, and fully-trained staff to respond effectively to emergencies.
Policy PP-3.7	Fire safe design. We require new development in the Fire Safety Overlay to comply with additional site design, building, and access standards to provide enhanced resistance to fire hazards.

5.20.2.3.3 San Bernardino County Multi-Jurisdiction Hazard Mitigation Plan

San Bernardino County and several participating jurisdictions prepared a Comprehensive Update to the Multi-Jurisdiction Hazard Mitigation Plan (MHMP) in 2017, originally approved by the Federal Emergency Management Agency (FEMA) in 2011. The purpose of this plan is to reduce and/or eliminate risk and loss of life and property in the unincorporated areas of the County from the effects of hazard events, such as wildfire, earthquakes, and floods. The plan demonstrates the commitment of each participating jurisdiction to reducing risks from hazards and serves as a tool to help decision makers direct mitigation activities and resources (San Bernardino County 2017b).

5.20.2.3.4 City of California City General Plan Safety Element

The Safety Element of the City of California City General Plan addresses safety through goals, policies, and implementation measures that seek to reduce the potential for the loss of life, injuries, and property damage associated with natural and human induced hazards. The Safety Element contains the following implementation measures that are relevant to the Proposed Project:

- Implementation Measure S-23: The City shall require that new development proposals demonstrate the availability of fire, police, emergency response, and solid waste disposal services during the environmental review and discretionary approval process.
- Implementation Measure S-25: The following measures shall be implemented to ensure adequate fire and police protection services in the incorporated areas of the City:
  - All new development proposals shall be reviewed by the California City Fire Department and the California City Police Department to ensure the continuation of adequate levels of service.
  - If additional Fire Department or Police Department station sites are determined to be required, sites shall be identified and mechanisms to obtain these sites shall be defined. These shall include, but not be limited to, the dedication of land for such purposes or payment of proportional share of fees as a condition of development.
  - The City will continue to work with local organizations and the County Sheriff's Department and Fire Department to continue administration of the Mojave Desert Community Response Plan.

5.20.2.4 CPUC Standards

In October 2007, devastating wildfires driven by strong Santa Ana winds burned hundreds of square miles in Southern California. Several of the worst wildfires were reportedly ignited by overhead utility power lines and aerial communication facilities in close proximity to power lines. In response to these wildfires, the CPUC initiated Rulemaking (R.) 08-11-005 to consider and adopt regulations to protect the public from potential fire hazards associated with overhead powerline facilities and nearby aerial communication facilities.

Beginning in 2009, the CPUC issued several decisions in R.08-11-005 that together adopted dozens of new fire-safety regulations. Most of the adopted fire-safety regulations consisted of new or revised rules in G.O. 95. Several of the adopted fire-safety regulations apply only to areas, referred to as "high fire-threat areas," where there is an elevated risk for power line fires igniting and spreading rapidly. These high fire threat areas are designated by several maps that were adopted on an interim basis. Each of the interim maps covers a different part of the state and uses its own methodology for identifying high fire-threat areas, presenting consistency and potential enforcement issues. To address these issues, the CPUC also commenced the development of a single statewide fire-threat map to designate areas where (1) there is an elevated risk for destructive power line fires, and (2) stricter fire-safety regulations should apply.

In May 2015, the CPUC closed R.08-11-005 and initiated successor rulemaking R.15-05-006 to complete the outstanding tasks in R.08-11-005. The general scope of R.15-05-006 was to address the following matters carried over from the scope of R.08-11-005: (1) develop and adopt a statewide fire-threat map that delineates the boundaries of a new HFTD where the previously adopted regulations will apply, (2) determine the need for additional fire-safety regulations in the HFTD, and (3) revise G.O. 95 to include a definition and maps of the HFTD, as well as any new fire-safety regulations. The scope and schedule for R.15-05-006 was divided into two parallel tracks. One track focused on the development and adoption of a statewide fire-threat map. The second track focused on the identification, evaluation, and adoption of fire-safety regulations in the HFTD.

On December 21, 2017, the CPUC issued Decision (D.) 17-12-024 adopting regulations to enhance fire safety in the HFTD, effectively completing the second track of R.15-05-006 described above. On January 19, 2018, the CPUC adopted, via Safety and Enforcement Division's (SED) disposition of a Tier 1 Advice Letter, the final CPUC Fire-Threat Map. The adopted CPUC Fire-Threat Map, together with the map of Tier 1 High Hazard Zones on the USFS-CAL FIRE joint map of tree mortality High Hazard Zones, comprise the HFTD Map where stricter fire-safety regulations apply.

Inspection and Maintenance Standards D. 96-11-021 and D.97-03-070 establish inspection cycles and record-keeping requirements for utility distribution equipment, which are contained in G.O. 165. In general, utilities must patrol (walk, drive, or fly by) their systems once a year (in urban areas) or once every two years (in rural areas). Utilities must conduct detailed inspections every three to five years, depending on the type of equipment. For detailed inspections, utilities' records must specify the condition of inspected equipment, any problems found, and a scheduled date for corrective action. The utility must submit an annual report summarizing inspections made, equipment condition observed, and repairs made. Utilities are required to make intrusive inspections of power poles; no pole should go over 25 years before its first intrusive inspection, and once passed, every 20 years thereafter. Currently, G.O. 165 is being considered for revisions to optimize the CPUC's ability to identify areas of noncompliance with its safety standards, G.O. 95 Overhead and G.O. 128 Underground, and its inspection, maintenance and repair standards, G.O. 165.

Tree Trimming Standards D. 97-01-044 of Investigation 94-06-012 establishes standards for trimming trees near power lines, issued as a revision to Rule 35 of G.O. 95-A. For lines at voltages higher than 750 volts, in general, trees must be trimmed to provide no less than 18 inches of clearance from lines under normal annual weather variations. When trimmed, where practicable, trees must be 4 to 15 feet from power lines over 2,400 volts (clearances vary with voltage). Detailed rules are contained in Appendix A of the decision.

5.20.3 Impact Questions

5.20.3.1 Wildfire Impact Questions

The thresholds of significance for assessing impacts come from the CEQA Environmental Checklist. For wildfire, the CEQA Checklist asks, if located in or near SRA lands or lands classified as very high FHSZ, would the project:

- Substantially impair an adopted emergency response plan or emergency evacuation plan?
- 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?

- 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?
- 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?

5.20.3.2 Additional CEQA Impact Questions

There are no CPUC-identified additional CEQA impact questions.

5.20.4 Impact Analysis

5.20.4.1 Wildfire Methodology

Wildfire impacts were evaluated based upon a review of California Air Resources Board (CARB) five-year meteorological data (Appendix O), CPUC HFTD data, CAL FIRE FHSZ data, San Bernardino County Fire Protection District resources, U.S. Department of Agriculture, Forest Service, Missoula Fire Sciences Laboratory fire regimes of creosotebush shrubland and blackbrush shrubland communities, regulatory requirements that apply to the various wildfire risks crossed by the Proposed Project and the potential for the Proposed Project to affect wildfire in the area.

5.20.4.2 Wildfire Impact Analysis

5.20.4.2.1 If located in or near SRA lands or lands classified as very high FHSZ, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Construction and Operation

No Impact. As stated in Section 5.20.1.1, the Proposed Project alignment is not within or near any SRA land or very high FHSZ. Because the project is not located in or near an SRA or a very high FHSZ, no impacts related to wildfire would occur.

5.20.4.2.2 If located in or near SRA lands or lands classified as very high FHSZ, would the project, 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?

Construction and Operation

No Impact. As stated in Section 5.20.1.1, the Proposed Project alignment is not within or near any SRA land or very high FHSZ. Because the Proposed Project is not located in or near an SRA or a very high FHSZ, no impacts related to wildfire would occur.

5.20.4.2.3 If located in or near SRA lands or lands classified as very high FHSZ, 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?

Construction and Operation

No Impact. As stated in Section 5.20.1.1, the Proposed Project alignment is not within or near any SRA land or very high FHSZ. Because the Proposed Project is not located in or near an SRA or a very high FHSZ, no impacts related to wildfire would occur.

5.20.4.2.4 If located in or near SRA lands or lands classified as very high FHSZ, 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?

Construction and Operation

No Impact. As stated in Section 5.20.1.1, the Proposed Project alignment is not within or near any SRA land or very high FHSZ. Because the Proposed Project is not located in or near an SRA or a very high FHSZ, no impacts related to wildfire would occur.

5.20.4.2.5 Fire Behavior Modeling

The Proposed Project is located within a CAL FIRE Moderate FHSZ, indicating that vegetation in the area is not very susceptible to fire. The Proposed Project is also not within a CPUC-designated HFTD. Therefore, Fire Behavior Modeling is not necessary for the Proposed Project. Furthermore, as shown in Table 5.20-2, the plant communities and vegetation types in the Proposed Project area have fire intervals of 270-833 years and 316-800 years, meaning that the average time between fires in the Proposed Project area is approximately 551.5 years. These prolonged fire intervals indicate plant communities in the Proposed Project area do not present a high fire risk.

5.20.4.2.6 Wildfire Management

During operation and maintenance of the Proposed Project, SCE would implement its 2020-2022 Wildfire Mitigation Plan (and successor plans) to manage wildfire risk in the area. SCE's 2020-2022 Wildfire Mitigation Plan is provided in Appendix I. No special procedures for wildfire management, beyond those addressed in the plan or required by regulation, are included as part of the Proposed Project. The Proposed Project alignment is not located in a CPUC-identified HFTD. Therefore, enhanced inspections as described in Section 5.3.4, Asset Management and Inspections, of SCE's 2020-2022 Wildfire Mitigation Plan (Appendix I) would not be applicable.

5.20.5 CPUC Draft Environmental Measures

The Proposed Project would result in no impacts related to wildfire; as such, no CPUC Draft Environmental Measures have been identified.

5.20.5.1 Applicant Proposed Measures

The Proposed Project would result in no impacts related to wildfire; as such, no APMs have been identified.

5.20.6 Alternatives

For an evaluation of Proposed Project alternatives, see Chapter 6, Comparison of Alternatives.

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5.21 Mandatory Findings of Significance

This section of the Proponent's Environmental Assessment (PEA) provides an analysis of the mandatory findings of significance associated with construction and operation of the Cal City Substation 115 kV Upgrade Project (Proposed Project). In accordance with the California Environmental Quality Act (CEQA) Guidelines section 15064 (a through h), this PEA section provides substantial evidence that is used to support the determination of whether the Proposed Project will result in significant environmental impacts.

5.21.1 Impact Assessment for Mandatory Findings of Significance

5.21.1.1 Significance Criteria

Appendix G of the CEQA Guidelines provides the criteria used in determining whether project-related impacts will be significant. Impacts resulting from the Proposed Project could be considered significant if they have the potential to create substantial impacts when the following questions are considered. Would the Proposed Project:

- Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?
- 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)?
- Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

5.21.2 Impact Analysis

5.21.2.1 Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

No Determination. As discussed in Section 5.4, Biological Resources, the Proposed Project would result in less-than-significant impacts to existing habitats, wetlands, and waterways with implementation of Applicant Proposed Measures (APMs). The Proposed Project would not have substantial impacts on wildlife habitat or designated or proposed critical habitat, as it would not require substantial clearing of vegetation. Work areas would be temporarily cleared and then would be restored through the restoration process described in Section 5.4. Placement of fill in waterways would comply with federal and state wetlands and waterways regulations, and no discharges of domestic or industrial effluent would occur that could threaten the survival of a species. The Proposed Project's impacts on biological resources would be less than significant with incorporation of APMs BIO-GEN-1, ENV-GEN-1 WEAP, BIO-HERP-1, BIO-RES-1, BIO-RES-2, BIO-RES-3, BIO-AVI-2, BIO-AVI-3, BIO-MAM-1, BIO-MAM-2, BIO-BOT-1,

BIO-BOT-2, and WET-1. The Proposed Project would not involve construction of a highway, levee, or other major infrastructure that could restrict the range of a species. The Proposed Project would have less than significant impacts on special-status plants and animals. Overall, with implementation of APMs, the Proposed Project would not 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, or reduce the number or restrict the range of a rare or endangered plant or animal. Therefore, less than significant impacts would occur in this regard.

As discussed in Section 5.5, Cultural Resources, no determination can be made if the Proposed Project would eliminate important examples of the major periods of California history or prehistory, pending the results of the Cultural Resources Technical Report (CRTR) and the Historic-Era Built Environment Report (HBER), currently under review by the Bureau of Land Management. Although impacts in this regard cannot be determined at this time, APMs CUL-1 CUL-2, CUL-3, CUL-4, and CUL-5 would still be implemented.

5.21.2.2 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)?

No Determination. As discussed in Chapter 7, Cumulative Impacts and Other CEQA Considerations, the Proposed Project, with the incorporation of APMs, would not result in cumulatively considerable impacts related to the analyzed environmental resource categories except for impacts associated with cultural resources. As discussed in Section 5.5, Cultural Resources, the results of the CRTR and HBER are pending and currently under review by the BLM. Therefore, it cannot be determined at this time if significant historical or archaeological resources are present and would be affected by Proposed Project construction. As a result, no determination with respect to cumulative impacts has been made.

5.21.2.3 Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact with Mitigation. In general, impacts to human beings are associated with air quality, geologic hazards, hazards and hazardous materials, noise, and traffic safety impacts. As discussed in Section 5.3, Air Quality, impacts related to air pollution emissions for sensitive receptors would be reduced with the implementation of APMs AIR-1, AIR-2, and NOI-1. As presented in Section 5.7, Geology, Soils, and Paleontological Resources, the Proposed Project would not result in environmental impacts that would have substantial direct or indirect effects on human beings with respect to geologic hazards. As discussed in Section 5.9, Hazards, Hazardous Materials, and Public Safety, the Proposed Project's potential for hazards from hazardous materials or accidents would be reduced with the implementation of APMs HAZ-1, HAZ-2, HAZ-3, and HAZ-4. As discussed in Section 5.13, Noise, impacts related to noise for sensitive receptors would be reduced with the implementation of APM NOI-1. As discussed in Section 5.17, Transportation, impacts with respect to traffic safety would be less than significant.

Overall, as presented throughout Chapter 5, Environmental Analysis, the direct and indirect impacts of the Proposed Project's construction and operation would be less than significant for all resource areas with the implementation of APMs. Therefore, the Proposed Project would not cause a substantial adverse direct or indirect effect on human beings, and impacts would be less than significant.