3.11 Public Services and Utilities

3.11.1 Introduction

This section describes the public services and utility systems that would be affected by the TRTP. The following discussion addresses existing environmental conditions in the affected area, identifies and analyzes environmental impacts for a range of Project alternatives, and recommends measures to reduce or avoid adverse impacts anticipated from Project construction and operation.

Scoping Issues Addressed

During the scoping period for the EIR/EIS (August-October 2007), a series of scoping meetings were conducted with the public and government agencies, and written comments were received by agencies and the public that identified issues and concerns. All of this input is summarized in the Scoping Report and Comment Analysis published by the CPUC and Forest Service in November 2007. Relevant issues raised during the scoping process are summarized below.

- Fire protection and the ability of emergency aircraft to reach communities in the ANF and Chino Hills would be negatively impacted due to higher double-circuit towers.
- Mitigation measures for fire hazards.
- Undergrounding the T/L would allow easier access for emergency services in the ANF.
- The T/L could be a fire hazard under low humidity and high wind conditions [in the City of Chino Hills].
- The Project would cause poor access for emergency response services along Segment 8A.
- Underground utility lines would be disrupted because of the Project.
- Construction of Segment 8A poses a fire and safety hazard to homes and residents.
- All new electrical structures and supply cables within Consolidated Fire Protection District shall be in compliance with Title 32 of the county code.
- The EIR/EIS should consider maintenance of brush clearance around towers within the ANF and other areas classified as High Severity Fire Zones.
- Consider the recycling of construction waste generated from the replacement of transmission lines, towers, and other transmission components.

Summary and Comparison of Alternatives

Table 3.11-1 on the following page presents some key factors related to public services and utility systems for each alternative. It is important to note that the "Environmental Issues" indicated in Table 3.11-1 are not necessarily impact statements, but rather selected information items that provide a comparison between the alternatives. Specific impact statements that have been identified for the Project and alternatives, in accordance with the significance criteria introduced in Section 3.11.4.1 (Criteria for Determining Impact Significance) are described in Sections 3.11.5 through 3.11.11.

Table 3.11-1. Summary Comparison of Environmental Issues – Public Services and Utilities

Environmental Issues	Alternative 1 (No Project/Action)	Alternative 2 (Proposed Action)	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
Emergency services would be needed if an accident or other emergency incident occurs at a construction site (Impact PSU-1)	The construction of new generating sources would create additional impacts to existing utilities and service systems that may be similar to the Project.	Hazardous conditions introduced through Project construction could require emergency response services, such as fire fighting capabilities.	Same as Alternative 2.	Varied terrain in CHSP could impede or complicate emergency response, if an accident were to occur due to hazardous conditions during construction.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.
Temporary lane closures during the construction period would interfere with emergency response vehicles (Impact PSU-2)	Same as above.	Project construction would require that some roads be temporarily closed to provide access for construction vehicles and equipment.	Same as Alternative 2.	CHSP routing options would avoid temporary lane closures in the cities of Chino and Ontario, but may introduce new road closures in the City of Chino Hills and the CHSP that could impede emergency access.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.
Transmission line towers would impede emergency aircraft response (Impact PSU-3)	Same as above.	Increased height of towers used in Segments 6, 11, 7 and 8A could impede or complicate emergency aircraft response, should such services be required.	Same as Alternative 2.	Increase height towers used in the CHSP could impede or complicate emergency aircraft response, should such services be required.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.
Utility systems would be temporarily disrupted during the construction period (Impact PSU-4)	Same as above.	Project construction may require existing utility systems to be temporarily removed from service.	May avoid potential disruption to utility systems associated with planned development in Lancaster.	CHSP routing options would avoid potential utility system disruptions in the cities of Chino and Ontario, but may introduce disruptions to existing utility systems in the vicinity of the Alternative 4 routes in Chino Hills.	Potential for rolling blackouts in the case a Gas Insulated Line (GIL) system failure occurs.	Same as Alternative 2.	Same as Alternative 2.

Table 3.11-1. Summary Comparison of Environmental Issues – Public Services and Utilities

Environmental Issues	Alternative 1 (No Project/Action)	Alternative 2 (Proposed Action)	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
Public Works maintenance yards would be disrupted during the construction period (Impact PSU-5)	Same as above.	Access to the following Public Works maintenance yards located in the Project ROW would be blocked during construction: RD557A Road Maintenance Yard; Eaton Yard Flood Maintenance Yard; MD1 Road Maintenance Yard.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.
Construction would temporarily increase water use and Project operation would contribute to increased long-term water consumption (Impact PSU-6)	Same as above.	Watering during Project construction would require a portion of the available water supply.	Same as Alternative 2.	Watering in the CHSP may require more water than the equivalent portions of the proposed Project route.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.
Additional wastewater would be generated during Project construction and operation (Impact PSU-7)	Same as above.	Wastewater generated through Project construction would be treated by existing wastewater facilities.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.
Additional solid waste would be generated during Project construction and operation (Impact PSU-8)	Same as above.	Solid waste generated through Project construction would be disposed of in existing landfill facilities and recycled to the extent possible.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.
The amount of waste material recycled during construction activities would not adhere to State standards (Impact PSU-9)	Same as above.	Waste materials generated during Project construction would be recycled to the greatest extent possible and would adhere to State standards.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.

3.11.2 Affected Environment

This analysis examines public services and utility provisions for the proposed Project route. Government agencies have recently categorized data pertaining to utility systems as sensitive critical infrastructure information (including location, capacity, and type). As a result, public access to these data is generally restricted for security reasons, and only information that is readily and publicly accessible is presented in this section.

The proposed Project and alternatives area is served by public service and utility systems in Kern County, Los Angeles County, the Angeles National Forest (ANF), and incorporated cities within Los Angeles County and San Bernardino County. A variety of regional and local purveyors in these areas provide and maintain public services and utility systems associated with fire and police protection, schools, hospitals, natural gas, electricity, water, solid waste collectors and facilities, and public works facilities.

The regional setting for the proposed Project and alternatives includes parts of Kern County, the Angeles National Forest, Los Angeles County (incorporated and unincorporated), and San Bernardino County (incorporated and unincorporated). The Project is also located within one-half mile of Riverside County (at Mira Loma Substation) and Orange County (along the proposed ROW for Segment 8A). The vast majority of incorporated cities located within the Project Regions are situated in the South Region. Two cities (Palmdale and Lancaster) are located in the North Region and thirty-two cities are located in the South Region. There are no cities in the Central Region (which encompasses the ANF).

3.11.2.1 Alternative 2: SCE's Proposed Project

Public Services

Fire Protection

Angeles National Forest

The USDA Forest Service manages National Forest System (NFS) lands, and has primary wildland fire suppression responsibility on NFS lands. The Southern California Geographic Coordination Center (GACC) has responsibility for the mobilization of federal resources with the sphere of influence of the ANF. This geographic area runs from the Stanislaus National Forest (in the Sierra Nevada) to the Cleveland National Forest (east of San Diego) and the staffing noted below is based on fire season (averages five to six months per year). During extended attack of wildland fires, federal resources may be mobilized from across the nation in support of these incidents; however, for the purposes of evaluating local capabilities to respond to a local wildfire, only resources within the GACC are considered. The GACC operates 154 Fire Engines, 24 Hand Crews, 3 Dozers, 15 Helicopters, 7 Airtanker Bases, and 5 Airtactical Planes.

In addition, the USDA Forest Service has a Mutual Aid agreement with the Los Angeles County Fire Department (LACFD) to provide fire services and the California Department of Forestry has contracts with the LACFD to protect privately owned forestlands, watersheds, and rangelands referred to as State Responsibility Areas (SRAs). The LACFD consists of more than 3,700 sworn and civilian personnel and is divided into three Regional Emergency Operations Bureaus, consisting of: North Operations Bureau, Central Operations Bureau, and the East Operations Bureau. The proposed Project is located within all three regions. The LACFD operates 9 divisions, 20 battalions, 158 fire stations, and 11 fire suppression camps in the 2,296-square mile service area, and answers over 234,000 emergency calls annually.

Potentially Affected Fire Protection Services

In the event of a fire emergency all fire stations in the affected county would respond as needed in accordance with the California Master Mutual Aid Agreement, Section 8561 of the California Government Code. Table 3.11-2 details the emergency resources available to the Kern County Fire Department, LACFD, and the incorporated cities in Los Angeles County and San Bernardino County.

Table 3.11-2. Potentially Affected Fire Protection Services

Fire Protection Agency	Jurisdiction	Segment	Equipment	Personnel	Approximate Response Time (In Minutes)
Kern County Fire Department - Battalion I					
Station 11	Keene	10, 4	1- fire engine 2 - 4x4 patrols 1- water tender 1- helicopter	1- Battalion Chief 1- Captain 1- Engineer 1- Firefighter	10 (to Tehachapi)
Station 12	Tehachapi	10, 4	1- fire engine 1- 4x4 patrol	1- Captain 1- Engineer 1- Firefighter	3 (to Hwy 58) 7 (to Golden Hills) 10-15 (to Alpine)
Station 14	Mojave	10, 4	2- fire engines 1- 4x4 patrol 1- 4x4 fire engine	1- Captain 1- Engineer 1- Firefighter	Unknown
Station 15	Rosamond	10, 4	2- fire engines 1- 4x4 patrol	1- Captain 1- Engineer 1- Firefighter	0.45 leave time from fire station; 1 min. per mile travel time
Station 17	Boron	10, 4	1- fire engine 1- 4x4 patrol	1- Captain 1- Engineer	Unknown
Los Angeles County Fire Department					
Battalion 11, Station 78	Lake Hughes	4, 5	1- Engine 1- Patrol 1- Reserve Engine 1- Reserve Patrol	3 per shift 9 total	Varies
Battalion 11, Station 84	Quartz Hill	5	1- Engine 1- Squad 1- Patrol	5 per shift 15 total	3-4
Battalion 11, Station 112	Lancaster	5	1- Engine	N/A*	N/A
Battalion 11, Station 130	Lancaster	5	1- Engine 1- USAR 1- Chase Vehicle	6 per shift 18 total	Varies
Battalion 4, Station 19	La Cañada Flintridge	11	1- Engine 1- Squad	5 per shift 15 total	5
Battalion 4, Station 82	La Cañada Flintridge	11	2- Engine 1- Truck 1- Utility 1- Patrol 1- Battalion Chief	11 Total	Varies
Battalion 4, Station 11	Altadena	11	1- Engine 1- Squad 1- Reserve Engine 1- Reserve Squad	5 per shift 15 total	4
Battalion 4, Station 12	Altadena	11	1- Engine	4 per shift 12 total	4 (Urban) 15-20 (ANF)
Battalion 4, Station 66	Pasadena	11	1- Engine 1- Patrol	3-4 per shift 9-12 total	4-5

Table 3.11-2. Potentially Affected Fire Protection Services

Fire Protection Agency	Jurisdiction	Segment	Equipment	Personnel	Approximate Response Time (In Minutes)
Battalion 16, Station 44	Duarte	7	2- Engine 1- Patrol 1- Water Tender	7 per shift 21 total	4
Battalion 16, Station 32	Azusa	7	1- Engine 1- Squad 1- Mobile Aid 1- Water Tender 1- USAR Trailer	6 per shift 18 total	4
Battalion 16, Station 97	Azusa	7	1- Engine 1- Patrol	4 per shift 12 total	Varies
Battalion 16, Station 48	Irwindale	7	1- Engine 1- Reserve	4 per shift 12 total	Less than 5
Battalion 16, Station 29	Baldwin Park	7	1-Quint/truck 1- Fire engine 1- Squad	9 per shift 27 total	3-5
Battalion 10, Station 5	San Gabriel	7	1- Engine	3 per shift, 9 total	3
Battalion 10, Station 47	Temple City	7	1- Engine 1- Squad	5 per shift 15 total	4
Battalion 10, Station 42	Rosemead	7	1- Engine	4 per shift 12 total	5
Battalion 10, Station 4	Rosemead	7, 8A	1- Engine 1- Quint 1- Asst Chief (AC)	8 per shift 24 total 3 (AC, Secretary, Community Representative)	4-6
Battalion 10, Station 166	El Monte	7	1- Quint 1- Utility 1- USAR 1- Nurse Practitioner 1- Arson Unit	4 per shift 12 total	Unknown
Battalion 10, Station 167	El Monte	7	1- Engine 1- Squad	5 per shift 15 total	Unknown
Battalion 10, Station 168	El Monte	7	1- Engine	3 per shift 9 total	4
Battalion 10, Station 169	El Monte	7	1- Engine	3 per shift 9 total	Varies
Battalion 10, Station 90	South El Monte	7	1- Engine 1- Squad	5 per shift 15 total	3-4
Battalion 12, Station 87	Industry	7	1- Engine 1- Deluge 1- Swift Water Unit 1- Helitender	4 per shift 12 total	5
Battalion 12, Station 118 Bureau Headquarters	Industry	7	1- Engine 1- Squad 1- Truck Multiple Reserve	9 per shift 27 total	2-3
Battalion 12, Station 26	La Puente	7, 8A	1- Engine 1- Squad 1- Reserve Squad	6 per shift 18 total	Varies
Battalion 12, Station 43	La Puente	7	1- Engine 1- HazMat Tractor 1- HazMat Trailer	9 per shift 27 total	Varies

Table 3.11-2. Potentially Affected Fire Protection Services

Fire Protection Agency	Jurisdiction	Segment	Equipment	Personnel	Approximate Response Time (In Minutes)
Battalion 8, Station 17	Pico Rivera	7	1- Engine	4 per shift 12 total	3-5
Battalion 8, Station 25	Pico Rivera	7	1- Engine 1- Light Unit Truck	4 per shift 12 total	Varies
Battalion 8, Station 40	Pico Rivera	7, 8A	1- Engine 1-Squad	5 per day 15 total	4
Battalion 8, Station 103	Pico Rivera	7, 8A	3- Engines	6 per shift, 18 total	4-5
Battalion 8, Station 28	Whittier	7, 8A	1- Engine 1- Squad 1- Truck 1- Mobile Aid 1- Battalion Chief	10 per shift 30 total	Varies
Battalion 8, Station 59	Whittier	7, 8A	1- Engine 1- EST	4 per shift 12 total	3-5
Battalion 8, Station 96	Whittier	7, 8A	1- Engine	3 per shift, 9 total	Less than 3
Battalion 12, Station 91	Hacienda Heights	7, 8A	1- Engine 1- Patrol	4 per shift 12 total	3
Battalion 12, Station 145	Rowland Heights	7, 8A	1 - Engine 1 - Utility 1 - Battalion Chief	N/A	N/A
Pasadena Fire Department					
Station 31	135 S. Fair Oaks Ave.	11	1- USAR 1- Engine Company 1- Ambulance 1- Ladder Truck	10 per shift 30 total	Less than 5
Station 32	2424 E. Villa Street	11	1- Fire Engine 1- Ambulance	6 per shift 18 total	Less than 5
Station 33	515 N. Lake Ave.	11	1- Fire Engine 1- Ambulance	6 per shift 18 total	Less than 5
Station 34	1360 E. Del Mar Blvd.	11	1- Fire Engine 1- Ambulance	6 per shift 18 total	Less than 5
Station 36	1140 N. Fair Oaks Ave.	11	1- Paramedic Engine	4 per shift 12 total	Less than 5
Station 37	3430 E. Foothill Blvd.	11	1- Fire Engine	4 per shift 12 total	Less than 5
Station 38	1150 Linda Vista Ave.	11	1- Fire Engine	4 per shift 12 total	Less than 5
Monrovia Fire Department					
Station 101	141 E. Lemon Ave.	6, 7	1 - Engine 1 - Truck 1- Paramedic 1 - Battalion Chief 1 - Water Tender 1 - Fire Patrol Reserves- Engine, Paramedic, Battalion Chief	9 per shift	4.5
Station 102	2055 S. Myrtle Ave.	6, 7	1 - Engine 1 - Reserve Engine	4 per shift	4.5
Monterey Park Fire Department					
	Monterey Park	7	3 Fire Stations	62	4.9
Montebello Fire Department					
	Montebello	7, 8A	3 Fire Stations	57	N/A

Table 3.11-2. Potentially Affected Fire Protection Services

Fire Protection Agency	Jurisdiction	Segment	Equipment	Personnel	Approximate Response Time (In Minutes)
La Habra Heights Fire Department					
	La Habra Heights	8A	3 Fire Stations	27 captains, 48 paramedics	N/A
Chino Valley Independent Fire District Operations					
Station 61	Chino, Chino Hills	8	1- Medic Engine	4 per day	6
Station 62	Chino, Chino Hills	8	1- Medic Engine	4 per day	6
Station 63	Chino, Chino Hills	8	1- Medic Engine 1- HazMat Unit	4 per day	6
Station 64	Chino, Chino Hills	8	1- Medic Engine 1- Brush Engine	4 per day	6
Station 65	Chino, Chino Hills	8	1- Medic Engine 1- USAR Unit	4 per day	6
Station 66	Chino, Chino Hills	8	1- Medic Engine 1- Truck Company	9 per day (including 1 battalion chief)	6
Ontario Fire Department					
	Ontario	8	8 Stations; 12 vehicles, including a 90' platform truck and HazMat Unit	41 total (10 full-time, 30 volunteers, 1 secretary)	N/A

Source: Refer to Chapter 8 (References)

*N/A: Information was not available through Internet research or personal communication.

Police Protection

Table 3.11-3 provides the police agency and areas served within the study area.

Table 3.11-3. Potentially Affected Police Services

Police Protection Agency	Jurisdiction/Areas Served	Segments
Kern County Sheriff's Department		
Rosamond Substation	Rosamond, Tehachapi	10, 4
Mojave Substation	Tehachapi, Mojave	10, 4
Angeles National Forest		
USDA Forest Service	Angeles National Forest Head Office	11, 6
USDA Forest Service	San Gabriel River Ranger District	6
USDA Forest Service	Los Angeles River Ranger District	11, 6
USDA Forest Service	Santa Clara/Mojave Rivers Ranger District	11, 6
California Department of Fish and Game	Angeles National Forest	11, 6
California Highway Patrol	Angeles National Forest	11, 6
Los Angeles County Sheriff's Department		
Region I, Lancaster Station	Lancaster, Quartz Hill	4, 5
Region I, Palmdale Station	Palmdale, Acton	4, 5, 11, 6
Region I, La Crescenta Station	La Cañada Flintridge	11
Region I, Altadena Station	Altadena, Pasadena	11
Region I, Temple Station	Temple City, Monrovia, Arcadia, Duarte, South El Monte, Rosemead, East Pasadena, South San Gabriel	11
Region III, Industry Station	Industry, La Habra Heights, Hacienda Heights, La Puente, Avocado Heights, North Whittier (unincorporated)	7
Region III, Pico Rivera Station	Pico Rivera, West Whittier (unincorporated)	7
Region III, Walnut/Diamond Bar Station	Rowland Heights	7
Incorporated City Police Departments		
Pasadena Police Department	City of Pasadena	11
Arcadia Police Department	City of Temple City	11
City of Irwindale Police Department	City of Irwindale	7

Table 3.11-3. Potentially Affected Police Services

Police Protection Agency	Jurisdiction/Areas Served	Segments
Baldwin Park Police Department	City of Baldwin Park	7
Monterey Park Police Department	City of Monterey Park	7
City of Montebello Police Department	City of Montebello	7
Whittier Police Department	City of Whittier	7
Chino Hills Police Department	City of Chino Hills	8
Chino Hills State Park Rangers	Chino Hills State Park	Alternative 4
Chino Police Department	City of Chino	8
Ontario Police Department	City of Ontario	8

Source: Refer to Chapter 8 (References)

*N/A: Information was not available through Internet research or personal communication.

Schools

Table 3.11-4 provides the location, number of schools, grade levels and the number of enrolled students in public school districts serving the study area.

Table 3.11-4. Potentially Affected Public Schools (by District)

School District	Areas Served	Segment	No. of Schools	Grade Level	Number Enrolled
Southern Kern USD	Kern County	10, 4	7	K-12	3,461
Tehachapi USD	Kern County	10, 4	6	K-12	4,884
Antelope Valley Union HSD	Lancaster, Palmdale, Unincorporated LA County	4, 5	13	9-12	26,341
Eastside Union SD	Lancaster, Unincorporated LA County	4, 5	4	K-8	3,263
Lancaster ESD*	Lancaster, Unincorporated LA County	4, 5	19	K-8	16,317
Westside Union ESD	Palmdale, Unincorporated LA County	4, 5	11	K-8	9,056
Palmdale ESD	Palmdale	4, 5	28	K-8	22,509
Acton Agua-Dulce USD	Community of Acton, Unincorporated LA County	4,5	4	K-12	1,882
Keppel Union ESD	Unincorporated LA County	4, 5	6	K-8	3,073
La Cañada USD	City of La Cañada Flintridge	11	5	K-12	4,156
Pasadena USD	Pasadena, Community of East Pasadena, Community of Altadena	11	29	K-12	20,826
Temple City USD	Temple City, East San Gabriel	11	8	K-12	5,701
Arcadia USD	Temple City, East San Gabriel	11	11	K-12	10,083
Rosemead SD	Rosemead, Temple City, East San Gabriel	11, 7	5	K-8	3,168
San Gabriel USD	San Gabriel, East San Gabriel	11, 7	9	K-12	6,087
Garvey ESD	East San Gabriel, South San Gabriel, Monterey Park, Rosemead	11, 7	12	K-8	6,119
Montebello USD	Montebello, South San Gabriel, Monterey Park, Pico Rivera	11, 7, 8A	29	K-12	33,819
Alhambra USD	Monterey Park, Rosemead, San Gabriel	11, 7	18	K-12	19,149
Duarte USD	Duarte, Irwindale	7	8	K-12	4,366
Covina Valley USD	Irwindale	7	19	K-12	15,015
Baldwin Park USD	Irwindale, Baldwin Park	7	22	K-12	19,779
Azusa USD	Irwindale	7	18	K-12	11,353
El Monte City SD	El Monte, South El Monte, Temple City	11, 7	19	K-8	10,574
El Monte Union HSD	Rosemead	11, 6	7	9-12	10,379
Valle Lindo ESD	South El Monte	7	2	K-8	1,274
Bassett USD	Industry, Avocado Heights	7, 8A	8	K-12	5,460
Hacienda La Puente USD	Industry, Hacienda Heights	7, 8A	38	K-12	22,355
Rowland USD	Rowland Heights, Industry	7	23	K-12	17,254
Whittier City ESD	Whittier, Avocado Heights	7, 8A	12	K-12	6,840
Whittier Union HSD	Whittier, La Habra Heights	7, 8A	7	9-12	13,704
East Whittier City SD	Whittier	7, 8A	13	K-8	8,734

Table 3.11-4. Potentially Affected Public Schools (by District)

School District	Areas Served	Segment	No. of Schools	Grade Level	Number Enrolled
El Rancho USD	Pico Rivera	7, 8A	17	K-12	11,495
Fullerton Joint Union HSD	La Habra Heights	8A	8	9-12	16,499
Lowell Joint SD	La Habra Heights, Whittier	8A	6	K-8	3,121
Chino Valley USD	Chino Hills, Chino, Ontario	8A, 8B, 8C	36	K-12	33,235
Cucamonga SD	Ontario	8A, 8B, 8C	4	K-8	2,737
Mountain View ESD	Ontario	8A, 8B, 8C	4	K-8	3,094
Ontario-Montclair ESD	Ontario	8A, 8B, 8C	34	K-8	24,177

Source: Ed-Data, 2008

*ESD- Elementary School District

Healthcare Facilities

Table 3.11-5 provides the location and current capacity of healthcare facilities serving the study area.

Table 3.11-5. Potentially Affected Healthcare Facilities

Name/Location	Areas Served	Segment	Capacity
Tehachapi Valley Hospital, Kern County	Tehachapi	10, 4	24 beds
Tehachapi Valley Healthcare District, Kern County	Southeast Kern County (Tehachapi, Mojave, California City)	10,4	3 rural clinics
Antelope Valley Hospital, Kern County	Antelope Valley, Acton	10, 4	420 beds
Lancaster Community Hospital, Lancaster	Antelope Valley, Acton	4,5	117 beds
Palmdale Regional Medical Center, Palmdale	Palmdale, Antelope Valley, Acton	4,5	Under Construction
Verdugo Hills Hospital, Glendale	La Cañada Flintridge, Pasadena, Altadena	11	158 beds
Glendale Adventist Medical Center, Glendale	La Cañada Flintridge, Pasadena, Altadena	11	448 beds
Glendale Memorial Hospital, Glendale	La Cañada Flintridge, Pasadena, Altadena	11	334 beds
Huntington Memorial, Pasadena	Altadena, Pasadena, Monterey Park	11, 7	525 beds
Alhambra Hospital, Alhambra	Alhambra, Altadena, Pasadena, San Gabriel, Rosemead	11, 7	144 beds
San Gabriel Valley Medical Center, San Gabriel	San Gabriel, Pasadena, Altadena, Rosemead	11, 7	273 beds
Arcadia Methodist, Arcadia	Temple City, Rosemead	11, 7	460 beds
Beverly Hospital, Montebello	Montebello, Pico Rivera, Monterey Park, Whittier, El Monte, Rosemead	11	223 beds
Santa Teresita Medical Center, Duarte	Duarte	6, 7	177 beds
City of Hope National Medical Center, Duarte	Duarte	6, 7	217 beds
Inter-community Campus, Covina	Irwindale	7	208 beds
Queen of the Valley, West Covina	Irwindale, Baldwin Park, Industry, Avocado Heights, Hacienda Heights	7	500+ beds
Greater El Monte Community Hospital, South El Monte	South El Monte, El Monte, Avocado Heights	7	N/A*
Kaiser Foundation Hospital, Baldwin Park	Baldwin Park, Avocado Heights	7	N/A
Doctor's Hospital of West Covina, West Covina	Baldwin Park, Hacienda Heights	7	N/A
Foothill Presbyterian Hospital, Glendora	Industry	8A	105 beds
Garfield Medical Center	Monterey Park	8A	210 beds
Monterey Park Hospital, Monterey Park	Monterey Park	8A	N/A
Presbyterian Intercommunity Hospital, Whittier	Hacienda Heights, La Habra Heights, Whittier	8A	483 beds
Saint Jude's Medical Center, Fullerton	La Habra Heights, Rowland Heights, Whittier	8A	N/A
Whittier Hospital, Whittier	La Habra Heights, Whittier	8A	N/A
Kindred Hospital, Brea	Rowland Heights	8A	48 beds
Chino Valley Medical Center, Chino	Chino Hills, Chino	8A, 8B	126 beds
Canyon Ridge Hospital, Chino	Chino Hills, Chino, Ontario	8A, 8B	59 beds
Doctor's Hospital Medical Center, Montclair	Chino Hills, Chino	8A, 8B	102 beds
Pomona Valley Hospital Medical Center	Chino	8A, 8B	446 beds

Table 3.11-5. Potentially Affected Healthcare Facilities			
Name/Location	Areas Served	Segment	Capacity
San Antonio Community Hospital, Upland	Ontario	8A, 8B	283 beds
Vencor Hospital, Ontario	Ontario	8A, 8B	202 beds

Source: Refer to Chapter 8 (References)
*N/A: Information was not available through Internet research or personal communication.

Public Works

Maintenance Yards

The Los Angeles County Department of Public Works has maintenance yards located throughout the county. The services provided include flood, road and sewage maintenance. Table 3.11-6 lists the yards that are in the proximity to the proposed route.

Table 3.11-6. Potentially Affected Public Works Maintenance Yards		
Name	Location	Segment
Flood Maintenance		
Eaton Yard	Pasadena	11
Longden Yard	Irwindale	7
Road Maintenance		
RD 557A (Mill Creek)	ANF	11
RD 519	Temple City	11
MD 1	Baldwin Park	7
RD 416	La Puente	7, 8A
RD 446	Pico Rivera	7, 8A
MD 4	Whittier	8A
RD 417	Diamond Bar	8A
Sewer Yard		
East Yard	Irwindale	7

Source: LACDPW, Service Locator.

Utility Systems

Utility networks and facilities associated with natural gas, electricity, wastewater, domestic (potable) water, solid waste, and disposal facilities are typically provided and maintained by a variety of local purveyors, including cities, counties, special districts, water agencies, and private companies. Utilities such as domestic water, wastewater and stormwater sewers, and natural gas are usually transmitted via underground pipelines or conduits. Electricity services can also be installed underground or overhead on utility poles. The vast majority of the urban utility and public service infrastructure exists within public ROWs. However, as a national security measure, the exact locations of underground lines are not publicized, and therefore, are not available for this analysis.

Natural Gas

Natural gas utility systems throughout the proposed route are provided by the Southern California Gas Company.

Electricity

Electrical utility systems throughout the proposed route are provided by SCE. In addition to SCE, the Los Angeles Department of Water & Power is a provider in various communities within unincorporated Los Angeles County, and the Azusa Light & Water Department provides electrical services for residents in the

City of Azusa. In the City of Pasadena, the Pasadena Water & Power Department is the only option for electrical services for residents.

Wastewater

The Kern County Waste Management Department provides wastewater services for communities in southern Kern County. All of the jurisdictions within Los Angeles County are serviced by the Los Angeles County Sanitation District. The cities of Chino, Chino Hills, and Ontario (Segment 8) are within San Bernardino County; therefore, the Chino Public Works Department, the Chino Hills Sanitation Maintenance and the Ontario Utilities/Solid Waste Department provide wastewater services, respectively.

Water

Approximately two-thirds of the water sources for southern California are located in northern California. The Department of Water Resources (DWR) administers the State Water Project (SWP) which brings water to southern California. This includes water deliveries to the Antelope Valley-East Kern Water Agency (AVEK), the Castaic Lake Water Agency (CLWA), the Metropolitan Water District of Southern California (MWD), the Palmdale Water District, and the San Gabriel Valley Municipal Water District, all of which supply the water providers used by each jurisdiction potentially affected by the proposed Project and alternatives (DWR, 2008a) . The State Water Project is a water delivery system of 32 storage facilities (lakes and reservoirs), 17 pumping plants, 3 pumping-generating plants, 5 hydroelectric power plants, and 660 miles of open canals and pipelines, operated by the California Department of Water Resources (DWR, 2008b). The water suppliers listed in Table 3.11-7 supplement water from the SWP with groundwater and aquifer storage and recharge. This diverse mix of sources provides flexibility in managing supplies and resources in wet and dry years.

Table 3.11-7 lists the primary water agencies providing water supplies to the jurisdictions potentially affected by the proposed Project and alternatives along with each agency's annual water entitlement under the SWP, the average annual SWP water used, and estimated groundwater supply.

Table 3.11-7. Potentially Affected Annual Water Supply

State Water Project Contractors	Initial Request (acre-feet)	Approved Allocation (acre-feet)	Percent Initial Request Approved (acre-feet)
Antelope Valley-East Kern Water Agency	141,400	49,490	35%
Castaic Lake Water Agency	95,200	33,320	35%
Littlerock Creek Irrigation District	2,300	805	35%
Mojave Water Agency	75,800	26,530	35%
Palmdale Water District	21,300	7,455	35%
Metropolitan Water District of Southern California	1,911,500	669,025	35%
San Gabriel Valley Municipal Water District	28,800	10,080	35%
San Bernardino Valley Municipal Water Department	102,600	35,910	35%

Source: DWR, 2008 SWP Allocation Increase

Solid Waste

The private waste management services identified in Table 3.11-8 provide each jurisdiction with solid waste disposal through the use of regional landfills and permitted treatment and disposal facilities.

Disposal Facilities

Sanitary landfills are facilities that accept typical municipal solid waste as well as other wastes high in organic materials. Unclassified landfills accept only inert waste that is chemically and physically stable and does not undergo decomposition, including soil, concrete, asphalt, and other construction and demolition debris, as defined by California Code of Regulations, Title 23, Section 2554. Table 3.11-9 lists the total and remaining capacities of landfills serving the communities along the proposed route.

Table 3.11-8. Solid Waste Providers by Jurisdiction

Jurisdiction	Service Provider
Kern County	Kern County Waste Management Department
City of Lancaster	Lancaster Landfill/Waste Management, Inc.; Antelope Valley Recycling and Disposal Facility/Waste Management, Inc.
City of Palmdale	Antelope Valley Public Landfill I/Waste Management, Inc.
Los Angeles County	Chiquita Canyon Landfill/Consolidated Disposal Service; Antelope Valley Recycling and Disposal Facility/Waste Management, Inc.; Lancaster Landfill/Waste Management, Inc.; Angeles Western Paper Fibers MRF & Transfer Station/General Recycling Services; Commerce Refuse-to-Energy Facility/Sanitation Districts of Los Angeles County; Bradley Landfill & Recycling Center/Waste Management, Inc., Scholl Canyon Landfill/Sanitation Districts of Los Angeles County; Sunshine Canyon Landfill/BFI Waste Systems of North America, Inc.; Innovative Waste Control/Innovative Waste Control; Mission Road Recycling & Transfer Station/Waste Management, Inc.; Nu-Way Live Oak Landfill/Waste Management, Inc.; Peck Road Gravel Pit/Peck Road Gravel Pit; United Waste Recycling & Transfer, Inc./Athens Disposal Company; American Waste Transfer Station/Consolidated Disposal Service; Bel-Art Waste Transfer Station/Consolidated Disposal Service; Browning Ferris Industries Recycling & Transfer Station/Browning Ferris Industries; Falcon Refuse Center, Inc./Browning Ferris Industries; Ray's Trash Box Service/Ray's Trash Box; Calabasas Landfill/Sanitation Districts of Los Angeles County.
City of La Cañada Flintridge	American Waste Industries; Athens Services; Allied Waste Services; Crown Disposal Company; Looney Bins, Inc.
City of Pasadena	Pasadena Street Maintenance and Integrated Waste Management
City of Temple City	Athens Disposal Company
City of San Gabriel	Athens Waste Disposal
City of Rosemead	Consolidated Disposal Services
City of Monterey Park	Athens Disposal Services
City of Duarte	Burrtec Waste Services
City of Monrovia	Athens Waste; Allied/BFI; Burrtec Waste; Consolidated Disposal
City of Azusa	Integrated Waste Management
City of Irwindale	American Reclamation; Athens; Waste Management
City of Baldwin Park	Waste Management
City of El Monte	American Reclamation; American Waste Industries; Art's Disposal; Athens Disposal; General Waste; Klistoff & Sons, Inc.; Master Disposal; Solid Waste Recycling; Universal Waste System; Valley Vista; Waste Management; Zakaroff Recycling/Consolidated Waste; Phoenix Waste
City of South El Monte	Athens Disposal Service
City of Industry	Valley Vista Services
City of Montebello	Athens Disposal Service
City of Whittier	Whittier Sanitation Department; Consolidated Disposal Service, Inc.; Waste Management
City of La Habra Heights	Haul Away Rubbish Service Co.; Waste Management
City of Chino Hills	Chino Hills Disposal
City of Chino	Waste Management
City of Ontario	Ontario Utilities/Solid Waste Department

Source: Refer to Chapter 8 (References).

Table 3.11-9. Solid Waste Capacity

Facility Name and Location	Waste Type*	Total Capacity (cubic yards)	Remaining Capacity (cubic yards)	Remaining Capacity (%)	Maximum Throughput (tons/day)
Kern County Waste Facilities					
Boron Sanitary Landfill, Boron	MM, Ind, C/D	1,002,819	208,632	20.8	200
Mojave-Rosamond Sanitary Landfill	MM, Ind, C/D, Ag	330,000	766,157	Over Capacity	42
Clean Harbors Buttonwillow	Contaminated Soil, Ind	14,293,760	N/A	N/A	10,482
Tehachapi Sanitary Landfill	MM, Ind, C/D	2,593,900	625,846	24.1	370
Edwards AFB-Main Base Landfill	MM, C/D, GM	2,250,000	1,078,875	47.9	120
Bakersfield Metropolitan Sanitary Landfill	MM, C/D, GM	53,000,000	44,818,958	9.0	4,500
U.S. Borax Inc-Gangue/Refuse Waste Pile	C/D, Ind	8,500,000	1,400,000	16.5	443
Los Angeles County Waste Facilities					
Lancaster Landfill and Recycling Center, Lancaster	MM, Inert, Ind, C/D, GM	26,665,000	19,088,739	71.6	1,700
Antelope Valley Public Landfill I, Palmdale	MM, Inert, Ind, C/D	6,480,000	2,978,143	45.9	1,400
Antelope Valley Public Landfill II, Palmdale	MM, Inert, Ind, C/D, GM, Ag	8,206,000	8,206,000	0	1,800
Chiquita Canyon Sanitary Landfill, Valencia	MM, Inert, Ind, C/D, GM	63,900,000	35,800,000	56	6,000
Sunshine Canyon Sanitary Landfill, Sylmar	MM, Inert, Ind, C/D, GM	37,315,352	17,015,625	45.6	6,600
Sunshine Canyon Sanitary Landfill Unit 2, Sylmar	MM	13,441,300	13,441,300	0	5,500
Scholl Canyon Sanitary Landfill, Glendale	MM, Inert, Ind, C/D	69,200,000	10,804,900	15.6	3,400
Burbank Landfill Site No. 3, Burbank	MM, Inert, Ind, C/D	5,933,365	5,107,465	86.1	240
Azusa Land Reclamation Co. Landfill, Azusa	Inert, Asbestos	66,670,000	34,100,000	51.1	6,500
Savage Canyon Landfill, Whittier	MM, Inert, Ind, C/D, GM	8,119,412	7,419,580	91.3	350
Puente Hills Landfill, Industry	MM, Ind, C/D, Ag	106,400,000	49,348,500	46.4	13,200
San Bernardino County Waste Facilities					
Agua Mansa Landfill, Rialto	C/D, Inert	N/A	1,350,000	N/A	N/A
Mid-Valley Sanitary Landfill, Rialto	MM, C/D, Ind	62,000,000	71,500,000	N/A	7,500
Holliday Inertwaste Site, Rialto	C/D, Inert	2,000,000	2,000,000	0	500
Colton Sanitary Landfill, Colton	MM, Ind, C/D, Ag	13,297,000	610,000	4.6	3,100
San Timoteo Sanitary Landfill, Redlands	MM, Inert, Ind, C/D, Ag	20,400,000	9,491,163	46.5	1,000
California Street Landfill, Redlands	MM, C/D	10,000,000	6,800,000	68	829
Pennsylvania Street Inert Landfill, San Bernardino	Inert, C/D	5,000,000	1,000,000	20	300

Source: CIWMB, 2007

*Note: Abbreviation for the Waste Types are as follows- Mixed Municipal (MM); Industrial (Ind); Construction/Demolition (C/D); Agricultural (Ag) and Green Materials (GM).

3.11.2.2 Alternative 3: West Lancaster Alternative

The proposed route for Alternative 3 (Partial Underground Alternative) would re-route the new 500-kV transmission line in Segment 4 along 115th Street West rather than 110th Street West. This alternative would slightly deviate from the proposed route, and would increase the overall distance of Segment 4 by approximately 0.4 mile. As a result, the Affected Environment for Alternative 3 would be identical to the Affected Environment for the proposed Project, as described in Section 3.11.2.1.

3.11.2.3 Alternative 4: Chino Hills Route Alternatives

The proposed route for Alternative 4 (Chino Hills Route Alternatives) would diverge from that of the proposed Project approximately two miles east of Route 57 in Segment 8A. This alternative would eliminate construction in the cities of Chino and Ontario, and instead route the proposed T/L through the Chino Hills State Park. As a result, the Affected Environment described in Section 3.11.2.1 would be the same for Alternative 4, with exclusion of public services and utility systems associated with the City of Chino and the City of Ontario.

3.11.2.4 Alternative 5: Partial Underground Alternative

The proposed route for Alternative 5 (Partial Underground Alternative), other than going underground, would not diverge from that of the proposed Project (Alternative 2) and, therefore, the Affected Environment for Alternative 5 would be identical to the Affected Environment for the proposed Project, as described in Section 3.11.2.1.

3.11.2.5 Alternative 6: Maximum Helicopter Construction in the ANF Alternative

The proposed route for Alternative 6 (Maximum Helicopter Construction in the ANF Alternative) would not diverge from that of the proposed Project (Alternative 2) and therefore, the Affected Environment for Alternative 6 would be identical to the Affected Environment for the proposed Project, as described in Section 3.11.2.1.

3.11.2.6 Alternative 7: 66-kV Subtransmission Alternative

The proposed route for Alternative 7 (66-kV Subtransmission Alternative) would require minimal re-routes from that of the proposed Project (Alternative 2) and therefore, the Affected Environment for Alternative 7 would be identical to the Affected Environment for the proposed Project, as described in Section 3.11.2.1

3.11.3 Applicable Laws, Regulations, and Standards

The following section presents the federal, State, regional and local utility and service system regulations, plans, and standards that are directly applicable to the proposed Project and alternatives.

3.11.3.1 Federal

National Fire Plan

There are no specific directions in the National Fire Plan to permit holders on their responsibilities for power line clearance requirements or other forest management activities.

Angeles National Forest Fire Management Plan and Land Management Plan

The 2005 ANF Land Management Plan (Forest Plan) includes regulations related to utilities. However, all of these regulations are associated with the NFS lands used for utilities. The 2005 Forest Plan addresses utilities by discussing the demand for water in terms of maintaining a healthy and stable watershed and providing for utility and infrastructure uses through special-use authorizations. The Forest Plan emphasizes that special uses are only authorized when they cannot be reasonably accommodated on non-Forest System lands. However, none of the utility-related policies in the 2005 Forest Plan address the National Forest System's demand on utilities or disruption of utility services.

The ANF Fire Management Plan provides a framework for the management of wildland fire, prescribed fire and hazard fuel reduction, as tools to safely accomplish the resource protection and management objectives of the Angeles National Forest as described in the Land Management Plan. The Fire Management Plan directs ANF administrators to require utility companies to enter into cost-share agreements for fuels management treatment costs within and adjacent to expansion of existing utility corridors and to new corridors on ANF lands.

Title 14 CFR Section 91.137, Temporary Flight Restrictions in the Vicinity of Disaster/Hazard Areas

14 CFR Section 91.137 allows an administrator to issue a Notice to Airmen (NOTAM) designating an area within which temporary flight restrictions (TFR) apply. When a NOTAM is issued, no person may operate an aircraft within the designated area unless that aircraft is participating in the hazard relief activities and is being operated under the direction of the official in charge of on-scene emergency response activities. During a wildfire, all helicopter construction and maintenance equipment would be prohibited from flying in the designated hazard area.

3.11.3.2 State

Protection of Underground Infrastructure

The responsibilities of California utility operators working in the vicinity of utilities are detailed in Section 1, Chapter 3.1, "Protection of Underground Infrastructure" (Article 2 of California Government Code §§4216-4216.9). This law requires that an excavator must contact a regional notification center at least two days prior to excavation of any subsurface installation. Any utility provider seeking to begin a project that may damage underground infrastructure can call Underground Service Alert, the regional notification center. Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the project. Representatives of the utilities are required to mark the specific location of their facilities within the work area prior to the start of project activities in the area.

California Integrated Waste Management Board Solid Waste Policies, Plans, and Regulations

The Integrated Waste Management Act of 1989 (PRC 40050 et seq. or Assembly Bill (AB 939, codified in PRC 40000), administered by the California Integrated Waste Management Board (CIWMB), requires all local and county governments to adopt a Source Reduction and Recycling Element to identify means of reducing the amount of solid waste sent to landfills. This law set reduction targets at 25 percent by the year 1995 and 50 percent by the year 2000. To assist local jurisdictions in achieving these targets, the California Solid Waste Reuse and Recycling Access Act of 1991 (SWRR) requires all new developments to include adequate, accessible, and convenient areas for collecting and loading recyclable and green waste materials. As a result, within the proposed Project, the following jurisdictions have adopted general goals, ordinances, and codes requiring construction and demolition projects to recycle at least 50 percent of construction waste and debris: the County of Los Angeles, Baldwin Park, Duarte, La Cañada Flintridge, Monterey Park, Pasadena, Pico Rivera, San Gabriel, and South El Monte.

Public Utilities Commission of the State of California, General Order No. 131-D, Section 14, Complaints and Preemption of Local Authority, Part B.

This General Order clarifies that 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 Commission's jurisdiction.

3.11.3.3 Local

Local land use plans are evaluated in this report to assist the CPUC and the USDA Forest Service in determining the proposed Project's consistency with local plans, goals, and policies as related to Public Services and Utilities. As the CPUC has preemptive jurisdiction over the construction, maintenance, and operation of public utilities, no local discretionary permits (e.g., conditional use permits) or local plan consistency evaluations are required for the proposed Project or the Project alternatives. However, SCE would be required to obtain all ministerial building and encroachment permits from local jurisdictions. The following discussion summarizes the local plans and policies that are applicable to the Project.

The proposed Project would cross lands within Kern County, Los Angeles County and San Bernardino County, and would come within 0.5 mile of Riverside County. The Project would also traverse through 22 city jurisdictions, including the following:

- City of Lancaster
- City of Palmdale
- City of Duarte
- City of Monrovia
- City of Azusa
- City of Irwindale
- City of Baldwin Park
- City of El Monte
- City of Industry
- City of South El Monte
- City of Montebello
- City of Monterey Park
- City of Pico Rivera
- City of Whittier
- City of La Habra Heights
- City of La Cañada Flintridge
- City of Pasadena
- City of San Gabriel
- City of Temple City
- City of Rosemead
- City of Chino Hills
- City of Ontario

As required by the State of California, each General Plan includes the following seven mandatory elements: Circulation, Conservation, Housing, Land Use, Noise, Open Space, Safety, and Seismic Safety. Although it is not mandatory that General Plans include an element for Public Services and Utilities, some cities may choose to include additional elements to address such issue areas.

3.11.4 Impact Analysis Approach

This section explains how potential impacts associated with the proposed Project are assessed with regards to Public Services and Utilities. Section 3.11.4.1 presents the significance criteria on which impact determinations are based. Section 3.11.4.2 discusses Applicant Proposed Measures (APMs) presented in the Proponent's Environmental Assessment (PEA). Section 3.11.4.3 explains the methodology used to perform the impact assessment. All impacts identified for the proposed Project and alternatives are presented in Sections 3.11.5 through 3.11.11.

3.11.4.1 Criteria for Determining Impact Significance

Impacts to public service and utility system providers could potentially occur when an increase to the size of the population and geographic area served, the number and type of calls for service, physical development, or a conflict with any applicable plan, policy, or regulation of an agency responsible for provision of public services would occur that could result in capacity constraints to existing public service providers.

The significance criteria listed below are applicable to public services and utility systems under all types of jurisdiction, including federal, state, local, and private. The proposed Project would result in significant impacts to Public Services and Utilities if it would meet any of the following significance criteria:

- Criterion PSU1: Increase demand for public services that cannot be readily met by existing public service providers and facilities
- Criterion PSU2: Impede or interfere with existing public services emergency access
- Criterion PSU3: Result in a major reduction or interruption of existing utility systems or cause a collocation accident
- Criterion PSU4: Substantially change the ability of water treatment, wastewater treatment, or solid waste facilities to adequately supply water and accommodate solid waste and wastewater
- Criterion PSU5: Require new or expanded water entitlements and resources
- Criterion PSU6: Conflict with or be unable to adhere to federal, State, and/or local laws, regulations, or standards relating to solid waste

3.11.4.2 Applicant-Proposed Measures (APMs)

APMs were identified by SCE in the PEA. APMs are a commitment by the Applicant (SCE) and are considered part of the proposed Project. The applicant has identified two APMs pertinent to Public Services and Utilities, as presented below in Table 3.11-10 and discussed further in Impact PSU-1. The Fire Management Plan and Fugitive Dust Control Measures would be implemented during the construction period of the proposed Project.

Table 3.11-10. Applicant-Proposed Measures – Public Services and Utilities

APM PUB-1	Fire Management Plan. Establishes standards and practices that would minimize the risk of fire danger, and in case of fire, provide for immediate suppression and notification.
APM AQ-7	Fugitive Dust Control Measures. Implement feasible fugitive dust control measures as provided in Kern County Air Pollution Control District's Rule 402 and Antelope Valley Air Quality Management District and the South Coast Air Quality Management District's Rule 403.

The following impact analysis assumes that all APMs identified by SCE will be implemented as part of the Project. Additional mitigation measures are recommended in the impact analysis (Sections 3.11.5 to 3.11.11) if it is determined that APMs do not fully mitigate the impacts for which they are presented.

3.11.4.3 Impact Assessment Methodology

This analysis first established baseline conditions for the Affected Environment, presented above in Section 3.11.2, which included a description of Public Services and Utilities in each of the Project Regions (North / Central / South). These baseline conditions were evaluated based on their potential to be affected by construction activities as well as operation and maintenance activities related to the proposed Project and alternatives. Construction, operation, and maintenance activities associated with the proposed Project and alternatives were identified based on the PEA provided by SCE.

Public Services and Utilities impacts associated with construction, operation, and maintenance of the proposed Project and alternatives were identified using the significance criteria described above, in Section 3.11.4.1. Sections 3.11.5 through 3.11.11 provide a discussion of the impacts identified for the proposed Project and alternatives. As public services and utility systems would not be significantly impacted during the operation and maintenance period of the proposed Project, the impact analysis for this issue area focuses on construction-related impacts.

For the purposes of satisfying CEQA requirements, the significance of each impact is also identified according to the following classifications: Class I: Significant impact; cannot be mitigated to a level that is less than significant; Class II: Significant impact; can be mitigated to a level that is less than significant; Class III: Adverse impact; less than significant; and Class IV: Beneficial impact. Sections 3.11.5 through 3.11.11, below, provide a detailed discussion of the impacts identified for the proposed Project and alternatives.

3.11.5 Alternative 1 (No Project/Action): Impacts

Under the No Project/Action Alternative, the proposed transmission line and substation upgrades would not be implemented and, therefore, the impacts associated with the proposed Project and alternatives described in the following sections would not occur. As a result, the No Project/Action Alternative would not impact the capacities of public services or utility systems. Additionally, potential utility collocation impacts associated with the proposed Project would not occur under the No Project/Action Alternative.

However, in the absence of the proposed Project, other actions would occur. Some wind projects in Kern County would be postponed or cancelled, or alternatives developed that would meet the Renewable Portfolio Standard goal by 2010. SCE would need to accommodate the power load by upgrading existing transmission infrastructure or building new transmission facilities along a different alignment. Construction methods, resulting impacts, and regulatory requirements associated with other transmission projects would be similar to those identified for the proposed Project; as such, impacts to utility providers would be expected to be similar to that identified for the proposed Project.

The No Project/Action Alternative could restrict the potential amount of new renewable energy resources that could supply the power needs of the Los Angeles area. This additional renewable energy might reduce the use of generating sources powered by fossil fuels that would otherwise be needed to supply the same energy, whether they would be located within the Los Angeles area, elsewhere in California, or in surrounding states. As stated above, the construction of new generating sources would create additional impacts to existing utilities and service systems that may be similar to the proposed Project.

3.11.6 Alternative 2 (SCE's Proposed Project): Impacts and Mitigation Measures

The following section describes the proposed Project's impacts to public services and utilities, as determined by the significance criteria listed in Section 3.11.4. Mitigation measures are introduced where necessary in order to reduce significant impacts to less-than-significant levels.

3.11.6.1 Direct and Indirect Effects Analysis

Increase demand for public services that cannot be readily met by existing public service providers and facilities (Criterion PSU1)

Impact PSU-1: Emergency services would be needed if an accident or other emergency incident occurs at a construction site.

Fire protection or other emergency response services would be necessary if a construction accident or other emergency incident occurred at a Project construction site. A potential hazard could be the accidental ignition of a fire within the dry vegetation along the construction zone, particularly in the ANF where chaparral vegetation is prevalent and there is a considerable history of wildfires. As described in the Section 3.3 (Air Quality), the proposed Project includes APM AQ-7 (Implement feasible fugitive dust

control measures as provided in KCAPCD's Rule 402 and AVAQMD and SCAQMD Rule 403), which requires implementation of control measures provided by Rule 402 of the Kern County Air Pollution Control District, and Rule 403 of the Antelope Valley Air Quality Management District and the South Coast Air Quality Management District. These rules require watering as a fugitive dust control measure, which would also reduce the potential for accidental ignition in hazardous areas.

The fire risks associated with proposed Project construction activities would also be reduced with the implementation of SCE's Fire Management Plan, which is intended to prevent, control and extinguish fire during the construction period. The Fire Management Plan referenced in Mitigation Measure PSU-1a below is the same plan referenced in Mitigation Measure F-3a (Revise SCE's Fire Management Plan for maintenance activities) in Section 3.16.6.1 (Wildfire Prevention and Suppression). Furthermore, listed below are mitigation measures that would help reduce the occurrence of fire hazards and the need for additional emergency services.

Mitigation Measures for Impact PSU-1

PSU-1a **Revise SCE's Fire Management Plan.** Appendix D of the Proponent's Environmental Assessment (PEA) includes a Fire Management Plan to reduce the risk of igniting a fire during construction and operation as well as controlling the spread of a fire should one occur. The Plan shall be revised with the following provisions and submitted to the CPUC and FS no less than 60 days prior to construction:

- The Smoking and Fire Rules require the Constructor to designate smoking areas "…in a barren area or in an area cleared to mineral soil at least three feet in diameter." SCE shall revise the Plan to mandate that these smoking areas are located at a radius of at least 50 feet from all hazardous material, gas and oil storage areas, and equipment service areas.
- In Section 1.6 of the Fire Plan, Precautions in Areas of Fire Hazards, SCE shall designate Critical Protection Sites. In particular, these sites will be areas associated with dry habitats, chaparral vegetation, inhabited property, and a considerable history of wildfires. Designations of these sites inform construction crews of the need for the precautions noted in Section 1.6, which include the following: prohibit smoking on the jobsite; require the use of spark arrestors on equipment exhaust; designation of a Fire Patrolperson whose responsibility shall be solely to monitor the Constructor's fire prevention activities; require portable firefighting equipment, shovels, axes, and other necessary firefighting equipment; and observe all other precautionary measures that may be ordered by the FS, Division of Forestry of the State, and County Fire Departments.

PSU-1b **Review of construction methods by county fire departments.** SCE shall coordinate with the Kern, Los Angeles, and San Bernardino County Fire Departments to review the specific construction methods and equipment, and to identify any additional requirements that will minimize the potential for wildfires. Prior to construction, SCE shall submit documentation of this coordination to the CPUC and FS (for NFS lands) at least 30 days prior to the start of construction, such as the following:

- Any motor, engine, welding equipment, cutting torch, grinding device or equipment from which a spark, fire, or flame may originate shall not be used without first: (a) clearing away all flammable material for a distance of 10 feet, and (b) having on hand a round-point shovel with an overall length of not less than 46 inches and a fire

extinguisher or water-filled backpack pump fully equipped and ready to use. This does not apply to power saws and other portable tools powered by a gasoline-fueled internal combustion engine (see next bullet).

- Any portable gasoline-powered tool (chainsaws, etc.) shall not be used within 25 feet of any flammable materials without providing one round-point shovel with an overall length of not less than 46 inches or a fire extinguisher having a minimum rating of 2-BC. The fire tools must be unobstructed and within 25 feet of the tool operation at all times. Motor vehicles shall not be parked or operated outside of cleared work areas except for the specific purpose of clearing vegetation.

PSU-1c Practice safe welding procedures. SCE shall select a welding site that is free of native combustible material and/or clear the site of such material to minimize the fire hazard. All welding on supporting structures shall be performed during fabrication of the structures at the fabricator's yard, to the extent practicable.

PSU-1d Fire preventive construction equipment requirements. SCE shall meet the following requirements for gasoline, diesel, or other hydrocarbon fuel-powered equipment prior to construction:

- The exhausts of all equipment powered by gasoline, diesel, or other hydrocarbon fuel shall be equipped with effective spark arrestors.
- The spark arrestor shall be designed to prevent the escape from the exhaust of carbon or other flammable particles over 0.0232 inches. Motor trucks, truck tractors, buses, and passenger vehicles (except motorcycles) shall not be subject to this provision if their exhaust systems are equipped with mufflers.
- All welding rigs shall be equipped with a minimum of one 20-pound or two 10-pound fire extinguishers, and a minimum of five gallons of water in a fire-fighting apparatus.

CEQA Significance Conclusion

Construction of the proposed route could result in potentially hazardous conditions that would require emergency services. However, fire hazards presented by the proposed Project would not pose significant impacts with implementation of Mitigation Measures PSU-1a (Revise SCE's Fire Management Plan), PSU-1b (Review of construction methods by county fire departments), PSU-1c (Practice safe welding procedures), and PSU-1d (Fire preventive construction equipment requirements). In addition, Section 3.16.6.1 of the Wildfire Prevention and Suppression analysis includes Mitigation Measure F-1 (Prepare wildland traffic control plans), which requires preparation of control plans based on consultations with the ANF, Chino Hills State Park, and the Puente Hills Landfill Natural Habitat Authority. According to this measure, traffic control plans shall include mechanisms through which narrow roads are kept passable by emergency service providers, and shall provide for adequate construction and maintenance vehicle parking. Provision of alternate routes in lieu of maintaining passable roadways shall be minimized, and shall be subject to agency approval. Wildland traffic control plans shall be prepared for both construction and maintenance activities. With implementation of the mitigation measures described above, Impact PSU-1 would be reduced to a less-than-significant level (Class II).

Impede or interfere with existing public services emergency access (Criterion PSU2)

Impact PSU-2: Temporary lane closures during the construction period would interfere with emergency response vehicles.

Temporary lane closures during proposed Project construction could potentially interfere with emergency response vehicles, such as police, fire, and medical vehicles. The loss of a lane and the resulting increase in congestion could lengthen the response time required for emergency vehicles passing through the construction zone. In some cases, use of an alternative route might be required, which could also increase travel time and temporarily lengthen response times for emergency vehicles. This would be of particular concern in rural areas where roads are limited to two lanes and substantially longer distances must be traveled to utilize alternative routes.

CEQA Significance Conclusion

Construction along the proposed route could interfere with the regular flow of traffic due to temporary lane closures. In the case of an emergency, this would also have an effect on the response time of emergency vehicles. In order to minimize adverse impacts, Mitigation Measure T-1a (Prepare Traffic Control Plans) requires SCE to inform emergency service agencies of road closures, detours, and delays. This measure also includes provisions to accommodate emergency vehicles, such as immediately stopping work for emergency vehicle passage, short detours, and alternate routes developed in conjunction with local agencies. The implementation of Mitigation Measure T-1a would mitigate this impact to a less-than-significant level (Class II).

Impact PSU-3: Construction and operation would impede emergency aircraft response services.

Emergency aircraft response teams can be critical for firefighting and search and rescue operations, particularly in areas of mountainous terrain, such as the ANF. Helicopters and airplanes are often the fastest resources to respond to an emergency situation. In Section 3.16, Wildfire Prevention and Suppression, Impacts F-1 (Construction and/or maintenance activities would reduce the effectiveness of firefighting) and F-2 (Presence of new or higher overhead transmission line would reduce the effectiveness of firefighting) address the potential impacts associated with firefighting. According to the California Department of Forestry and Fire Protection (Cal Fire), helicopters and airplanes are often the fastest resources to reach a wildfire. Almost anywhere in California, a firefighting aircraft can reach a wildfire within 20 minutes, depending on wind conditions that can ground aircraft if too strong (CAL FIRE, 2007). It can take an hour or more for fire engines to reach a wildland fire, especially in remote areas. Aerial attacks principally work in conjunction with firefighters on the ground. Aerial firefighting attacks are effective during initial attacks for extinguishing small fires and protecting homes (AHSAFA, 2007). Where overhead power lines are present, aerial and ground attacks are restricted. Aerial operations are complicated by the risk of aircrafts and/or water buckets colliding with towers or conductors during smoky, reduced-visibility conditions. Conditions are especially hazardous when transmission lines are placed on ridge tops, reducing the proximity of fire retardant and water drops that aerial firefighting crews can achieve safely.

The use of helicopters during construction in the ANF could interfere with emergency response aircrafts if an emergency were to occur in the vicinity of proposed helicopter construction sites. In addition, portions of Segment 6, Segment 7, Segment 8A, and Segment 11 would increase the existing maximum height of transmission lines and towers by approximately 50 feet. This height increase would decrease the

effectiveness of aerial firefighting and other emergency response operations because aircrafts would have to fly at higher altitudes to avoid conflicts with the transmission lines and towers. Flying at higher altitudes can reduce the accuracy of targeted drops of water and flame retardant used to suppress and contain wildfires, and would reduce visibility for other emergency situations. However, because there are existing transmission lines in the shared ROW and aerial firefighting crews avoid making drops near the ROW under existing conditions, the addition of the proposed Project would present only a marginal increase in the required altitude of aircrafts working through the shared ROW.

CEQA Significance Conclusion

Once construction is complete, the average height of the transmission lines and towers would increase by approximately 50 feet. This height increase would decrease the effectiveness of emergency response operation; however, the additional height would present only a marginal increase in the required altitude of aircrafts working through the shared ROW. In addition, construction and operation of the proposed Project could interfere with emergency aircraft response teams. The use of helicopters during the construction period would present a potential interference with emergency aircrafts if an incident were to occur. However, should construction or maintenance activities require the use of helicopters, Project helicopters would be restricted by FAA rules on temporary flight restrictions from flying in designated areas, therefore eliminating any potential interference with aerial firefighting operations during a wildfire event in the areas surrounding the Project. As a result, these impacts would not be significant (Class III).

Result in a major reduction or interruption of existing utility systems or cause a collocation accident (Criterion PSU3)

Impact PSU-4: Utility systems would be temporarily disrupted during the construction period.

The proposed Project would construct and replace transmission lines with new, higher capacity single- and double-circuit 220- and 550-kV transmission lines, create new utility ROWs, and replace support structures within existing ROWs. During construction, there is a potential for accidental disruption of other utility systems located in the construction zone. This could include overhead utility lines, such as telephone and cable television, and buried utility lines, such as water, wastewater, and natural gas lines. Buried lines are more likely to be accidentally disrupted because their exact locations are sometimes difficult to determine and, therefore, can be unintentionally disrupted by construction activities involving ground disturbance, such as excavation. Excavation required for installation of new transmission towers involves drilling for new foundations. Excavation is also required for removal, or partial removal, of existing towers that need to be replaced. Most buried utilities along the transmission corridors are located in public streets crossed by the transmission line or in other readily identifiable public ROWs. These are not locations where new towers will be installed or existing towers would be removed, but rather streets and other similar public ROWs would be spanned by transmission lines. However, this does not eliminate the possibility for disruptions of buried utilities during Project construction, especially for any utility lines that may be located outside of public streets or other readily identifiable ROWs.

SCE is required by State law to contact Underground Service Alert and manually probe for existing buried utilities in the proposed Project corridor prior to any powered-equipment drilling or excavation. This would substantially reduce the risk of accidental upset of existing utility lines. In addition, Project construction plans may require the temporary disruption of buried utility lines located in the construction zone. Therefore, some temporary service interruptions may be unavoidable. While any disruption in service would be temporary in nature, it would inevitably disrupt activities in the surrounding area that

are dependent on those utilities. Mitigation Measure PSU-4 would require the public to be notified if there were to be an interruption, thereby allowing the public to prepare for such disruption.

Mitigation Measure for Impact PSU-4

PSU-4 **Notification of utility service interruption.** Prior to Project construction in which a utility service interruption is known to be unavoidable, SCE shall notify members of the public, the jurisdiction, and the service providers that would be affected by the planned outage by mail. SCE shall post flyers informing the public of the service interruption in neighborhoods to be affected. The notice shall specify the estimated duration of the planned outage, and shall be posted no less than seven days prior to the outage. Copies of notices and dates of public notification shall be provided by SCE to the CPUC and FS (NFS lands) no later than 30 days following notification.

CEQA Significance Conclusion

Disruptions in the flow of water and/or gas utility services are likely during the construction period. As a result, Mitigation Measure PSU-4 requires that SCE notify neighborhoods that are to be affected. Given that any utility disruption would be temporary, and the public would be provided with sufficient notice to prepare for such an outage, implementation of Mitigation Measure PSU-4 would reduce this impact to a less-than-significant level (Class II).

Impact PSU-5: Public Works maintenance yards would be disrupted during the construction period.

Section 3.11.2.1 lists the Los Angeles County Public Works maintenance yards located in the proximity of the proposed Project. In particular, the following Public Works yards are located within the ROW: RD557A Road Maintenance Yard located in the ANF (Segment 11); Eaton Yard Flood Maintenance Yard located in the City of Pasadena (Segment 11); and the MD1 Road Maintenance Yard located in Baldwin Park (Segment 7). Construction of the proposed Project could temporarily interrupt access to these maintenance yards unless arrangements are made to provide temporary alternative means of access. When access interruptions are unavoidable, Mitigation Measure PSU-5 would require that the Public Works Department be notified prior to construction in order to avoid restricting access completely.

Mitigation Measure for Impact PSU-5

PSU-5 **Notification of public service interruption.** Prior to the start of construction activities that would restrict access to a maintenance yard, SCE shall notify the Los Angeles County Public Works Department of the service locations to be affected and the duration of restricted activities at each site, and coordinate in order to avoid multiple or extended disruptions. Documentation of coordination efforts shall be completed and submitted to the CPUC and FS (NFS lands) upon request.

CEQA Significance Conclusion

Construction activity would limit access to Public Works maintenance yards. Mitigation Measure PSU-5 requires that SCE inform the Los Angeles County Public Work Department when disruptions would occur in order to prepare for restricted access. As impacts to maintenance yards would be temporary and advance notice would be provided to Public Works, implementation of Mitigation Measure PSU-5 would reduce this impact to a less-than-significant level (Class II).

Substantially change the ability of water treatment, wastewater treatment, or solid waste facilities to adequately supply water and accommodate solid waste and wastewater (Criterion PSU4)

Impact PSU-6: Project construction would temporarily increase water use and Project operation would contribute to increased long-term water consumption.

Construction of the proposed Project would require water on a daily basis at construction sites for dust suppression, and human consumption and sanitary purposes. The amount of water used per day for dust suppression would depend on the length of access roads used, weather conditions, road surface conditions, and other site-specific conditions. Water required for consumption and sanitary purposes by construction crews would be a very small portion of the Project's water use during construction. Table 3.11-7 identifies the water suppliers and their annual allocation from the State Water Project (SWP). Adequate local water supplies are available to meet the temporary water requirements associated with Project construction. Therefore, based on the construction and consumption activities that would require water, the Project would not create a demand for water that would burden the existing water supply or require increased allotments from the SWP. The proposed Project would be constructed in eight segments from approximately April 2009 to November 2013, thereby dispersing water use over a 55-month period. Once constructed, the proposed Project would only require water for maintenance purposes, such as substation irrigation and equipment cleaning, and for drinking and sanitary purposes for crews visiting substation locations.

CEQA Significance Conclusion

Water would be required for dust suppression, human consumption, and sanitary purposes during the entire Project construction period. This would temporarily create increased demand for water from local water purveyors along the proposed route. This increase would not be large enough to affect the existing supply, especially considering that water usage for the proposed Project would be spread over a 55-month period and across multiple locations, thereby not creating a significant increase in demand at one particular time or place. The water requirements of the Project would not change the ability of the water suppliers identified in Table 3.11-7 to serve existing customers. As a result, the impact would not be significant (Class III).

Impact PSU-7: Additional wastewater would be generated during Project construction and operation.

Wastewater generated during proposed Project construction would be limited to that generated by Project personnel and would be accommodated by portable toilets brought to staging areas for construction crews. These portable toilets would be emptied into septic tanks or municipal sewage systems. The workforce necessary for construction of the proposed Project is anticipated to range from approximately 10 to 350 personnel, with an estimated average daily workforce of 75 personnel. As this increased generation is temporary, wastewater generated during Project construction would not require expansion of the capacity of local wastewater collection or treatment systems. As the ANF has no wastewater treatment facilities, there would be no impacts on NFS lands. The operation of the proposed Project substations would generate small quantities of additional wastewater that would not necessitate any expansion of the capacity of local facilities.

CEQA Significance Conclusion

Wastewater generation associated with the proposed Project would not place a significant burden on wastewater facilities serving the area and would not necessitate expansion of wastewater collection or treatment facilities serving the area. As a result, the impacts on wastewater capabilities would not be significant (Class III).

Impact PSU-8: Additional solid waste would be generated during Project construction and operation.

Various solid waste materials would be generated during construction of the proposed Project. SCE expects to recycle at least 50 percent of projected construction and demolition waste in accordance with the Integrated Waste Management Act of 1989 (refer to Impact PSU-9 for further discussion regarding SCE's adherence to this standard). For waste materials that cannot be reused or recycled, the solid waste management facilities identified in Table 3.11-9 are in the vicinity of the Project and would be used for the disposal of waste. According to SCE, the average daily solid waste disposal would be approximately 528 tons; however, this an overestimate since it only takes in account scrap metal recycling and materials reusable at SCE or on site. The actual disposal amount is expected to be substantially less, when cribbing wood, cardboard boxing and crating, soil, and vegetation are recycled to the extent practical. The remaining waste would be disposed regularly over the 55-month construction period, and is not expected to result in a considerable percentage of the daily disposal limits or remaining capacity of the landfills identified in Table 3.11-9.

As defined by California Code of Regulations, Title 23, Section 2554, landfills limited to accepting inert waste only allow the following: soil, concrete, asphalt, and other construction and demolition debris. As shown in Table 3.11-9, landfills serving the proposed Project area have remaining capacities estimated to handle the inert waste generated by the proposed Project, and the quantity of construction-related materials transported to these landfills would not affect any daily volume thresholds established by the facility. Once constructed, Project operations would generate minimal amounts of solid waste. Broken equipment and small quantities of solid waste would be generated through routine operation and maintenance of substations. However, such quantities would not affect existing landfill capacities.

CEQA Significance Conclusion

The average daily amount of waste generated by the proposed Project is conservatively estimated to be 528 tons. Spread out over the 52-month construction schedule, this amount is not expected to exceed the available capacity of the landfills noted in Table 3.11-9, and recyclable material would be taken to recycling facilities. After the construction period, operation and maintenance activities would not generate solid waste. Impacts on waste facilities would be adverse but not significant (Class III). While no mitigation measures would be required, implementation of Mitigation Measure PSU-9 (Recycle construction waste) is recommended to ensure that maximum recycling activities would occur. See Impact PSU-9, below, for the full text of this measure.

Require new or expanded water entitlements and resources (Criterion PSU5)

Table 3.11-7 (Potentially Affected Water Supply) identifies the water suppliers and their annual allocation from the State Water Project (SWP). In the North Region of the Project area, the allocation amounts to approximately 38.1 billion gallons of water, and in the South Region, approximately 230 billion gallons of water would be allocated. With such an established system, the proposed Project would connect with existing water services and would not require expanded resources. In addition, as discussed in Impact

PSU-6, during Project construction, water would be required for dust suppression, and domestic drinking and sanitary purposes. The amount of water required would be largely dependent on site-specific conditions, and would be used over the 55-month construction period for the proposed Project. Therefore, water used during construction would not increase the demands of the water suppliers identified in Table 3.11-7, and would not require new or expanded water facilities, sources, or entitlements. During the operation and maintenance period, the insulators would not require cleaning. Consequently, the proposed Project would require negligible amounts of water for maintenance activities. Water demands of the proposed Project would not pose an impact (No Impact).

Conflict with or be unable to adhere to federal, State, and/or local laws, regulations, or standards relating to solid waste (Criterion PSU6)

The disposal of waste generated during construction under the Integrated Waste Management Act of 1989 is discussed below, under Impact PSU-9. Implementation of the Project would not result in impacts to other federal, State, and/or local laws, regulations, and/or standards relating to solid waste.

Impact PSU-9: The amount of waste material recycled during construction activities would not adhere to State standards.

The Integrated Waste Management Act of 1989, which is described in Section 3.11.3 (Applicable Laws, Regulations, and Standards), requires all local and county governments to adopt a Source Reduction and Recycling Element to identify means of reducing the amount of solid waste sent to landfills. During construction of the proposed Project, removed conductor wiring and metal from replaced tower structures would be dismantled and recycled. Soil from drilling or excavation would be screened and separated for use as backfill to the maximum extent possible. Other waste such as packing crates, spare bolts, and other construction debris would be hauled off site for recycling when possible.

SCE estimates that the average daily solid waste disposal would be 528 tons. This amount spread out over the 52-month construction schedule is not expected to exceed the available capacity of the landfills noted in Table 3.11-9, and recyclable material would be taken to recycling facilities. In addition, Project operation and maintenance would not generate solid waste in excess of SCE's current operations in the area, and would not affect existing landfill capacities.

Mitigation Measure for Impact PSU-9

PSU-9 **Recycle construction waste.** SCE shall recycle a minimum of 50 percent of the waste generated during construction activities along the entire Project route. Following the completion of construction activities, SCE shall submit documentation to the CPUC and FS verifying the recycling of 50 percent of generated Project waste.

CEQA Significance Conclusion

As noted in Section 3.11.3, nine of the 25 cities and counties along the proposed route have adopted a Source Reduction and Recycling Element in accordance with the Integrated Waste Management Act of 1989. However, it is unclear whether SCE intends on continuing recycling efforts in jurisdictions without a Source Reduction and Recycling Element. Recycling efforts required by Mitigation Measure PSU-9, would ensure the proposed Project's compliance with the Integrated Waste Management Act of 1989 and Assembly Bill 939 by incorporating the maximum recycling efforts during Project construction. Therefore, with implementation of Mitigation Measure PSU-9, this impact would be less than significant (Class II).

3.11.6.2 Cumulative Effects Analysis

A cumulative impact is one which results from the incremental impact of the proposed Project when combined with other past, present, and reasonably foreseeable future actions that occur within the geographic extent of the cumulative effects analysis.

Geographic Extent

The geographic extent of this cumulative effects analysis is the same as the extent of the regional setting, as described in Section 3.11.2 (Affected Environment). As such, the scope of this cumulative effects analysis includes the following geographic regions: the North Region, which includes parts of southern Kern County and northern Los Angeles County; the Central Region, which encompasses the ANF; and the South Region, which begins at the southern border of the ANF and includes lands within southern Los Angeles County and western San Bernardino County. This geographic scope is appropriate for the issue area of Public Services and Utilities as it provides for a comprehensive analysis of the overlapping local and regional public service and utility systems. In addition, each region is separated by similar land uses and topographical conditions, and is currently experiencing distinct trends in development.

Existing Cumulative Conditions

The TWRA in the southern portion of Kern County is characterized by open space and agricultural land, and there are no plans for urban development. Nonetheless, the landscape has changed in recent years due to the development of wind energy projects. Several projects have been built and many applications for future projects are currently pending. These projects are responsible for notable impacts; however, as the immediate vicinity of the proposed Project is uninhabited, public service and utility systems have not been significantly affected. As noted in Section 3.11.2 (Affected Environment), public services and utility systems in the Project area are provided by county services that are established in neighboring communities.

Section 3.11.2 describes the available public service and utility resources serving the North Region. As discussed, the Cities of Lancaster, Palmdale and Quartz Hill are well-served by county and local services. This is a result of considerable trends of population growth and development within the last two decades. These trends have impacted and will continue to impact the capacities of public service and utility providers, and as the population increases through indirect and direct influence of development, public services and utilities will need to expand to serve the growing population.

As discussed, the Central Region encompasses the ANF. Development within the ANF is generally limited to recreational facilities and a few private inholdings. There are existing public service and utility systems on NFS lands, including SCE and LADWP transmission lines and water pipelines. Such existing projects are considered in this cumulative effects analysis in terms of their contribution to the Cumulative Scenario and potential cumulative effects of the proposed Project and alternatives.

Communities located within the South Region are generally characterized by dense urban development, and increased population growth is anticipated throughout the region. Section 3.11.2 describes the available utility resources serving this region, which are established by local and county service providers. It is expected that other public service and utility systems will need to expand as development continues to expand in the South Region.

Reasonably Foreseeable Future Projects and Changes

The North Region is likely to experience considerable changes in the reasonably foreseeable future. Along Segment 10 in southern Kern County, numerous wind projects are slated for development or are currently in progress. As described in the Cumulative Scenario, four applications for wind energy projects have been submitted and received approval from Kern County. In addition, the Cumulative Scenario identifies 25 wind energy projects in Kern County that are currently listed on CAISO's Interconnection Queue. Within northern Los Angeles County, along Segments 4 and 5, steady population growth in the Cities of Lancaster and Palmdale and the surrounding unincorporated communities has led to numerous housing developments along the proposed route. The Cumulative Scenario includes the following housing projects which are located within the vicinity of the proposed route: City of Lancaster- 9,798 single-family units; Quartz Hill- 96 housing units; City of Palmdale- 3,715 single-family units including two master planned communities; Leona Valley- 131 single-family units. Public services and utility providers and facilities are expected to expand substantially in order to continue the provision of services to the existing population while also accommodating the future population growth indicated by the aggressive expansion of residential developments described above.

Existing cumulative conditions in the Central Region are defined by efforts of the USDA Forest Service to manage the ANF, which includes maintenance plans such as hazardous fuels reduction, watershed management, recreation management and road management. From a Public Services and Utilities perspective, past and present projects within the Forest are characterized by Forest Service efforts to protect Forest resources while providing for utility development in established areas. As described above, there are some existing utilities and service systems on NFS lands, such as SCE and LADWP transmission lines, water pipelines, and other utility infrastructure built to accommodate new recreation facilities. It is reasonably foreseeable that similar projects and changes will continue into the future.

As described, within the South Region the proposed route would traverse east Los Angeles County, a small area of west San Bernardino County, and would be in the vicinity of the north end of Orange County. This is a highly developed urban area with a substantial amount of proposed housing developments along the proposed route. In addition, commercial and industrial development is also prevalent, as described in the Cumulative Scenario. As with the North Region, described above, public services and utility providers and facilities are expected to expand in order to continue the provision of services to the existing population while also accommodating the future population growth.

Cumulative Impact Analysis

Impacts of the proposed Project would be cumulatively considerable if they would have the potential to combine with similar impacts of other past, present, or reasonably foreseeable projects. The potential for public services and utility system impacts of the proposed Project to combine with similar effects of other projects within the geographic scope of the cumulative analysis are described below. Impacts that are not found to be cumulatively considerable would not have an incremental effect on the cumulative scenario.

- **Emergency services would be needed if an accident or other emergency incident occurs at a construction site (Impact PSU-1).** As described in Section 3.11.6.1, construction of the proposed Project could result in potentially hazardous conditions that would require emergency services. If construction activities for other projects in the area also result in potentially hazardous conditions that require emergency services and such potentially hazardous conditions are introduced in the same general area and timeframe as such conditions under the proposed Project, the resulting impacts could be cumulatively considerable to emergency service providers. For instance, in the North Region, the Cities of Lancaster and Palmdale would be susceptible to increased hazardous fire conditions due to dry environmental surroundings and major housing developments that are

currently in progress. However, due to mitigation measures required for the proposed Project, the likelihood of the need for emergency response teams as a result of construction accidents would be low. These mitigation measures include: PSU-1a (Revise SCE's Fire Management Plan), PSU-1b (Review of construction methods by county fire departments), PSU-1c (Practice safe welding procedures), and PSU-1d (Fire preventive construction equipment requirements). Impact PSU-1 would be cumulatively less than significant (Class III).

- **Temporary lane closures during the construction period would interfere with emergency response vehicles (Impact PSU-2).** As described in Section 3.11.6.1, construction of the proposed Project would interfere with the regular flow of traffic due to temporary lane closures, and would require the implementation of Mitigation Measure T-1a (Traffic Control Plan) in order to reduce the Project's impacts to a less than-significant-level. From a cumulative impacts perspective, emergency vehicles would be adversely affected if construction of other projects listed in the Cumulative Scenario were to occur in the proximity of the proposed Project. However, with implementation of the Traffic Control Plan required by Mitigation Measure T-1a, it is not likely that emergency access would be impeded by multiple construction sites in the same vicinity and timeframe. Therefore, Impact PSU-2 would be cumulatively considerable but less than significant (Class III).
- **Construction and operation would impede emergency aircraft response services (Impact PSU-3).** As described in Section 3.11.6.1, construction and operation of the proposed Project could interfere with emergency aircraft services. Construction of other projects in the vicinity of the proposed Project could also cause interruptions for emergency response operations. Although it is unlikely that interferences would occur at the same time, all flight operations would be restricted by FAA rules on temporary flight restrictions from flying in designated areas. Therefore, Impact PSU-3 would be cumulatively considerable but less than significant (Class III).
- **Utility systems would be temporarily disrupted during the construction period (Impact PSU-4).** As described in Section 3.11.6.1, disruptions in the flow of utility services for co-located utilities are likely to occur during the construction period, and would require the implementation of Mitigation Measure PSU-4 (Notification of utility service interruption) in order to reduce the Project's impacts to a less-than-significant level. Construction of other projects in the vicinity of the proposed Project may also cause temporary utility disruptions. It is unlikely that utility disruptions would occur at the same time; however, if a disruption is known to be unavoidable, SCE shall coordinate with the affected jurisdiction/s and service provider/s in order to avoid multiple or extended disruptions, in accordance with Mitigation Measure PSU-4. Therefore, Impact PSU-4 would be cumulatively considerable but less than significant (Class III).
- **Public Works maintenance yards would be disrupted during the construction period (Impact PSU-5).** As described in Section 3.11.6.1, construction of the proposed Project would likely result in disruptions at Public Works maintenance yards, and implementation of Mitigation Measure PSU-5 (Notification of public service interruption) is required to minimize such disruptions. Although it is unlikely that the maintenance yards in the vicinity would be disrupted by activities from multiple construction sites, if a disruption is known to be unavoidable, SCE shall coordinate with the appropriate Public Works Department/s in order to avoid multiple or extended disruptions. Therefore, Impact PSU-5 would be cumulatively considerable but less than significant (Class III).
- **Project construction would temporarily increase water use and Project operation would contribute to increased long-term water consumption (Impact PSU-6).** As described in Section 3.11.6.1, water would be required for dust suppression during the entire construction period. Each jurisdiction along the proposed route would contribute to the water required by Project construction, which is reasonably expected to be a small fraction of the available water supply. From a cumulative perspective, the majority of planned and proposed projects included in the Cumulative Scenario are residential developments, which require substantially more water and water infrastructure during construction than the proposed transmission line project. In particular, the Cities of Lancaster and Palmdale are characterized by a desert environment and have been experiencing a surge of housing development in previously undeveloped land. However, the existing water supply for each region, which is listed in Section 3.11.2.2 (Affected Environment: Water), shows that multiple water allocations are available along the entire length of the proposed route. Therefore, while the proposed Project and the present and reasonably foreseeable future projects would require a portion of the available water supply for construction activities, the potential impact would be cumulatively considerable but less than significant (Class III).
- **Additional wastewater would be generated during Project construction and operation (Impact PSU-7).** As described in Section 3.11.6.1, the generation of wastewater from the construction and operation of the proposed

Project would not exceed the capabilities of wastewater facilities. Construction of present and reasonably foreseeable future projects in the vicinity of the proposed route would contribute to wastewater generation. However, wastewater from construction personnel and that of construction from surrounding developments is not expected to generate an amount of wastewater that would exceed the capabilities of wastewater facilities. Therefore, while the Project and the present and reasonably foreseeable future projects would incrementally increase cumulative impacts, this would not significantly impact the capabilities of waste management (Class III).

- **Additional solid waste would be generated during Project construction and operation (Impact PSU-8).** As described in Section 3.11.6.1, waste generated by the proposed Project would be disposed of (including through recycling) over the 55-month construction period and is not expected to exceed the available capacity of the landfills noted in Table 3.11-9. In the cities of Lancaster and Palmdale, the proposed Project and other present and reasonably foreseeable future projects are generally located west of the established development, in previously undeveloped land. However, as listed in Section 3.11.2.2, waste management services are abundant and there are numerous disposal facilities with available space. Therefore, while the proposed Project and the present and reasonably foreseeable future projects would require waste capabilities during construction, such waste is not expected to exceed the capabilities of existing waste disposal facilities and recycling facilities (Class III).
- **The amount of waste material recycled during construction activities would not adhere to State standards (Impact PSU-9).** As described in Section 3.11.6.1, the proposed Project would be in full compliance with the Integrated Waste Management Act of 1989, which is described in Section 3.11.3 (Applicable Laws, Regulations, and Standards) and requires all local and county governments to adopt a Source Reduction and Recycling Element to identify means of reducing the amount of solid waste sent to landfills. Mitigation Measure PSU-9 (Recycle construction waste) would ensure such compliance. In addition, projects included in the Cumulative Scenario are also subject to the Integrated Waste Management Act of 1989 and must therefore incorporate maximum recycling efforts during construction activities. Impact PSU-9 would not be cumulatively considerable (Class II).

Mitigation to Reduce the Project's Contribution to Significant Cumulative Effects

Mitigation measures introduced for the proposed Project in Section 3.11.6.1 (Direct and Indirect Effects Analysis) would help to reduce the proposed Project's incremental contribution to cumulative impacts. All potential cumulative impacts that could occur as a result of the proposed Project would be expected to be less than significant without additional mitigation. No further mitigation is necessary.

3.11.7 Alternative 3 (West Lancaster): Impacts and Mitigation Measures

This alternative would re-route the new 500-kV transmission line in Segment 4 along 115th Street West rather than 110th Street West. The West Lancaster Alternative would deviate from the proposed Project route at approximately S4 MP 14.9, where the new 500-kV transmission line would turn south down 115th Street West for approximately 2.9 miles and turn east for approximately 0.5 mile, rejoining the proposed route at S4 MP 17.9. This re-route would increase the overall distance of Segment 4 by approximately 0.4 mile.

The following section describes the Public Services and Utilities impacts associated with Alternative 3, as determined by the significance criteria listed in Section 3.11.4.1. Mitigation measures are introduced where necessary in order to reduce significant impacts to less-than-significant levels.

3.11.7.1 Direct and Indirect Effects Analysis

Due to the integrated nature of public services and utility systems, the service area for each provider varies depending on the type of service provided. The proposed route for Alternative 3 is characterized by exactly the same public services and utility systems as the proposed route; no new service areas, types, or facilities would be introduced or affected under Alternative 3 versus the proposed Project. Therefore,

Public Services and Utilities impacts associated with Alternative 3 would be the same as such impacts under the proposed Project, and are summarized below.

Increase demand for public services that cannot be readily met by existing public service providers and facilities (Criterion PSU1)

As described in Section 3.11.6, Project construction could result in potentially hazardous conditions that would require emergency services (PSU-1). The small re-routed portion of Alternative 3 would be located 0.5 mile to the west of the proposed Project alignment; therefore, due to the proximity of the alternative to the Project route, Impact PSU-1 under Alternative 3 would be identical to the proposed Project. As described in Section 3.3 (Air Quality), the proposed Project includes APM AQ-7 (Implement feasible fugitive dust control measures as provided in KCAPCD's Rule 402 and AVAQMD and SCAQMD Rule 403), which requires watering as a fugitive dust control measure. This measure would also minimize the potential for accidental ignition in hazardous areas. The following mitigation measures would also be required to reduce the effects associated with Impact PSU-1: PSU-1a (Revise SCE's Fire Management Plan); PSU-1b (Review of construction methods by county fire departments); PSU-1c (Practice safe welding procedures); and PSU-1d (Fire preventive construction equipment requirements). In addition, Section 3.16.6.1 of the Wildfire Prevention and Suppression analysis includes Mitigation Measure F-1a (Prepare wildland traffic control plans), which requires preparation of control plans based on consultations with the ANF, Chino Hills State Park, and the Puente Hills Landfill Natural Habitat Authority. Implementation of these measures would reduce Impact PSU-1 to a less-than-significant level (Class II).

Impede or interfere with existing public services emergency access (Criterion PSU2)

Construction activities associated with Alternative 3 would interfere with the regular flow of traffic due to temporary lane closures. In the case of an emergency, construction of this alternative would potentially affect the response time of emergency vehicles. As the majority of the Alternative 3 route would be identical to Alternative 2, the impacts on emergency services from Alternative 3 would be the same as those described in Section 3.11.6.1. Mitigation Measure T-1a (Traffic Control Plan) outlines the necessary provisions to ensure road access for emergency vehicles. Implementation of this measure would reduce Impact PSU-2 to a less-than-significant level (Class II).

Impact PSU-3 (Construction and operation would impede emergency aircraft response services) establishes that the construction and operation periods would have potential to impede or interfere with emergency aircraft operations. In particular, in Segments 6, 11, 7 and 8A, the average increase in height would be approximately 50 feet. However, a change in tower heights would not apply to Segment 4 and the remainder of the route for Alternative 3 would be identical to Alternative 2. In addition, should construction or maintenance activities require the use of helicopters, Project helicopters would be restricted by FAA rules on temporary flight restrictions from flying in designated areas, therefore eliminating any potential interference with aerial firefighting operations during a wildfire event in the areas surrounding the Project. Therefore, the impacts associated with Alternative 3 would be the same as those described in Section 3.11.6.1, and would not be significant (Class III).

Result in a major reduction or interruption of existing utility systems or cause a collocation accident (Criterion PSU3)

Impact PSU-4 (Utility systems would be temporarily disrupted during the construction period) establishes the potential for service interruptions of utility systems during construction of the Project. As the majority of the Alternative 3 route would be identical to Alternative 2, construction activities associated with

Alternative 3 would be the same as those described in Section 3.11.6.1. Implementation of Mitigation Measure PSU-4 (Notification of utility service interruption) would reduce impacts associated with Alternative 3 to a less-than-significant level (Class II).

Impact PSU-5 (Public Works maintenance yards would be disrupted during the construction period) establishes that construction activities would limit access to Public Works maintenance yards. The proposed route for Alternative 3 would not affect any maintenance yards that are not already in proximity to the proposed Project route. With implementation of Mitigation Measure PSU-5 (Notification of public service interruption), Impact PSU-5 would be reduced to a less-than-significant level (Class II).

Substantially change the ability of water treatment, wastewater treatment, or solid waste facilities to adequately supply water and accommodate solid waste and wastewater (Criterion PSU4)

Impact PSU-6 (Project construction would temporarily increase water use and Project operation would contribute to increased long-term water consumption) establishes that water would be required for dust suppression, and domestic drinking and sanitary purposes during the entire construction period. As the majority of the Alternative 3 route would be identical to Alternative 2, the increase associated with Alternative 3 is not expected to affect the existing water supply. Therefore, as with the proposed Project, Impact PSU-6 would be adverse but not significant, and would not require mitigation measures (Class III).

Impact PSU-7 (Additional wastewater would be generated during Project construction and operation) addresses the volume of wastewater generated through construction and operation of the Project. Wastewater generation associated with Alternative 3 would be limited to construction and operation personnel. Wastewater generated by construction personnel would be accommodated by portable toilets, and that of operation personnel would be low due to minimal maintenance associated with transmission line operations. Therefore, the generation of wastewater is not expected to exceed the capacity of local facilities. Impact PSU-7 would be adverse but not significant (Class III).

Impact PSU-8 (Additional solid waste would be generated during Project construction and operation) addresses the amount of waste generated through construction of Alternative 3. Although Alternative 3 would be 0.4 mile longer than the proposed Project route, this difference is not expected to have a substantial influence on the volume of waste generated. Therefore, Impact PSU-8 would be adverse but not significant (Class III). While no mitigation measures would be required, implementation of Mitigation Measure PSU-9 (Recycle construction waste) is recommended to ensure that maximum recycling activities would occur.

Require new or expanded water entitlements and resources (Criterion PSU5)

Expanded water entitlements and resources would not be required for construction, operation, or maintenance of Alternative 3. Over the 55-month construction period, water would be required for dust suppression, domestic drinking, and sanitary purposes. During the operation and maintenance period, the insulators would not require cleaning, so a minimal amount would be needed for maintenance activities. Therefore, Alternative 3 would require negligible amounts of water for construction and maintenance activities, and would not pose an impact.

Conflict with or be unable to adhere to federal, State, and/or local laws, regulations, or standards relating to solid waste (Criterion PSU6)

Impact PSU-9 (The amount of waste material recycled during construction activities would not adhere to State standards) addresses the Project's compliance with the Integrated Waste Management Act of 1989 and Assembly Bill 939 through incorporation of the maximum recycling efforts during construction. The impacts associated with Alternative 3 would be similar to those described for Alternative 2, which would require disposal of removed conductor wiring, metal from replaced tower structures, soil from drilling and excavation, and other construction related debris. However, with implementation of Mitigation Measure PSU-9 (Recycle construction waste), 50 percent of waste generated from construction activities would be recycled. Therefore, Impact PSU-9 would be less than significant (Class II).

3.11.7.2 Cumulative Effects Analysis

This section addresses potential cumulative effects that would occur as a result of implementation of Alternative 3. This alternative would re-route the new 500-kV transmission line in Segment 4 along 115th Street West rather than 110th Street West in Lancaster. This alternative was developed in order to avoid traversing a housing development that is currently in progress. The remainder of this alternative route would be identical to that of the proposed Project and would, therefore, result in identical impacts as the proposed Project. The proposed Alternative 3 route generally parallels the proposed Project route approximately 0.5 mile from the proposed Project route. As a result, this alternative traverses the same or similar land uses as the portion of the proposed Project route it is proposed to replace, would require the same types of construction activities to build, and would result in the same operational capacity as the proposed Project.

Based on the substantial similarity of Alternative 3 to the proposed Project, this alternative's contribution to cumulative impacts would be similar or identical to that of the proposed Project.

Geographic Extent

The scope of this cumulative effects analysis for Alternative 3 is exactly the same as the proposed Project and includes the following geographic regions: the North Region, which includes parts of southern Kern County and northern Los Angeles County; the Central Region, which encompasses the ANF, and the South Region, which begins at the southern border of the ANF and includes lands within southern Los Angeles County and western San Bernardino County.

Existing Cumulative Conditions

Existing cumulative conditions under Alternative 3 are exactly the same as the proposed Project, as described in Section 3.11.6.2.

Reasonably Foreseeable Future Projects and Changes

Reasonably foreseeable future projects and changes under Alternative 3 are exactly the same as the proposed Project, as described in Section 3.11.6.2.

Cumulative Impact Analysis

As described in Section 3.11.6.2, impacts associated with Alternative 3 would be cumulatively considerable if they would have the potential to combine with similar impacts of other past, present, or reasonably foreseeable projects. The minor re-route of the proposed Project transmission line associated

with Alternative 3 would not affect the proposed Project's contribution to cumulative impacts and therefore, cumulative impacts of Alternative 3 would be exactly the same as cumulative impacts under the proposed Project, as detailed in Section 3.11.6.2.

The following impact would be reduced to less than significant with mitigation and would not be cumulatively considerable (Class II): Impact PSU-9 (The amount of waste material recycled during construction activities would not adhere to State standards).

The following impacts would be cumulatively considerable but less than significant (Class III): Impact PSU-1 (Emergency services would be needed if an accident or other emergency incident occurs at a construction site), Impact PSU-2 (Temporary lane closures during the construction period would interfere with emergency response vehicles), Impact PSU-3 (Construction and operation would impede emergency aircraft response services), Impact PSU-4 (Utility systems would be temporarily disrupted during the construction period), Impact PSU-5 (Public Works maintenance yards would be disrupted during the construction period), Impact PSU-6 (Project construction would temporarily increase water use and Project operation would contribute to increased long-term water consumption), Impact PSU-7 (Additional wastewater would be generated during Project construction and operation) and Impact PSU-8 (Additional solid waste would be generated during Project construction and operation).

As with the proposed Project, Alternative 3 would not introduce any impact to Public Services and Utilities that would be significant and unavoidable.

Mitigation to Reduce the Project's Contribution to Significant Cumulative Effects

Mitigation measures applicable to Alternative 3, as described in Section 3.11.7.1 would help to reduce the alternative's incremental contribution to cumulative impacts. No further mitigation is necessary.

3.11.8 Alternative 4 (Chino Hills Routes): Impacts and Mitigation Measures

The following section describes the Public Services and Utilities impacts associated with Alternative 4 (Chino Hills Route Alternatives), as determined by the significance criteria listed in Section 3.11.4. Mitigation measures are introduced where necessary in order to reduce significant impacts to less-than-significant levels. The following briefly summarizes each alternative route option:

- **Route A** would deviate from the proposed route about two miles east of State Route 57, and turn southeast for approximately 6.2 miles and terminate into a new 500-kV switching station. This alternative would traverse Los Angeles, Orange and San Bernardino Counties, including approximately 2.3 miles of the CHSP.
- **Route B** would deviate from the proposed route about two miles east of State Route 57 and turn southeast for approximately 3.9 miles, traversing Los Angeles, Orange and San Bernardino Counties. The alternative route would then enter the CHSP and continue for approximately 4.3 miles. Upon exiting the CHSP, the route would continue for approximately 0.4 mile and would terminate at a new 500-kV switching station.
- **Route C** would deviate from the proposed route about two miles east of State Route 57 and turn southeast for approximately 3.9 miles up to the boundary of the CHSP. The alternative would then turn east for approximately 1.6 miles remaining just north of the CHSP boundary until it reached a new 500-kV switching station.
- **Route D** would deviate from the proposed route about two miles east of State Route 57 and turn southeast for approximately 3.9 miles traversing Los Angeles, Orange and San Bernardino Counties. The alternative would then turn east and follow the northern boundary of the CHSP for approximately 4.0 miles. At this point the route would turn southeast traversing the northeast corner of the CHSP for approximately 1.3 miles, at which point the new 500-kV T/L would turn northeast again parallel and north of the existing T/Ls for approximately 0.4 mile (outside CHSP) before terminating at a new 500-kV switching station located immediately east of the CHSP.

3.11.8.1 Direct and Indirect Effects Analysis

The significance criteria used to identify the Public Services and Utilities impacts of Alternative 4 are introduced in Section 3.11.4.1 (Criteria for Determining Impact Significance). All Public Services and Utilities impacts that would occur under the proposed Project would also occur under each of the Alternative 4 routing options described above. This section summarizes all impacts of Alternative 4, which are described in detail for the proposed Project in Section 3.11.6.1, and specifies how impacts to Public Services and Utilities would occur under each routing option.

Increase demand for public services that cannot be readily met by existing public service providers and facilities (Criterion PSU1)

Impact PSU-1 (Emergency services would be needed if an accident or other emergency incident occurs at a construction site) establishes that fire protection or other emergency service providers would be required at a Project construction site in the event of an accident. A potential fire hazard would be associated with heavily wooded areas and mountainous terrain which are characteristic of the CHSP. The potential for Alternative 4 to result in an accident or other emergency incident would not differ from the proposed Project. As with the proposed Project, each of the Alternative 4 routing options includes APM AQ-7 (Implement feasible fugitive dust control measures as provided in KCAPCD's Rule 402 and AVAQMD and SCAQMD Rule 403), which requires watering during the construction period to minimize the potential for accidental ignition in hazardous areas. Therefore, Impact PSU-1 associated with Alternative 4 would not differ from the proposed Project, and the following mitigation measures would be required: PSU-1a (Revise SCE's Fire Management Plan), PSU-1b (Review of construction methods by county fire departments), PSU-1c (Practice safe welding procedures), and PSU-1d (Fire preventive construction equipment requirements).

Route A. Implementation of Mitigation Measures PSU-1a through PSU-1d would reduce Impact PSU-1 to a less-than-significant level (Class II).

Route B. As Route B would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class II).

Route C. As Route C would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class II).

Route D. As Route D would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class II).

Impede or interfere with existing public services emergency access (Criterion PSU2)

Impact PSU-2 (Temporary lane closures during the construction period would interfere with emergency response vehicles) establishes that construction along the proposed route would interfere with the regular flow of traffic due to temporary lane closures. In the case of an emergency, this would also have an effect on the response time of emergency vehicles. The potential impacts associated with Alternative 4 would not differ from the proposed Project, and the potential significance of Impact PSU-2 would be minimized with implementation of Mitigation Measure T-1a (Traffic Control Plan), which outlines the necessary provisions to ensure road access for emergency vehicles.

Route A. Implementation of Mitigation Measure T-1a (Traffic Control Plan) would reduce Impact PSU-2 to a less-than-significant level (Class II).

Route B. As Route B would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class II).

Route C. As Route C would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class II).

Route D. As Route D would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class II).

Impact PSU-3 (Construction and operation would impede emergency aircraft response services) establishes that the construction and operation periods would have potential to impede or interfere with emergency aircraft operations. In particular, in Segments 6, 11, 7 and 8A, the average increase in height would be approximately 50 feet. A change in tower heights would apply to the alternative routes through the CHSP; however, the height would marginally increase from the existing tower heights. In addition, should construction or maintenance activities require the use of helicopters, Project helicopters would be restricted by FAA rules on temporary flight restrictions from flying in designated areas, therefore eliminating any potential interference with aerial firefighting operations during a wildfire event in the areas surrounding the Project. Therefore, the impacts associated with Alternative 4 would be the same as those described in Section 3.11.6.1.

Route A. The impacts associated with aircraft response services would be adverse but not significant and would not required mitigation (Class III).

Route B. As Route B would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class III).

Route C. As Route C would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class III).

Route D. As Route D would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class III).

Result in a major reduction or interruption of existing utility systems or cause a collocation accident (Criterion PSU3)

Impact PSU-4 (Utility systems would be temporarily disrupted during the construction period) establishes the potential for service interruptions of utility systems during construction of the Project. The potential impacts associated with Alternative 4 would not differ from the proposed Project, and the potential significance of Impact PSU-4 would be minimized with implementation of Mitigation Measure PSU-4 (Notification of utility service interruption).

Route A. Implementation of Mitigation Measure PSU-4 (Notification of utility service interruption) would reduce Impact PSU-4 to a less-than-significant level (Class II).

Route B. As Route B would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class II).

Route C. As Route C would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class II).

Route D. As Route D would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class II).

Impact PSU-5 (Public Works maintenance yards would be disrupted during the construction period) establishes that construction activities would limit access to Public Works maintenance yards. The proposed routes under Alternative 4 would not affect any maintenance yards that are not already in proximity to the proposed Project route. The potential significance of Impact PSU-5 would be minimized with implementation of Mitigation Measure PSU-5 (Notification of public service interruption).

Route A. Implementation of Mitigation Measure PSU-5 (Notification of public service interruption) would reduce Impact PSU-5 to a less-than-significant level (Class II).

Route B. As Route B would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class II).

Route C. As Route C would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class II).

Route D. As Route D would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class II).

Substantially change the ability of water treatment, wastewater treatment, or solid waste facilities to adequately supply water and accommodate solid waste and wastewater (Criterion PSU-5)

Impact PSU-6 (Project construction would temporarily increase water use and Project operation would contribute to increased long-term water consumption) establishes that water would be required for dust suppression during the entire construction period. This would create a greater demand for water from each of the jurisdictions along the proposed route. As described in Section 3.11.6.1, the amount of water used per day would depend on the length of access roads used, weather conditions, road surface conditions, and other site-specific conditions. Because the Alternative 4 routing options would traverse through varied terrain in or around the CHSP, as opposed to the highly urbanized character of this portion of the proposed Project that would be avoided by Alternative 4, the routing options under Alternative 4 may require a greater volume of water for dust suppression activities. However, this increase is not expected to affect the existing water supply, and the amount of water needed for other construction activities and consumption for construction workers would not be significant. Given the available water supply described in Section 3.11.6.1, the significance of Impact PSU-6 under Alternative 4 would be the same as under the proposed Project.

Route A. The impacts associated with the water supply would be adverse but not significant, and would not require mitigation measures (Class III).

Route B. As Route B would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class III).

Route C. As Route C would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class III).

Route D. As Route D would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class III).

Impact PSU-7 (Additional wastewater would be generated during Project construction and operation) addresses the volume of wastewater generated during Project construction and operation. Wastewater generated by construction personnel would be accommodated by portable toilets, and that of operation personnel would be low due to minimal maintenance associated with transmission line operations. Therefore, the generation of wastewater associated with Alternative 4 would be low and is not expected to exceed the capacity of local facilities. Impact PSU-7 would be adverse but not significant.

Route A. The impacts associated with wastewater would be adverse but not significant, and would not require mitigation (Class III).

Route B. As Route B would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class III).

Route C. As Route C would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class III).

Route D. As Route D would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class III).

Impact PSU-8 (Additional solid waste would be generated during Project construction and operation) addresses the amount of solid waste generated through construction of Alternative 4. The potential significance of Impact PSU-8 associated with Alternative 4 would not differ from the proposed Project, and the amount of solid waste generated by this alternative would not result in a substantial percentage of the daily disposal limits or remaining capacity of the landfills identified in Table 3.11-9. After the construction period, operation and maintenance activities would not generate considerable amounts of solid waste.

Route A. The impacts associated with solid waste would be adverse but not significant (Class III). While no mitigation measure would be required, implementation of Mitigation Measure PSU-9 (Recycled construction waste) is recommended to ensure that maximum recycling activities would occur.

Route B. As Route B would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class III).

Route C. As Route C would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class III).

Route D. As Route D would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class III).

Require new or expanded water entitlements and resources (Criterion PSU5)

Expanded water entitlements and resources would not be required for construction, operation, or maintenance of Alternative 4. Over the 55-month construction period, water would be required for dust suppression, domestic drinking, and sanitary purposes. During the operational period, the insulators would not require cleaning, so a minimal amount would be needed for maintenance activities. Therefore, Alternative 4 would require negligible amounts of water for construction and maintenance activities, and would not pose an impact.

Conflict with or be unable to adhere to federal, State, and/or local laws, regulations, or standards relating to solid waste (Criterion PSU6)

Impact PSU-9 (The amount of waste material recycled during construction activities would not adhere to State standards) addresses the Project's compliance with the Integrated Waste Management Act of 1989 and Assembly Bill 939 through incorporation of the maximum recycling efforts during construction. The potential impacts associated with Alternative 4 would not differ from the proposed Project, and the potential significance of Impact PSU-9 would be minimized with implementation of Mitigation Measure PSU-9 (Recycle construction waste).

Route A. Implementation of Mitigation Measure PSU-9 (Recycle construction waste) would reduce Impact PSU-9 to a less-than-significant level (Class III).

Route B. As Route B would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class III).

Route C. As Route C would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class III).

Route D. As Route D would follow a similar path as Route A, the impacts are the same as previously described in Route A (Class III).

3.11.8.2 Cumulative Effects Analysis

This section addresses potential cumulative effects that would occur as a result of implementation of the Chino Hills Route Alternatives. These routing options associated with Alternative 4 deviate from the proposed Project route about two miles east of State Route 57 and either traverse or border the CHSP. Alternative 4 traverses the same or similar land uses as the portion of the proposed Project route it is proposed to replace, would require the same types of construction activities to build, and would result in the same operational capacity as the proposed Project.

Based on the substantial similarity of the Chino Hills Route Alternatives to the proposed Project, this alternative's contribution to cumulative impacts would be similar or identical to that of the proposed Project. However, when compared to the proposed Project, each alternative's contribution to certain cumulative impacts may be incrementally increased or decreased as a result of the rerouted portion of the alternative. With regards to Alternative 4, any incremental increase or decrease in the Project's contribution to the cumulative scenario would result from the location of the alternative alignments associated with Routes A, B, C, and D.

Geographic Extent

The geographic extent of analysis for this alternative would be the same as the proposed Project. As such, the geographic extent of this cumulative effects analysis includes the geographic regions described under the proposed Project: the North Region, which includes parts of southern Kern County and northern Los Angeles County; the Central Region, which encompasses the ANF; and the South Region, which begins at the southern border of the ANF and includes lands within southern Los Angeles County, western San Bernardino County, and Chino Hills State Park.

Existing Cumulative Conditions

Existing cumulative conditions would be exactly the same as the proposed Project. Refer to the explanation provided in Section 3.11.6.2.

Reasonably Foreseeable Future Projects and Changes

Reasonably foreseeable future projects and changes would be exactly the same as the proposed Project. Refer to the explanation provided in Section 3.11.6.2.

Cumulative Impact Analysis

As described in Section 3.11.6.2, impacts associated with Alternative 4 would be cumulatively considerable if they would have the potential to combine with similar impacts of other past, present, or reasonably foreseeable projects. Overall, the re-routes of the proposed Project transmission line associated with Alternative 4 would incrementally decrease the proposed Project's contribution to cumulative impacts, as the transmission line would avoid interference with public service and utility systems in the Cities of Chino and Ontario, and the Project would instead traverse the CHSP. However, as the remainder of the route would be the same as the proposed Project, the contribution of Alternative 4 to cumulative impacts would be the same as the proposed Project. Refer to Section 3.11.6.2 (Cumulative Impact Analysis: Alternative 2) for a detailed discussion of these cumulative Project impacts.

The following Public Services and Utilities impact would be reduced to less than significant with mitigation and would not be cumulatively considerable(Class II): Impact PSU-9 (Construction and operational water supply demands would require new or expanded water entitlements or resources).

The following Public Services and Utilities impacts would be cumulatively considerable but less than significant (Class III): Impact PSU-1 (Emergency services would be needed if an accident or other emergency incident occurs at a construction site), Impact PSU-2 (Temporary lane closures during the construction period would interfere with emergency response vehicles), Impact PSU-3 (Construction and operation would impede emergency aircraft response services), Impact PSU-4 (Utility systems would be temporarily disrupted during the construction period), Impact PSU-5 (Public Works maintenance yards would be disrupted during the construction period), and Impact PSU-6 (Project construction would temporarily increase water use and Project operation would contribute to increased long-term water consumption), Impact PSU-7 (Additional wastewater would be generated during Project construction and operation), and Impact PSU-8 (Additional solid waste would be generated during Project construction and operation).

As with the proposed Project, Alternative 4 would not introduce any significant and unavoidable (Class I) cumulative impacts.

Mitigation to Reduce the Project's Contribution to Significant Cumulative Effects

Mitigation measures introduced for Alternative 4 in Section 3.11.8.1 (Direct and Indirect Effects Analysis) would help to reduce this alternative's incremental contribution to cumulative impacts. However, no additional mitigation measures have been identified that would reduce cumulative impacts to a less-than-significant level for Public Services and Utilities.

3.11.9 Alternative 5 (Partial Underground Alternative): Impacts and Mitigation Measures

The proposed route for Alternative 5 would follow the same route as the proposed Project; however, a 3.5-mile portion of the Alternative 5 route along Segment 8A would be installed underground. Under this alternative, the proposed transmission line would shift from overhead to underground at approximately MP 21.9 of Segment 8A and would continue underground through the City of Chino Hills to approximately MP 25.4 of Segment 8A, where the underground line would shift back to overhead.

The following section describes the Public Services and Utilities impacts associated with Alternative 5 (Partial Underground Alternative), as determined by the significance criteria listed in Section 3.11.4. Mitigation measures are introduced where necessary in order to reduce significant impacts to less-than-significant levels.

3.11.9.1 Direct and Indirect Effects Analysis

Increase demand for public services that cannot be readily met by existing public service providers and facilities (Criterion PSU1)

Impact PSU-1 (Emergency services would be needed if an accident or other emergency incident occurs at a construction site) establishes that construction of the proposed route could result in potentially hazardous conditions that would require emergency services. In particular, areas of concern would be where construction would occur through dry and/or mountainous terrain. However, as described in Section 3.3 (Air Quality), the proposed Project includes APM AQ-7 (Implement feasible fugitive dust control

measures as provided in KCAPCD's Rule 402 and AVAQMD and SCAQMD Rule 403), which requires watering as a fugitive dust control measure. This measure would minimize the potential for accidental ignition in hazardous areas, and therefore reduce the impacts to a less-than-significant level (Class II).

Impede or interfere with existing public services emergency access (Criterion PSU2)

Impact PSU-2 (Temporary lane closures during the construction period would interfere with emergency response vehicles) addresses the potential for construction activities to interfere with the regular flow of traffic due to temporary lane closures. Construction of Alternative 5 would potentially interfere with emergency access where the two aboveground transition stations would be built. However, the Western Transition Station would be located in an area just west of the current terminus of Eucalyptus Avenue in the City of Chino Hills, at approximately MP 21.9 of Segment 8A, and would be situated within the existing ROW west of planned residential lots. The site where the Western Transition Station would be situated is expected to remain largely as open space, characterized by rolling topography. Therefore, the Western Transition station would not be constructed in an area that would affect emergency vehicles.

The Eastern Transition Station would be located near State Highway 71 and approximately 0.5 mile west of Pipeline Avenue in the City of Chino Hills. The site would be adjacent to the north end of an existing flood control channel; therefore, installation of the Eastern Transition Station would require that the ROW be expanded to the north. In the case of an emergency, construction may have an effect on the response time of emergency vehicles. Mitigation Measure T-1a (Prepare Traffic Control Plan) outlines the necessary provisions to ensure road access for emergency vehicles. Implementation of this measure would reduce Impact PSU-2 to a less-than-significant level (Class II).

Impact PSU-3 (Construction and operation would impede emergency aircraft response services) establishes that the construction and operation periods would have potential to impede or interfere with emergency aircraft operations. In particular, in Segments 6, 11, 7 and 8A, the average increase in height would be approximately 50 feet. However, a change in tower heights would not impact undergrounding of the transmission line, and the remainder of the route for Alternative 5 would be identical to Alternative 2. In addition, should construction or maintenance activities require the use of helicopters, Project helicopters would be restricted by FAA rules on temporary flight restrictions from flying in designated areas, therefore eliminating any potential interference with aerial firefighting operations during a wildfire event in the areas surrounding the Project. Therefore, the impacts associated with Alternative 5 would be the same as those described in Section 3.11.6.1, and would not require mitigation (Class III).

Result in a major reduction or interruption of existing utility systems or cause a collocation accident (Criterion PSU3)

Impact PSU-4 (Utility systems would be temporarily disrupted during the construction period) establishes the potential for service interruptions of utility systems during construction of the Project. Alternative 5 would have potential for rolling blackouts if the Gas Insulated Line (GIL) system failed during the operation period. However, this impact would not substantially differ from potential disruptions in utility services associated with the proposed Project. In addition, reliability considerations are primarily related to the lack of precedence in installing GIL systems of the length and voltage proposed under Alternative 5, and the likelihood of system failure for the system is unknown at this time. As a result, implementation of Mitigation Measure PSU-4 (Notification of utility service interruption) would reduce this impact to a less-than-significant level (Class II).

Impact PSU-5 (Public Works maintenance yards would be disrupted during the construction period) establishes that construction activity would limit access to Public Works maintenance yards. Construction of Alternative 5, however, would not occur in the vicinity of any of the maintenance yards listed in Section 3.11.2.1. As a result, the impact associated with Alternative 5 would be the same as the proposed Project. Implementation of Mitigation Measure PSU-5 would reduce this impact to a less-than-significant level (Class II).

Substantially change the ability of water treatment, wastewater treatment, or solid waste facilities to adequately supply water and accommodate solid waste and wastewater (Criterion PSU4)

Impact PSU-6 (Project construction would temporarily increase water use and Project operation would contribute to increased long-term water consumption) establishes that water would be required for dust suppression during the entire construction period; however, this is not expected to affect the existing water supply. In addition, the amount of water needed for other construction activities and consumption for construction workers is not substantial. As the majority of the Alternative 5 route would be identical to Alternative 2, and tunnel boring would not require additional water use, Impact PSU-6 would be adverse but not significant, and would not require mitigation measures (Class III).

Impact PSU-7 (Additional wastewater would be generated during Project construction and operation) addresses the volume of wastewater generated through Project construction. Wastewater generation during the operation and maintenance period would be limited to construction and operation personnel. Wastewater generated by construction personnel would be accommodated by portable toilets, and that of operation personnel would be low due to minimal maintenance associated with transmission line operations. Therefore, impacts on wastewater capabilities are not expected to exceed the capacity of local facilities. Impact PSU-7 would be adverse but not significant (Class III).

Impact PSU-8 (Additional solid waste would be generated during Project construction and operation) addresses the amount of waste generated through construction of Alternative 5. However, the amount of solid waste generated by this alternative is not expected to result in a considerable percentage of the daily disposal limits or remaining capacity of the sanitary landfills identified in Table 3.11-9. After the construction period, operation and maintenance activities would not generate substantial amounts of solid waste. Therefore, Impact PSU-8 would be adverse but not significant, and no mitigation measures would be required (Class III).

Require new or expanded water entitlements and resources (Criterion PSU5)

Expanded water entitlements and resources would not be required for construction, operation, or maintenance of Alternative 5. Over the 55-month construction period, water would be required for dust suppression, domestic drinking, and sanitary purposes. During the operation and maintenance period, the insulators would not require cleaning, so a minimal amount would be needed for maintenance activities. Therefore, Alternative 5 would require negligible amounts of water for construction and maintenance activities, and would not pose an impact.

Conflict with or be unable to adhere to federal, State, and/or local laws, regulations, or standards relating to solid waste (Criterion PSU6)

Impact PSU-9 (The amount of waste material recycled during construction activities would not adhere to State standards) addresses the Project's compliance with the Integrated Waste Management Act of 1989

and Assembly Bill 939 through incorporation of the maximum recycling efforts during construction. The impacts associated with Alternative 5 would be similar to those described for Alternative 2, which would require disposal of soil from tunnel boring and excavated material, removed conductor wiring, metal from replaced tower structures, and other construction related debris. With implementation of Mitigation Measure PSU-9 (Recycle construction waste), Impact PSU-9 would be less than significant (Class II).

3.11.9.2 Cumulative Effects Analysis

This section addresses potential cumulative effects that would occur as a result of implementation of Alternative 5. This alternative would underground a portion of the proposed route in the City of Chino Hills (Segment 8) in order to avoid interference with residential development. The remainder of this alternative route would be identical to that of the proposed Project and would, therefore, impose identical impacts as the proposed Project. As a result, this alternative traverses the same or similar land uses as the portion of the proposed Project route it is proposed to replace and would result in the same operational capacity as the proposed Project.

Based on the substantial similarity of Alternative 5 to the proposed Project, this alternative's contribution to cumulative impacts would be similar or identical to that of the proposed Project.

Geographic Extent

The scope of this cumulative effects analysis for Alternative 5 is exactly the same as the proposed Project and includes the following geographic regions: the North Region, which includes parts of southern Kern County and northern Los Angeles County; the Central Region, which encompasses the ANF, and the South Region, which begins at the southern border of the ANF and includes lands within southern Los Angeles County and western San Bernardino County. Refer to the detailed explanation provided in Section 3.11.6.2.

Existing Cumulative Conditions

Existing cumulative conditions under Alternative 5 are exactly the same as the proposed Project. Refer to the detailed explanation provided in 3.11.6.2.

Reasonably Foreseeable Future Projects and Changes

Reasonably foreseeable future projects and changes under Alternative 5 are exactly the same as the proposed Project. Refer to the detailed explanation provided in Section 3.11.6.2.

Cumulative Impact Analysis

Impacts associated with Alternative 5 would be cumulatively considerable if they would have the potential to combine with similar impacts of other past, present, or reasonably foreseeable projects. The use of the undergrounding technology associated with public services and utilities would not affect the proposed Project's contribution to cumulative impacts and therefore, cumulative impacts of Alternative 5 would be exactly the same as cumulative impacts for Alternative 2, as detailed in Section 3.11.6.2.

The following impact would be reduced to less than significant with mitigation and would not be cumulatively considerable (Class II): Impact PSU-9 (The amount of waste material recycled during construction activities would not adhere to State standards).

The following impacts would be cumulatively considerable but less than significant (Class III): Impact PSU-1 (Emergency services would be needed if an accident or other emergency incident occurs at a

construction site), Impact PSU-2 (Temporary lane closures during the construction period would interfere with emergency response vehicles), Impact PSU-3 (Construction and operation would impede emergency aircraft response services), Impact PSU-4 (Utility systems would be temporarily disrupted during the construction period), Impact PSU-5 (Public Works maintenance yards would be disrupted during the construction period), Impact PSU-6 (Project construction would temporarily increase water use and Project operation would contribute to increased long-term water consumption), Impact PSU-7 (Additional wastewater would be generated during Project construction and operation), and Impact PSU-8 (Additional solid waste would be generated during Project construction and operation).

As with the proposed Project, Alternative 5 would not introduce any impact to Public Services and Utilities that would be significant and unavoidable.

Mitigation to Reduce the Project's Contribution to Significant Cumulative Effects

Mitigation measures introduced for Alternative 5 in Section 3.11.9.1 (Direct and Indirect Effects Analysis) would help to reduce the alternative's incremental contribution to cumulative impacts. No further mitigation is necessary.

3.11.10 Alternative 6: Maximum Helicopter Construction in the ANF Alternative

The proposed route for Alternative 6 would follow the same route as the proposed Project; however, this alternative was developed to reduce ground disturbance through the ANF by minimizing new road construction. As a result, this alternative would utilize helicopter construction in the ANF to the maximum feasible extent.

The following section describes the Public Services and Utilities impacts of Alternative 6 (Maximum Helicopter Construction in the ANF Alternative), as determined by the significance criteria listed in Section 3.11.4. Mitigation measures are introduced where necessary in order to reduce significant impacts to less-than-significant levels.

3.11.10.1 Direct and Indirect Effects Analysis

Due to the integrated nature of public services and utility systems, the service area for each provider varies depending on the type of service provided. The proposed route for Alternative 6 is characterized by exactly the same public services and utility systems as the proposed route; no new service areas, types, or facilities would be introduced or affected under Alternative 6, versus the proposed Project. Therefore, Public Services and Utilities impacts associated with Alternative 6 would be substantially similar to the impacts under the proposed Project, as summarized below.

Increase demand for public services that cannot be readily met by existing public service providers and facilities (Criterion PSU1)

Construction of Alternative 6 could result in potentially hazardous conditions that would require emergency services (Impact PSU-1). As this alternative would follow the same route as Alternative 2, the effects associated with Impact PSU-1 under Alternative 6 would be similar to the proposed Project (see Section 3.11.6). As described in Section 3.3 (Air Quality), the proposed Project includes APM AQ-7 (Implement feasible fugitive dust control measures as provided in KCAPCD's Rule 402 and AVAQMD and SCAQMD Rule 403), which would minimize the potential for accidental ignition in hazardous areas through the use of watering as a fugitive dust control measure. The following mitigation measures would

also be required to reduce the effects associated with Impact PSU-1: PSU-1a (Revise SCE's Fire Management Plan); PSU-1b (Review of construction methods by county fire departments); PSU-1c (Practice safe welding procedures); and PSU-1d (Fire preventive construction equipment requirements). In addition, Section 3.16.6.1 of the Wildfire Prevention and Suppression Specialist analysis includes Mitigation Measure F-1a (Prepare wildland traffic control plans), which requires preparation of control plans based on consultations with the ANF, Chino Hills State Park, and the Puente Hills Landfill Natural Habitat Authority. Implementation of these measures would reduce Impact PSU-1 to a less-than-significant level (Class II).

Impede or interfere with existing public services emergency access (Criterion PSU2)

Impact PSU-2 (Temporary lane closures during the construction period would interfere with emergency response vehicles) addresses the potential for construction activities to interfere with the regular flow of traffic due to temporary lane closures. Alternative 6 would not deviate significantly from the proposed Project; therefore, Impact PSU-2 associated with this alternative would be similar to the potential impacts described in Section 3.11.6.1. Mitigation Measure T-1a (Traffic Control Plan) outlines the necessary provisions to ensure road access for emergency vehicles. Implementation of this measure would reduce Impact PSU-2 to a less-than-significant level (Class II).

Impact PSU-3 (Construction and operation would impede emergency aircraft response services) establishes that the construction and operation periods would have potential to impede or interfere with emergency aircraft operations due to increased tower heights and maximum use of helicopters as proposed by this alternative. In particular, in Segments 6, 11, 7 and 8A, the average increase in tower height would be approximately 50 feet. However, as with the proposed Project, the addition of increased tower heights would present only a marginal increase in the required altitude of aircrafts, and the remainder of the route for Alternative 6 would be identical to Alternative 2. In addition, construction or maintenance activities requiring the use of helicopters would be restricted by FAA rules on temporary flight restrictions from flying in designated areas, therefore eliminating any potential interference with aerial firefighting operations during a wildfire event in the areas surrounding the Project. Therefore, the impacts associated with Alternative 6 would be the similar to those described in Section 3.11.6.1, and would not require mitigation (Class III).

Result in a major reduction or interruption of existing utility systems or cause a collocation accident (Criterion PSU3)

Impact PSU-4 (Utility systems would be temporarily disrupted during the construction period) establishes the potential for service interruptions of utility systems during construction of the Project. Alternative 6 would not deviate from the proposed Project; therefore, Impact PSU-4 associated with this alternative would be similar to the potential impacts described in Section 3.11.6.1. Implementation of Mitigation Measure PSU-4 (Notification of utility service interruption) would reduce this impact to a less-than-significant level (Class II).

Impact PSU-5 (Public Works maintenance yards would be disrupted during the construction period) establishes that construction activity would limit access to Public Works maintenance yards. Alternative 6 would not deviate from the proposed Project; therefore, Impact PSU-5 associated with this alternative would be similar to the potential impacts described in Section 3.11.6.1. Implementation of Mitigation Measure PSU-5 (Notification of public service interruption) would reduce this impact to a less-than-significant level (Class II).

Substantially change the ability of water treatment, wastewater treatment, or solid waste facilities to adequately supply water and accommodate solid waste and wastewater (Criterion PSU4)

Impact PSU-6 (Project construction would temporarily increase water use and Project operation would contribute to increased long-term water consumption) establishes that water would be required for dust suppression during the entire construction period; however, this is not expected to affect the existing water supply. In addition, the amount of water needed for other construction activities and consumption for construction workers is not substantial. Alternative 6 would not deviate from the proposed Project; therefore, Impact PSU-6 associated with this alternative would be similar to the potential impacts described in Section 3.11.6.1. As a result, the impact would be adverse but not significant, and would not require mitigation measures (Class III).

Impact PSU-7 (Additional wastewater would be generated during Project construction and operation) addresses the volume of wastewater generated during Project construction. Wastewater generated by construction personnel would be accommodated by portable toilets, and that of operation personnel would be low due to minimal maintenance associated with transmission line operations. Therefore, the generation of wastewater associated with Alternative 6 would be low and is not expected to exceed the capacity of local facilities. Therefore, impacts on wastewater capabilities would be adverse but not significant (Class III).

Impact PSU-8 (Additional solid waste would be generated during Project construction and operation) addresses the amount of waste generated through construction of Alternative 6. However, the amount of solid waste generated by this alternative is not expected to result in a substantial percentage of the daily disposal limits or remaining capacity of the sanitary landfills identified in Table 3.11-9. After the construction period, operation and maintenance activities would not generate considerable amounts of solid waste. Alternative 6 would not deviate from the proposed Project; therefore, impacts associated with this alternative would be similar to the potential impacts described in Section 3.11.6.1. Impacts on solid waste facilities would be adverse but not significant (Class III). While no mitigation measures would be required, implementation of Mitigation Measure PSU-9 (Recycle construction waste) is recommended to ensure that maximum recycling activities would occur.

Require new or expanded water entitlements and resources (Criterion PSU5)

Expanded water entitlements and resources would not be required for construction, operation, or maintenance of Alternative 6. Over the 55-month construction period, water would be required for dust suppression, domestic drinking, and sanitary purposes. During the operation and maintenance period, the insulators would not require cleaning, so a minimal amount would be needed for maintenance activities. Therefore, Alternative 6 would require negligible amounts of water for construction and maintenance activities, and would not pose a significant impact.

Conflict with or be unable to adhere to federal, State, and/or local laws, regulations, or standards relating to solid waste (Criterion PSU6)

Impact PSU-9 (The amount of waste material recycled during construction activities would not adhere to State standards) addresses the Project's compliance with the Integrated Waste Management Act of 1989 and Assembly Bill 939 through incorporation of the maximum recycling efforts during construction. The potential impacts associated with Alternative 6 would not differ from the proposed Project, and with

implementation of Mitigation Measure PSU-9 (Recycle construction waste), Impact PSU-9 would be less than significant (Class II).

3.11.10.2 Cumulative Effects Analysis

This section addresses potential cumulative effects that would occur as a result of implementation of Alternative 6. This alternative route would be identical to that of the proposed Project and would, therefore, result in identical impacts as the proposed Project. As a result, this alternative traverses the same land uses as the portion of the proposed Project route it is proposed to replace, would require the same types of construction activities to build, and would result in the same operational capacity as the proposed Project.

Based on the substantial similarity of Alternative 6 to the proposed Project, this alternative's contribution to cumulative impacts would be similar or identical to that of the proposed Project.

Geographic Extent

The scope of this cumulative effects analysis for Alternative 6 is exactly the same as the proposed Project and includes the following geographic regions: the North Region, which includes parts of southern Kern County and northern Los Angeles County; the Central Region, which encompasses the ANF, and the South Region, which begins at the southern border of the ANF and includes lands within southern Los Angeles County and western San Bernardino County. Refer to the detailed explanation provided in Section 3.11.6.2.

Existing Cumulative Conditions

Existing cumulative conditions under Alternative 6 are exactly the same as the proposed Project. Refer to the detailed explanation provided in Section 3.11.6.2.

Reasonably Foreseeable Future Projects and Changes

Reasonably foreseeable future projects and changes under Alternative 6 are exactly the same as the proposed Project. Refer to the detailed explanation provided in Section 3.11.6.2.

Cumulative Impact Analysis

As described in Section 3.11.6.2, impacts associated with Alternative 6 would be cumulatively considerable if they would have the potential to combine with similar impacts of other past, present, or reasonably foreseeable projects. Maximum helicopter use in the ANF would not affect the proposed Project's contribution to cumulative impacts and therefore, cumulative impacts of Alternative 6 would be exactly the same as cumulative impacts for Alternative 2, as detailed in Section 3.11.6.2.

The following impact would be reduced to less than significant with mitigation and would not be cumulatively considerable (Class II): Impact PSU-9 (The amount of waste material recycled during construction activities would not adhere to State standards).

The following impacts would be cumulatively considerable but less than significant (Class III): Impact PSU-1 (Emergency services would be needed if an accident or other emergency incident occurs at a construction site), Impact PSU-2 (Temporary lane closures during the construction period would interfere with emergency response vehicles), Impact PSU-3 (Construction and operation would impede emergency aircraft response services), Impact PSU-4 (Utility systems would be temporarily disrupted during the construction period), Impact PSU-5 (Public Works maintenance yards would be disrupted during the

construction period), Impact PSU-6 (Project construction would temporarily increase water use and Project operation would contribute to increased long-term water consumption), Impact PSU-7 (Additional wastewater would be generated during Project construction and operation), and Impact PSU-8 (Additional solid waste would be generated during Project construction and operation).

As with the proposed Project, Alternative 6 would not introduce any impact to Public Services and Utilities that would be significant and unavoidable.

Mitigation to Reduce the Project's Contribution to Significant Cumulative Effects

Mitigation measures described in Section 3.11.10.1 (Direct and Indirect Effects Analysis) would help to reduce the alternative's incremental contribution to cumulative impacts. No further mitigation is necessary.

3.11.11 Alternative 7: 66-kV Subtransmission Alternative

This alternative is comprised of three 66-kV subtransmission line elements, including the following: (1) Undergrounding the 66-kV subtransmission line in Segment 7 through the River Commons or Duck Farm Project (between Valley Boulevard – S7 MP 8.9 and S7 MP 9.9), which was requested by the Board of Supervisors County of Los Angeles to reduce impacts to the river side and west side of the planned park, specifically to the native plant nursery, the river overlook, and the viewshed within the park; (2) Re-routing and undergrounding the 66-kV subtransmission line around the Whittier Narrows Recreation area in Segment 7 (S7 MP 11.4 to 12.025) as habitat enhancement for least Bell's vireos as identified by SCE; and (3) Re-routing the 66-kV subtransmission line around the Whittier Narrows Recreation Area in Segment 8A between the San Gabriel Junction (S8A MP 2.2) and S8A MP 3.8 as habitat enhancement for least Bell's vireos as identified by SCE. This alternative was developed in August 2008 following the completion of the Alternatives Screening Report; therefore, it is not included in Appendix A.

The following section describes the Public Services and Utilities impacts associated with Alternative 7 (66-kV Subtransmission Alternative), as determined by the significance criteria listed in Section 3.11.4. Mitigation measures are introduced where necessary in order to reduce significant impacts to less-than-significant levels.

3.11.11.1 Direct and Indirect Effects Analysis

Increase demand for public services that cannot be readily met by existing public service providers and facilities (Criterion PSU1)

Impact PSU-1 (Emergency services would be needed if an accident or other emergency incident occurs at a construction site) establishes that construction of the proposed route could result in potentially hazardous conditions that would require emergency services. In particular, areas of concern would be where construction would occur through dry and/or mountainous terrain. However, as described in Section 3.3 (Air Quality), the proposed Project includes APM AQ-7 (Implement feasible fugitive dust control measures as provided in KCAPCD's Rule 402 and AVAQMD and SCAQMD Rule 403), which requires watering as a fugitive dust control measure. This measure would minimize the potential for accidental ignition in hazardous areas, and therefore reduce the impacts to a less-than-significant level (Class II).

Impede or interfere with existing public services emergency access (Criterion PSU2)

Impact PSU-2 (Temporary lane closures during the construction period would interfere with emergency response vehicles) addresses the potential for construction activities to interfere with the regular flow of

traffic due to temporary lane closures. Construction of an underground 66-kV through the Duck Farm would be along the same ROW as the proposed Project, and would therefore result in the same impacts. The underground 66-kV re-route around the Whittier Narrows Recreation Area would separate from the existing ROW (and Alternative 2 proposed routes) at Peck Road, then follow Durfee Road for approximately 3,000 feet, and then rejoin SCE's proposed route. In addition, the re-route of the overhead transmission lines would be south of the proposed route in Segment 8. The first half of the Alternative 7 route would follow San Gabriel Blvd. and a small portion of Durfee Road. The last half would utilize the existing, idle 66-kV structures along Siphon Road, and would then realign with the proposed Project route. Acceptance of this alternative would result in additional construction activities along major and minor roads; however, implementation of the Mitigation Measure T-1a (Prepare Traffic Control Plans) would mitigate this impact to a less-than-significant level (Class II).

Impact PSU-3 (Construction and operation would impede emergency aircraft response services) establishes that the construction and operation periods would have potential to impede or interfere with emergency aircraft operations. In particular, in Segments 6, 11, 7 and 8A, the average increase in height would be approximately 50 feet. However, a change in tower heights would not impact undergrounding of the transmission line, and the remainder of the route for Alternative 7 would be identical to Alternative 2. In addition, should construction or maintenance activities require the use of helicopters, Project helicopters would be restricted by FAA rules on temporary flight restrictions from flying in designated areas, therefore eliminating any potential interference with aerial firefighting operations during a wildfire event in the areas surrounding the Project. Therefore, the impacts associated with Alternative 7 would be the same as those described in Section 3.11.6.1, and would not require mitigation (Class III).

Result in a major reduction or interruption of existing utility systems or cause a collocation accident (Criterion PSU3)

Impact PSU-4 (Utility systems would be temporarily disrupted during the construction period) establishes the potential for service interruptions of utility systems during construction of the Project. As the majority of the Alternative 7 route would be identical to Alternative 2, construction activities associated with Alternative 7 would be the same as those described in Section 3.11.6.1. Implementation of Mitigation Measure PSU-4 (Notification of utility service interruption) would reduce impacts associated with Alternative 7 to a less-than-significant level (Class II).

Impact PSU-5 (Public Works maintenance yards would be disrupted during the construction period) establishes that construction activity would limit access to Public Works maintenance yards. Construction of Alternative 7, however, would not occur in the vicinity of any of the maintenance yards listed in Section 3.11.2.1. As a result, the impact associated with Alternative 7 would be the same as the proposed Project. Implementation of Mitigation Measure PSU-5 would reduce this impact to a less-than-significant level (Class II).

Substantially change the ability of water treatment, wastewater treatment, or solid waste facilities to adequately supply water and accommodate solid waste and wastewater (Criterion PSU4)

Impact PSU-6 (Project construction would temporarily increase water use and Project operation would contribute to increased long-term water consumption) establishes that water would be required for dust suppression during the entire construction period; however, this is not expected to affect the existing water supply. In addition, the amount of water needed for other construction activities and consumption

for construction workers is not substantial. As the majority of the Alternative 7 route would be identical to Alternative 2 and undergrounding and re-routing of 66-kV lines would not require additional water use, Impact PSU-6 would be adverse but not significant, and would not require mitigation measures (Class III).

Impact PSU-7 (Additional wastewater would be generated during Project construction and operation) addresses the volume of wastewater generated through Project construction. Wastewater generation during the operation and maintenance period would be limited to construction and operation personnel. Wastewater generated by construction personnel would be accommodated by portable toilets, and that of operation personnel would be low due to minimal maintenance associated with transmission line operations. Therefore, impacts on wastewater capabilities are not expected to exceed the capacity of local facilities. Impact PSU-7 would be adverse but not significant (Class III).

Impact PSU-8 (Additional solid waste would be generated during Project construction and operation) addresses the amount of waste generated through construction of Alternative 7. However, the amount of solid waste generated by this alternative is not expected to result in a substantial percentage of the daily disposal limits or remaining capacity of the sanitary landfills identified in Table 3.11-9. After the construction period, operation and maintenance activities would not generate considerable amounts of solid waste. Therefore, Impact PSU-8 would be adverse but not significant, and no mitigation measures would be required (Class III).

Require new or expanded water entitlements and resources (Criterion PSU5)

Expanded water entitlements and resources would not be required for construction, operation, or maintenance of the Alternative 5. Over the 55-month construction period, water would be required for dust suppression, domestic drinking, and sanitary purposes. During the operation and maintenance period, the insulators would not require cleaning, so a minimal amount would be needed for maintenance activities. Therefore, Alternative 7 would require negligible amounts of water for construction and maintenance activities, and would not pose an impact.

Conflict with or be unable to adhere to federal, State, and/or local laws, regulations, or standards relating to solid waste (Criterion PSU6)

Impact PSU-9 (The amount of waste material recycled during construction activities would not adhere to State standards) addresses the Project's compliance with the Integrated Waste Management Act of 1989 and Assembly Bill 939 through incorporation of the maximum recycling efforts during construction. The impacts associated with Alternative 7 would be similar to those described for Alternative 2, which would require disposal of soil from tunnel boring and excavated material, removed conductor wiring, metal from replaced tower structures, and other construction related debris. With implementation of Mitigation Measure PSU-9 (Recycle construction waste), Impact PSU-9 would be less than significant (Class II).

3.11.11.2 Cumulative Effects Analysis

This section addresses potential cumulative effects that would occur as a result of implementation of Alternative 7. This alternative would underground the 66-kV subtransmission lines that traverse the River Commons or Duck Farms Project and the Whittier Narrow Recreation Area. The remainder of this alternative route would be identical to that of the proposed Project and would, therefore, impose identical impacts as the proposed Project. As a result, this alternative traverses the same or similar land uses as the

portion of the proposed Project route it is proposed to replace and would result in the same operational capacity as the proposed Project.

Based on the substantial similarity of Alternative 7 to the proposed Project, this alternative's contribution to cumulative impacts would be similar or identical to that of the proposed Project.

Geographic Extent

The scope of this cumulative effects analysis for Alternative 7 is exactly the same as the proposed Project and includes the following geographic regions: the North Region, which includes parts of southern Kern County and northern Los Angeles County; the Central Region, which encompasses the ANF, and the South Region, which begins at the southern border of the ANF and includes lands within southern Los Angeles County and western San Bernardino County. Refer to the detailed explanation provided in Section 3.11.6.2.

Existing Cumulative Conditions

Existing cumulative conditions under Alternative 7 are exactly the same as the proposed Project. Refer to the detailed explanation provided in 3.11.6.2.

Reasonably Foreseeable Future Projects and Changes

Reasonably foreseeable future projects and changes under Alternative 7 are exactly the same as the proposed Project. Refer to the detailed explanation provided in Section 3.11.6.2.

Cumulative Impact Analysis

Impacts associated with Alternative 7 would be cumulatively considerable if they would have the potential to combine with similar impacts of other past, present, or reasonably foreseeable projects. The impacts associated with public services and utilities, and the undergrounding and re-routing of the 66-kV subtransmission line would not affect the proposed Project's contribution to cumulative impacts and therefore, cumulative impacts of Alternative 7 would be exactly the same as cumulative impacts for Alternative 2, as detailed in Section 3.11.6.2.

The following impact would be reduced to less than significant with mitigation and would not be cumulatively considerable (Class II): Impact PSU-9 (The amount of waste material recycled during construction activities would not adhere to State standards).

The following impacts would be cumulatively considerable but less than significant (Class III): Impact PSU-1 (Emergency services would be needed if an accident or other emergency incident occurs at a construction site), Impact PSU-2 (Temporary lane closures during the construction period would interfere with emergency response vehicles), Impact PSU-3 (Construction and operation would impede emergency aircraft response services), Impact PSU-4 (Utility systems would be temporarily disrupted during the construction period), Impact PSU-5 (Public Works maintenance yards would be disrupted during the construction period), Impact PSU-6 (Project construction would temporarily increase water use and Project operation would contribute to increased long-term water consumption), Impact PSU-7 (Additional wastewater would be generated during Project construction and operation), and Impact PSU-8 (Additional solid waste would be generated during Project construction and operation).

As with the proposed Project, Alternative 7 would not introduce any impact to Public Services and Utilities that would be significant and unavoidable.

Mitigation to Reduce the Project's Contribution to Significant Cumulative Effects

Mitigation measures introduced for Alternative 7 in Section 3.11.11.1 (Direct and Indirect Effects Analysis) would help to reduce the alternative's incremental contribution to cumulative impacts. No further mitigation is necessary.

3.11.12 Impact Significance Summary

Table 3.11-11 summarizes the direct and indirect environmental impacts of the proposed Project (Alternative 2) and the other alternatives on public services and utility systems. The direct and indirect effects of the Project and alternatives have been fully described in Sections 3.11.6 through 3.11.11 above. Alternative 1 (No Project/No Action) impacts are fully described in Section 3.11.5; however, since no potential future project information is available an impact significance level for Alternative 1 is not included in the table below.

Table 3.11-11. Summary of Impacts and Mitigation Measures – Public Services and Utilities

Impact	Impact Significance								Mitigation Measures
	Alt. 1+	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	NFS Lands*	
PSU-1: Emergency services would be needed if an accident or other emergency incident occurs at a construction site.	N/A	Class II	Class II	Class II	Class II	Class II	Class II	Yes	PSU-1a: Revise SCE's Fire Management Plan. PSU-1b: Review of construction methods by county fire departments. PSU-1c: Practice safe welding procedures. PSU-1d: Fire preventive construction equipment requirements.
PSU-2: Temporary lane closures during the construction period would interfere with emergency response vehicles.	N/A	Class II	Class II	Class II	Class II	Class II	Class II	Yes	T-1A: Traffic Control Plan.
PSU-3: Construction and operation would impede emergency aircraft response services.	N/A	Class III	Class III	Class III	Class III	Class III	Class III	Yes	None recommended.
PSU-4: Utility systems would be temporarily disrupted during the construction period.	N/A	Class II	Class II	Class II	Class II	Class II	Class II	Yes	PSU-4: Notification of utility service interruption.
PSU-5: Public Works maintenance yards would be disrupted during the construction period.	N/A	Class II	Class II	Class II	Class II	Class II	Class II	Yes	PSU-5: Notification of public service interruption
PSU-6: Project construction would temporarily increase water use and Project operation would contribute to increased long-term water consumption.	N/A	Class III	Class III	Class III	Class III	Class III	Class III	No	None recommended.
PSU-7: Additional wastewater would be generated during Project construction and operation.	N/A	Class III	Class III	Class III	Class III	Class III	Class III	No	None recommended.

Table 3.11-11. Summary of Impacts and Mitigation Measures – Public Services and Utilities

Impact	Impact Significance								Mitigation Measures
	Alt. 1+	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	NFS Lands*	
PSU-8: Additional solid waste would be generated during Project construction and operation.	N/A	Class III	Class III	Class III	Class III	Class III	Class III	No	None recommended.
PSU-9: The amount of waste material recycled during construction activities would not adhere to State standards.	N/A	Class II	Class II	Class II	Class II	Class II	Class II	Yes	PSU-9: Recycle construction waste

N/A = Not Available.

* Indicates whether this impact is applicable to the portion of the Project on National Forest System lands.

+ Potential projects would likely traverse the same geographic regions as either the proposed Project or Alternatives 3 through 7, and subsequently introduce similar types of impacts