3.13 Traffic and Transportation

3.13.1 Introduction

This section describes effects on Traffic and Transportation that would be caused by implementation of 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. In addition, existing laws and regulations relevant to Traffic and Transportation are described. In some cases, compliance with these existing laws and regulations would serve to reduce or avoid certain impacts that might otherwise occur with the implementation of the Project.

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. The following issue related to Traffic and Transportation was raised during scoping. However, no alternatives that followed the routes described below were carried forward for analysis.

- Consider alternative that follows existing transportation and commercial ROW along the 60 freeway or railroad ROWs; route power lines behind the San Gabriel Mountains and come down the 15 Freeway. (Potential construction impacts to traffic if this route is chosen?)

Summary and Comparison of Alternatives

Table 3.13-1 on the following page presents some key factors related to Traffic and Transportation for each alternative. It is important to note that the "Environmental Issues" indicated in Table 3.13-1 are not 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 3.13.4.1 (Criteria for Determining Impact Significance), are further described in Sections 3.13.5 through 3.13.11.

3.13.2 Affected Environment

Information regarding the existing roadway system and transportation infrastructure and facilities was obtained from the following sources: highway maps, route alignment maps, the Proponent's Environmental Assessment, and other maps from various reports and websites of the affected State and local agencies. Roadway capacities and operating criteria were obtained from general plans, traffic departments, and or public works departments of the affected agencies. Traffic volume data were obtained from agency websites and databases (see Chapter 8 for the complete listing of data sources). Lane information was obtained from aerial photographs, local government agencies, public maps, and field reconnaissance. The environmental setting includes the roadways, transit systems, railroads, and airport facilities crossed by, adjacent to, or in the immediate vicinity of the proposed transmission line route.

The data presented in the tables below include the name of the roadway, the responsible jurisdiction, the number of lanes, and the proposed Project milepost (MP) of the crossing. In addition to the roadways listed in the tables, there are numerous unpaved and/or unnamed roads that would also be affected by the Project.

Table 3.13-1. Summary Comparison of Environmental Issues – Traffic and Transportation

Environmental Issues	Alternative 1 (No Project/Action)	Alternative 2 (SCE's Proposed Project)	Alternative 3 (West Lancaster)	Alternative 4 (Chino Hills)	Alternative 5 (Partial Underground)	Alternative 6 (Max. Helicopter in ANF)	Alternative 7 (66-kV Subtransmission)
Closure of roads to through traffic or reduction of travel lanes would result in substantial congestion (Impact T-1)	Impacts of potential future projects would most likely be similar to those of the proposed Project or alternatives.	Potentially affects 420 roadways.	Same as Alternative 2.	Roadways potentially affected: Alts 4B & 4D: 361 Alts 4A & 4C: 360 (would not cross Bane Canyon Road).	Potentially affect 409 roadways (11 fewer roadways than Alternative 2).	Would potentially affect 420 roadways and require temporary closure of two roadways that would not be required during construction of any other alternative.	Requires longer duration of temporary closures along 4 more roadway segments than Alternative 2.
Construction traffic would result in congestion on area roadways (Impact T-2)	Same as above.	Potentially affects 420 roadways.	Same as Alternative 2.	Roadways potentially affected: Alts 4B & 4D: 361 Alts 4A & 4C: 360 (would not cross Bane Canyon Road).	Would result in substantially more congestion on roadways within the Southern Region.	Same as Alternative 2.	Affects 4 more roadway segments than Alternative 2.
Construction activities could temporarily interfere with emergency response (Impact T-3)	Same as above.	Potentially affects 420 roadways.	Same as Alternative 2.	Approximately 60 fewer roadways than Alternative 2.	Potentially affect 409 roadways (11 fewer roadways than Alternative 2).	Incrementally increased due to potential closures of Upper Big Tujunga Canyon Road and Angeles Forest Hwy.	Affects 4 more roadway segments than Alternative 2.
Construction activities could temporarily disrupt transit routes (Impact T-4)	Same as above.	Potentially affects dozens of transit routes.	Same as Alternative 2.	Affects 1 less transit route than Alternative 2.	Same as Alternative 2.	Same as Alternative 2.	Affects 6 more transit routes than Alternative 2.
Construction activities could temporarily interfere with the use of pedestrian/bicycle paths (Impact T-6)	Same as above.	Would potentially affect several pedestrian and bicycle paths along the Project route.	Same as Alternative 2.	Number of paths affected compared to Alternative 2: Alt. 4A & 4B: 9 more; Alt 4C: 3 more; Alt 4D: 2 more.	Would affect approx. 11 fewer residential roadways than Alternative 2 and incrementally affect fewer sidewalks and pedestrian paths.	Same as Alternative 2.	Would affect sidewalks along 5 more roadway segments than Alternative 2.
Underground construction activities would temporarily restrict property access (Impact T-11)	Same as above.	No Impact.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.	Same as Alternative 2.	Restricts access to businesses along Durfee Avenue.

3.13.2.1 Regional Setting

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). For the purposes of this analysis the Traffic and Transportation Study Area has also been divided into three regions: Northern Region, Central Region, and Southern Region. The particular boundaries for each of these regions are described in further detail below and shown on Figure 3.13-1 (at the end of this section).

Northern Region

The Northern Region of the TRTP route includes all portions of the Project located between the Windhub Substation located south of Tehachapi in southern Kern County and the Vincent Substation, located in northern Los Angeles County. This portion of the TRTP route traverses unincorporated areas of Kern County, the cities of Palmdale and Lancaster, and unincorporated areas of Los Angeles County.

Existing Roadway Network

The major regional transportation routes in the Northern Region of the proposed Project area include highways under the jurisdiction of Caltrans and collector roads under the jurisdiction of local municipalities, and are described in detail below.

State Route (SR14) in the Project Area is a four lane divided freeway traversing the Antelope Valley region in a north-south direction. This freeway connects the Los Angeles metropolitan area with the Tehachapi area with interchanges at Interstate 5 (I-5) and SR58, respectively. SR14 experiences an annual average daily traffic (ADT) level of approximately 70,000 trips in the area (Caltrans, 2007).

State Route 58 (SR58) in the Project Area is four lane divided freeway traversing the Antelope Valley region in an east-west direction. This freeway connects San Luis Obispo and San Bernardino Counties via Bakersfield and Tehachapi. SR14 experiences an ADT level of approximately 20,400 trips in the area (Caltrans, 2007).

State Route 138 (SR138) in the Project Area is a two lane undivided highway with an ADT volume of 4,500 vehicles (Caltrans, 2007). This portion of SR138, also referred to as Avenue D, is a regionally important east-west route across the Antelope Valley, connecting the north-south corridors of SR14 on the east with I-5 near Tejon Pass on the West.

Tehachapi Willow Springs Road is a two lane collector road under the jurisdiction of Kern County. In the Project area, this road has an ADT volume of approximately 3,300 vehicles (Kern County, 2007b). Tehachapi Willow Springs Road also serves as an alternative route to SR58 (Kern County, 2007a).

Rosamond Boulevard is a two lane, east-west arterial road under the jurisdiction of Kern County. In the Project area, this road has an ADT volume of approximately 6,300 vehicles (Kern County, 2007b). Rosamond Boulevard is also an access point to Edwards Air Force Base (Kern County, 2007a).

Elizabeth Lake Road is a two lane, east-west arterial road under the jurisdiction of Los Angeles County. In the Project area, this road has an ADT volume of approximately 19,000 vehicles (Los Angeles County, 2008).

Sierra Highway is a two lane, north-south highway under the jurisdiction of Los Angeles County. In the Project area, this road has an ADT volume of approximately 7,100 vehicles (Los Angeles County, 2008).

Transit and Rail Services

Local bus service in this area of the proposed Project is provided by the Antelope Valley Transit Authority (AVTA). AVTA operates 16 routes throughout the cities of Lancaster and Palmdale, and nearby communities. The AVTA operations closest to the Project are in Lancaster and include Route 7 and Route 5. Route 7 extends westward to 60th Street West where it runs between Avenue H and Avenue L-8. Route 5 extends westward along Avenue L-12 to the Mayflower Gardens convalescent hospital and 67th Street West (AVTA, 2007).

AVTA also operates a commuter bus service between the Lancaster Transfer Center, where connections with local service are available, and employment centers in Los Angeles. Other park-and-ride facilities and a transfer center are located in Palmdale. Service is provided along routes 785 (to downtown Los Angeles), 786 (to West Los Angeles and Century City), and 787 (to West San Fernando Valley), all of which use SR14 (SCE, 2007a).

The Kern Regional Transit (KRT) service is operated by Kern County. Express bus service is provided from Bakersfield to Tehachapi, Rosamond, and Lancaster. Within Rosamond and Tehachapi, only dial-a-ride service is provided. During the summer months, KRT provides community service throughout Tehachapi.

The Union Pacific Railroad (UPRR) line is located approximately 10 miles east of the Antelope Substation, and east of SR14 through Lancaster (SCE, 2007a). This line carries freight traffic and the Metrolink commuter trains southward from Lancaster. A spur line from the UPRR main line serves the Cal Cement plant southeast of Tehachapi. A combined Amtrak and Metrolink station is located in Lancaster at 44812 North Sierra Highway, approximately seven miles east of the Antelope Substation. Amtrak does not operate trains on this track but does operate motor coaches that connect between Bakersfield and Palmdale. Metrolink offers commuter rail service to downtown Los Angeles with stops at cities and communities between there and Lancaster.

Bicycle Facilities

The Northern Region of the proposed TRTP route traverses through mostly undeveloped and rural areas absent of concentrated urban development. Roads crossed by the proposed Project are generally two-lane rural roads, or rural collectors, generally carrying less than 2,000 ADT, or major collectors or highways, such as Elizabeth Lake Road and SR14. Designated bicycle lanes do not exist along the proposed Project route (MTA, 2006).

Air Transportation

Public and Private Airports. Several airports and air fields are located within the Northern Region of the TRTP route. Skyotee Ranch Airport, located approximately two miles southeast of the proposed Whirlwind Substation, and one mile east of the Segment 4 alignment, is a privately owned airport that is open to the public and serves as a general aviation facility. Bohunks Airpark, located approximately one mile east of the Antelope Substation, is a privately owned airport that is open to the public and serves as a general aviation facility. Tehachapi Municipal Airport, located approximately three miles northwest of the Whirlwind Substation, is operated by the City of Tehachapi as a general aviation facility that is open to the public.

In the Lancaster area, General William J. Fox Airfield is a regional general aviation airport owned by Los Angeles County, and operated under contract by American Airports Corporation. There is no scheduled

air service at this airport, but charter service and pilot support services are available. It is located approximately five miles northeast of the Antelope Substation. Mojave Airport is located approximately seven miles northeast of the proposed Windhub Substation and is operated by the East Kern Airport District. Although there is no commercial air service, Mojave Airport is very active and serves general aviation and heavy transport. The airport property is also used by several major airlines to store large aircraft.

Air Traffic and Military Aviation. Edwards Air Force Base (AFB) is located approximately 23 miles east of the proposed Windhub Substation. Edwards AFB is a military airport that is used primarily for testing military aircraft. Naval Air Weapons Station (NAWS) China Lake is located approximately 55 miles northeast of the proposed Windhub Substation. NAWS China Lake is an airborne weapons testing and training range operated by the United States Navy.

Central Region

The Central Region of the TRTP route includes all portions of the Project located between the Vincent Substation located north of Acton in northern Los Angeles County and the Mesa Substation located in Monterey Park. This region includes unincorporated areas of Los Angeles County, the Angeles National Forest (ANF), and the cities of Baldwin Park, Duarte, Industry, Irwindale, La Canada Flintridge, Montebello, Monterey Park, Pasadena, Rosemead, San Gabriel, South El Monte, and Temple City.

Existing Roadway Network

Much of the Central Region is located within the ANF. Roadways within the ANF are primarily two-lane rural roads, or rural collectors carrying less than 2,000 ADT (SCE, 2007a). The major regional transportation routes in the Central Region of the proposed Project area include interstate freeways and state highways under the Caltrans jurisdiction as well as major highways (three travel lanes in each direction and 30,000 to 50,000 ADT) secondary highways (two travel lanes in each direction and 20,000 to 30,000 ADT) under county or local municipal jurisdiction, and are described in detail below.

Interstate 210 (I-210) is an eight to ten-lane divided freeway with an ADT of 280,000 vehicles and connects the San Gabriel Valley to the coastal cities of Seal Beach and Long Beach (Caltrans, 2007).

Interstate 10 (I-10) is an eight-lane divided highway with an ADT volume of 240,000 vehicles (Caltrans, 2007). I-10 is a transcontinental freeway that connects the east coast of Florida with the west coast of California.

Interstate 605 (I-605) is an eight-lane divided highway with an ADT volume of approximately 264,000 vehicles (Caltrans, 2007). I-605 connects Irwindale to Orange County and provides access to I-210, I-10, SR-60, I-5, I-105, and SR-22.

State Route 60 (SR60) is an eight-lane divided highway with an ADT volume of 250,000 vehicles (Caltrans, 2007). SR60 connects Riverside County to downtown Los Angeles.

State Route 19 (SR19) is a four-lane undivided highway that traverses Los Angeles County in a north-south direction and connects Pasadena and the San Gabriel Valley to Long Beach. This highway, also known as Rosemead Boulevard, has an ADT of approximately 40,000 vehicles (Caltrans, 2007; Los Angeles County, 2008).

State Route 2 (SR2) is a two-lane undivided freeway that traverses the ANF in an east-west direction. This highway, also known as the Angeles Crest Highway, has an ADT within the ANF of approximately 3,700 vehicles (Caltrans, 2007).

Angeles Forest Highway (AFH) is a two-lane undivided highway that traverses the ANF in a north-south direction. This highway connects the Antelope Valley region with the Los Angeles metropolitan area. This roadway experiences an ADT of approximately 3,500 trips (Los Angeles County, 2008).

Huntington Boulevard is an eight-lane major highway that traverses Los Angeles County in an east-west direction. This road connects downtown Los Angeles with cities in the San Gabriel Valley such as, San Marino, Arcadia, Monrovia and Duarte, and has an ADT of approximately 40,000 vehicles (Los Angeles County, 2008).

Valley Boulevard is a four-lane secondary highway that traverses Los Angeles County in an east-west direction. This road connects downtown East Los Angeles with cities in the San Gabriel Valley such as, Alhambra, San Gabriel, Rosemead, and El Monte and has an ADT of approximately 23,000 vehicles (Los Angeles County, 2008).

San Gabriel Boulevard is a four-lane secondary highway that traverses Los Angeles County in a north-south direction. This road provides San Gabriel Valley access to the I-210, I-10 and SR-60 freeways and has an ADT of approximately 30,000 vehicles (Los Angeles County, 2008).

Transportation on National Forest System Lands

The ANF manages a transportation network to provide sustainable access in a fiscally responsible manner to National Forest System (NFS) lands for administration, protection, and utilization of these lands and resources. The primary component of this network is NFS roads. NFS roads are roads that have been determined to be needed for long-term motor vehicle access and are under the jurisdiction of the NFS.

Table 3.13-2 lists the NFS roads that would be used by the proposed Project or alternatives, along with System Identification (ID), Operational Maintenance Levels (OML), and Traffic Service Levels, which are assigned to every NFS Road. OML are discussed in Section 3.15, Wilderness and Recreation because of their bearing on the types of motorized vehicle uses the ANF may allow. Traffic Service Levels describe the significant characteristics and operating conditions of a road and are described in Table 3.13-3.

In addition to NFS roads, there are many small maintenance trails or "spur" roads which provide access directly to towers from NFS roads. Some of these spur roads are well maintained and continually used, while others are completely overgrown with brush and show very little evidence of existence.

There are also several major paved access roads within ANF which will be used for the proposed Project or alternatives. These roads fall under the jurisdiction of either Los Angeles County Department of Public Works, or California Department of Transportation. Examples include Angeles Forest Highway, State Highway 2, and Upper Big Tujunga Road.

Table 3.13-2. NFS Roads to be Used by the Proposed Project or Alternatives

Road Name	ID	Operation and Maintenance Level	Traffic Service Level
Angeles Crest Station	2n76a0	4 - Moderate Degree Of User Comfort	B - Congested During Heavy Traffic
Ccc Ridge Road	2n75	2 - High Clearance Vehicles	C - Flow Interrupted - Use Limited
Channy Trail	2n65.2	0 - Not Maintained	A - Free Flowing Mixed Traffic
Edison Rd	4n24	2 - High Clearance Vehicles	A - Free Flowing Mixed Traffic
Edison/Fall Creek Rd	3n27	2 - High Clearance Vehicles	D - Slow Flow Or May Be Blocked

Table 3.13-2. NFS Roads to be Used by the Proposed Project or Alternatives

Road Name	ID	Operation and Maintenance Level	Traffic Service Level
Grizzly Flat	2n79	2 - High Clearance Vehicles	C - Flow Interrupted - Use Limited
Lynx Gulch Rd	4n18	2 - High Clearance Vehicles	B - Congested During Heavy Traffic
Monte Cristo Mine Rd	3n23	1 - Basic Custodial Care	C - Flow Interrupted - Use Limited
Mt Lukens Rd	2n76.3	2 - High Clearance Vehicles	C - Flow Interrupted - Use Limited
Powerline Road	3n20	2 - High Clearance Vehicles	B - Congested During Heavy Traffic
Rincon/Red Box	2n24	2 - High Clearance Vehicles	A - Free Flowing Mixed Traffic
Santa Clara Divide	3n17	2 - High Clearance Vehicles	B - Congested During Heavy Traffic
Sawpit	2n30.1	2 - High Clearance Vehicles	C - Flow Interrupted - Use Limited
Shortcut Edison Rd.	2n23	2 - High Clearance Vehicles	B - Congested During Heavy Traffic
Shortcut Station	3n19a0	5 - High Degree Of User Comfort	B - Congested During Heavy Traffic
Van Tassel	1n36	2 - High Clearance Vehicles	D - Slow Flow Or May Be Blocked
Van Tassel Ridge Spur	1n36a0	2 - High Clearance Vehicles	D - Slow Flow Or May Be Blocked
West Fork Rd	2n25.1	2 - High Clearance Vehicles	B - Congested During Heavy Traffic
West Fork/Cogswell Rd	2n25.2	2 - High Clearance Vehicles	D - Slow Flow Or May Be Blocked

Source: USDA Forest Service INFRA Roads Database

For purposes of impact analysis, categories of Maintenance, Reconstruction, or New Construction have been applied to all access roads under ANF jurisdiction needed for the proposed Project or alternatives, consistent with definitions found in FSM 7700. Maintenance is defined as ongoing upkeep of an existing road necessary to retain or restore the road to the approved road management objective. Reconstruction is defined as an increase of an existing road's traffic service level, expansion of its capacity, changes to its original design function, or activity that results in a new location of an existing road and treatment of the old roadway. New construction was assigned to any needed access routes which did not fit definitions for reconstruction or maintenance. These categories were assigned using the ANF Roads database, project maps showing needed access routes, field data on current conditions, and 2005 digital aerial photography from the National Agricultural Inspection Program.

Table 3.13-3. Traffic Service Levels for NFS Roads

Description	TSLA A	TSL B	TSL C	TSL C
Flow	Free flowing with adequate parking facilities.	Congested during heavy traffic such as during peak logging or recreation activities.	Interrupted by limited passing facilities, or slowed by the road condition.	Flow is slow or may be blocked by an activity. Two-way traffic is difficult and may require backing to pass.
Volumes	Uncontrolled; will accommodate the expected traffic volumes.	Occasionally controlled during heavy use periods.	Erratic; frequently controlled as the capacity is reached.	Intermittent and usually controlled. Volume is limited to that associated with the single purpose.
Vehicle Types	Mixed; includes the critical vehicle and all vehicles normally found on public roads.	Mixed; includes the critical vehicle and all vehicles normally found on public roads.	Controlled mix; accommodates all vehicle types including the critical vehicle. Some use may be controlled to vehicle types.	Single use; not designed for mixed traffic. Some vehicles may not be able to negotiate. Concurrent use traffic is restricted.
Critical Vehicle	Clearances are adequate to allow free travel. Overload permits are required.	Traffic controls needed where clearances are marginal. Overload permits are required	Special provisions may be needed. Some vehicles will have difficulty negotiating some segments.	Some vehicles may not be able to negotiate. Loads may have to be off-loaded and walked in.
Safety	Safety features are a part of the design.	High priority in design. Some protection is accomplished by traffic management.	Most protection is provided by management.	The need for protection is minimized by low speeds and strict traffic controls.

Table 3.13-3. Traffic Service Levels for NFS Roads

Description	TSLA A	TSL B	TSL C	TSL C
Traffic Management	Normally limited to regulatory, warning, and guide signs and permits	Employed to reduce traffic volume and conflicts.	Traffic controls are frequently needed during periods of high use by the dominant resource activity.	Used to discourage or prohibit traffic other than that associated with the single purpose.
User Costs	Minimize; transportation efficiency is important.	Generally higher than "A" because of slower speeds and increased delays.	Not important; efficiency of travel may be traded for lower construction costs.	Not considered.
Alignment	Design speed is the predominant factor within feasible topographic limitations.	Influenced more strongly by topography than by speed and efficiency.	Generally dictated by topographic features and environmental factors. Design speeds are generally low.	Dictated by topography, environmental factors, and the design and critical vehicle limitations. Speed is not important.
Road Surface	Stable and smooth with little or no dust, considering the normal season of use.	Stable for the predominant traffic for the normal use season. Periodic dust control for heavy use or environmental reasons. Smoothness is commensurate with the design speed.	May not be stable under all traffic or weather conditions during the normal use season. Surface rutting, roughness, and dust may be present, but controlled for environmental or investment protection.	Rough and irregular. Travel with low clearance vehicles is difficult. Stable during dry conditions. Rutting and dusting controlled only for soil and water protection.

Source: USDA, Forest Service Handbook

Transit and Rail Services

Much of the Central Region is located within the ANF remotely far from transit and rail facilities within Los Angeles County. South of the ANF, there are several local transit providers. The Los Angeles Metropolitan Transit Authority (MTA) provides transit bus service in Monrovia. MTA, Foothill Transit (FT), Pasadena Area Transit System (ARTS), Montebello Municipal Bus Lines (M), and Norwalk Transit (NW) provide bus, transitway, and Metrolink rail service to the jurisdictions within this region of the TRTP route.

MTA provides light rail service in this area via the Metro Gold Line which is located between the eastbound and westbound ROW of the I-210 freeway. Two railroad lines would be crossed by the proposed Project in this region. A UPRR line that carries freight traffic and Amtrak commuter trains is located approximately 1.5 miles north of the I-10 freeway (SCE, 2007a). A Metrolink line is located between the eastbound and westbound ROW of the I-10 freeway and carries the Metrolink San Bernardino line and Amtrak commuter trains eastward from Los Angeles (SCE, 2007a).

Bicycle Facilities

Definitions and classifications of designated bike paths or bikeways vary by jurisdictional agency in this region; however they can be generally divided into three classes. A Class I bike path usually serves a corridor that is not served by an existing street and/or is physically separated from motor vehicle lanes. A Class II bike route/path is a bicycle lane that shares a right-of-way with a roadway or walkway and is marked (with signs and/or pavement marking/striping) as a lane for the use of bicycles. A Class III bike route also shares the right-of-way with a roadway or walkway but is not indicated by a continuous stripe on the pavement or separated by any type of barrier, but it is identified as a bikeway with signs. All three designations of bike routes are located throughout the Central Region of the proposed Project area.

Air Transportation

Several airports and air fields are located within the Central Region of the TRTP route. El Monte Airport is located in the City of El Monte approximately two miles west of SR19. El Monte Airport is a regional general aviation airport owned by Los Angeles County and operated under contract by American Airports Corporation. Shepherd Field is located approximately 3.6 miles southeast of the existing Mesa Substation; however this airfield is listed as inactive by the October 2004 Federal Aviation Administration (FAA) Airport/Facility Directory Data (SCE, 2007a). Bob Hope Airport is a regional and national airport owned by the Burbank-Glendale-Pasadena Airport Authority and is located approximately seven miles southwest of the existing SCE Gould Substation.

Southern Region

The Southern Region of the TRTP route includes all portions of the Project located between the Mesa Substation in Monterey Park to the Mira Loma Substation located in San Bernardino County. This portion of the TRTP route traverses unincorporated portions of Los Angeles and San Bernardino Counties, as well as the cities of Chino, Chino Hills, Industry, La Habra Heights, Montebello, Monterey Park, Ontario, Pico Rivera, Rosemead, and Whittier.

Existing Roadway Network

The major regional transportation routes in the Central Region of the proposed Project area include interstate freeways and state highways under the Caltrans jurisdiction as well as major highways (three travel lanes in each direction and 30,000 to 50,000 ADT) secondary highways (two travel lanes in each direction and 20,000 to 30,000 ADT) under county or local municipal jurisdiction, and are described in detail below.

State Route 60 (SR60) is an eight-lane divided highway with an ADT volume of 250,000 vehicles (Caltrans, 2007). SR60 connects Riverside County to downtown Los Angeles.

State Route 19 (SR19) is a four-lane undivided highway that traverses Los Angeles County in a north-south direction and connects Pasadena and the San Gabriel Valley to Long Beach. This highway, also known as Rosemead Boulevard, has an ADT of approximately 40,000 vehicles (Caltrans, 2007; Los Angeles County, 2008).

Interstate 605 (I-605) is an eight-lane freeway with an ADT volume of 258,000 vehicles (Caltrans, 2007). I-605 connects the foothills of the San Gabriel Mountains to Los Angeles and north Orange County.

State Route 57 (SR57) is an eight-lane freeway with an ADT volume of 216,000 vehicles (SCE, 2007a). SR-57 connects south Orange County and the San Gabriel Valley.

State Route 71 (SR71) is a six-lane freeway with an ADT volume of 85,000 vehicles (SCE, 2007a). SR-71 connects Los Angeles and San Bernardino Counties to the Chino Valley

State Route 83 (SR83) is a four-lane undivided highway with an ADT volume of 22,000 vehicles (Caltrans, 2007).

State Route 142 (SR142) is a two-lane undivided highway with an ADT volume of 30,000 vehicles (Caltrans, 2007). This road is also known as Carbon Canyon Road.

Colima Road (County Highway 8) is a four-lane secondary highway that traverses Los Angeles County in a northeast-southwest direction. This road connects the city of Diamond Bar with the community of

Hacienda Heights and the city of Whittier, and has an ADT of approximately 28,000 vehicles (Los Angeles County, 2008).

Fullerton Road is four-lane secondary highway that traverses Los Angeles County in a north-south direction. This road connects the City of Industry with the cities of La Habra and Fullerton and provides access to SR60 and SR 90 and as an ADT of approximately 39,000 vehicles (Los Angeles County, 2008).

Pathfinder Road is a four-lane secondary highway that traverses Los Angeles County in an east-west direction. This road connects the City of Diamond Bar with the community of Rowland Heights between Diamond Bar Boulevard and Fullerton Road, and has an ADT of approximately 29,000 vehicles (Los Angeles County, 2008).

Transit and Rail Services

Transit service in the Southern Region is provided by MTA, Foothill Transit, and Montebello Municipal Bus Lines in Los Angeles County and by Omnitrans and other local providers in San Bernardino County. Metrolink's Riverside line runs parallel with SR60 in the San Gabriel Valley region. The UPRR line is located on the southeast corner of I-605 and SR60 connector located approximately 4.8 miles east of Mesa Substation. This line carries freight traffic, the Metrolink Riverside Line and Amtrak Sunset Limited commuter trains.

Bicycle Facilities

Several designations of bike routes are located throughout the Southern Region of the proposed Project area.

Air Transportation

The LA/Ontario International Airport is located in the City of Ontario just south of I-10 and approximately two miles east of the I-15 freeway. This airport is a regional and international airport that serves San Bernardino County, Riverside County, north Orange County, and east Los Angeles County with daily commercial air service. Chino Airport is a regional aviation airport located in Chino Hills approximately one mile south of Edison Boulevard along SR83. Chino Airport is owned and operated by San Bernardino County and provides general aviation service.

3.13.2.2 Alternative 2: SCE's Proposed Project

Construction Overview

Construction activities for the proposed Project would include establishment of marshalling yards for staging of materials and equipment, and development of access roads and spur roads to reach construction sites. Following this, or in parallel, crews would remove existing transmission lines, and also begin installation of new transmission structures. Construction of new transmission towers would include clearing of footing work locations, installation of foundations, tower assembly, and tower erection. After towers are in place, crews would proceed with stringing of conductor and overhead ground wires. Construction would be completed with clean-up of construction sites and demobilization of personnel and equipment. The exact method for construction employed and the sequence with which construction tasks occur would be dependent on final engineering, contract award, conditions of permits, and contractor preference.

Project construction activities are estimated to last for approximately 55 months. Approximately 300 workers in separate construction crews, each comprised of between two and 100 workers, would work on

the various aspects of the proposed Project. An average of approximately 75 workers would commute to various locations along the proposed route ROW each workday.

In general, construction would occur in accordance with accepted construction industry standards. Construction activities would generally be scheduled Monday through Friday during daylight hours (7:00 a.m. to 5:00 p.m.). When different hours or days are necessary, SCE would obtain variances, as necessary, from the jurisdiction in which the work would take place. All materials associated with construction efforts would be delivered by truck or helicopter to established marshalling yards. Delivery activities requiring major street use would be scheduled to occur during off-peak traffic hours.

During wire-stringing activities, SCE proposes to install temporary structures referred to as guard poles at all road crossings to stop the downward motion of conductor wire should it drop below a conventional stringing height. The use of guard poles reduces traffic impacts at crossing locations. Guard poles would likely require the temporary closure of roads at crossing locations for their installation. In addition, specific requirements of the applicable transportation agency may require other methods at crossing locations, including detouring all traffic off the roadway at the crossing location or implementing a controlled continuous traffic break while stringing operations are performed. The specific agency requirements would be included as stipulations in the required encroachment permits. Based on the number of road crossings that would be needed along the currently proposed TRTP route, SCE has estimated that approximately 684 guard structures would be installed to facilitate TRTP construction.

The Project would require several primary and secondary marshalling yards at which to stage materials and equipment and to temporarily store materials associated with the removed 66- and 220-kV lines. The primary marshalling yard sites would be located based on accessibility to construction locations and proximity to transmission line and substation access roads. The secondary marshalling yards would be located near paved roads approximately every five to ten miles along the proposed ROW depending on topography (SCE, 2007b – DR#1: Q071).

The following sections describe the traffic and transportation setting for the three regions traversed by the proposed Project route.

Northern Region

The Northern Region of the TRTP route includes Segments 4, 5 and 10. Five substations which are contained within the Northern Region include: Windhub, Cottonwood, Whirlwind, Antelope and Vincent. The peak construction workforce required for construction in this region would be approximately 140 workers.

Existing Roadway Network

Approximately 118 roadway segments would be directly or indirectly affected by construction of proposed Project Segments 4, 5 and 10. The major roadways in the Northern Region that would be potentially affected by construction of the proposed Project are described above in section 3.13.2 and summarized below in Table 3.13-4. There are also a number of other smaller public and private roads in the general area that would be crossed by the proposed transmission line route. Lists of all roadway segments that would be crossed by the proposed Project are located in Appendix D.

Table 3.13-4. Northern Region Major Road Crossings

Roadway	Description	Crossing Location	Jurisdiction	ADT
Tehachapi Willow Springs Road	2 lanes	S10 MP 4.3	Kern County	3,300
Rosamond Boulevard	2 lanes	S10 MP 15.8	Kern County	6,300
Rosamond Boulevard	2 lanes	S4 MP 3.3	Kern County	6,300
SR138	2 lanes	S4 MP 10.5	Los Angeles County	4,500
SR14	4 lanes, mainline + carpool	S5 MP 16.5	Caltrans	70,000
Elizabeth Lake Road	2 lanes	S5 MP 7.8	City of Palmdale	19,000
Sierra Highway	2 lanes	S5 MP 16.6	Los Angeles County	7,100

Sources: Kern County, 2007a; Kern County, 2007b; Los Angeles County, 2008; SCE, 2007a

Transit and Rail Services

The proposed transmission line route would not cross any of the AVTA local transit routes (AVTA, 2007). At its point of closest approach, the Segment 5 transmission route is approximately 1.25 miles to the west of the nearest Route 5 stop. However, the route would cross SR14, which is used by AVTA commuter bus routes 785 (to downtown Los Angeles), 786 (to West Los Angeles and Century City), and 787 (to West San Fernando Valley) (SCE, 2007a).

The main line of the UPRR occurs to the east of the Segment 4 route. A spur line from the UPRR main line serves the Cal Cement plant southeast of Tehachapi. This spur railroad line would be crossed by Segment 10 at approximately MP 1.0. A combined Amtrak and Metrolink station is located in Lancaster at 44812 North Sierra Highway, approximately seven miles east of the Antelope Substation. Amtrak operates motor coaches that connect between Bakersfield and Palmdale. The Vincent Grade/Acton Metrolink Station is located at 730 West Sierra Highway, immediately adjacent to the proposed transmission line route (Metrolink, 2007). Segment 5 of the proposed transmission line route would pass immediately to the west of the Metrolink Station parking lot and across the railroad tracks at approximately MP 16.7. The UPRR line carries freight traffic and the Metrolink commuter trains southward from Lancaster, as described above. Amtrak does not use this segment of rail line. This line is the same one that would be crossed by the proposed transmission line route at the Vincent Grade/Acton Metrolink Station.

Air Transportation

Skyotee Ranch Airport is located approximately two miles southeast of the proposed Whirlwind Substation. Bohunks Airpark is located approximately one mile east of the Antelope Substation. Tehachapi Municipal Airport is located approximately three miles northwest of the Whirlwind Substation. General William J. Fox Airfield is located approximately five miles northeast of the Antelope Substation. Mojave Airport is located approximately six miles to the east of Segment 4. Edwards AFB is located approximately 23 miles east of the proposed Windhub Substation. NAWS China Lake is located approximately 55 miles northeast of the proposed Windhub Substation.

A portion of Segment 4, within Kern County, is located within an area that has been identified as one that requires limits to structures for protection of military operations. This is an area where the heights of structures are limited to 200 feet above ground elevation (Kern County Zoning Ordinance 19.08.160) and that requires notification and approval of proposed developments (Kern County ALUCP Section 4.17).

Central Region

The Central Region of the TRTP includes Segments 6, 7, and 11 of the proposed Project.

Existing Roadway Network

Approximately 158 roadway segments would be directly or indirectly affected by construction of proposed Project Segments 6, 7 and 11. The major roadways in the Central Region that would be potentially affected by construction of the proposed Project are described above in Section 3.13.2 and summarized below in Table 3.13-5. There are also a number of other smaller public and private roads in the general area that would be crossed by the proposed transmission line route. Lists of all roadway segments that would be crossed by the proposed Project are located in Appendix D.

Table 3.13-5. Central Region Major Road Crossings

Roadway	Description	Crossing Location	Jurisdiction	ADT
SR2	2 lanes	S6 MP 16.8	Los Angeles County	3,700
Angeles Forest Highway	2 lanes	S6 MP 7.3	Los Angeles County	3,500
I-210 Freeway	10 lanes plus carpool	S7 MP 2.4	Caltrans	280,000
I-605 Freeway	8 lanes	S7 MP 3.2, 5.3, 6.2	Caltrans	264,000
I-10 Freeway	8 lanes plus carpool	S7 MP 8.2	Caltrans	240,000
SR60	8 lanes	S7 MP 11.1, 14.7	City of South El Monte	250,000
SR19	4 lanes	S7 MP 13	Los Angeles County	40,000
Huntington Drive	4 lanes	S7 MP 1.9	City of Duarte	40,000
Arrow Highway	4 lanes	S7 MP 4.4	City of Irwindale	27,000
Live Oak Avenue	4 lanes	S7 MP 4.8	City of Irwindale	25,000
Valley Boulevard	4 lanes	S7 MP 8.9	City of Industry	23,000
Peck Road	4 lanes	S7 MP 11.4	City of South El Monte	27,000
San Gabriel Boulevard	4 lanes	S7 MP 13.8	Los Angeles County	30,000
Montebello Boulevard	4 lanes	S7 MP 14.5	City of Montebello	NA
Town Center Drive	4 lanes	S7 MP 14.7	City of Montebello	NA
Paramount Boulevard	5 lanes	S7 MP 14.8	City of Montebello	17,000
SR2	2 lanes	S7 MP 15.9, 17.6, 18.4	USDA FS	3,700
I-210 Freeway	10 lanes plus carpool	S11 MP 27.5	Caltrans	280,000
I-10 Freeway	8 lanes plus carpool	S11 MP 33.0	Caltrans	240,000
Angeles Forest Highway	2 lanes	S11 MP 14.1, 14.5	USDA FS	3,500
New York Drive	4 lanes	S11 MP 25.8	City of Pasadena	17,000
Foothill Boulevard	4 lanes	S11 MP 27.5	City of Pasadena	28,000
Colorado Boulevard	4 lanes	S11 MP 27.7	City of Pasadena	20,000
Huntington Drive	8 lanes	S11 MP 28.99	Los Angeles County	40,000
Las Tunas	6 lanes	S11 MP 30.8	City of San Gabriel	NA
Walnut Grove Avenue	4 lanes	S11 MP 31.9	City of Rosemead	NA
Mission Drive	4 lanes	S11 MP 31.9	City of Rosemead	NA
Valley Boulevard	4 lanes	S11 MP 32.4	City of San Gabriel	23,000
San Gabriel Boulevard	4 lanes	S11 MP 34.2	City of Rosemead	30,000

Sources: Caltrans, 2007; Los Angeles County, 2008; SCE, 2007a

Transit and Rail Services

Segment 6 of the TRTP is located primarily within the ANF remotely far from transit and rail facilities within Los Angeles County. The Los Angeles MTA provides transit bus service in Monrovia, near the terminus of the Segment 6 route; however Segment 6 would not cross any transit or rail routes. As discussed in Section 3.13.2.1, several agencies provide transit services to the Central Region of the TRTP

route. Tables 3.13-6 and 3.13-7 present the transit routes that would be crossed by Segment 7 and Segment 11, respectively.

Table 3.13-6. Transit Routes in the Vicinity of Segment 7

Transit Route No.	Transit Route Name
MTA 68	W Washington Blvd. – Caesar Chavez Ave.
MTA 78	Huntington Dr. – Main St. – Las Tunas Dr.
MTA 260	Atlantic Ave. – Fair Oaks Ave.
MTA 264	Altadena Dr. – Foothill Blvd. – Baldwin Ave. – Duarte Rd. – City of Hope
MTA 265	Lakewood – Paramount Blvd. – Pico Rivera
MTA 266	Rosemead Blvd – Lakewood Bl. – SM Villa Station
MTA 268	El Monte Station – Baldwin Ave. – Washington Blvd. – Altadena – JPL
MTA 270	Monrovia – El Monte – Whittier - Santa Fe Springs – Norwalk Metro
MTA 287	Sierra Madre Villa – Sierra Madre Blvd. – Santa Anita – EL Monte Station – South El Monte – Montebello Town Center
MTA 378	Huntington Dr. – Main St. – Las Tunas Dr. Limited
MTA 484	Cal Poly Pomona – La Puente – Valley Blvd – LA Expo
MTA 490	Cal Poly Pomona – Walnut – Covina – Baldwin Park – Ramona Blvd – LA Expo
MTA 577X	El Monte – Norwalk – E. Long Beach – VA Med Center – via I-605 Freeway Expo
Metrolink	San Bernardino Metrolink
FT 178	Puente Hills Mall - El Monte Station
FT 187	Montclair - Claremont - Pasadena Via Foothill Bl.
FT 269	El Monte Station - Montebello Town Center
FT 272	Duarte - Baldwin Park -West Covina
FT 482	Ramona - Hacienda Heights - El Monte via Colima Rd
FT 486	Pomona - La Puente - El Monte via Amar Rd
FT 488	Glendora - West Covina - El Monte
FT 492	Montclair - Arcadia - El Monte via Arrow Hwy
FT 494	San Dimas
FT 499	San Dimas park/Ride - via Verde Park/Ride - LA Express
FT 690	Montclair - Pasadena Express
M 20	Garvey Ave - San Gabriel Bl. - Foothill Bl.
M 70	Montebello Town Center - Montebello - Commerce Metrolink Station
M 341	Montebello to Downtown LA from Taylor Ranch Express
M 343	Montebello - Downtown LA Express

Sources: SCE, 2007a; MTA, 2007

Table 3.13-7. Transit Routes in the Vicinity of Segment 11

Transit Route No.	Transit Route Name
ARTS 32	Sierra Madre Villa Metro Rail Station - New York Drive - Washington Bl.
ARTS 40	Sierra Madre Villa Metro Rail Station - Villa St. - E. Orange Grove Bl. - Memorial Park Metro Rail Station
FT 493	Phillips Ranch Diamond Bar - Rowland Hts - Downtown LA Express
FT 497	Chino Park/Ride - Industry Park/Ride - LA Express
FT 498	Citrus College - Downtown LA Express
FT 499	San Dimas Park/Ride - via Verde Park/Ride - LA Express
FT 690	Montclair - Pasadena Express
FT 699	Montclair - Fairplex Park/Ride - Downtown LA Express
FT Silver Streak	Montclair - Pomona - West Covina - El Monte - Downtown LA Express
Metrolink	San Bernardino Metrolink
MTA Gold	Metro Gold Line
MTA 70	Garvey Ave (24 hours)
MTA 76	Valley Bl. - North Main St. (24 hours)
MTA 78	Huntington Dr. – Main St. – Las Tunas Dr.
MTA 79	Huntington Dr.
MTA 176	Highland Park - South Pasadena - Alhambra - San Gabriel - El Monte Station
MTA 181	Highland Bl. - Los Feliz Bl. - Yosemite Dr. - Colorado Bl. - Sierra Madre Villa Station
MTA 264	Altadena Dr. - Foothill Bl. - Baldwin Ave. - Duarte Rd. - City of Hope
MTA 267	El Monte Bus Station - Temple City Bl. - Del Mar Bl. - Lincoln Ave.
MTA 268	El Monte Station – Baldwin Ave. – Washington Blvd. – Altadena – JPL

Table 3.13-7. Transit Routes in the Vicinity of Segment 11	
Transit Route No.	Transit Route Name
MTA 370	Garvey Area Limited
MTA 376	Valley Bl. Limited
MTA 484	Cal Poly Pomona – La Puente – Valley Blvd – LA Expo
MTA 487	Sierra Madre Villa - San Gabriel Bl. - Del Mar Ave. - LA Express
MTA 489	Temple City - Rosemead Bl. - LA Express
MTA 490	Cal Poly Pomona – Walnut – Covina – Baldwin Park – Ramona Blvd – LA Expo

Sources: SCE, 2007a; MTA, 2007

Segment 11 would cross the light rail Metro Gold Line at approximately MP 27.5. Segment 11 would also cross UPRR and Metrolink lines at approximately MP 31.5 and MP 33.0, respectively. Segment 7 would cross the Metrolink line at approximately MP 8.9.

Bicycle Facilities

Segment 6 of the TRTP route is located within the ANF and would not cross any designated bike routes.

Segment 7 would cross or run parallel to several designated bike paths and routes including: a Class III route along Royal Oaks Drive in Duarte near MP 1.5; a Class I bike path along the San Gabriel River near MP 10.5; a Class III bike route along Peck Road near MP 11; a Class I bike path in Whittier Narrows Recreation Area near MP 11.5; and a Class I bike bath along Rio Hondo River near MP 13.5.

Segment 11 would cross a Class III bicycle path along SR2 in La Canada Flintridge just north of the Gould Substation (La Canada Flintridge, 1995) near MP 18.3. Segment 11 would also cross several Class II and Class III bike routes between MP 26 and MP 29 in Pasadena including New York Drive, Orange Grove Boulevard, Foothill Boulevard, Del Mar Boulevard, and San Pasqual Street.

Air Transportation

No elements of Segment 6 are near general aviation or larger airports. El Monte Airport is located approximately two miles west of Segment 7 MP 7 and approximately three miles east of Segment 11 MP 32. Shepherd Field is located approximately 3.6 miles southeast of the existing Mesa Substation. Bob Hope Airport is located approximately seven miles southwest of the existing SCE Gould Substation.

Southern Region

The Southern Region of the TRTP is comprised solely of Segment 8 and includes the following five substations: Goodrich, Rio Hondo, Mesa, Chino, and Mira Loma.

Existing Roadway Network

Approximately 144 roadway segments would be directly or indirectly affected by construction of proposed Project Segment 8. The major roadways in the Southern Region that would be potentially affected by construction of the proposed Project are described above in section 3.13.2 and summarized below in Table 3.13-8. There are also a number of other smaller public and private roads in the general area that would be crossed by the proposed transmission line route. Lists of all roadway segments that would be crossed by the proposed Project are located in Appendix D.

Table 3.13-8. Southern Region Major Road Crossings				
Roadway	Description	Crossing Location	Jurisdiction	ADT
Paramount Boulevard	5 lanes	S8 MP 1.1	City of Montebello	17,000
SR60	10 lanes	S8 MP 1.1	Caltrans	250,000
Town Center Drive	4 lanes	S8 MP 1.2	City of Montebello	NA

Table 3.13-8. Southern Region Major Road Crossings

Roadway	Description	Crossing Location	Jurisdiction	ADT
Montebello Boulevard	4 lanes	S8 MP 1.3	City of Montebello	NA
San Gabriel Boulevard	4 lanes	S8 MP 2.1	Los Angeles County	30,000
SR19 (Rosemead Blvd)	4 lanes	S8 MP 2.8	Los Angeles County	40,000
Interstate 605	8 lanes	S8 MP 4.4	Caltrans	264,000
Peck Road	4 lanes	S8 MP 4.7	Los Angeles County	27,000
Colima Road	4 lanes	S8 MP 9.5	Los Angeles County	28,000
Hacienda Boulevard	6 lanes	S8 MP 10.5	Los Angeles County	19,000
Fullerton Road	4 lanes	S8 MP 13.5	Los Angeles County	39,000
Pathfinder Road	4 lanes	S8 MP 13.6	Los Angeles County	29,000
SR57	8 lanes	S8 MP 17	Caltrans	216,000
Chino Hills Parkway	4 lanes	S8 MP 23.8	City of Chino Hills	NA
SR71	6 lanes	S8 MP 25.6	Caltrans	85,000
Hope Street	4 lanes	S8 MP 25.9	City of Chino	NA
Central Avenue	4 lanes	S8 MP 27.7	City of Chino	NA
Edison Avenue	4 lanes	S8 MP 28.6	City of Chino	NA
Mountain Avenue	4 lanes	S8 MP 29	City of Chino	NA
SR83	4 lanes	S8 MP 29.9	City of Ontario	22,000

Sources: Caltrans, 2007; Los Angeles County 2008; SCE 2007a

Transit and Rail Services

As discussed in Section 3.13.2.1, several agencies provide transit services to the Southern Region of the TRTP route. Table 3.13-9 presents the transit routes that would be crossed by Segment 8. Segment 8 would cross a UPRR / Metrolink rail line at approximately MP 4.8.

Table 3.13-9. Transit Routes in the Vicinity of Segment 8

Transit Route No.	Transit Route Name
FT 269	El Monte Station - Montebello Town Center
FT 274	West Covina - La Puente - Whittier
FT 285	Puente Hills Mall - Whittier Hospital - La Habra
FT 497	Puente Hills Mall - Diamond Bar
M 20	Garvey Ave - San Gabriel Bl. - Foothill Bl.
M 70	Montebello Town Center - Montebello - Commerce Metrolink Station
MTA 68	W Washington Blvd. – Caesar Chavez Ave.
MTA 266	Rosemead Bl. - Lakewood Bl. - Sierra Madre Villa Metro Rail
MTA 270	Monrovia - El Monte - Whittier - Santa Fe Springs - Norwalk Metro Rail Station
MTA 287	Sierra Madre Villa - Sierra Madre Bl. - Santa Anita Ave. El Monte - South El Monte - Montebello Town Cntr
MTA 577X	El Monte – Norwalk – E. Long Beach – VA Med Center – via I-605 Freeway Expo
Metrolink	Metrolink Riverside Line
NW 1	Rio Hondo - Norwalk - Bellflower
Omni 65	Montclair - Chino Hills

Sources: SCE, 2007a

Bicycle Facilities

Segment 8 would cross several designated bike routes including: Class I bike paths along the Rio Hondo River (MP 2.5), Whittier Narrows Recreation Area (MP 3.5) and the San Gabriel River (MP 4); a Class II bike route along Colima Road near MP 9.5; a Class II bike path along Edison Avenue between Magnolia Avenue and Cypress Avenue near MP 28.5; and a Class I bike path located north of Edison Avenue between Cypress Avenue and Euclid Avenue near MP 29.5.

Air Transportation

The LA/Ontario International Airport is located approximately 3.8 miles northwest of Segment 8A near MP 33. Chino Airport is located approximately two miles south of Segment 8 near MP 30.

3.13.2.3 Alternative 3: West Lancaster Alternative

Alternative 3 is identical to the proposed Project, except for one deviation in the Northern Region. This alternative would re-route the new 500-kV T/L in Segment 4 along 115th Street West rather than 110th Street West. This re-route traverses through undeveloped land with scattered residential use along West Avenue I and J and would increase the overall distance of Segment 4 by approximately 0.4 mile.

Northern Region

Existing Roadway Network

Alternative 3 would cross the same number of streets as the proposed Project, however the rerouted portion of this alternative would cross several two lane roads near the Antelope Substation (between West Avenue H and West Avenue J-8) approximately 0.5 mile west of where the proposed Project would cross them. The rest of this alternative route be identical to that of the proposed Project and would cross the same roads as described in Section 3.13.2.2.

Transit and Rail Services

The rerouted portion of this alternative would not cross any of the AVTA local transit routes or commuter routes (AVTA, 2007). The rest of this alternative route be identical to that of the proposed Project and would cross the same roads as described in Section 3.13.2.2.

Bicycle Facilities

The roads crossed by the rerouted portion of this alternative are two-lane rural roads with no designated bicycle paths or lanes. The rest of this alternative route would cross the same bicycle paths as the proposed Project as described in Section 3.13.2.2.

Air Transportation

The rerouted portion of this alternative would be located 0.5 mile farther west of the airports described above in Section 3.13.2.2.

Central and Southern Regions

Affected Environment for the Central and Southern Regions of Alternative 3 would be exactly the same as the Affected Environment for these regions of the proposed Project, as described in Section 3.13.2.2.

3.13.2.4 Alternative 4: Chino Hills Route Alternatives

Under Alternative 4, the proposed transmission line would follow the same route as the proposed Project through the Northern and Central Regions. In the Southern Region, Alternative 4, which includes routes A, B, C, and D, would diverge from the proposed Project route at S8A MP 19.2 and turn to the southeast, crossing through part of Orange County before entering San Bernardino and the CHSP.

Northern and Central Regions

Affected Environment for the Northern and Central Regions of Alternative 4 would be exactly the same as the Affected Environment for these regions of the proposed Project, as described in Section 3.13.2.2.

Southern Region

Existing Roadway Network

The roadway network crossed by Alternative 4 would be similar to that of the proposed Project; however, the rerouted portion of this alternative would avoid crossing approximately 63 roadway segments crossed by Segment 8 of the proposed Project in the Chino and Chino Hills areas.

Approximately 85 roadway segments in the Southern Region would be directly or indirectly affected by construction of Alternative 4. The major roadways that would be potentially affected by construction of Alternative 4 are summarized below in Table 3.13-10. All four routing options of Alternative 4 would cross the same major roadways. All four routing options of Alternative 4 would avoid crossing six major roadways that would be crossed by the proposed Project route, including Chino Hills Parkway, SR71, Hope Street, Central Avenue, Edison Avenue, Mountain Avenue, and SR83. All four routing options of this alternative would also cross SR142. However, after crossing SR142, the number of smaller public and private roads crossed by Alternative 4 would vary slightly among the four routes. However, for purposes of this environmental setting, the four routes are substantially the same.

Table 3.13-10. Alternative 4 Southern Region Major Road Crossings

Roadway	Description	Crossing Location	Jurisdiction	ADT
Paramount Boulevard	5 lanes	S8 MP 1.1	City of Montebello	17,000
SR60	10 lanes	S8 MP 1.1	Caltrans	250,000
Town Center Drive	4 lanes	S8 MP 1.2	City of Montebello	NA
Montebello Boulevard	4 lanes	S8 MP 1.3	City of Montebello	NA
San Gabriel Boulevard	4 lanes	S8 MP 2.1	Los Angeles County	30,000
SR19 (Rosemead Blvd)	4 lanes	S8 MP 2.8	Los Angeles County	40,000
Interstate 605	8 lanes	S8 MP 4.4	Caltrans	264,000
Peck Road	4 lanes	S8 MP 4.7	Los Angeles County	27,000
Colima Road	4 lanes	S8 MP 9.5	Los Angeles County	28,000
Hacienda Boulevard	6 lanes	S8 MP 10.5	Los Angeles County	19,000
Fullerton Road	4 lanes	S8 MP 13.5	Los Angeles County	39,000
Pathfinder Road	4 lanes	S8 MP 13.6	Los Angeles County	29,000
SR57	8 lanes	S8 MP 17	Caltrans	216,000
SR142	2 lanes	S8 MP 21.3	San Bernardino county	30,000

Sources: Caltrans, 2007; Los Angeles County, 2008; SCE, 2007a

Transit and Rail Services

The transit and rail lines crossed by Alternative 4 in the Southern Region would be the same as those crossed by Segment 8 of the proposed Project, as described above in Section 3.13.2.2, with the exception that Routes A through D would not cross the Omnitrans line 65.

Bicycle Facilities

From S8A MP 0 to S8A MP 19.2, Alternative 4 would cross the same bike routes as the proposed Project, as described in Section 3.13.2.2. Because Alternative 4 would deviate from the proposed Project route at MP S8A 19.2 it would not cross the Class II bike path along Edison Avenue between Magnolia Avenue and Cypress Avenue near MP 28.5, and a Class I bike path located north of Edison Avenue

between Cypress Avenue and Euclid Avenue near MP 29.5. The Alternative 4 routes would also cross through the CHSP, which has several trails used for hiking and biking. The four different routing options (Routes A through D) which are included under Alternative 4 are discussed in further detail below.

Route A. As described in Table 3.13-11, below, the proposed path for Alternative 4 Route A would traverse, or be located in close proximity to, 12 different fire trails, roads, and/or trails.

Table 3.13-11. Biking and Hiking Trails within One Mile of Alternative 4, Route A

Project Component	Jurisdiction	Recreational Resource	Description	Proximity of Resource Route A Alignment
S8A MP 22.0	CHSP	Gilman Peak	Popular viewpoint and hiking destination (1,685 feet)	0.9 mile to the south
S8A MP 23.2	CHSP	North Ridge Trail (Fire Road)	Strenuous ridgeline trail on north side of slope; trails runs along the northern park boundary in this section	Direct crossing
		Sycamore Trail (Fire Road)	Maintained dirt road and multi-use trail; connects North Ridge Trail (to the north) with Telegraph Canyon Trail (to the south)	0.25 mile to the southwest
S8A MP 23.9	CHSP	McDermont Trail (Fire Road)	Connects North Ridge Trail (to the north) with Telegraph Canyon Trail (to the south)	Direct crossing
S8A MP 24.1	CHSP	Trail	Connects McDermott Fire Trail with Four Corners Rest Area	Direct crossing
S8A MP 24.4	CHSP	Trail (Fire Road)	Connects Four Corners Rest Area to northern Park boundary	Direct crossing
S8A MP 24.5	CHSP	Raptor Ridge Trail	Ridgeline hiking trail; mountain biking and equestrian use not allowed	Direct crossing
S8A MP 24.5 – 25.5	CHSP	South Ridge Trail	Trailhead at Rolling M Ranch; steep trail (also a Fire Road) leads to San Juan Hill (the highest point in CHSP) and Four Corners Rest Area	0.3 – 0.6 mile to the south
S8A MP 24.6 and 24.8	CHSP	Hills For Everyone Trail (via Telegraph Canyon Trail)	Trailhead one mile down Telegraph Canyon Trail; popular single-track trail; ends at Four Corners Rest Area	Direct crossings
S8A MP 24.75	CHSP	Telegraph Canyon Trail	Trailhead at Rolling M Ranch; travels easterly along ridgelines to the Four Corners Rest Area and beyond Four Corners (for 6 miles) to the Carbon Canyon park entrance (Orange County); 16 miles R/T between Rolling M and Carbon Canyon	0.05 mile to the southeast
S8A MP 25.0	CHSP	Raptor Ridge Trail (Fire Road)	Maintained dirt road; ridgeline trail	Direct Crossing
S8A MP 25.3	CHSP	Fire Road Trail	Connects Hills For Everyone Trail and Telegraph Canyon Trail (to the south) with Raptor Ridge Trail (to the north)	
S8A MP 25.5	CHSP	Upper Aliso Canyon Trail (Fire Road)	Trailhead north of Rolling M red barn; popular hiking trail for families with small children; connects to Raptor Ridge and Four Corners Rest Area	0.75 mile to the east

Source: CHSPIA, 2007

Route B. As described in Table 3.13-12, below, the proposed path for Alternative 4 Route B would traverse, or be located in close proximity to, 12 different fire trails, roads, and/or trails.

Table 3.13-12. Biking and Hiking Trails within One Mile of Alternative 4, Route B

Project Component	Jurisdiction	Recreational Resource	Description	Proximity of Resource to Route B Alignment
S8A MP 24.5	CHSP	Raptor Ridge Trail	Ridgeline hiking trail; mountain biking and equestrian use not allowed	Direct crossing
S8A MP 24.5 – 25.5	CHSP	South Ridge Trail	Trailhead at Rolling M Ranch; steep trail (also a Fire Road) leads to San Juan Hill (the highest point in CHSP) and Four Corners Rest Area	0.3 – 0.6 mile to the south
S8A MP 24.6 and 24.8	CHSP	Hills For Everyone Trail (via Telegraph Canyon Trail)	Trailhead one mile down Telegraph Canyon Trail; popular single-track trail; ends at Four Corners Rest Area	Direct crossings
S8A MP 24.75	CHSP	Telegraph Canyon Trail	Trailhead at Rolling M Ranch; travels easterly along ridgelines to the Four Corners Rest Area and beyond Four Corners (for 6 miles) to the Carbon Canyon park entrance (Orange County); 16 miles R/T between Rolling M and Carbon Canyon	0.05 mile to the southeast
S8A MP 25.0	CHSP	Raptor Ridge Trail (Fire Road)	Maintained dirt road; ridgeline trail	Direct Crossing
S8A MP 25.3	CHSP	Fire Road Trail	Connects Hills For Everyone Trail and Telegraph Canyon Trail (to the south) with Raptor Ridge Trail (to the north)	
S8A MP 25.5	CHSP	Upper Aliso Canyon Trail (Fire Road)	Trailhead north of Rolling M red barn; popular hiking trail for families with small children; connects to Raptor Ridge and Four Corners Rest Area	0.75 mile to the east
S8A MP 26.2	CHSP	Upper Aliso Canyon Trail (Fire Road)	Trailhead north of Rolling M red barn; popular hiking trail for families with small children; connects to Raptor Ridge and Four Corners Rest Area	Direct Crossing
S8A MP 26.6	CHSP	Bane Ridge Hiking Trail	Popular ridgeline hiking trail; connects northern Park entrance with Rolling M Ranch; runs parallel to Bane Canyon Road	Direct crossing
S8A MP 26.7 - 27.4	CHSP	Fire Road Trail	Connects Bane Ridge Trail (to the west) with East Fence Line Trail (to the east)	Multiple direct crossings
S8A MP 26.8	CHSP	Bane Canyon Road	Maintained dirt road heads south from the Bane Canyon Park Entrance; popular multi-use trail	Direct crossing
S8A MP 27.3	CHSP	East Fence Line Trail	Access via Bane Canyon Road; travels east and south along the eastern border of the CHSP; connects via a Fire Trail to McLean Overlook	Direct crossing

Source: CHSPIA, 2007

Route C. As described in Table 3.13-13, below, the proposed path for Route C would traverse, or be located in close proximity to, six different fire trails, roads, and/or trails.

Table 3.13-13. Biking and Hiking Trails within One Mile of Alternative 4, Route C

Project Component	Jurisdiction	Recreational Resource	Description	Proximity of Resource to Route C Alignment
S8A MP 19.2	Los Angeles County	Firestone Scout Reservation	Mostly undeveloped with vacant land and some OHV roads along ridgelines in north; access and facilities are along Tonner Canyon	0.19 mile to the southeast; Tonner Canyon is 0.95 mile to the southwest
S8A MP 23.2 – 24.0	San Bernardino County	North Ridge Trail (Fire Road); CHSP	Strenuous ridgeline trail on north side of slope; trails runs along the northern park boundary in this section	Adjacent to the south (trail is within CHSP)

Table 3.13-13. Biking and Hiking Trails within One Mile of Alternative 4, Route C

Project Component	Jurisdiction	Recreational Resource	Description	Proximity of Resource to Route C Alignment
S8A MP 23.2 – 24.7	San Bernardino County	Telegraph Canyon Trail	Trailhead at Rolling M Ranch; travels easterly along ridgelines to the Four Corners Rest Area and beyond Four Corners (for 6 miles) to the Carbon Canyon park entrance (Orange County); 16 miles R/T between Rolling M and Carbon Canyon	Within 0.6 – 0.7 mile to the south (trail is within CHSP)
S8A MP 24.1	San Bernardino County	McDermont Trail	Connects North Ridge Trail (to the north) with Telegraph Canyon Trail (to the south)	0.2 mile to the south (trail is within CHSP)
S8A MP 24.4	San Bernardino County	Four Corners Rest Area	Popular rest area and convergence point for multiple trails, including Telegraph Canyon Trail and Hills For Everyone Trail	0.55 mile to the south (Four Corners is within CHSP)
S8A MP 24.7	San Bernardino County	Raptor Ridge Hiking Trail and Fire Road Trail	Ridgeline hiking trail; mountain biking and equestrian use are only allowed on the Fire Road (maintained dirt road) portion of the trail	0.2 mile to the southeast from new switching station (trail is within CHSP)
		Hills For Everyone Trail	Trailhead one mile down Telegraph Canyon Trail; popular single-track trail; ends at Four Corners Rest Area	0.4 mile to the south (trail is within CHSP)

Source: CHSPIA, 2007

Route D. As described in Table 3.13-14, below, the proposed path for Alternative 4 Route D would traverse, or be located in close proximity to, five different fire trails, roads, and/or trails.

Table 3.13-14. Biking and Hiking Trails within One Mile of Alternative 4, Route D

Project Component	Jurisdiction	Recreational Resource	Description
S8A MP 23.2 – 24.0	San Bernardino County	North Ridge Trail (Fire Road); CHSP	Strenuous ridgeline trail on north side of slope; trails runs along the northern park boundary in this section
S8A MP 27.1	CHSP	Fire Road Trail	Connects Bane Canyon Road to Bane Ridge trails and Upper Aliso Canyon
S8A MP 27.4	CHSP	Bane Canyon Road	Maintained dirt road heads south from the Bane Canyon Park Entrance; popular multi-use trail Popular ridgeline hiking trail; connects northern Park entrance with Rolling M Ranch; runs parallel to Bane Canyon Road
		Bane Canyon Trail (Fire Road)	Popular ridgeline hiking trail; connects northern Park entrance with Rolling M Ranch; runs parallel to Bane Canyon Road
S8A MP 28.2	CHSP	East Fence Line Trail	Access via Bane Canyon Road; travels east and south along the eastern border of the CHSP; connects via a Fire Trail to McLean Overlook

Source: CHSPIA, 2007

Air Transportation

The LA/Ontario International Airport is located within the following distances from the eastern terminus of each Route:

- 5.3 miles from Route A
- 3.3 miles from Route B
- 3.3 miles from Route C
- 2.9 miles from Route D

3.13.2.5 Alternative 5: Partial Underground Alternative

This alternative would utilize underground construction in place of the proposed overhead line construction following generally the same route as the proposed Project from MP 8A 21.9 to MP 8A 25.4. New underground facilities would not replace existing aboveground facilities, and transition stations would be required at each end of an underground segment to transfer the transmission lines from overheard to underground and vice versa. Therefore, the existing Traffic and Transportation setting would be identical to that of the proposed Project as described in Section 3.13.2.2.

Construction activities associated with installation of the underground segment for Alternative 5 would occur at both the Western Transition Station and the Eastern Transition Station, although tunnel boring and excavation activities would be limited to the Eastern Transition Station. Excavated material would be removed from the tunnel at the Eastern Transition Station site as the depth to the tunnel would be approximately 100 feet at this location, as opposed to approximately 420 feet at the Western Transition Station site. Construction of this alternative would result in an increase in the total number of construction equipment and workforce required to travel to the site compared to the proposed Project—particularly related to haul trips required for excavation of the underground tunnel. However, haul trips associated with Alternative 5 would occur all day long and would not increase the total number of peak-hour trips compared to the proposed Project. Additionally, construction of the underground portion of Alternative 5 would add approximately 24 months to the duration of construction activities for Segment 8. Therefore the peak number of daily worker commute trips and equipment deliveries for this alternative would be approximately the same as those for the proposed Project.

Northern and Central Regions

The Affected Environment for the Northern and Central Regions of Alternative 5 would be exactly the same as the Affected Environment for these regions of the proposed Project, as described in Section 3.13.2.2.

Southern Region

The Affected Environment for the Southern Region of Alternative 5 is identical to the proposed Project, except for a portion of Segment 8A from MP 8A 21.9 to MP 8A 25.4 which follows the same route as the proposed Project but would be located underground rather than aboveground.

Existing Roadway Network

The roadway network crossed by Alternative 5 would be the same as that of the proposed Project; with the exception that the underground portion of this alternative would avoid aboveground crossings of approximately 11 roadway segments crossed by Segment 8 of the proposed Project from MP 8A 21.9 to MP 8A 25.4. Alternative 5 would cross under Chino Hills Parkway and 10 smaller residential roadways.

Transit and Rail Services

The transit and rail lines crossed by Alternative 5 in the Southern Region would be the same as those crossed by Segment 8 of the proposed Project, as described above in Section 3.13.2.2.

Bicycle Facilities

Although a portion of Alternative 5 would be placed underground from S8A MP 0 to S8A MP 21.9, this alternative would cross the same designated bike routes as the proposed Project, as described in Section 3.13.2.2.

3.13.2.6 Alternative 6: Maximum Helicopter Construction in the ANF Alternative

Implementation of this alternative would result in using helicopters to construct a total of 143 of the new towers along the portions of Segment 6 and Segment 11 that are located within the ANF (under Alternative 2 approximately 33 towers would be constructed by helicopter). The transmission route of Alternative 6 would be identical to that of the proposed Project and would therefore cross and affect the same roadways, rail lines, bikeways, and pedestrian paths, as the proposed Project. Therefore, the Affected Environment for Alternative 6, with regard to traffic and transportation would be exactly the same as that of the proposed Project as described in Section 3.13.2.2.

Construction of this alternative may result in a slight increase in the total number of construction equipment and workforce required to travel to the helicopter staging areas, as well as a slight increase in the overall construction schedule for Segment 6 and Segment 11.

3.13.2.7 Alternative 7: 66-kV Subtransmission Alternative

Alternative 7 is identical to the proposed Project except that implementation of this alternative would result in:

- installing one mile of the 66 kV portion of Segment underground (from S7- MP 8.9 – S7-MP 9.9),
- rerouting and undergrounding an approximately 0.8-mile portion of Segment 7 underground (from S7- MP 8.9 – S7-MP 9.9), and
- 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.

Construction of the underground portions of Alternative would be completed by traditional direct-bury methods along the majority of the underground alignment with the exception of one channel crossing, which would require boring. Construction of Alternative 7 would generally be the same as the proposed Project; however, there would be some additional temporary land disturbance associated with the underground 66-kV subtransmission lines along Segment 7. New access and spur roads may also be required for the new approximately 1,200 foot ROW for a San Gabriel River crossing within Segment 8A associated with the overhead reroute. In general, land disturbance would be similar to that of the proposed Project.

The Affected Environment for Alternative 7 would be exactly the same as the Affected Environment for the proposed Project, as described in Section 3.13.2.2, with the exception of the existing roadway network within the Central and Southern Regions.

Central Region

The Affected Environment for the Central Region of Alternative 7 is identical to the proposed Project, except for how locating two portions of Segment 7 from MP 8.9 to MP 9.9 and from MP 11.4 to 12.025 underground would affect the existing roadway network and transit services as described below.

Existing Roadway Network

The roadway network crossed by Alternative 7 would be the same as that of the proposed Project; with the exception that the underground portions of this alternative would avoid aboveground crossings of Valley Boulevard, Peck Road, and Durfee Avenue. Additionally, the underground portion of this alternative would cross Valley Boulevard and would be constructed directly adjacent to a 300-foot segment of Peck Road and a 3,000-foot segment of Durfee Avenue.

Transit and Rail Services

Transit services along roads that would be crossed by or directly adjacent to the underground portions of Alternative 7 include Foothill Transit Routes 493, 497, 498, 499, and Silver Streak, and Los Angeles Metro Route 270.

Southern Region

The Affected Environment for the Southern Region of Alternative 7 is identical to the proposed Project, except for how the relocation of an approximately 1.63-mile portion of Segment 8A approximately 1,000 feet to the south would affect the existing roadway network as described below.

Existing Roadway Network

The roadway network crossed by Alternative 7 would be the same as that of the proposed Project; with the exception that the rerouted portion of this alternative would require two more overhead crossings of San Gabriel Boulevard than the proposed Project.

3.13.3 Applicable Laws, Regulations, and Standards

Construction of the Project could potentially affect access, traffic flow patterns, parking, transit, and bicycle facilities on public streets and highways. Therefore, it is necessary for SCE and/or the construction contractor to obtain encroachment permits or similar legal agreements from the public agencies responsible for the affected roadways and other applicable ROWs. Such permits are needed for ROWs that would be crossed by the transmission line as well as where construction activities would require the use of ROWs and easements for parallel installations. For the proposed Project, encroachment permits would be issued by Caltrans, and the various counties and cities through which the transmission line route would traverse. The proposed Project, including all helicopter construction activities, would also be required to comply with all appropriate regulations of the FAA and Restricted Military Areas.

3.13.3.1 Federal

Title 49, Code of Federal Regulations (CFR), Parts 171-177 governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles. To comply with the hazardous materials regulations, SCE would follow the guidelines set forth by the Federal Motor Carrier Safety Administration.

As part of the overall Special Use application process, the Applicant would be required to obtain approval for any maintenance of USDA Forest System roads or construction and/or maintenance on non-Forest System Roads on NFS lands.

According to Federal Aviation Regulations, Part 77, Section 77.13(a)(1), construction of objects greater than 200 feet tall from the ground surface would require FAA notification via FAA form 7460-1, Notice of Proposed Construction or Alteration, to the Manager of the FAA Air Traffic Division for review and approval of the project. Additionally, according to Section 77.23 (a)(2), objects greater than 200 feet tall from the ground surface, or 200 feet above the elevation of the airport (whichever is higher), that are within three nautical miles of an airport could be considered an obstruction to aviation activities. The obstruction standards would apply at the time of FAA form 7460-1. The Project, including any helicopter construction activities, would be required to comply with all appropriate regulations of the FAA.

3.13.3.2 State

Hazardous Waste Transport

The State of California has promulgated rules for hazardous waste transport that are contained in the California Code of Regulations, Title 26. Hauling would be carried out in accordance with State and federal regulations that include the Resource Conservation and Recovery Act (42 U.S. Code 6901 et seq.) and the California Integrated Waste Management Act (Public Resources Code Sections 40000 et seq.). Additional regulations for the transportation of hazardous materials are outlined in the California Vehicle Code (Sections 2500 505, 12804 804.5, 31300, 3400, and 34500 501). The two State agencies with primary responsibility for enforcing federal and State regulations governing the transportation of hazardous wastes are the CHP and Caltrans.

The use of State highways for other than transportation purposes requires an encroachment permit, Caltrans form TR 0100. This permit is required for utilities, developers, and non-profit organizations for use of the State highway system to conduct activities other than transportation (e.g., landscape work, utility installation, film production) within the ROW. The application would be forwarded to Caltrans District 7, which is where the proposed Project is located.

Military Restrictions

California Government Codes 65352, 65940, and 65944 require local agencies to refer proposed projects to the appropriate branches of the US Armed Forces for review if the project meets at least one of the following criteria:

- Projects located within 1,000 feet of a military installation;
- Projects located beneath a low-level flight path; or,
- Projects located within special use airspace as defined in Section 21098 of the Public Resources Code.

3.13.3.3 Local

Encroachment Permits

Construction of the proposed Project could potentially affect transportation ROWs, access, traffic flow, and parking on public streets and highways. Therefore, it would be necessary for SCE and/or the construction contractor to obtain encroachment permits or similar legal agreements from the public agencies responsible for each affected roadway or other transportation ROW. Such permits are needed for ROWs that would be crossed by the transmission line as well as for where transmission line construction activities would require the use of a public ROW for a parallel installation. These encroachment permits would be issued by Caltrans, the counties of Kern, Los Angeles, and San Bernardino, as well as the numerous cities through which the proposed transmission route traverses.

Congestion Management Programs

Congestion Management Programs (CMPs) define a network of state highways and arterials as well as level of service standards and related procedures for a given regional or local jurisdiction. CMPs within the proposed Project area include those implemented by the counties of Kern, Los Angeles, Orange, and San Bernardino.

The Kern Council of Governments (KCOG) administers the CMP in Kern County. The purpose of the KCOG CMP is to help ensure that a balanced transportation system is developed that relates population

growth, traffic growth and land use decisions to transportation system level of service performance standards and air quality improvement (KCOG, 2007). The Southern California Association of Governments (SCAG) administers the Congestion Management Process for Los Angeles, Orange, and San Bernardino counties. SCAG's Congestion Management Process is a comprehensive strategy designed to relieve traffic congestion and maintain high levels of service on roadways within the Southern California region (SCAG, 2008). SCAG has facilitated efforts by counties and subregions to develop County-level CMPs in cooperation with regional and subregional transportation providers, local governments, Caltrans, and the South Coast Air Quality Management District (SCAG, 2008).

All county CMPs share the same goal of reducing congestion and applying congestion relief strategies. However, there are different priorities in the selection of related strategies based on the needs of each county. Therefore, each county CMP differs in form and local procedure. By state statute, all CMPs must perform the same functions and must be consistent with the federal requirements. Performance standards from each County's CMP are summarized below.

Kern County. Level of Service "E" has been established as the minimum system-wide LOS traffic standard in the Congestion Management Plan. (KCOG, 2007).

Los Angeles County. For purposes of the County Congestion Management Plan, a significant impact occurs when the proposed project increases traffic volume on a Congestion Management Plan facility by two percent of capacity (LACMTA, 2004a).

Orange County. A Traffic Impact Analysis will be required for Orange County Congestion Management Plan purposes for all proposed developments generating 2,400 or more daily trips (OCTA, 2007).

San Bernardino County. Traffic Impact Analysis reports must be prepared to satisfy Congestion Management Plan requirements when a proposed project is forecast to equal or exceed the Congestion Management Plan threshold of 250 two-way peak hour trips generated (SANBAG, 2003).

Military Overflight

Kern County General Plan. Section 2.5.2, Airport Land Use Compatibility Plan (ALUCP), of the Circulation Element of Kern County's General Plan, includes the following policies regarding development in the vicinity of Edwards Air Force Base.

- Policy 1. Review land designations and zoning near public and private airports, Edwards Air Force Base and NAWS China Lake for compatibility.
- Policy 2. To the extent legally allowable prevent encroachment on public airport and military base operations from incompatible, unmitigated land uses.

Kern County ALUCP - Section 1.0 General Applicability. Section 1.7.1(c). Prior to the approval of a proposal involving any type of land use development, as stated in Section 1.6.1, or other review as required by a Specific Plan, specific findings shall be made that such development is compatible with the training and operational missions of the military aviation installations. Incompatible land uses that result in significant impacts on the military mission of Department of Defense installations or to the Joint Service Restricted R-2508 Complex that cannot be mitigated, shall not be considered consistent with this plan.

Kern County Zoning Ordinance. Section 19.08.160, Height of Structures, of the Kern County Zoning Ordinance restricts the height of structures or buildings to the maximum permitted heights shown in Figure 19.08.106 of the ordinance unless the military authority responsible for operations in that flight area first provides the planning director with written concurrence that the height of the proposed structure or building would create no significant military mission impacts (Kern County, 2007c).

3.13.4 Impact Analysis Approach

3.13.4.1 Criteria for Determining Impact Significance

To satisfy CEQA requirements, conclusions are made regarding the significance of each identified impact that would result from the proposed Project and alternatives. Appropriate criteria have been identified and utilized to make these significance conclusions. The following significance criteria for Traffic and Transportation were derived from previous environmental impact assessments and from the CEQA Guidelines (Appendix G, Environmental Checklist Form, Section IX). Impacts of the proposed Project or alternatives would be considered significant and would require mitigation if:

- Criterion TRA1: A major roadway (arterial or collector classification) would be closed to through traffic as a result of construction activities and there would be no suitable alternative route available; or the installation of the transmission line within, adjacent to, or across a roadway would reduce the number of, or the available width of, one or more travel lanes during the peak traffic periods, resulting in a temporary substantial disruption to traffic flow and/or substantial increased traffic congestion.
- Criterion TRA2: An increase in vehicle trips associated with construction workers or equipment would result in an unacceptable reduction in level of service on the roadways in the Project vicinity.
- Criterion TRA3: Construction activities would temporarily restrict access to or from adjacent land uses and there would be no suitable alternative access.
- Criterion TRA4: Construction activities or operations would restrict the movements of emergency vehicles (police cars, fire trucks, ambulances, paramedic units) and there would be no reasonable alternative access routes available.
- Criterion TRA5: Construction activities would disrupt bus transit service and there would be no suitable alternative routes or stops.
- Criterion TRA6: Construction activities within, adjacent to, or across a railroad right-of-way would result in a temporary disruption of rail traffic.
- Criterion TRA7: Construction activities would impede pedestrian movements or bike trails in the construction area and there would be no suitable alternative pedestrian/bicycle access routes.
- Criterion TRA8: Construction activities or staging activities would increase the demand for and/or reduce the supply of parking spaces and there would be no provisions for accommodating the resulting parking deficiencies.
- Criterion TRA9: Construction should not be inconsistent with regional and local transportation plans.
- Criterion TRA10: An increase in roadway wear in the vicinity of the construction zone would occur as a result of heavy truck or construction equipment movements, resulting in noticeable deterioration of a roadway surface or other features in the road ROW.
- Criterion TRA11: A Project structure, crane, or wires were to be positioned such that it could adversely affect aviation activities.

Significance conclusions for individual impacts are not required for compliance with NEPA. Therefore, conclusions presented in the following analysis regarding the significance of identified impacts are provided for the purposes of CEQA only.

3.13.4.2 Applicant-Proposed Measures (APMs)

APMs were identified by SCE in the PEA. Table 3.13-15 presents the APMs that are relevant to the issue area of Traffic and Transportation. APMs are a commitment by the Applicant (SCE) and are considered part of the proposed Project. Therefore, the following discussions of impact analysis assume that all

APMs will be implemented as defined in the table. Additional mitigation measures are recommended in this section if it is determined that APMs do not fully mitigate the impacts for which they are presented.

Table 3.13-15. Applicant-Proposed Measures – Traffic and Transportation	
APM TRA-1	Minimize Street Use. Construction activities would be designed to minimize work on or use of local streets.
APM TRA-2	Obtain Permits. When local streets must be used for more than normal traffic purposes, an encroachment permit or similar authorization would be obtained from Caltrans, County, and/or local jurisdictions (or other agency), as applicable.
APM TRA3	Incorporate Protective Measures. Any construction or installation work requiring the crossing of a local street, highway, or rail line would incorporate the use of guard poles, netting, or similar means to protect moving traffic and structures from the activity. If necessary on state highways, continuous traffic breaks operated by the CHP would be planned and provided.
APM TRA-4	Prepare Traffic Management Plans. Traffic control and other management plans would be prepared where necessary to minimize project impacts on local streets.
APM TRA-5	Repair Damaged Streets. Any damage to local streets would be repaired, and streets would be restored to their pre-project condition.

3.13.4.3 Impact Assessment Methodology

This analysis first established baseline conditions for the affected environment of Traffic and Transportation, presented above in Section 3.13.2, which included a description of the major roadways that would be affected by construction of the proposed Project. 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 were identified based on analysis provided in SCE's PEA. These activities were used as inputs into an impact assessment model that includes several variables, such as timing and location of construction activities, traffic volumes, road crossings, and proximity to airports. Impacts to Traffic and Transportation were then identified based on the predicted interaction between construction, operation, and maintenance activities with the affected environment.

3.13.5 Alternative 1: No Project/Action

Selection of the No Project/Action Alternative would mean that the proposed TRTP would not be implemented. As such, none of the associated Project activities would occur and the environmental impacts associated specifically with the proposed Project would not occur. Particularly no construction-related traffic would be added to the roadway system and no temporary road closures related to transmission line stringing activities would occur.

However, under the No Project/Action Alternative, some currently unknown plan would need to be developed to provide the transmission upgrades necessary to interconnect renewable generation projects in the Tehachapi area and to also address the existing transmission problems south of Lugo Substation. Similarly, other yet unspecified transmission upgrades would presumably be proposed in the future to provide the needed capacity and reliability to serve growing electrical load in the Antelope Valley. To interconnect wind projects in the Tehachapi area, it is possible that other electrical utilities with transmission facilities in the area, such as LADWP, might purchase some of the power from Tehachapi wind developers and integrate it into their system. Another possibility is the development of a private transmission line that could connect wind projects to the electrical grid. Any of these projects, which would occur as a result of the unfulfilled electrical transmission need in the absence of TRTP, are likely to produce similar impacts as those identified for the proposed Project. Transmission line construction utilizes some standard techniques such as tower construction and transmission line stringing which would

result in the addition of construction-related traffic to roadways as well as temporary road closures, which would have similar traffic impacts regardless of the specific configuration of the transmission line.

3.13.6 Alternative 2: SCE's Proposed Project

3.13.6.1 Direct and Indirect Effects Analysis

Closure of roads or reduction of travel lanes (Criterion TRA1)

Impact T-1: Closure of roads to through traffic or reduction of travel lanes would result in substantial congestion.

Construction of the proposed Project could result in roadway closures at locations where the construction activities, especially transmission line stringing, would be located within ROWs of public streets and highways. Although temporary closures of this nature would likely occur for only a few minutes at a time, even temporary road closures on roads with ADT greater than 10,000 vehicles per lane could substantially disrupt traffic flow and substantially increase traffic congestion, particularly if road closures occurred during a.m. or p.m. peak hours of travel. In addition, delivery of large equipment and materials via truck would also require temporary closures.

Northern Region

The Northern Region would require transmission line stringing over SR14, Elizabeth Lake Road, and Sierra Highway, as well as various other Kern County and Los Angeles County roads, as presented above in Table 3.13-4.

Central Region

As presented above in Table 3.13-5, transmission line stringing activities in the Central Region would require temporary closures of several freeways, highways and collector roads with high volume ADT, including I-210, I-605, SR60, SR19, I-10, and Huntington Boulevard, as well as several local municipal and Los Angeles County collector roads.

Southern Region

As presented above in Table 3.13-8, transmission line stringing activities in the Southern Region would require temporary closures of several freeways, highways and collector roads with high volume ADT, including SR60, SR19, I-605, SR57, SR71, SR83, and Fullerton Road, as well as stringing over several local municipal, Los Angeles County, and San Bernardino County collector roads.

SCE has committed to APMs TRA-1 (Minimize Street Use), TRA-2 (Obtain Permits), TRA-3 (Incorporate Protective Measures), and TRA-4 (Prepare Traffic Management Plans), which are summarized below and described in detail above in Table 3.13-15. APM TRA-1 requires construction activities be designed to minimize work on or use of local streets. APM TRA-2 requires obtaining encroachment or other permits as necessary when construction would require local streets to be used for more than normal traffic purposes. APM TRA-3 requires use of guard poles, netting, or similar means to protect moving traffic and structures when construction requires the crossing of local streets, highways, or rail lines. This measure would also require continuous traffic breaks operated by the CHP on state highways, if necessary be planned and provided. APM TRA-4 would require preparation of a traffic control plan where necessary to minimize Project impacts on local streets.

Mitigation Measures for Impact T-1

T-1a **Prepare Traffic Control Plans.** Prior to the start of construction, SCE shall submit Traffic Control Plans (TCPs) to all agencies with jurisdiction over public roads that would be affected by overhead construction activities as part of the required traffic encroachment permits. TCPs shall define the locations of all roads that would need to be temporarily closed due to construction activities, including aerial hauling by helicopter and conductor stringing activities. The TCPs shall define the use of flag persons, warning signs, lights, barricades, cones, etc. to provide safe work areas and to warn, control, protect, and expedite vehicular and pedestrian traffic. The measures included in the TCPs shall be consistent with the standard guidelines outlined in the Caltrans Traffic Manual, the Standard Specifications for Public Works Construction, and the Work Area Traffic Control Handbook (WATCH). Copies of the TCPs shall be sent to the FS and to the planning/or traffic departments of the affected local jurisdictions at least 30 days prior to the start of construction.

TCPs shall also include measures to avoid disruptions or delays in access for emergency service vehicles and to keep emergency service agencies fully informed of road closures, detours, and delays. Police departments, fire departments, ambulance services, and paramedic services shall be notified at least one month in advance by SCE of the proposed locations, nature, timing, and duration of any construction activities and advised of any access restrictions that could impact their effectiveness. Provisions shall be ready at all times to accommodate emergency vehicles, such as immediately stopping work for emergency vehicle passage, short detours, and alternate routes developed in conjunction with local agencies. TCPs shall also identify all emergency service agencies, include contact information for those agencies, assign responsibility for notifying the service providers, and specify coordination procedures. Copies of the TCPs shall be provided to all affected police departments, fire departments, ambulance and paramedic services. Documentation of coordination with service providers shall be provided to the CPUC and FS 30 days prior to the start of construction.

T-1b **Restrict lane closures.** To minimize traffic congestion and delays during construction to the extent feasible, SCE shall restrict all necessary lane closures or obstructions on major roadways, as designated by applicable County and City General Plans, associated with overhead construction activities to off-peak periods only. Unless absolutely necessary, lane closures must not occur between the peak hours of 6:00 and 9:00 a.m. and between the peak hours of 3:30 and 6:30 p.m., or as directed in writing by the affected public agency in the encroachment permit.

CEQA Significance Conclusion

Implementation of Mitigation Measures T-1a (Prepare Traffic Control Plans) and T-1b (Restrict lane closures), in addition to AMPs TRA-1, TRA-2, TRA-3, and TRA-4 would reduce the potential for substantial congestion as a result of construction-related roadway closures. APMs TRA-1 through TRA-4 require minimizing use of streets, obtaining relevant permits, preparation of traffic control plans and use of guard structures, netting, and traffic breaks to protect traffic. Additionally, to ensure that the traffic control plans required under APM TRA-4 address temporary road and lane closures that would be required during construction of the proposed transmission line, Mitigation Measures T-1a and T-1b are proposed. Implementation of these measures would reduce Impact T-1 to a less-than-significant level (Class II).

Unacceptable level of service reduction to vicinity roads (Criterion TRA2)

Impact T-2: Construction traffic would result in congestion on area roadways.

Construction of the proposed Project would generate additional traffic on regional and local roadways. Construction worker commute trips, Project equipment deliveries, and hauling materials such as support towers, concrete, conductor, and excavation spoils would increase existing traffic volumes in the Project area.

Workers commuting to construction sites would increase traffic in the Project area. Approximately 300 workers in separate construction crews, each comprised of between two and 100 workers, would work on the various aspects of the proposed Project over a 55-month period. An average of approximately 75 workers would commute to various locations along the proposed route ROW each workday. Transmission line workers would be dispersed in groups throughout the Project area and would not typically be working at the same place at any one time. Haul truck traffic would include trucks carrying equipment and materials, spoils for disposal, and new and old tower support pieces. Trips would be made to and from various points along the transmission line route. The exact routes and scheduling of truck trips are not known at this time.

Northern Region

The Project-related commute traffic and construction truck/equipment activity is expected to be dispersed over the entire Project area and dispersed over time. Traffic volumes in the Northern Region are generally low to moderate. However, it is possible that Project-related construction traffic could contribute to congestion on heavily traveled roads such as SR14 and Elizabeth Lake Road or along narrow roadway segments.

Central Region

Construction vehicles would be added to several roadways in the Central Region that currently experience high traffic volumes, including I-210, I-605, SR60, SR19, I-10, and Huntington Boulevard, as well as several local municipal and Los Angeles County collector roads. Although Project-related commute traffic and construction truck/equipment activity is expected to be dispersed over the entire Project area and dispersed over time, given the dense urban development of this area and the high volumes of traffic on major roadways, it is likely that Project-related construction traffic could contribute to congestion.

Southern Region

Construction vehicles would be added to several roadways in the Southern Region that currently experience high traffic volumes, including SR60, SR19, I-605, SR57, SR71, SR83, and Fullerton Road, as well as stringing over several local municipal, Los Angeles County, and San Bernardino County collector roads. Although Project-related commute traffic and construction truck/equipment activity is expected to be dispersed over the entire Project area and dispersed over time, given the dense urban development of this area and the high volumes of traffic on major roadways, it is likely that Project-related construction traffic could contribute to congestion.

Mitigation Measure for Impact T-2

T-2 **Prepare Construction Transportation Plan.** Where construction traffic has the potential to significantly affect regional and local roadways by generating additional vehicle trips, SCE shall prepare a Construction Transportation Plan (CTP) describing alternate traffic routes, timing of

commutes, reduction in crew-related traffic, and other mitigation methods for reducing construction-generated additional traffic on regional and local roadways. The CTP shall also require construction workers to park personal vehicles at primary and secondary marshalling yards and carpool to work locations in order to limit the number of construction vehicles on the road. Construction vehicles shall be required to park within the Project ROW or on access roads to the maximum extent possible. SCE shall submit the CTP to Caltrans and the affected local jurisdictions for review and approval at least 30 days prior to commencing construction activities.

CEQA Significance Conclusion

Construction vehicles would be added to several roadways throughout the Project area that currently experience high traffic volumes throughout all three regions of the proposed Project. Implementation of Mitigation Measure T-2 (Prepare Construction Transportation Plan) would reduce the number of construction-related vehicles traveling on regional and local roadways. Implementation of this measure would reduce Impact T-2 to a less-than-significant level (Class II).

Restricted access to properties (Criterion TRA3)

Construction of the proposed Project would not restrict access to driveways or otherwise affect access for the adjacent residences, institutions, businesses, and other uses. The proposed Project would not include any trenching or other excavation in road ROWs that would impede access to adjacent uses. Therefore, there would be no impact associated with restricted access to properties.

Restrict the movements of emergency vehicles (Criterion TRA4)

Impact T-3: Construction activities could temporarily interfere with emergency response.

Overhead construction activities could interfere with emergency response by ambulance, fire, paramedic, and police vehicles. Potential roadway segments that would be most impacted would be two-lane roadways, which provide one lane of travel per direction. On roadways with multiple lanes, the loss of a lane and the resulting increase in congestion could lengthen the response time for emergency vehicles to pass through the construction zone. Additionally, there is a possibility that emergency services would be needed at a location where access is temporarily blocked by the construction zone.

CEQA Significance Conclusion

Construction activities could interfere with emergency response vehicles. Mitigation Measure T-1a (Prepare Traffic Control Plans) includes measures, such as keeping emergency service agencies fully informed of road closures, detours, and delays and making ready at all times provisions to accommodate emergency vehicles. Additionally, Mitigation Measure T-1b (Restrict lane closures) would reduce the potential for roadway congestion to occur, which would also reduce the potential for interference with emergency services. Implementation of Mitigation Measures T-1a and T-1b would reduce Impact T-3 to a less-than-significant level (Class II).

Disruption to transit service (Criterion TRA5)

Impact T-4: Construction activities could temporarily disrupt transit routes.

Overhead stringing activities that would require short-term road closures associated with construction of the proposed transmission line would disrupt transit routes. Potential impacts would include scheduling delays and temporary bus reroutes.

Northern Region

The proposed transmission line route would not cross any of the AVTA local transit routes (AVTA, 2007). At its point of closest approach, the Segment 5 transmission route is approximately 1.25 miles to the west of the nearest Route 5 stop. However, the route would cross SR14, which is used by AVTA commuter bus routes 785 (to downtown Los Angeles), 786 (to West Los Angeles and Century City), and 787 (to West San Fernando Valley) (SCE, 2007a). Segment 5 would cross the UPRR/Metrolink line near the Vincent Grade/Acton Metrolink Station at approximately MP 16.7.

Central Region

The proposed transmission line routes of Segment 7 and Segment 11 of the proposed Project would cross several transit routes operated by the Los Angeles Metropolitan Transit Authority, Foothill Transit, Pasadena Area Transit System, Montebello Municipal Bus Lines, and Norwalk Transit District. Individual routes in the Central Region that would be crossed by Segment 7 and Segment 11 are presented above in Table 3.13-6 and Table 3.13-7, respectively. Segment 11 would cross the light rail Metro Gold Line at approximately MP 27.5 as well as UPRR and Metrolink lines at approximately MP 31.5 and MP 33.0, respectively. Segment 7 would cross the Metrolink rail line at approximately MP 8.9.

Southern Region

The proposed transmission line route of Segment 8 of the proposed Project would cross several transit routes operated by the Los Angeles Metropolitan Transit Authority, Foothill Transit, Montebello Municipal Bus Lines, Norwalk Transit District, and Omnitrans. Individual routes in the Southern Region that would be crossed by Segment 8 are presented above in Table 3.13-9.

Mitigation Measure for Impact T-4

T-4 **Avoid disruption of bus service.** SCE will coordinate with the Los Angeles Metropolitan Transit Authority, Foothill Transit, Pasadena Area Transit System, Montebello Municipal Bus Lines, Norwalk Transit District, and Omnitrans at least 30 days prior to construction in the respective service territory of each agency noted to reduce potential interruption of bus transit services. Documentation of coordination efforts shall be submitted to the CPUC upon request.

CEQA Significance Conclusion

Construction of the proposed transmission line would disrupt transit routes. Mitigation Measure T-4 (Avoid disruption of bus service) includes measures, such as coordination with transit providers, to avoid interruption of bus service. Implementation of this measure would reduce Impact T-4 to a less-than-significant level (Class II).

Disruption to rail traffic (Criterion TRA6)

Impact T-5: Construction activities would cause a temporary disruption to rail traffic or operations.

Overhead construction activities could interfere with rail traffic because construction of overhead transmission lines could require temporary use or closure of a railroad ROW. It would be necessary to halt through-rail traffic during stringing operations over railroads. In addition, delivery of large equipment and materials via truck would also require temporary closures. Temporary closures, although likely to occur only for up to a few minutes at a time, could cause back ups with freight and commuter trains and constrain circulation in the area.

Northern Region

Segment 10 of the proposed transmission line route would cross a spur of the UPRR line at approximately MP 1.0 and Segment 5 would pass immediately to the west of the Vincent Grade/Acton Metrolink Station parking lot and across the railroad tracks at approximately MP 16.7.

Central Region

Segment 11 would cross the light rail Metro Gold Line at approximately MP 27.5 as well as UPRR and Metrolink lines at approximately MP 31.5 and MP 33.0, respectively. Segment 7 would cross the Metrolink rail line at approximately MP 8.9.

Southern Region

Segment 8 would cross a UPRR / Metrolink rail line at approximately MP 4.8. APM TRA-3 requires that construction activity requiring the crossing of a rail line would incorporate the use of guard poles, netting, or similar means to protect moving traffic and structures from the activity. However these measures would not preclude the potential for interference with rail traffic.

Mitigation Measure for Impact T-5

T-5 **Obtain and comply with railroad permits.** SCE shall obtain permits/approvals from each of the affected railway operators (Union Pacific Railroad, Metrolink, and/or Amtrak) to ensure construction activities comply with each company's safety requirements and to avoid disruption to or congestion of rail traffic. Copies of permits shall be submitted to the CPUC prior to construction across or adjacent to rail lines.

CEQA Significance Conclusion

Construction of the proposed transmission line would disrupt railroad routes. Mitigation Measure T-5 (Obtain and comply with railroad permits) includes measures, such as coordination with transit providers to ensure safety and avoid interruptions of service. Implementation of this measure would reduce Impact T-5 to a less-than-significant level (Class II).

Impediment of pedestrian movements or bike paths (Criterion TRA7)

Impact T-6: Construction activities could temporarily interfere with the use of pedestrian/bicycle paths.

Pedestrian and bicycle circulation could be affected by transmission line construction activities if pedestrians and bicyclists were unable to pass through the construction zone or if established pedestrian and bike routes were blocked.

Northern Region

Designated bicycle lanes do not exist along the Northern Region portion of the proposed Project route; however this would not necessarily preclude use of roads in this area by bicyclists or pedestrians.

Central Region

Segment 6 of the TRTP route is located within the ANF and would not cross any designated bike routes, which does not necessarily preclude use of roads in this area by bicyclists or pedestrians.

Most of the Segment 7 and Segment 11 routes are located in an urbanized area and would cross or run parallel to several roadways with separated sidewalks. Segment 7 would cross or run parallel to several

designated bike paths and routes including: a Class III route along Royal Oaks Drive in Duarte near MP 1.5; a Class I bike path along the San Gabriel River near MP 10.5; a Class III bike route along Peck Road near MP 11; a Class I bike path in Whittier Narrows Recreation Area near MP 11.5; and a Class I bike bath along Rio Hondo River near MP 13.5. Segment 11 would cross a Class III bicycle path along SR2 in La Canada Flintridge just north of the Gould Substation (La Canada Flintridge, 1994) near MP 18.3. Segment 11 would also cross several Class II and Class III bike paths between MP 26 and MP 29 in Pasadena located along New York Drive, Orange Grove Boulevard., Foothill Boulevard, Del Mar Boulevard, and San Pasqual Street.

Southern Region

Segment 8 would cross several designated bike routes including: Class I bike paths along the Rio Hondo River (MP 2.5), Whittier Narrows Recreation Area (MP 3.5) and the San Gabriel River (MP 4); a Class II bike route along Colima Road near MP 9.5; a Class II bike path along Edison Avenue between Magnolia Avenue and Cypress Avenue near MP 28.5; and a Class I bike path located north of Edison Avenue between Cypress Avenue and Euclid Avenue near MP 29.5.

Mitigation Measure for Impact T-6

T-6 **Ensure pedestrian and bicycle circulation and safety.** Where construction will result in temporary closures of sidewalks or other pedestrian facilities, SCE shall provide temporary pedestrian access, through detours or safe areas along the construction zone. Where construction activity will result in bike route or bike path closures, appropriate detours shall be established and detour signs shall be posted.

CEQA Significance Conclusion

Construction of the proposed transmission line would disrupt pedestrian and bicycle routes. Mitigation Measure T-6 (Ensure pedestrian and bicycle circulation and safety) includes measures, such as providing pedestrian and bicycle access and detours, to avoid such disruption. Implementation of this measure would reduce Impact T-6 to a less-than-significant level (Class II).

Reduction in the supply of parking spaces (Criterion TRA8)

Impact T-7: Construction would result in localized shortages of public parking along the Project ROW.

The proposed transmission line route is an approximately 173-mile long linear route. As such, construction at any one location along the ROW would only occur for a limited amount of time before moving to another location along the ROW. Depending on the activity (tower erection, transmission line stringing, etc.), the duration of construction activities at any one location along the ROW (excluding marshalling yards, which would be utilized throughout construction) would range from a few minutes to a few days. However, construction along the proposed Project ROW would require workers to drive construction vehicles to sites under active construction. Construction workers would park construction vehicles and personnel in the immediate vicinity of active construction. In areas of dense urban or residential development, construction workers may have to park along roadsides, thereby utilizing designated parking spaces.

Northern Region

The Northern Region of the proposed Project is mostly rural and open space with little urban or residential development. The proposed Project route in this region would not traverse areas of dense urban or residential development. Most of the roadways crossed by the proposed Project route in this region are rural and private roads with no designated parking spaces. The major roadways in this region, which are presented in Table 3.13-4, are state highways or local collectors that also lack areas of dense development and designated parking spaces. Construction workers would park along roadsides in this region; however, since there are no areas of concentrated commercial or residential development in this area, use of these roadways for construction parking would not be expected to displace parking opportunities for the public.

Central Region

Segment 6 of the TRTP route is located within the ANF and would not cross any areas of urban or residential development or areas with designated parking spaces. Although construction workers would park along roadsides along this segment, such activities would not be expected to result in a reduction of the local parking space supply.

Portions of Segment 7 (in the immediate vicinity of MP 1 and MP 11) and Segment 11 (MP 25.5 to MP 3 6.5) of the proposed Project would be located in areas of dense residential development. These segments would be constructed within existing ROW, which would allow construction workers to park vehicles in the ROW or on existing ROW access roads. However, depending on the intensity and physical logistics of specific construction activities, construction workers may be required to park along local residential roadways and major collector roads directly crossed by these portions of Segment 7 and Segment 11. The areas at which these segments cross roadways occur in residential areas or between urban centers with areas of commercial businesses or government offices. Therefore, the locations at which construction workers would park would not be expected to experience high rates of public utilization for parking.

Southern Region

Most of Segment 8 would be located in existing ROW in areas of industrial development or open space. Most of the roadways crossed by this segment do not experience high volumes of public street parking. Additionally, since this route would be located within existing ROW, construction workers would be expected to park vehicles within the ROW or on existing ROW access roads. However, a portion of Segment 8 (MP 23 to MP 25.5) would be located in an area of dense residential development in the cities of Chino and Chino Hills. Depending on the intensity and physical logistics of specific construction activities, construction workers may be required to park along local residential roadways and major collector roads directly crossed by Segment 8 in these areas. Such activities may result in the temporary reduction of residential parking space along roadways crossed by Segment 8 in these areas.

CEQA Significance Conclusion

Construction workers would park vehicles along local roadways in residential areas along proposed Project Segments 7, 8 and 11, thereby reducing the availability of parking spaces in these areas. Although the duration of construction activities at any one location along the ROW would be short term and the reduction of parking spaces at any location would be temporary, impacts would be significant. Implementation of Mitigation Measure T-2 (Prepare Construction Transportation Plan) would reduce the number of construction-related vehicles traveling to areas of active construction along the ROW and would require construction vehicles to be parked within the Project ROW or on ROW access roads to the

maximum extent possible, thereby reducing the number of vehicles parked on public roadways. Implementation of this measure would reduce Impact T-7 to a less-than-significant level (Class II).

Construction would be inconsistent with transportation plans (Criterion TRA9)

As described above for Impact T-2, an average of approximately 75 workers would commute to various locations along the proposed route ROW each workday during Project construction. Transmission line workers would be dispersed in groups throughout the Project area and would not typically be working at the same place at any one time. Haul truck traffic would include trucks carrying equipment and materials, spoils for disposal, and new and old tower support pieces. Trips would be made to and from various points along the transmission line route. The dispersion of workers at various worksites along the approximate 173-mile route would preclude project-related construction traffic from exceeding any of the CMP thresholds of the affected counties described above in Section 3.13.3.3. Therefore, there would be no impact with regard to inconsistency with transportation plans.

Impact T-8: Construction would conflict with planned transportation projects.

The proposed Project could conflict with future transportation projects if it would place structures within transportation ROWs that would be developed with new transportation infrastructure.

Northern Region

The proposed transmission route would cross SR14 in the Vincent/Acton area. The Los Angeles County Metropolitan Transportation Authority has a long range plan that includes several alternatives to improve SR14. One alternative under consideration is to construct a new travel lane within the SR14 ROW (LACMTA, 2004b). As a result, general plans of cities in this region are being amended to incorporate corridor improvements as part of their official map, and require developers to dedicate ROW along the alignment. The proposed Project would conflict with the new travel lane if SCE were to place structures within the existing or planned SR14 ROW.

Central Region

No planned transportation projects with which the proposed Project could conflict have been identified in the Central Region of the Project area.

Southern Region

No planned transportation projects with which the proposed Project could conflict have been identified in the Southern Region of the Project area.

Mitigation Measure for Impact T-8

T-8 **Avoid conflicts with planned improvements to SR14.** SCE shall coordinate Project design with the California Department of Transportation and the Los Angeles County Metropolitan Transit Authority to ensure that Project structures are appropriately placed to avoid conflict with potential expansion of SR14.

CEQA Significance Conclusion

The proposed Project would conflict with a new travel lane within SR14 if SCE were to place structures within the existing or planned SR14 ROW, resulting in a significant impact. Mitigation Measure T-8 (Avoid conflicts with planned improvements to SR14) would require coordination with Caltrans and the Los Angeles County Metropolitan Transit Authority to ensure that proposed Project structures would not

be placed such that they would conflict with the future travel lane. Implementation of this measure would reduce Impact T-8 to a less-than-significant level (Class II).

Noticeable deterioration of road surfaces (Criterion TRA10)

Impact T-9: Construction vehicles and equipment could damage road ROWs.

SCE does not expect to cause any physical damage to roads, sidewalks, medians, etc., within public roads or sidewalks. However, there is the potential for unexpected damage to occur on features in road ROWs due to the operation of construction vehicles and equipment. APM TRA-5 (Repair Damaged Streets) would require any damage to local streets to be repaired, and streets be restored to their pre-Project condition.

CEQA Significance Conclusion

APM TRA-5 would ensure that any physical damage to roads, sidewalks, or medians as a result of construction would be restored to their pre-Project condition. Impact T-9 would be less than significant with no mitigation required (Class III).

Adverse effects to aviation activities (Criterion TRA11)

Impact T-10: Project transmission structures could present an aviation hazard.

According to the FAA, objects greater than 200 feet tall from the ground surface, or 200 feet above the elevation of the airport (whichever is higher), that are within three nautical miles of an airport could be considered an obstruction to aviation activities. Potential impacts to navigable airspace could occur during both construction and operation of a transmission line project due to the presence of physical impediments attributable to the proposed Project. Additionally, Projects located within potential military flight test pathways have the potential to result in conflicts between local communities and military installations and training activities.

Northern Region

Three airports are located within three nautical miles of Segment 4 and 5 of the proposed Project. The closest airport is Bohunks Airpark, located approximately one mile east of the Antelope Substation. Skyotee Ranch Airport is located approximately two miles southeast of the proposed Whirlwind Substation. Tehachapi Municipal Airport is located approximately three miles northwest of the Whirlwind Substation. Mojave Airport is located approximately six miles to the east of Segment 4. The height of the single-circuit 500-kV towers used for Segment 4 and Segment 5 would range from 113 feet to 188 feet.

A portion of Segment 4 is located within an area of Kern County that has been identified by Kern County zoning ordinance as one that requires limits to structures for protection of military operations. This is an area where the heights of structures are limited to 200 feet above ground elevation (Kern County, 2007a). As stated above, transmission towers associated with Segment 4 would be less than 200 feet tall and would therefore comply with this ordinance. Segment 4 is also located in Los Angeles County, which does not include similar restrictions in its ordinances. However, this portion of Segment 4 would be located beneath a low level military flight path (CMLUCA, 2008). California Government Codes 65352, 65940, and 65944 require local agencies to refer proposed projects that would be located beneath low level military flight paths to the appropriate branches of the US Armed Forces for review to ensure that project structures would not create land use conflicts between local communities and military installations and training activities. However, the proposed Project would not require approval by a local agency;

therefore Mitigation Measure T-10 is recommended to ensure the proposed Project is reviewed by an appropriate branch of the US Armed Forces.

Central Region

No elements of Segment 6 are near general aviation or larger airports. El Monte Airport is located approximately two miles west of Segment 7 MP 7 and approximately three miles east of Segment 11 MP 32. Shepherd Field is located approximately 3.6 miles southeast of the existing Mesa Substation. The height of the single-circuit 500-kV towers used for Segment 6, Segment 7, and Segment 11 would range from 75 feet to 220 feet. Since the proposed Project would result in construction of structures greater than 200 feet in height, pursuant to FAA guidelines, SCE would be required to submit FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the Manager of the FAA Air Traffic Division for review and approval of the Project. Final design of the proposed transmission route would have to comply with FAA guidelines.

No portions of the proposed Project within the Central Region would be located in an area that would require review by the US Armed Forces (CMLUCA, 2008).

Southern Region

The LA/Ontario International Airport is located approximately 3.8 miles northwest of Segment 8A near MP 33. Chino Airport is located approximately two miles south of Segment 8 near MP 30. The height of the double-circuit 500-kV LSTs would be 147 feet to 255 feet. Since the proposed Project would result in construction of structures greater than 200 feet in height, pursuant to FAA guidelines, SCE would be required to submit FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the Manager of the FAA Air Traffic Division for review and approval of the Project. Final design of the proposed transmission route would have to comply with FAA guidelines.

No portions of the proposed Project within the Southern Region would be located in an area that would require review by the US Armed Forces (CMLUCA, 2008).

Mitigation Measure for Impact T-10

T-10 **Notify US Air Force.** SCE shall provide a complete copy of the Project application to the Regional Environmental Officer for California Western Region Environmental Office of the US Air Force.

CEQA Significance Conclusion

Segment 4 of the proposed Project would be located beneath a low level military flight path which could result in conflicts with military flight test pathways. Mitigation Measure T-10 (Notify US Air Force) would ensure that the Project is reviewed by the US Air Force, which would ensure that the Project would not conflict with military training flights. Implementation of this measure would reduce Impact T-10 to a less-than-significant level (Class II).

3.13.6.2 Cumulative Effects Analysis

Geographic Extent

After construction, the proposed Project would have little transportation or traffic associated with it other than for routine inspection and maintenance activities and operations. Therefore, the only opportunity for cumulatively significant transportation and/or traffic impacts to occur would be during the approximate

56-month construction phase of the Project. Construction-related traffic impacts would mostly result from lane closures that would occur within the immediate vicinity of the proposed Project. Therefore, the geographic extent for the analysis of cumulative traffic and transportation impacts is defined as the area up to five miles from the proposed Project. This scope is appropriate because traffic impacts caused by the proposed Project would be limited to local streets and would be of short duration, and based on the Project impact analysis presented in Section 3.13.6.2, are unlikely to cause substantial delays or traffic congestion.

Existing Cumulative Conditions

The character of the area along the Project route varies from rural to urbanized. The most urbanized areas along the proposed Project route are within the Central and Southern Regions of the proposed Project, located south of the ANF. Development is occurring throughout the Project study area and as a result traffic increases are anticipated. Although SCAG and other transportation planning and management entities are developing additional roadways, roadway widening and transit projects, it is anticipated that the roadways in the Project area will continue to experience increased levels of traffic congestion as additional future land use developments are approved and population growth occurs.

Reasonably Foreseeable Future Projects and Changes

As discussed above, ongoing development throughout the cumulative effects area for Traffic and Transportation is dominated by residential developments, clustered in and around community developments on non-NFS lands. This trend in residential development is also representative of reasonably foreseeable future projects in the cumulative effects area, as supported by the aggressive population growth forecasted throughout the Project area. Reasonably foreseeable future projects within the Project area are expected to be characteristic of past and ongoing projects.

The Cumulative Scenario presents data regarding population growth in Kern and Los Angeles County; according to this information, the population in Kern County is expected to rise by 113 percent between the years 2000 and 2050 (SCAG, 2004 and U.S. Census Bureau, 2000). During the same time period, the population in Los Angeles County is expected to rise by varying degrees, depending on the city, with the cities of Lancaster and Palmdale experiencing growth of 117.5 percent and 186.5 percent, respectively (SCAG, 2004 and U.S. Census Bureau, 2000). It is expected that most projects within the ANF are focused on repairs, re-establishment, or rehabilitation of existing facilities. Such projects would not be expected to result in permanent increases in traffic on forest roads, but would contribute to deterioration of road surfaces. Expected growth in the areas south of the ANF ranges from about 5 percent or less (City of Industry, La Canada Flintridge, San Marino) to more than 90 percent (City of Ontario), between the years 2000 and 2030. Considering that the area is already highly urbanized, the lower growth projections could be an indication that those areas cannot accommodate further growth, while the higher projections indicate areas that are not yet fully built-out. As urban build-out continues, it is reasonably foreseeable that traffic on the regional roadway system will continue to increase.

Cumulative Impact Analysis

The potential for Traffic and Transportation impacts of the proposed Project to combine with the effects of other projects within the geographic scope of the cumulative analysis is described below.

- **Closure of roads to through traffic or reduction of travel lanes would result in substantial congestion (Impact T-1).** Construction of the proposed Project could result in roadway closures at locations where the construction activities, especially transmission line stringing, would be located within ROWs of public streets

and highways. Such closures are regulated by the applicable jurisdictional agency through encroachment permits which require specific measures to minimize disruption to local traffic flow. All projects requiring work within ROWs of public streets and highways are required to obtain encroachment permits. In order for a cumulative impact to occur, lane closures from different projects would have to occur at the same time and on the same road or a connecting road within close proximity (up to two miles) to the lane closure from the proposed Project. Past projects in the Project area would not combine with impacts of the proposed Project because construction of those projects is complete and lane closures associated with such construction would no longer be necessary. Therefore, it is considered unlikely that this impact of the proposed Project would combine with similar impacts of other projects to result in a cumulatively significant impact (Class III).

- **Construction traffic would result in congestion on area roadways (Impact T-2).** Construction of the proposed Project would temporarily increase traffic (through Project trip generation) on the regional and local roadways. Past development within the proposed Project area outside of the ANF has substantially contributed to congestion on area roadways. Current and reasonably foreseeable projects in these areas would also temporarily increase traffic in these areas during construction. Additionally, as discussed above, development and population growth in these areas is expected to continue to increase. It is reasonable to assume that several residential and commercial developments that are currently under construction in these areas would be completed and partially occupied by the time proposed Project construction begins in this area. Traffic associated with these future residential developments would contribute to congestion on area roadways. Temporary roadway congestion resulting from lane closures associated with construction of the proposed Project would combine with congestion resulting from past, present and future residential and commercial development to result in a significant cumulative impact. However, Mitigation Measure T-2 (Prepare Construction Transportation Plan) would minimize the proposed Project's contribution to this impact. Therefore, the proposed Project's contribution to a significant cumulative impact to congestion on regional and local roadways would be less than cumulatively considerable and therefore less than significant (Class III).
- **Construction activities could temporarily interfere with emergency response (Impact T-3).** Lane closures associated with construction of the proposed Project could disrupt the routes traveled by emergency providers. Other current and reasonably foreseeable projects would have the same potential to restrict emergency service provider routes. If these and other projects required lane closures in the same vicinity of and at the same time as the proposed Project, impacts to emergency service providers would be significant. However, Mitigation Measure T-1a (Prepare Traffic Control Plans) requires construction activity to be coordinated in advance with emergency service providers to avoid restricting movements of emergency vehicles. Additionally lane closures associated with the proposed Project would be of very short duration. Therefore, the proposed Project's contribution to a potential significant impact would be less than cumulatively considerable (Class III).
- **Construction activities could temporarily disrupt transit routes (Impact T-4).** Lane closures associated with construction of the proposed Project could disrupt the routes traveled by bus transit services. Other current and reasonably foreseeable projects would have the same potential to restrict transit service routes. If these and other projects required lane closures in the same vicinity of and at the same time as the proposed Project, impacts to transit service providers would be significant. However, Mitigation Measure T-4 (Avoid disruption of bus service) requires construction activity to be coordinated in advance with school districts and transit providers. Additionally lane closures associated with the proposed Project would be of very short duration. Therefore, the proposed Project's contribution to a potential significant impact would be less than cumulatively considerable (Class III).
- **Construction activities would cause a temporary disruption to rail traffic or operations (Impact T-5).** The proposed Project would cross Union Pacific Railroad, Metrolink, and MTA Gold Line ROW and could disrupt rail traffic. In order for a cumulative impact to occur, work within railroad ROWs required by different projects would have to occur at the same time and on the same ROW as the proposed Project. However, Mitigation Measure T-5 (Obtain and comply with railroad permits) would require a permit from railroad companies to enter railroad ROWs. Compliance with railroad permit requirements would ensure that proposed Project construction activities would not disrupt rail traffic. Other projects would be required to obtain similar permits; thus, railroad companies would be able to regulate the timing of potential disruptions through issuance of permits. Therefore, impacts of the proposed Project would not have the potential to combine with impacts of other reasonably foreseeable projects to result in a cumulative impact (No Impact).

- **Construction activities could temporarily interfere with the use of pedestrian/bicycle paths (Impact T-6).** Pedestrian and bicycle circulation could be affected by transmission line construction activities if pedestrians and bicyclists were unable to pass through the construction zone or if established pedestrian and bike routes were blocked. If concurrent construction projects restricted pedestrian and/or bicycle movement within the immediate vicinity of such restrictions associated with the proposed Project, impacts would be significant. However, implementation of Mitigation Measure T-6 (Ensure pedestrian and bicycle circulation and safety) would render impacts of the proposed Project to less than cumulatively considerable by requiring establishment of alternative pedestrian and bicycle routes around the proposed Project construction zone for safe passage as well as temporary detours for trail users (Class III).
- **Construction would result in localized shortages of public parking along the Project ROW (Impact T-7).** Construction activities would result in short-term elimination of a limited amount of parking spaces immediately adjacent to the construction ROW where the ROW would cross roadways within relatively concentrated areas of residential development. It is possible that concurrent construction projects located within close proximity to these areas of the proposed Project (Segments 7, 8 and 11) would also result in temporary elimination of parking spaces. If several projects were to concurrently eliminate parking spaces at the same time and same location as the proposed Project, a cumulative impact would occur. However, since this impact would occur in residential areas, it is unlikely that other projects with the potential to eliminate substantial numbers of public parking spaces would be located in close proximity of the proposed Project. Additionally, Mitigation Measure T-2 requires that construction vehicles be parked within the transmission ROW. Therefore impacts of the proposed Project are not expected to combine with the impacts of other projects to result in a cumulative impact (No Impact).
- **Construction would conflict with planned transportation projects (Impact T-8).** The proposed Project and any other projects that would interface with a roadway or other transportation facility would be required to obtain an encroachment permit or other such agreement from the applicable jurisdictional agency. Complying with local permits and agreements would ensure appropriate coordination between project applicants and the affected agencies so that conflicts would be avoided or minimized. Therefore, impacts of the proposed Project would not have the potential to combine with similar impacts of other past, present and future projects to result in a significant impact (No Impact).
- **Construction vehicles and equipment could damage road ROWs (Impact T-9).** There is potential for unexpected damage to roads by vehicles and equipment to occur from construction vehicles. Other development projects that require heavy equipment to use the same roads utilized by proposed Project construction vehicles could result in similar damage to roads. If left unmitigated, road damage caused by the proposed Project, when combined with unrepaired road damage from past, present, and reasonably foreseeable projects would combine to be significant. However, APM TRA-5 (Repair Damaged Streets), which would be implemented as part of the proposed Project, would require any damage to local streets be repaired, and streets be restored to their pre-Project condition. Therefore, impacts of the proposed Project would not have the potential to combine with similar impacts of other past, present and future projects to result in a significant impact (No Impact).
- **Project transmission structures could present an aviation hazard (Impact T-10).** The proposed Project would result in construction of structures greater than 200 feet in height, and would place structures beneath potential military flight test pathways, which could result in an aviation hazard or obstruction hazard to nearby airports or military training activities. Other projects, such as transmission lines, radio towers, and buildings that exceed 200 feet in height or are located within military flight test pathways could combine with the proposed Project to be significant. However, the proposed Project, as well as any other project that would result in construction of features over 200 feet in height would be required to submit a Notice of Construction to the FAA Air Traffic Division for review and approval. Final design of all projects with structures greater than 200 feet in height would have to comply with FAA guidelines. Projects located within military flight pathways would be required to submit the project application to the appropriate US Military Branch for review to ensure conflicts would not occur. Compliance with these procedures would ensure that potential impacts from multiple projects would not combine to result in a significant impact to civilian or military aviation activities (Class III).

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

The proposed Project would not result in significant cumulative impacts; therefore, no additional mitigation measures are required.

3.13.7 Alternative 3: West Lancaster Alternative

3.13.7.1 Direct and Indirect Effects Analysis

The significance criteria used to identify Traffic and Transportation impacts are introduced in Section 3.13.4.1. Impacts associated with this alternative are presented below under the applicable significance criterion.

Closure of roads or reduction of travel lanes (Criterion TRA1)

Impacts associated with Criterion TRA1 for Alternative 3 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative introduces a re-route of part of Segment 4 of the proposed transmission line, it would cross the same streets at the same general location as the proposed Project and there would be no increase in the potential for Impact T-1 (Closure of roads to through traffic or reduction of travel lanes would result in substantial congestion) to occur. The remaining portion of Alternative 3 is identical to Alternative 2 and the potential for closing roads and travel lanes is the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measures T-1a (Prepare Traffic Control Plans) and T-1b (Restrict lane closures). With implementation of these measures, as described in Section 3.13.6.2, Impact T-1 of Alternative 3 would be less than significant (Class II).

Unacceptable level of service reduction to vicinity roads (Criterion TRA2)

Impacts associated with Criterion TRA2 for Alternative 3 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative introduces a re-route of part of Segment 4 of the proposed transmission line, it would cross the same streets at the same general location as the proposed Project and there would be no increase in the potential for Impact T-2 (Construction traffic would result in congestion on area roadways) to occur. The remaining portion of Alternative 3 is identical to Alternative 2 and the potential for construction traffic to result in substantial congestion is the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-2 (Prepare Construction Transportation Plan). With implementation of this measure, as described in Section 3.13.6.2, Impact T-2 of Alternative 3 would be less than significant (Class II).

Restricted access to properties (Criterion TRA3)

Construction of the re-routed portion of this alternative would not restrict access to driveways or otherwise affect access for the adjacent residences, institutions, businesses, and other uses. The re-routed portion of this alternative would not include any trenching or other excavation in road ROWs that would impede access to adjacent uses. The remaining portion of Alternative 3 is identical to Alternative 2 and the potential for construction to restrict access would be the same as presented in Section 3.13.6.2. Therefore, Alternative 3 would result in no impact associated with restricted access to properties.

Restrict the movements of emergency vehicles (Criterion TRA4)

Impacts associated with Criterion TRA4 for Alternative 3 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative introduces a re-route of part of Segment 4 of the proposed transmission line, it would cross the same streets at the same general location as the

proposed Project and there would be no increase in the potential for Impact T-3 (Construction activities could temporarily interfere with emergency response) to occur. The remaining portion of Alternative 3 is identical to Alternative 2 and the potential for construction to interfere with emergency response would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-1a (Prepare Traffic Control Plans), which includes measures, such as keeping emergency service agencies fully informed of road closures, detours, and delays and making ready at all times provisions to accommodate emergency vehicles and Mitigation Measure T-1b (Restrict lane closures). With implementation of these measures, as described in Section 3.13.6.2, Impact T-3 of Alternative 3 would be less than significant (Class II).

Disruption to transit service (Criterion TRA5)

Impacts associated with Criterion TRA5 for Alternative 3 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative introduces a re-route of part of Segment 4 of the proposed transmission line, it would cross the same streets at the same general location as the proposed Project and there would be no increase in the potential for Impact T-4 (Construction activities could temporarily disrupt transit routes) to occur. The remaining portion of Alternative 3 is identical to Alternative 2 and the potential for construction to interfere with transit service would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-4 (Avoid disruption of bus service). With implementation of this measure, as described in Section 3.13.6.2, Impact T-4 of Alternative 3 would be less than significant (Class II).

Disruption to rail traffic (Criterion TRA6)

Impacts associated with Criterion TRA6 for Alternative 3 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative introduces a re-route of part of Segment 4 of the proposed transmission line, it would cross the same streets at the same general location as the proposed Project and there would be no increase in the potential for Impact T-5 (Construction activities would cause a temporary disruption to rail traffic or operations) to occur. The remaining portion of Alternative 3 is identical to Alternative 2 and the potential for construction to interfere with rail traffic would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-5 (Obtain and comply with railroad permits). With implementation of this measure, as described in Section 3.13.6.2, Impact T-5 of Alternative 3 would be less than significant (Class II).

Impediment of pedestrian movements or bike paths (Criterion TRA7)

Impacts associated with Criterion TRA7 for Alternative 3 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative introduces a re-route of part of Segment 4 of the proposed transmission line, it would cross the same streets at the same general location as the proposed Project and there would be no increase in the potential for Impact T-6 (Construction activities could temporarily interfere with the use of pedestrian/bicycle paths) to occur. The remaining portion of Alternative 3 is identical to Alternative 2 and the potential for construction to interfere with pedestrian and bicycle movements would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-6 (Ensure pedestrian and bicycle circulation and safety). With implementation of this measure, as described in Section 3.13.6.2, Impact T-6 of Alternative 3 would be less than significant (Class II).

Reduction in the supply of parking spaces (Criterion TRA8)

Impacts associated with Criterion TRA8 for Alternative 3 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative introduces a re-route of part of Segment 4 of the proposed transmission line, it would cross the same streets at the same general location as the proposed Project and there would be no increase in the potential for Impact T-7 (Construction would result in localized shortages of public parking along the Project ROW) to occur. The remaining portion of Alternative 3 is identical to Alternative 2 and the potential for construction to substantially reduce the number of parking spaces and result in localized shortages of public parking would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-2 (Prepare Construction Transportation Plan). With implementation of this measure, as described in Section 3.13.6.2, Impact T-7 of Alternative 3 would be less than significant (Class II).

Construction would be inconsistent with transportation plans (Criterion TRA9)

Impacts associated with Criterion TRA9 for Alternative 3 would be the same as impacts associated with this criterion for the proposed Project. Trip generation associated with construction of this alternative would be identical to that of the proposed Project. Therefore, there would be no impact with regard to inconsistency with transportation plans.

Impact T-8 (Construction would conflict with planned transportation projects) would be the same under Alternative 4 as it would for the proposed Project (please see Section 3.13.6.1). As described in Section 3.13.6.2, placement of structures within transportation ROWs could conflict with future transportation projects. Although this alternative introduces a re-route of part of Segment 4 of the proposed transmission line, no planned transportation projects have been identified along the rerouted portion of Segment 4. The remaining portion of Alternative 3 is identical to Alternative 2 and the potential for construction to conflict with planned transportation projects (Impact T-8) would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-8 (Avoid conflicts with planned improvements to SR14). With implementation of this measure, as described in Section 3.13.6.2, Impact T-8 of Alternative 3 would be less than significant (Class II).

Noticeable deterioration of road surfaces (Criterion TRA10)

Impacts associated with Criterion TRA10 for Alternative 3 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative introduces a re-route of part of Segment 4 of the proposed transmission line, it would cross the same streets at the same general location as the proposed Project and there would be no increase in the potential for Impact T-9 (Construction vehicles and equipment could damage road ROWs) to occur. The remaining portion of Alternative 3 is identical to Alternative 2 and the potential for construction to result in damage to road surfaces would be the same as presented in Section 3.13.6.2. APM TRA-5 (Repair Damaged Street) would be included as part of the Project in order to restore roads damaged by Project construction to their existing conditions. With implementation of APM TRA-5, as described in Section 3.13.6.2, Impact T-9 of Alternative 3 would be less than significant (Class III).

Adverse effects to aviation activities (Criterion TRA11)

Impacts associated with Criterion TRA11 for Alternative 3 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative introduces a re-route of part of Segment 4 of the proposed transmission line, it would be located in the same general location as the proposed Project

with the same type of transmission towers and there would be no increase in the potential for Impact T-10 (Project transmission structures could present an aviation hazard) to occur. The remaining portion of Alternative 3 is identical to Alternative 2 and Impact T-10 would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-10 (Notify US Air Force). With implementation of this measure, as described in Section 3.13.6.2, Impact T-10 of Alternative 3 would be less than significant (Class II).

3.13.7.2 Cumulative Effects Analysis

The rerouted portion of the Alternative 3 route generally parallels the proposed Project route to the west. 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 identical to that of the proposed Project.

Geographic Extent

Based on the substantial similarity of Alternative 3 to the proposed Project, the geographic extent for the analysis of cumulative impacts related to Traffic and Transportation for this alternative would be identical to that of the proposed Project, as described in Section 3.13.6.2.

Existing Cumulative Conditions

The existing cumulative conditions for Alternative 3 are exactly the same as for Alternative 2, as described in Section 3.13.6.2.

Reasonably Foreseeable Future Projects and Changes

Reasonably foreseeable future projects and changes to the cumulative scenario for Alternative 3 would be exactly the same as Alternative 2, described in Section 3.13.6.2.

Cumulative Impact Analysis

The minor re-route of the proposed 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 for Alternative 2, as described in Section 3.13.6.2.

The following impacts would not be cumulatively considerable (No Impact): Impact T-5 (Construction activities would cause a temporary disruption to rail traffic or operations), Impact T-7 (Construction would result in localized shortages of public parking along the Project ROW), Impact T-8 (Construction would conflict with planned transportation projects), and Impact T-9 (Construction vehicles and equipment could damage road ROWs).

The following impacts would be cumulatively considerable but less than significant (Class III): Impact T-1 (Closure of roads to through traffic or reduction of travel lanes would result in substantial congestion), Impact T-2 (Construction traffic would result in congestion on area roadways), Impact T-3 (Construction activities could temporarily interfere with emergency response), Impact T-4 (Construction activities could temporarily disrupt transit routes), Impact T-6 (Construction activities could temporarily interfere with the use of pedestrian/bicycle paths), and Impact T-10 (Project transmission structures could present an aviation hazard).

As the cumulative effects of Alternative 3 would be the same as for the proposed Project, please see Section 3.13.6.2 for a full description of these effects.

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

Alternative 3 would not result in significant cumulative impacts; therefore, no additional mitigation measures are required.

3.13.8 Alternative 4: Chino Hills Route Alternatives

3.13.8.1 Direct and Indirect Effects Analysis

The significance criteria used to identify Traffic and Transportation impacts are introduced in Section 3.13.4.1. Impacts associated with this alternative are presented below under the applicable significance criterion.

This alternative includes four separate routing options: Route A, Route B, Route C, and Route D. For the purposes of this impact analysis, the routing options for Alternative 4 are discussed in comparison to each other throughout the following section. As described, the alignment of Alternative 4 would be the same as the proposed Project north of S8A MP 19.2; as such, please see Section 3.13.6.1 for a summary of Traffic and Transportation impacts that could potentially affect resources along the portion of the Alternative 4 route which is identical to the proposed Project route.

Closure of roads or reduction of travel lanes (Criterion TRA1)

Impact T-1 (Closure of roads to through traffic or reduction of travel lanes would result in substantial congestion) would be the same under Alternative 4 as it would for the proposed Project (please see Section 3.13.6.1), with the exception of the four routing options which are described below. As described in Section 3.13.6.2, construction activities could result in roadway closures, which could substantially disrupt traffic flow and substantially increase traffic congestion on roads with ADT greater than 10,000 vehicles per lane.

All four Alternative 4 routes would avoid crossing six major roadways that would be crossed by the proposed Project route, including Chino Hills Parkway, SR71, Hope Street, Central Avenue, Edison Avenue, Mountain Avenue, and SR83. All four routing options of this alternative would also cross SR142. Since each of these routes would cross fewer major roadways than the proposed Project, the potential for Impact T-1 to occur, as well as the duration for which it would occur would be reduced. Nevertheless, implementation of Mitigation Measures T-1a (Prepare Traffic Control Plans) and T-1b (Restrict lane closures), as described in Section 3.13.6.2, would be required to reduce Impact T-1 of Alternative 4 to a less-than-significant level (Class II).

Unacceptable level of service reduction to vicinity roads (Criterion TRA2)

Impact T-2 (Construction traffic would result in congestion on area roadways) would be the same under Alternative 4 as it would for the proposed Project (please see Section 3.13.6.1), with the exception of the four routing options which are described below. As described in Section 3.13.6.2, the addition of construction-related traffic on area roadways would contribute to congestion on roadways with high ADT volumes.

All four Alternative 4 routes would avoid crossing six major roadways that would be crossed by the proposed Project route, including Chino Hills Parkway, SR71, Hope Street, Central Avenue, Edison

Avenue, Mountain Avenue, and SR83. All four routing options of this alternative would also cross SR142. Since each of these routes would cross fewer major roadways than the proposed Project, the potential for Impact T-2 to occur, as well as the duration for which it would occur would be reduced. Nevertheless, implementation of Mitigation Measure T-2 (Prepare Construction Transportation Plan), as described in Section 3.13.6.2, would be required to reduce Impact T-2 of Alternative 4 to a less-than-significant level (Class II).

Restricted access to properties (Criterion TRA3)

All four routes under Alternative 4 would be located in rural areas and would not have the potential to restrict access to driveways or otherwise affect access for the adjacent residences, institutions, businesses, and other uses. The re-routed portions of this alternative would not include any trenching or other excavation in road ROWs that would impede access to adjacent uses. The remaining portion of Alternative 4 is identical to Alternative 2 and the potential for construction to restrict access would be the same as presented in Section 3.13.6.2. Therefore, Alternative 4 would result in no impact associated with restricted access to properties.

Restrict the movements of emergency vehicles (Criterion TRA4)

Impact T-3 (Construction activities could temporarily interfere with emergency response) would be the same under Alternative 4 as it would for the proposed Project (please see Section 3.13.6.1), with the exception of the four routing options which are described below. As described in Section 3.13.6.2, lane closures associated with construction activities could lengthen the response time for emergency vehicles to pass through the construction zone.

All four Alternative 4 routes would avoid crossing 63 roadways that would be crossed by the proposed Project route. All four routing options of this alternative would also cross SR142 as well as two (Route C and Route D) or three (Route A and Route B) smaller two-lane canyon roads. Since each of these routes would cross fewer major roadways than the proposed Project, the potential for Impact T-3 to occur, as well as the duration for which it would occur would be reduced. Nevertheless, implementation of Mitigation Measure T-1a (Prepare Traffic Control Plans), which includes measures, such as keeping emergency service agencies fully informed of road closures, detours, and delays and making ready at all times provisions to accommodate emergency vehicles and Mitigation Measure T-1b (Restrict lane closures) would be required, as described in Section 3.13.6.2, to reduce Impact T-3 of Alternative 4 to a less-than-significant level (Class II).

Disruption to transit service (Criterion TRA5)

Impact T-4 (Construction activities could temporarily disrupt transit routes) would be the same under Alternative 4 as it would for the proposed Project (please see Section 3.13.6.1), with the exception of the four routing options which are described below. As described in Section 3.13.6.2, lane closures associated with construction activities would disrupt transit routes through scheduling delays and temporary bus reroutes. All four Alternative 4 routes would cross one less transit route than the proposed Project and would therefore incrementally reduce Impact T-4 (Construction activities could temporarily disrupt transit routes). Nevertheless, implementation of Mitigation Measure T-4 (Avoid disruption of bus service) would be required, as described in Section 3.13.6.2, to reduce Impact T-4 of Alternative 4 to a less-than-significant level (Class II).

Disruption to rail traffic (Criterion TRA6)

Impact T-5 (Construction activities would cause a temporary disruption to rail traffic or operations) would be the same under Alternative 4 as it would for the proposed Project (please see Section 3.13.6.1). As described in Section 3.13.6.2, construction activities could interfere with rail traffic because construction of overhead transmission lines could require temporary use or closure of a railroad ROW. None of the four routes of Alternative 4 would increase or decrease the number of railroad crossings compared to the proposed Project, and there would be no increase or decrease in the potential for Impact T-5 to occur. Therefore the potential for construction to interfere with rail traffic would be the same as presented in Section 3.13.6.2 for the proposed Project, and would require implementation of Mitigation Measure T-5 (Obtain and comply with railroad permits). With implementation of this measure, as described in Section 3.13.6.2, Impact T-5 of Alternative 4 would be less than significant (Class II).

Impediment of pedestrian movements or bike paths (Criterion TRA7)

Impact T-6 (Construction activities could temporarily interfere with the use of pedestrian/bicycle paths) would be the same under Alternative 4 as it would for the proposed Project (please see Section 3.13.6.1), with the exception of the four routing options which are described below. As described in Section 3.13.6.2, pedestrian and bicycle circulation could be affected by transmission line construction activities if pedestrians and bicyclists were unable to pass through the construction zone or if established pedestrian and bike routes were blocked.

All four Alternative 4 routes would avoid crossing two Class II bike routes, one Class I bike route, and several sidewalks in the cities of Chino and Chino Hills. However, as presented in Section 3.13.2.4, each of these routing options would cross or be located directly adjacent to several fire trails, roads, and/or trails in CHSP that are used by hikers and bicyclists. The number of trails crossed or located in the immediate proximity of each Alternative 4 route is listed below:

- Route A: 12 trails
- Route B: 12 trails
- Route C: 6 trails
- Route D: 5 trails.

Therefore the potential for construction to interfere with pedestrian and bicycle paths would be slightly increased compared to the proposed Project. Routes A and B would result in the most instances of potential conflicts, followed by Routes C and D. Similar to the proposed Project, implementation of Mitigation Measure T-6 (Ensure pedestrian and bicycle circulation and safety) would be required to reduce Impact T-6 to a less-than-significant level (Class II).

Reduction in the supply of parking spaces (Criterion TRA8)

Impact T-7 (Construction would result in localized shortages of public parking along the Project ROW) would be the same under Alternative 4 as it would for the proposed Project (please see Section 3.13.6.1) with the exception of the four routing options which are described below. As described in Section 3.13.6.2, parking of construction-related vehicles in public roadways in areas of relatively dense commercial or residential development would result in shortages of public parking.

All four Alternative 4 routes would avoid the relatively dense residential developments in the cities of Chino and Chino Hills that would be affected by the proposed Project. Additionally each of these routing options would be located in areas with no concentrated commercial or residential development. Therefore,

use of the roadways crossed by all four routing options for construction parking would not displace parking opportunities for the public. Therefore the potential for Impact T-7 to occur would be reduced. Nevertheless, implementation of Mitigation Measure T-2 (Prepare Construction Transportation Plan), as described in Section 3.13.6.2, would be required to reduce Impact T-7 of Alternative 4 to a less-than-significant level (Class II).

Construction would be inconsistent with transportation plans (Criterion TRA9)

Impacts associated with Criterion TRA9 for Alternative 3 would be the same as impacts associated with this criterion for the proposed Project. Trip generation associated with construction of this alternative would be substantially similar to that of the proposed Project. While the actual number of trips added to the roadway during project construction may vary slightly from that of the proposed Project, transmission line workers would be similarly dispersed in groups throughout the Project area and would not typically be working at the same place at any one time. The dispersion of workers at various worksites along the approximate 173-mile route would preclude project-related construction traffic from exceeding any of the CMP thresholds described above in Section 3.13.3.3. Therefore, there would be no impact with regard to inconsistency with transportation plans.

Impact T-8 (Construction would conflict with planned transportation projects) would be the same under Alternative 4 as it would for the proposed Project (please see Section 3.13.6.1). As described in Section 3.13.6.2, placement of structures within transportation ROWs could conflict with future transportation projects. Although this alternative introduces a re-route of part of Segment 8 of the proposed transmission line, no planned transportation projects have been identified along any of the four routing options of Alternative 4. The remaining portion of Alternative 4 is identical to Alternative 2 and the potential for construction to conflict with planned transportation projects (Impact T-8) would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-8 (Avoid conflicts with planned improvements to SR14) to ensure impacts would be less than significant (Class II).

Noticeable deterioration of road surfaces (Criterion TRA10)

Impact T-9 (Construction vehicles and equipment could damage road ROWs) would be the same under Alternative 4 as it would for the proposed Project (please see Section 3.13.6.1), with the exception of the four routing options which are described below. As described in Section 3.13.6.2, operation of construction vehicles and equipment could result in unexpected damage to roadways along the proposed ROW.

All four Alternative 4 routes would avoid crossing 63 roadways that would be crossed by the proposed Project route. All four routing options of this alternative would also cross SR142 as well as two (Route C and Route D) or three (Route A and Route B) smaller two-lane canyon roads. Since each of these routing options would cross fewer roadways than the proposed Project, the potential for Impact T-9 to occur would be reduced. APM TRA-5 (Repair Damaged Street) would be included as part of the Project in order to restore roads damaged by Project construction to their existing conditions. With implementation of APM TRA-5, as described in Section 3.13.6.2, Impact T-9 of Alternative 4 would be less than significant (Class III).

Adverse effects to aviation activities (Criterion TRA11)

Impact T-10 (Project transmission structures could present an aviation hazard) would be the same under Alternative 4 as it would for the proposed Project (please see Section 3.13.6.1). As described in Section

3.13.6.2, construction objects greater than 200 feet tall from the ground surface, or 200 feet above the elevation of the airport (whichever is higher), that are within three nautical miles of an airport could be considered an obstruction to aviation activities. Additionally, Projects located within potential military flight test pathways have the potential to result in conflicts between local communities and military installations and training activities.

Although this alternative introduces four different routing options for a portion of Segment 8 of the proposed Project, none of the routing options would result in construction of shorter or taller towers than the proposed Project, and would not increase or decrease the potential for Impact T-10 to occur. Additionally, no portions of any of the four routing options would be located in an area that would require review by the US Armed Forces (CMLUCA, 2008).

The remaining portion of Alternative 4 is identical to Alternative 2 and Impact T-10 would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-10 (Notify US Air Force). With implementation of this measure, as described in Section 3.13.6.2, Impact T-10 of Alternative 4 would be less than significant (Class II).

3.13.8.2 Cumulative Effects Analysis

The rerouted portion of this alternative route generally parallels the proposed Project route approximately three miles south 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. However this alternative would cross approximately 60 fewer roadways in the Chino and Chino Hills area than the proposed Project, and would therefore have an incrementally decreased impact to cumulative impacts in this area than the proposed Project. Based on the substantial similarity of Alternative 4 to the proposed Project, this alternative's contribution to cumulative impacts would be similar or identical to that of the proposed Project.

Geographic Extent

Based on the substantial similarity of Alternative 4 to the proposed Project, the geographic extent for the analysis of cumulative impacts related to Traffic and Transportation for this alternative would be identical to that of the proposed Project, as described in Section 3.13.6.2.

Existing Cumulative Conditions

The existing cumulative conditions for Alternative 4 are exactly the same as for Alternative 2, as described in Section 3.13.6.2.

Reasonably Foreseeable Future Projects and Changes

Reasonably foreseeable future projects and changes to the cumulative scenario for Alternative 4 would be exactly the same as Alternative 2, described in Section 3.13.6.2.

Cumulative Impact Analysis

The minor re-route of the proposed transmission line associated with Alternative 4 would not affect the proposed Project's contribution to cumulative impacts and therefore, cumulative impacts of Alternative 4 would be exactly the same as cumulative impacts for Alternative 2, as described in Section 3.13.6.2.

The following impacts would not be cumulatively considerable (No Impact): Impact T-5 (Construction activities would cause a temporary disruption to rail traffic or operations), Impact T-7 (Construction would result in localized shortages of public parking along the Project ROW), Impact T-8 (Construction would conflict with planned transportation projects), and Impact T-9 (Construction vehicles and equipment could damage road ROWs).

The following impacts would be cumulatively considerable but less than significant (Class III): Impact T-1 (Closure of roads to through traffic or reduction of travel lanes would result in substantial congestion), Impact T-2 (Construction traffic would result in congestion on area roadways), Impact T-3 (Construction activities could temporarily interfere with emergency response), Impact T-4 (Construction activities could temporarily disrupt transit routes), Impact T-6 (Construction activities could temporarily interfere with the use of pedestrian/bicycle paths), and Impact T-10 (Project transmission structures could present an aviation hazard).

As the cumulative effects of Alternative 4 would be the same as for the proposed Project, please see Section 3.13.6.2 for a full description of these effects.

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

Alternative 4 would not result in significant cumulative impacts; therefore, no additional mitigation measures are required.

3.13.9 Alternative 5: Partial Underground Alternative

3.13.9.1 Direct and Indirect Effects Analysis

The significance criteria used to identify Traffic and Transportation impacts are introduced in Section 3.13.4.1. Impacts associated with this alternative are presented below under the applicable significance criterion.

Alternative 5 would follow the same route as the proposed Project; however, an approximately 3.5-mile portion of Segment 8 would be constructed underground from MP 8A 21.9 to MP 8A 25.4. Therefore, any impacts that would occur within the Northern and Central Regions of the proposed Project and within the Southern Region between S8A MP 0.0 and S8A MP 21.9 would also occur for Alternative 5; as such, please see Section 3.13.6.1 for a summary of Traffic and Transportation impacts that could potentially affect resources along the portion of the Alternative 5 route which is identical to the proposed Project route.

Closure of roads or reduction of travel lanes (Criterion TRA1)

Impact T-1 (Closure of roads to through traffic or reduction of travel lanes would result in substantial congestion) would be the same under Alternative 5 as it would for the proposed Project (please see Section 3.13.6.1), with the exception of the 3.5-mile underground portion of Alternative 5 as described below. As described in Section 3.13.6.2, construction activities could result in roadway closures, which could substantially disrupt traffic flow and substantially increase traffic congestion on roads with ADT greater than 10,000 vehicles per lane.

The underground portion of Alternative 5 would cross under approximately 11 roadway segments crossed by Segment 8 of the proposed Project from MP 8A 21.9 to MP 8A 25.4. Alternative 5 would cross under Chino Hills Parkway and 10 smaller residential roadways.

Because Alternative 5 would be located underground and all construction activities along this route would occur underground (with the exception of excavation of the entry, exit, and elevation shafts), construction of the underground portion of this Alternative would cross fewer major roadways than the proposed Project and the potential for Impact T-1 to occur would be reduced. Nevertheless, implementation of Mitigation Measures T-1a (Prepare Traffic Control Plans) and T-1b (Restrict lane closures), as described in Section 3.13.6.2, would be required to reduce Impact T-1 of Alternative 5 to a less-than-significant level (Class II).

Unacceptable level of service reduction to vicinity roads (Criterion TRA2)

Construction of the underground portion of Alternative 5 would avoid temporary closures to approximately 11 roadways in the Southern Region. Additionally, underground construction would require a substantial number of construction-related trips to area roadways, compared to Alternative 2, due to haul trips necessary to transport excavation spoils from the site as well as additional equipment and materials required for underground construction (e.g., concrete and other infrastructure). Roadways that would be affected by Alternative 5 construction that currently experience high traffic volumes include SR60 and SR71.

Although Project-related commute traffic and construction truck/equipment activity is expected to be dispersed over the entire Project area and dispersed over time, given the dense urban development of this area and the high volumes of traffic on major roadways, it is likely that Project-related construction traffic could contribute to congestion. Although the underground portion of Alternative 5 would cross fewer major roadways than the proposed Project, the potential for Impact T-2 to occur, as well as the duration for which it would occur, would be increased. Therefore, implementation of Mitigation Measure T-2 (Prepare Construction Transportation Plan), as described in Section 3.13.6.2, would be required to reduce Impact T-2 of Alternative 5 to a less-than-significant level (Class II).

Restricted access to properties (Criterion TRA3)

Construction of the underground segment of Alternative 5 would not restrict access to driveways or otherwise affect access for the adjacent residences, institutions, businesses, and other uses. The re-routed portion of this alternative would not include any trenching or other excavation in road ROWs that would impede access to adjacent uses. The remaining portion of Alternative 5 is identical to Alternative 2 and the potential for construction to restrict access would be the same as presented in Section 3.13.6.2. Therefore, Alternative 5 would result in no impact associated with restricted access to properties.

Restrict the movements of emergency vehicles (Criterion TRA4)

Impact T-3 (Construction activities could temporarily interfere with emergency response) would be the same under Alternative 5 as it would for the proposed Project (please see Section 3.13.6.1), with the exception of the 3.5-mile underground portion of this alternative. As described in Section 3.13.6.2, lane closures associated with construction activities could lengthen the response time for emergency vehicles to pass through the construction zone. Because the underground portion of this alternative would cross 11 fewer roadways than the proposed Project, the potential for Impact T-3 to occur would be reduced. Nevertheless, implementation of Mitigation Measure T-1a (Prepare Traffic Control Plans), which includes measures, such as keeping emergency service agencies fully informed of road closures, detours, and delays and making ready at all times provisions to accommodate emergency vehicles and Mitigation Measure T-1b (Restrict lane closures) would be required, as described in Section 3.13.6.2, to reduce Impact T-3 of Alternative 5 to a less-than-significant level (Class II).

Disruption to transit service (Criterion TRA5)

Impacts associated with Criterion TRA5 for Alternative 5 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative would result in a 3.5-mile portion of Segment 8 being constructed underground, the aboveground portion that the underground route would replace does not cross the path of any transit routes. Therefore, there would be no increase or decrease in the potential for Impact T-4 (Construction activities could temporarily disrupt transit routes) to occur. The remaining portion of Alternative 5 is identical to Alternative 2 and the potential for construction to interfere with transit service would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-4 (Avoid disruption of bus service). With implementation of this measure, as described in Section 3.13.6.2, Impact T-4 of Alternative 5 would be less than significant (Class II).

Disruption to rail traffic (Criterion TRA6)

Impact T-5 (Construction activities would cause a temporary disruption to rail traffic or operations) would be the same under Alternative 5 as it would for the proposed Project (please see Section 3.13.6.1). As described in Section 3.13.6.2, construction activities could interfere with rail traffic because construction of overhead transmission lines could require temporary use or closure of a railroad ROW. Although this alternative would result in a 3.5-mile portion of Segment 8 being constructed underground, the aboveground portion that the underground route would replace does not cross the path of any rail lines. Therefore, there would be no increase or decrease in the potential for Impact T-5 to occur. The potential for construction to interfere with rail traffic would be the same as presented in Section 3.13.6.2 for the proposed Project, and would require implementation of Mitigation Measure T-5 (Obtain and comply with railroad permits). With implementation of this measure, as described in Section 3.13.6.2, Impact T-5 of Alternative 5 would be less than significant (Class II).

Impediment of pedestrian movements or bike paths (Criterion TRA7)

Impact T-6 (Construction activities could temporarily interfere with the use of pedestrian/bicycle paths) would be the same under Alternative 5 as it would for the proposed Project (please see Section 3.13.6.1). As described in Section 3.13.6.2, pedestrian and bicycle circulation could be affected by transmission line construction activities if pedestrians and bicyclists were unable to pass through the construction zone or if established pedestrian and bike routes were blocked.

The aboveground portion that the underground Alternative 5 route would replace does not cross any designated bicycle routes. However, the underground portion of Alternative 5 would be located in a mostly residential area and would avoid crossing 11 roads that would be crossed by Segment 8 of the proposed Project. Therefore, construction of the underground portion of this alternative would result in an incremental decrease in the potential for construction activities to impede pedestrian movement along the 3.5-mile underground route. The remaining portion of Alternative 5 is identical to Alternative 2 and the potential for construction to interfere with pedestrian and bicycle movements would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-6 (Ensure pedestrian and bicycle circulation and safety). With implementation of this measure, as described in Section 3.13.6.2, Impact T-6 of Alternative 5 would be less than significant (Class II).

Reduction in the supply of parking spaces (Criterion TRA8)

Impact T-7 (Construction would result in localized shortages of public parking along the Project ROW) would be the same under Alternative 5 as it would for the proposed Project (please see Section 3.13.6.1) with the exception of the 3.5-mile portion of this alternative that would be constructed underground. As described in Section 3.13.6.2, parking of construction-related vehicles in public roadways in areas of relatively dense commercial or residential development would result in shortages of public parking.

Construction of the underground portion of this alternative would extend the construction duration for Segment 8 by approximately 24 months. Therefore, use of the roadways in the immediate vicinity of the eastern and western ends of the underground portion of this alternative for parking of construction vehicles would occur for up to 24 months longer than under the proposed Project. Therefore the potential for Impact T-7 to occur would be substantially increased and implementation of Mitigation Measure T-2 (Prepare Construction Transportation Plan), as described in Section 3.13.6.2, would be required to reduce Impact T-7 of Alternative 5 to a less-than-significant level (Class II).

Construction would be inconsistent with transportation plans (Criterion TRA9)

Impacts associated with Criterion TRA9 for Alternative 3 would be the same as impacts associated with this criterion for the proposed Project. Trip generation associated with construction of this alternative would be substantially similar to that of the proposed Project. While the actual number of trips added to the roadway during project construction may vary slightly from that of the proposed Project, transmission line workers would be similarly dispersed in groups throughout the Project area and would not typically be working at the same place at any one time. The dispersion of workers at various worksites along the approximate 173-mile route would preclude project-related construction traffic from exceeding any of the CMP thresholds described above in Section 3.13.3.3. Therefore, there would be no impact with regard to inconsistency with transportation plans.

Impact T-8 (Construction would conflict with planned transportation projects) would be the same under Alternative 5 as it would for the proposed Project (please see Section 3.13.6.1). As described in Section 3.13.6.2, placement of structures within transportation ROWs could conflict with future transportation projects. However, although this alternative would place approximately 3.5 miles of Segment 8 of the proposed transmission line underground, no planned transportation projects have been identified along this portion of Alternative 5. The remaining portion of Alternative 5 is identical to Alternative 2 and the potential for construction to conflict with planned transportation projects (Impact T-8) would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-8 (Avoid conflicts with planned improvements to SR14) to ensure impacts would be less than significant (Class II).

Noticeable deterioration of road surfaces (Criterion TRA10)

Impact T-9 (Construction vehicles and equipment could damage road ROWs) would be the same under Alternative 5 as it would for the proposed Project (please see Section 3.13.6.1), with the exception of the 3.5-mile underground portion of Segment 8. As described in Section 3.13.6.2, operation of construction vehicles and equipment could result in unexpected damage to roadways along the proposed ROW.

Because this alternative would result in increased construction traffic (worker commute trips as well as delivery of equipment and materials to and from the endpoints of the underground portion of the route) on roadways in the vicinity of Segment 8 than the proposed Project and for up to 24 months longer than construction of the proposed Project, the potential for Impact T-9 to occur would be substantially increased. However, APM TRA-5 (Repair Damaged Streets) would be included as part of the Project in

order to restore roads damaged by Project construction to their existing conditions. With implementation of APM TRA-5, as described in Section 3.13.6.2, Impact T-9 of Alternative 5 would be less than significant (Class III).

Adverse effects to aviation activities (Criterion TRA11)

Impact T-10 (Project transmission structures could present an aviation hazard) would be the same under Alternative 5 as it would for the proposed Project (please see Section 3.13.6.1). As described in Section 3.13.6.2, construction objects greater than 200 feet tall from the ground surface, or 200 feet above the elevation of the airport (whichever is higher), that are within three nautical miles of an airport could be considered an obstruction to aviation activities. Additionally, projects located within potential military flight test pathways have the potential to result in conflicts between local communities and military installations and training activities.

Because 3.5 miles of this alternative would be constructed underground, the potential for Alternative 5 to affect aviation activities would be incrementally reduced compared to the proposed Project. However, the remaining portion of Alternative 5 is identical to Alternative 2 and Impact T-10 would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-10 (Notify US Air Force). With implementation of this measure, as described in Section 3.13.6.2, Impact T-10 of Alternative 5 would be less than significant (Class II).

3.13.9.2 Cumulative Effects Analysis

This alternative would avoid crossing approximately 11 roadways that are crossed by this portion of the proposed Project route. Construction of Alternative 5 would last up to 24 months longer than construction of the proposed Project. However, with the exception of the 3.5-mile underground portion of Segment 8, this alternative would follow the same route as the proposed Project, and as such, Alternative 5's contribution to cumulative impacts would be similar or identical to that of the proposed Project.

Geographic Extent

Based on the substantial similarity of Alternative 5 to the proposed Project, the geographic extent for the analysis of cumulative impacts related to Traffic and Transportation for this alternative would be identical to that of the proposed Project, as described in Section 3.13.6.2.

Existing Cumulative Conditions

The existing cumulative conditions for Alternative 5 are exactly the same as for Alternative 2, as described in Section 3.13.6.2.

Reasonably Foreseeable Future Projects and Changes

Reasonably foreseeable future projects and changes to the cumulative scenario for Alternative 5 would be exactly the same as Alternative 2, described in Section 3.13.6.2.

Cumulative Impact Analysis

Construction of 3.5 miles of Segment 8 underground would result in nearly identical impacts as identified in Section 3.13.6.2 for the proposed Project. Although the longer duration of construction associated with Alternative 5 would increase the potential for Impacts T-2 and T-7 to occur, the overall contribution of Alternative 5 to potential cumulative impacts would be the same as that of the proposed Project as described in Section 3.13.6.2, because the effects of Impact T-2 (Construction traffic would result in

congestion on area roadways) would be distributed evenly over time and Impact T-7 (Construction would result in localized shortages of public parking along the Project ROW) would not have the potential to combine with impacts of other projects in the vicinity of the underground portion of Alternative 5.

As described in Section 3.13.6.2, the following impacts would not be cumulatively considerable (No Impact): Impact T-5 (Construction activities would cause a temporary disruption to rail traffic or operations), Impact T-7 (Construction would result in localized shortages of public parking along the Project ROW), Impact T-8 (Construction would conflict with planned transportation projects), and Impact T-9 (Construction vehicles and equipment could damage road ROWs).

The following impacts would be cumulatively considerable but less than significant (Class III): Impact T-1 (Closure of roads to through traffic or reduction of travel lanes would result in substantial congestion), Impact T-2 (Construction traffic would result in congestion on area roadways), Impact T-3 (Construction activities could temporarily interfere with emergency response), Impact T-4 (Construction activities could temporarily disrupt transit routes), Impact T-6 (Construction activities could temporarily interfere with the use of pedestrian/bicycle paths), and Impact T-10 (Project transmission structures could present an aviation hazard).

As the cumulative effects of Alternative 5 would be the same as for the proposed Project, please see Section 3.13.6.2 for a full description of these effects.

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

Alternative 5 would not result in significant cumulative impacts; therefore, no additional mitigation measures are required.

3.13.10 Alternative 6: Maximum Helicopter Construction in the ANF Alternative

3.13.10.1 Direct and Indirect Effects Analysis

The significance criteria used to identify Traffic and Transportation are introduced in Section 3.13.4.1 (Criteria for Determining Impact Significance). Impacts associated with this alternative are presented below under the applicable significance criteria.

Alternative 6 would require a substantial increase in helicopter construction of transmission towers; however the route of this alternative would be identical to that of the proposed Project and would therefore cross and affect the same roadways, rail lines, bikeways, and pedestrian paths, as the proposed Project. The increased helicopter construction associated with this alternative may result in a slight increase in the total number of construction equipment and workforce required to travel to the helicopter staging areas, as well as an incremental increase in the overall construction schedule for Segment 6 and Segment 11. Therefore, construction activities for Segment 6 and Segment 11 of Alternative 6, as well as temporary construction-related impacts to Traffic and Transportation would occur for an incrementally longer duration than the impacts of the proposed Project identified in Section 3.13.6.1.

Closure of roads or reduction of travel lanes (Criterion TRA1)

Impacts associated with Criterion TRA1 for Alternative 6 would be similar to impacts associated with this criterion for Alternative 2 (as discussed in Section 3.13.6.2), with the exception of roadways located in close proximity to helicopter staging areas. Helicopter staging area #6 would be located directly adjacent to Upper Big Tujunga Canyon Road. Helicopter flights to and from this site may require temporary

closures of this roadway during construction that would not be required during construction of any other alternative. Therefore, the potential for Impact T-1 (Closure of roads to through traffic or reduction of travel lanes would result in substantial congestion) to occur would be increased. The remaining portion of Alternative 6 is identical to Alternative 2 and the potential for closing roads and travel lanes is the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measures T-1a (Prepare Traffic Control Plans) and T-1b (Restrict lane closures). With implementation of these measures, as described in Section 3.13.6.2, Impact T-1 of Alternative 6 would be less than significant (Class II).

Unacceptable level of service reduction to vicinity roads (Criterion TRA2)

Delivery of additional equipment and workers required for helicopter construction would result in an incremental increase in the number of construction vehicles traveling on roadways within the ANF. However, these roadways, primarily Angeles Crest Highway Big Tujunga Canyon Road, and SR-2, experience low volumes of traffic; therefore the incremental increase in construction traffic associated with Alternative 6 is not likely to result in substantial congestion. However, the remaining portion of Alternative 6 is identical to Alternative 2 and the potential for construction traffic to result in substantial congestion is the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-2 (Prepare Construction Transportation Plan). With implementation of this measure, as described in Section 3.13.6.2, Impact T-2 of Alternative 6 would be less than significant (Class II).

Restricted access to properties (Criterion TRA3)

Helicopter staging areas that would be used under Alternative 6 would be located within the ANF and would not be located proximate to driveways of residences, institutions, businesses, or other uses and would therefore not have the potential to result in restricted access to such uses. The remaining portion of Alternative 6 is identical to Alternative 2 and the potential for construction to restrict access would be the same as presented in Section 3.13.6.2. Therefore, Alternative 6 would result in no impact associated with restricted access to properties.

Restrict the movements of emergency vehicles (Criterion TRA4)

Impacts associated with Criterion TRA4 for Alternative 6 would be similar to impacts associated with this criterion for the proposed Project. This alternative would cross the same streets at the same locations as the proposed Project, however, because two helicopter staging areas would be located directly adjacent to or in close proximity to Upper Big Tujunga Canyon Road and Angeles Forest Highway, temporary closures of each of these roadways that would not be required during construction of any other alternative may be required. Such closures would result in an incremental increase in the potential for construction to result in delays to emergency vehicles. Therefore, implementation of Mitigation Measure T-1a (Prepare Traffic Control Plans), which includes measures, such as keeping emergency service agencies fully informed of road closures, detours, and delays and making ready at all times provisions to accommodate emergency vehicles and Mitigation Measure T-1b (Restrict lane closures) as described in Section 3.13.6.2, would be required to reduce Impact T-3 of Alternative 6 to a less-than-significant level (Class II).

Disruption to transit service (Criterion TRA5)

Impacts associated with Criterion TRA5 for Alternative 6 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative introduces different construction methods and the use of helicopter staging areas in the ANF, the transmission route would cross the same streets at the same locations as the proposed Project and there would be no increase in the potential for Impact T-4

(Construction activities could temporarily disrupt transit routes) to occur. The remaining portion of Alternative 6 is identical to Alternative 2 and the potential for construction to interfere with transit service would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-4 (Avoid disruption of bus service). With implementation of this measure, as described in Section 3.13.6.2, Impact T-4 of Alternative 6 would be less than significant (Class II).

Disruption to rail traffic (Criterion TRA6)

Impacts associated with Criterion TRA6 for Alternative 6 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative introduces different construction methods and the use of helicopter staging areas in the ANF, there are no rail crossings in the ANF. Additionally the transmission route would cross the same streets at the same general location as the proposed Project and there would be no increase in the potential for Impact T-5 (Construction activities would cause a temporary disruption to rail traffic or operations) to occur. The remaining portion of Alternative 6 is identical to Alternative 2 and the potential for construction to interfere with rail traffic would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-5 (Obtain and comply with railroad permits). With implementation of this measure, as described in Section 3.13.6.2, Impact T-5 of Alternative 6 would be less than significant (Class II).

Impediment of pedestrian movements or bike paths (Criterion TRA7)

Impacts associated with Criterion TRA7 for Alternative 6 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative introduces different construction methods and the use of helicopter staging areas in the ANF, the transmission route would cross the same streets at the same locations as the proposed Project and there would be no increase in the potential for Impact T-6 (Construction activities could temporarily interfere with the use of pedestrian/bicycle paths) to occur. The remaining portion of Alternative 6 is identical to Alternative 2 and the potential for construction to interfere with pedestrian and bicycle movements would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-6 (Ensure pedestrian and bicycle circulation and safety). With implementation of this measure, as described in Section 3.13.6.2, Impact T-6 of Alternative 6 would be less than significant (Class II).

Reduction in the supply of parking spaces (Criterion TRA8)

Alternative 6 would result in the addition of an incrementally higher number of construction-related vehicles traveling to the Project site. However, the increased number of workers required to construct Segment 6 and Segment 11 would be traveling to staging areas within the ANF which are not located near any public parking areas. Therefore, implementation of Alternative 6 would not reduce the supply of parking spaces along the portions of Segment 6 and Segment 11 located within the ANF. The remaining portion of Alternative 6 is identical to Alternative 2 and the potential for construction to substantially reduce the number of parking spaces and result in localized shortages of public parking would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-2 (Prepare Construction Transportation Plan). With implementation of this measure, as described in Section 3.13.6.2, Impact T-7 of Alternative 6 would be less than significant (Class II).

Construction would be inconsistent with transportation plans (Criterion TRA9)

Impacts associated with Criterion TRA9 for Alternative 3 would be the same as impacts associated with this criterion for the proposed Project. Trip generation associated with construction of this alternative

would be substantially similar to that of the proposed Project. While the actual number of trips added to the roadway during project construction may vary slightly from that of the proposed Project, transmission line workers would be similarly dispersed in groups throughout the Project area and would not typically be working at the same place at any one time. The dispersion of workers at various worksites along the approximate 173-mile route would preclude project-related construction traffic from exceeding any of the CMP thresholds described above in Section 3.13.3.3. Therefore, there would be no impact with regard to inconsistency with transportation plans.

Impact T-8 (Construction would conflict with planned transportation projects) would be the same under Alternative 4 as it would for the proposed Project (please see Section 3.13.6.1). As described in Section 3.13.6.2, placement of structures within transportation ROWs could conflict with future transportation projects. Although this alternative introduces different construction methods and the use of helicopter staging areas in the ANF, the route of this alternative is identical to that of Alternative 2 and the potential for construction to conflict with planned transportation projects (Impact T-8) would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-8 (Avoid conflicts with planned improvements to SR14). With implementation of this measure, as described in Section 3.13.6.2, Impact T-8 of Alternative 6 would be less than significant (Class II).

Noticeable deterioration of road surfaces (Criterion TRA10)

Impact T-9 (Construction vehicles and equipment could damage road ROWs) of Alternative 6 would be similar to that of the proposed Project (please see Section 3.13.6.1), with the exception of roads in the vicinity of Segment 6 and Segment 11. As described in Section 3.13.6.2, operation of construction vehicles and equipment could result in unexpected damage to roadways along the proposed ROW. However, because this alternative would use several centralized staging areas for construction of Segment 6 and Segment 11, fewer roadways would be traveled by construction vehicles under construction of Alternative 6 than under construction of Alternative 2. Therefore, compared to the proposed Project, the potential for Impact T-9 to occur would be decreased, but would still exist. However, APM TRA-5 (Repair Damaged Street) would be included as part of the Project in order to restore roads damaged by Project construction to their existing conditions. With implementation of APM TRA-5, as described in Section 3.13.6.2, Impact T-9 of Alternative 6 would be less than significant (Class III).

Adverse effects to aviation activities (Criterion TRA11)

Impacts associated with Criterion TRA11 for Alternative 6 would be the same as impacts associated with this criterion for the proposed Project. Alternative 6 would result in placement of the same number and type of towers in the same location along Segment 6 and Segment 11 as the proposed Project and there would be no increase in the potential for Impact T-10 (Project transmission structures could present an aviation hazard) to occur. The remaining portion of Alternative 6 is identical to Alternative 2 and Impact T-10 would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-10 (Notify US Air Force). With implementation of this measure, as described in Section 3.13.6.2, Impact T-10 of Alternative 6 would be less than significant (Class II).

3.13.10.2 Cumulative Effects Analysis

This alternative consists of helicopter construction of substantial portions of Segment 6 and Segment 11 that are located within the ANF. This alternative would follow the exact same route as the proposed Project and would result in similar or identical impacts to traffic and transportation as the proposed Project. 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. As a result, this alternative traverses the same land uses as the proposed Project route 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 identical to that of the proposed Project.

Geographic Extent

Based on the substantial similarity of Alternative 6 to the proposed Project, the geographic extent for the analysis of cumulative impacts related to Traffic and Transportation for this alternative would be identical to that of the proposed Project, as described in Section 3.13.6.2.

Existing Cumulative Conditions

The existing cumulative conditions for Alternative 6 are exactly the same as for Alternative 2, as described in Section 3.13.6.2.

Reasonably Foreseeable Future Projects and Changes

Reasonably foreseeable future projects and changes to the cumulative scenario for Alternative 6 would be exactly the same as Alternative 2, described in Section 3.13.6.2.

Cumulative Impact Analysis

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. Delivery of additional equipment and workers required for helicopter construction would result in an incremental increase in the number of construction vehicles traveling on roadways within the ANF. Therefore Alternative 6 would result in the addition of a slightly higher number of construction-related trips to area roadways during construction of Segment 6 and Segment 11. This increase in traffic would also incrementally increase the contribution of Alternative 6 to cumulative Impact T-1 and Impact T-2. However, as described in Section 3.13.10.1, mitigation measures would be implemented to reduce the contribution of Alternative 6 to these impacts to a less-than-significant level. Therefore, the modified configuration of the proposed Project transmission line associated with Alternative 6 would not substantially affect the proposed Project's contribution to cumulative impacts and therefore, cumulative impacts of Alternative 6 would be the same as cumulative impacts for Alternative 2, as described in Section 3.13.6.2.

The following impacts would not be cumulatively considerable (No Impact) for the same reasons as discussed in Section 3.13.6.2: Impact T-5 (Construction activities would cause a temporary disruption to rail traffic or operations), Impact T-7 (Construction would result in localized shortages of public parking along the Project ROW), Impact T-8 (Construction would conflict with planned transportation projects), and Impact T-9 (Construction vehicles and equipment could damage road ROWs).

The following impacts would be cumulatively considerable but less than significant (Class III): Impact T-1 (Closure of roads to through traffic or reduction of travel lanes would result in substantial congestion), Impact T-2 (Construction traffic would result in congestion on area roadways), Impact T-3 (Construction activities could temporarily interfere with emergency response), Impact T-4 (Construction activities could temporarily disrupt transit routes), Impact T-6 (Construction activities could temporarily interfere with the use of pedestrian/bicycle paths), and Impact T-10 (Project transmission structures could present an aviation hazard).

As the cumulative effects of Alternative 6 would be the same as for the proposed Project, please see Section 3.13.6.2 for a full description of these effects.

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

Alternative 6 would not result in significant cumulative impacts; therefore, no additional mitigation measures are required.

3.13.11 Alternative 7: 66-kV Subtransmission Alternative

3.13.11.1 Direct and Indirect Effects Analysis

The significance criteria used to identify Traffic and Transportation are introduced in Section 3.13.4.1 (Criteria for Determining Impact Significance). Impacts associated with this alternative are presented below under the applicable significance criteria.

Alternative 7 would generally follow the same route as the proposed Project; however two portions of Segment 7 in the Central Region would be constructed underground from S7- MP 8.9 – S7-MP 9.9 and from S7- MP 8.9 – S7-MP 9.9. Additionally, a portion of Segment 8A in the Southern Region would be rerouted to the south between S8A MP 2.2 and S8A MP 3.8.Therefore, any impacts that would occur within the Northern Region of the proposed Project and along all segments of the Central Region except Segment 7 would also occur for Alternative 7; as such, please see Section 3.13.6.1 for a summary of Traffic and Transportation impacts that could potentially affect resources along the portion of the Alternative 7 route which is identical to the proposed Project route.

Closure of roads or reduction of travel lanes (Criterion TRA1)

Impacts associated with Criterion TRA1 for Alternative 7 would be similar to impacts associated with this criterion for the proposed Project. However, trenching required for construction of the underground portions of Segment 7 within Valley Boulevard and adjacent to Durfee Avenue would require temporary closure of Valley Boulevard and potential closure of Peck Road and Durfee Avenue for a longer duration than the overhead crossings proposed under Alternative 2. Additionally, the rerouted portion of Segment 8 of Alternative 7 would result in two more crossings and commensurate temporary closure of San Gabriel Boulevard than the proposed Project. Therefore, the potential for Impact T-1 (Closure of roads to through traffic or reduction of travel lanes would result in substantial congestion) to occur would be increased compared to that of the proposed Project, as presented in Section 3.13.6.2. However, with implementation of Mitigation Measures T-1a (Prepare Traffic Control Plans) and T-1b (Restrict lane closures), as described in Section 3.13.6.2, Impact T-2 of Alternative 7 would be less than significant (Class II).

Unacceptable level of service reduction to vicinity roads (Criterion TRA2)

Impacts associated with Criterion TRA2 for Alternative 7 would be similar to impacts associated with this criterion for the proposed Project. However, the additional duration of lane closures required for construction of the underground and rerouted portions of the proposed transmission line would incrementally increase the potential for Impact T-2 (Construction traffic would result in congestion on area roadways) to occur. However, with implementation of Mitigation Measure T-2 (Prepare Construction Transportation Plan), as described in Section 3.13.6.2, Impact T-2 of Alternative 7 would be less than significant (Class II).

Restricted access to properties (Criterion TRA3)

Impact T-11: Underground construction activities would temporarily restrict access to properties.

The underground portion of Alternative 7 would be located immediately adjacent to Peck Road and Durfee Avenue, which serve adjacent businesses. During excavation of the trench for the underground cable, access to property driveways would be temporarily disrupted and possibly blocked. This could potentially disrupt businesses. To reduce the severity of the impact to less-than-significant levels, Mitigation Measure T-11 is recommended (Class II). This impact is specific to the construction activities associated with the underground portions of Alternative 7 and does not apply to the proposed Project or other proposed alternatives.

Mitigation Measures for Impact T-1

T-11 **Provide Continuous Access to Properties.** SCE shall provide at all times the ability to quickly lay a temporary steel plate trench bridge upon request to ensure driveway access to businesses, and shall provide continuous access to properties when not actively constructing the underground alignment. In the event that trench stability could be compromised by the laying of a temporary steel plate bridge during an early phase of trench construction, SCE may defer a request for access to the soonest possible time until the stability of the trench has been assured, provided SCE has provided 48-hour advance notification of the potential for disrupted access to any business that may experience such delayed access. The notification shall include information on restoring access and the estimated amount of time that access may be blocked. In addition, SCE shall develop construction plans that will minimize blocked access during the workday.

Restrict the movements of emergency vehicles (Criterion TRA4)

Impacts associated with Criterion TRA4 for Alternative 7 would be similar to impacts associated with this criterion for the proposed Project. However, the additional duration of lane closures required for construction of the underground and rerouted portions of the proposed transmission line would incrementally increase the potential for Impact T-3 (Construction activities could temporarily interfere with emergency response) to occur. However, with implementation of Mitigation Measure T-1a (Prepare Traffic Control Plans), which includes measures, such as keeping emergency service agencies fully informed of road closures, detours, and delays and making ready at all times provisions to accommodate emergency vehicles and Mitigation Measure T-1b (Restrict lane closures), as described in Section 3.13.6.2, Impact T-3 of Alternative 7 would be less than significant (Class II).

Disruption to transit service (Criterion TRA5)

The underground portions of this route would cross Valley Boulevard and would be located directly adjacent to Durfee Avenue, which are utilized by five Foothill Transit bus routes and one Los Angeles Metro bus route. Lane closures required for construction of the underground portions of Alternative 7 would be of longer duration than closures required for the proposed Project would incrementally increase the potential for Impact T-4 (Construction activities could temporarily disrupt transit routes) to occur. However, with implementation of Mitigation Measure T-4 (Avoid disruption of bus service), as described in Section 3.13.6.2, Impact T-4 of Alternative 7 would be less than significant (Class II).

Disruption to rail traffic (Criterion TRA6)

Impacts associated with Criterion TRA6 for Alternative 7 would be identical to impacts associated with this criterion for the proposed Project. Although this alternative introduces a re-route of portions of Segment 7 and Segment 8 of the proposed transmission line, it would cross the same rail lines at the same location as the proposed Project and there would be no increase in the potential for Impact T-5 (Construction activities would cause a temporary disruption to rail traffic or operations) to occur. The remaining portion of Alternative 7 is identical to Alternative 2 and the potential for construction to interfere with rail traffic would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-5 (Obtain and comply with railroad permits). With implementation of this measure, as described in Section 3.13.6.2, Impact T-5 of Alternative 7 would be less than significant (Class II).

Impediment of pedestrian movements or bike paths (Criterion TRA7)

The underground portion of Alternative 7 would be located immediately adjacent to Peck Road and Durfee Avenue, which serve adjacent businesses. During excavation of the trench for the underground cable, access to sidewalks would be temporarily disrupted and possibly blocked, which would increase the potential for Impact T-6 (Construction activities could temporarily interfere with the use of pedestrian/bicycle paths) to occur. However, with implementation of Mitigation Measure T-6 (Ensure pedestrian and bicycle circulation and safety), as described in Section 3.13.6.2, Impact T-6 of Alternative 7 would be less than significant (Class II).

Reduction in the supply of parking spaces (Criterion TRA8)

Impacts associated with Criterion TRA8 for Alternative 7 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative introduces a re-route of portions of Segment 7 and Segment 8 of the proposed transmission line, no public parking exists on along the roadway segments that would be affected by the underground and rerouted portions Alternative 7. Therefore there would be no increase in the potential for Impact T-7 (Construction would result in localized shortages of public parking along the Project ROW) to occur. The remaining portion of Alternative 7 is identical to Alternative 2 and the potential for construction to substantially reduce the number of parking spaces and result in localized shortages of public parking would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-2 (Prepare Construction Transportation Plan). With implementation of this measure, as described in Section 3.13.6.2, Impact T-7 of Alternative 7 would be less than significant (Class II).

Construction would be inconsistent with transportation plans (Criterion TRA9)

Impacts associated with Criterion TRA9 for Alternative 3 would be the same as impacts associated with this criterion for the proposed Project. Trip generation associated with construction of this alternative would be substantially similar to that of the proposed Project. While the actual number of trips added to the roadway during project construction may vary slightly from that of the proposed Project, transmission line workers would be similarly dispersed in groups throughout the Project area and would not typically be working at the same place at any one time. The dispersion of workers at various worksites along the approximate 173-mile route would preclude project-related construction traffic from exceeding any of the CMP thresholds described above in Section 3.13.3.3. Therefore, there would be no impact with regard to inconsistency with transportation plans.

Impact T-8 (Construction would conflict with planned transportation projects) would be the same under Alternative 4 as it would for the proposed Project (please see Section 3.13.6.1). As described in Section 3.13.6.2, placement of structures within transportation ROWs could conflict with future transportation projects. Although this alternative introduces a re-route of portions of Segment 7 and Segment 8 of the proposed transmission line, no planned transportation projects have been identified along the rerouted portions of Segment 7 or Segment 8. The remaining portion of Alternative 7 is identical to Alternative 2 and the potential for construction to conflict with planned transportation projects (Impact T-8) would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-8 (Avoid conflicts with planned improvements to SR14). With implementation of this measure, as described in Section 3.13.6.2, Impact T-8 of Alternative 7 would be less than significant (Class II).

Noticeable deterioration of road surfaces (Criterion TRA10)

Impacts associated with Criterion TRA10 for Alternative 7 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative introduces a re-route of portions of Segment 7 and Segment 8 of the proposed transmission line, it would cross the same streets at the same general location as the proposed Project and there would be no increase in the potential for Impact T-9 (Construction vehicles and equipment could damage road ROWs) to occur. The remaining portion of Alternative 7 is identical to Alternative 2 and the potential for construction to result in damage to road surfaces would be the same as presented in Section 3.13.6.2. APM TRA-5 (Repair Damaged Street) would be included as part of the Project in order to restore roads damaged by Project construction to their existing conditions. With implementation of APM TRA-5, as described in Section 3.13.6.2, Impact T-9 of Alternative 7 would be less than significant (Class III).

Adverse effects to aviation activities (Criterion TRA11)

Impacts associated with Criterion TRA11 for Alternative 7 would be the same as impacts associated with this criterion for the proposed Project. Although this alternative introduces a re-route of portions of Segment 7 and Segment 8 of the proposed transmission line, it would be located in the same general location as the proposed Project with the same type of transmission towers and there would be no increase in the potential for Impact T-10 (Project transmission structures could present an aviation hazard) to occur. The remaining portion of Alternative 7 is identical to Alternative 2 and Impact T-10 would be the same as presented in Section 3.13.6.2, and would require implementation of Mitigation Measure T-10 (Notify US Air Force). With implementation of this measure, as described in Section 3.13.6.2, Impact T-10 of Alternative 7 would be less than significant (Class II).

3.13.7.2 Cumulative Effects Analysis

The rerouted portions of the Alternative 7 route generally parallel the proposed Project route to the south. 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 7 to the proposed Project, this alternative's contribution to cumulative impacts would be identical to that of the proposed Project.

Geographic Extent

Based on the substantial similarity of Alternative 7 to the proposed Project, the geographic extent for the analysis of cumulative impacts related to Traffic and Transportation for this alternative would be identical to that of the proposed Project, as described in Section 3.13.6.2.

Existing Cumulative Conditions

The existing cumulative conditions for Alternative 7 are exactly the same as for Alternative 2, as described in Section 3.13.6.2.

Reasonably Foreseeable Future Projects and Changes

Reasonably foreseeable future projects and changes to the cumulative scenario for Alternative 7 would be exactly the same as Alternative 2, described in Section 3.13.6.2.

Cumulative Impact Analysis

The rerouting and undergrounding short portions of the proposed transmission line associated with Alternative 7 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 described in Section 3.13.6.2.

The following impacts would not be cumulatively considerable (No Impact): Impact T-5 (Construction activities would cause a temporary disruption to rail traffic or operations), Impact T-7 (Construction would result in localized shortages of public parking along the Project ROW), Impact T-8 (Construction would conflict with planned transportation projects), and Impact T-9 (Construction vehicles and equipment could damage road ROWs).

The following impacts would be cumulatively considerable but less than significant (Class III): Impact T-1 (Closure of roads to through traffic or reduction of travel lanes would result in substantial congestion), Impact T-2 (Construction traffic would result in congestion on area roadways), Impact T-3 (Construction activities could temporarily interfere with emergency response), Impact T-4 (Construction activities could temporarily disrupt transit routes), Impact T-6 (Construction activities could temporarily interfere with the use of pedestrian/bicycle paths), and Impact T-10 (Project transmission structures could present an aviation hazard). Unlike Alternatives 2 through 6, Alternative 7 involves underground construction activities that could potentially block access to property entrances and driveways (Impact T-11). If other projects required the use of the same public ROW at the same time as the proposed Project, the regulatory agency responsible for issuing the encroachment permit would ensure that work within a public road would not occur simultaneously with the proposed Project to avoid significant cumulative impacts (Class III).

As the cumulative effects of Alternative 7 would be the same as for the proposed Project, please see Section 3.13.6.2 for a full description of these effects.

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

Alternative 7 would not result in significant cumulative impacts; therefore, no additional mitigation measures are required.

3.13.12 Impact Significance Summary

Table 3.13-16 summarizes the direct and indirect environmental impacts of the proposed Project (Alternative 2) and the other alternatives on Traffic and Transportation. The direct and indirect effects of the Project and alternatives have been fully described in Sections 3.13.6 through 3.13.10 above. Alternative 1 (No Project/No Action) impacts are fully described in Section 3.13.5; however, since no potential future project information is available an impact significance level for Alternative 1 is not included in the table below.

Table 3.13-16. Summary of Impacts and Mitigation Measures – Traffic and Transportation

Impact	Impact Significance								Mitigation Measures
	Alt. 1+	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt 7	NFS Lands*	
T-1: Closure of roads to through traffic or reduction of travel lanes would result in substantial congestion.	N/A	Class II	Class II	Class II	Class II	Class II	Class II	Yes	T-1a: Prepare Traffic Control Plans. T-1b: Restrict lane closures.
T-2: Construction traffic would result in congestion on area roadways.	N/A	Class II	Class II	Class II	Class II	Class II	Class II	Yes	T-2: Prepare Construction Transportation Plan.
T-3: Construction activities could temporarily interfere with emergency response.	N/A	Class II	Class II	Class II	Class II	Class II	Class II	Yes	T-1a, T-1b
T-4: Construction activities could temporarily disrupt transit routes.	N/A	Class II	Class II	Class II	Class II	Class II	Class II	No	T-4: Avoid disruption of bus service.
T-5: Construction activities would cause a temporary disruption to rail traffic or operations.	N/A	Class II	Class II	Class II	Class II	Class II	Class II	No	T-5: Obtain and comply with railroad permits.
T-6: Construction activities could temporarily interfere with the use of pedestrian/bicycle paths.	N/A	Class II	Class II	Class II	Class II	Class II	Class II	No	T-6: Ensure pedestrian and bicycle circulation and safety.
T-7: Construction would result in localized shortages of public parking along the Project ROW.	N/A	Class II	Class II	Class II	Class II	Class II	Class II	No	T-2
T-8: Construction would conflict with planned transportation projects.	N/A	Class II	Class II	Class II	Class II	Class II	Class II	No	T-8: Avoid conflicts with planned improvements to SR14.
T-9: Construction vehicles and equipment could damage road ROWs.	N/A	Class III	Class III	Class III	Class III	Class III	Class III	Yes	None recommended
T-10: Project transmission structures could present an aviation hazard.	N/A	Class II	Class II	Class II	Class II	Class II	Class II	No	T-10: Notify US Air Force.
T-11: Underground construction activities would temporarily restrict access to properties.	N/A	No Impact	No Impact	No Impact	No Impact	No Impact	Class II	No	T-11: Provide continuous access to properties.

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.

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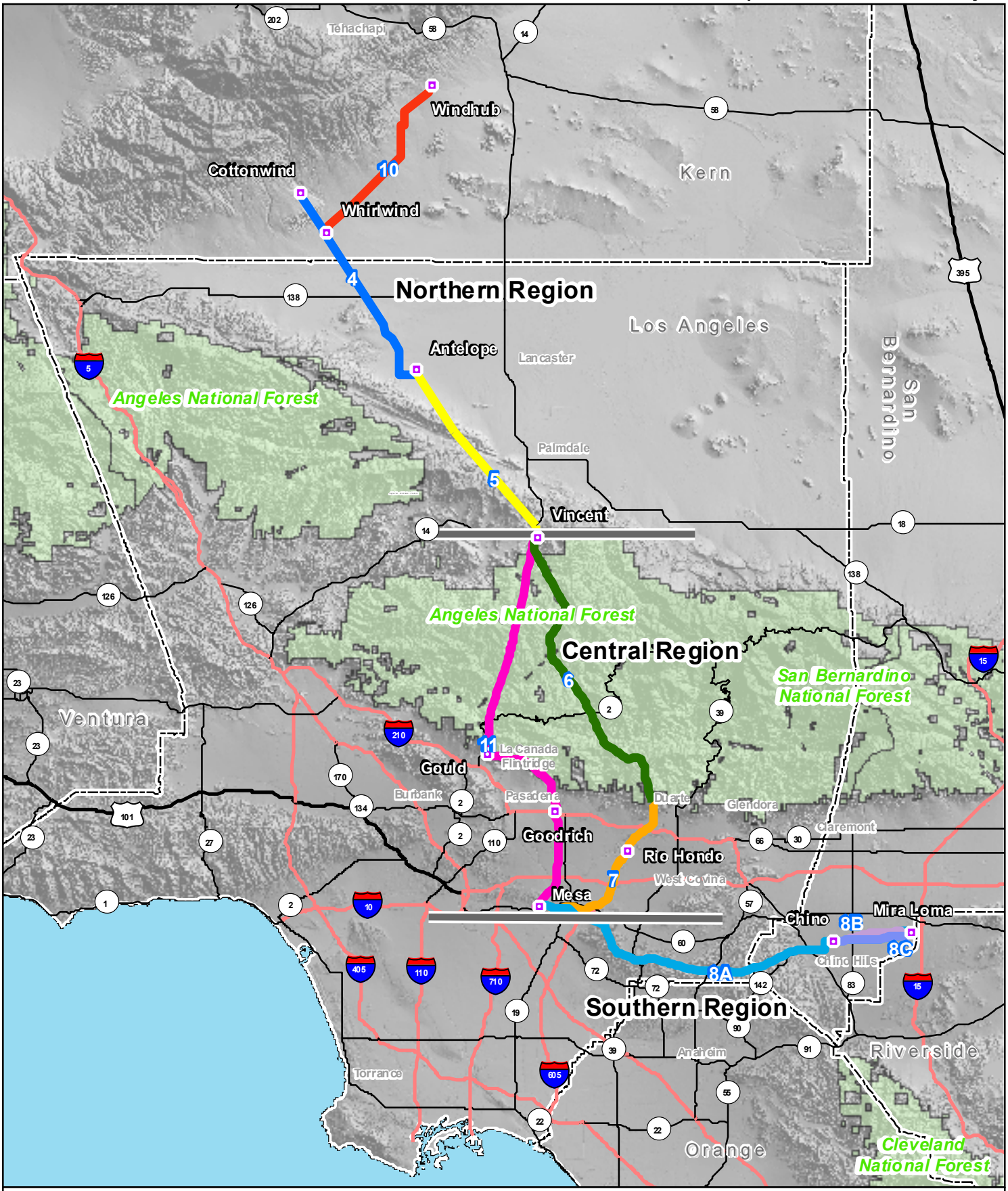

Aspen Environmental Group

SCE 2007,
USDA Forest Service 2007

Figure 3.13-1

TRTP Site Location Map