



Draft CPUC CEQA Findings of Fact FILED

Regarding the Final Environmental Impact Report for the
Tehachapi Renewable Transmission Project
State Clearinghouse #2007081156

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I. Project Background

The California Public Utilities Commission (CPUC) is approving a Certificate of Public Convenience and Necessity¹ (CPCN) for the Tehachapi Renewable Transmission Project (TRTP) proposed by Southern California Edison (SCE). Specifically, the CPUC is approving the CPCN for the alternative identified in the Final Environmental Impact Report (EIR) as the “Environmentally Superior Alternative.” This alternative is a combination of “SCE’s Proposed Project” (Alternative 2), with minor re-routes and variations in construction methods imposed as part of the “West Lancaster Alternative” (Alternative 3), “Maximum Helicopter Construction in the ANF Alternative” (Alternative 6), and the “66-kV Subtransmission Alternative” (Alternative 7). The CPUC has selected this route because it is the least environmentally damaging alignment.

I.1 Project Description

On June 29, 2007, Southern California Edison (SCE) filed with the United States Department of Agriculture (USDA) Forest Service an application for a Special Use authorization, seeking permission for construction, operation, and maintenance of the Project on National Forest System (NFS) lands in the Angeles National Forest (ANF). Also on June 29, 2007, SCE submitted Application No. A.07-06-031 to the CPUC for a Certificate of Public Convenience and Necessity (CPCN). With the CPCN application, SCE also submitted its Proponent’s Environmental Assessment (PEA) for the proposed Project (Alternative 2).

SCE is authorized to construct a series of new and upgraded electric transmission lines and substations to deliver electricity from Kern County, California, to the greater Los Angeles Basin. Collectively, the transmission line and system modifications are known as the Tehachapi Renewable Transmission Project (TRTP or Project). The entire Project will involve new and upgraded transmission infrastructure along approximately 173 miles from the Tehachapi Wind Resources Area (TWRA) in southern Kern County south through Los Angeles County and the Angeles National Forest (ANF) and east to the existing Mira Loma Substation in Ontario, San Bernardino County, California.

Below is an overview of the alternatives considered as part of the Final EIR. Pursuant to CEQA (Section 15126.6(a)) a reasonable range of alternatives to SCE’s Proposed Project (Alternative 2) were examined and were selected based on the following criteria: (1) the alternative’s potential to meet most of the Project objectives/purpose and need, (2) the feasibility of the alternative, (3) the alternative’s ability to avoid or lessen adverse effects of SCE’s Proposed Project, and (4) the alternative’s ability to meet California Independent System Operator (CAISO), Western Electricity Coordinating Council (WECC), and North American Electric Reliability Corporation (NERC) reliability planning criteria. As required under CEQA Section 15126.6(e) a No Project/Action alternative was also considered. The alternatives considered include the following:

¹ The CPUC is charged with regulating privately owned utility infrastructure. As set forth in the California Public Utilities Code, no investor-owned utility may construct or expand a transmission line or generating facility without obtaining a CPCN from the CPUC (PUC Sections 1001 to 1013; 1091 to 1102).

Alternative 1: No Project/Action Alternative. Under the No Project/Action Alternative, the Project would not be implemented. As such, none of the associated Project activities would occur and the environmental impacts associated specifically with the Project would not occur. However, in the absence of the Project, SCE still would continue to operate and maintain the existing transmission structures, access, and spur roads for operations and maintenance purposes under a variety of agreements (landowners) and permits (Forest Service and USACE). SCE would also be required to interconnect and integrate power generation facilities into its electric system, as required under Sections 210 and 212 of the Federal Power Act (16 U.S.C. § 824 [i] and [k]) and Sections 3.2 and 5.7 of the CAISO's Tariff. Various scenarios related to electricity generation and transmission reasonably expected to occur in the foreseeable future are identified in Chapter 2 (Description of Alternatives) of the Final EIR.

Alternative 2: SCE's Proposed Project. SCE's Proposed Project would involve construction, operation, and maintenance of new/ upgraded transmission infrastructure along approximately 173 miles of existing and new/expanded ROW from the TWRA in southern Kern County south through Los Angeles County and the ANF and east to the existing Mira Loma Substation in Ontario, San Bernardino County, California. The major components of this alternative include seven segments of new/upgraded transmission line (Segments 4, 5, 6, 7, 8A/B/C, 10, and 11) and new/ upgraded substations (Segment 9). SCE's Proposed Project would traverse approximately 42 miles of NFS lands in the ANF and approximately 6.4 miles of lands that are owned by the USACE.

Alternative 3: West Lancaster Alternative. This alternative would re-route the new 500-kV transmission line in Segment 4, which SCE originally proposed along 110th Street West, 0.5 miles farther west along 115th Street West. This alternative represents a refinement of SCE's Proposed Project that would place the transmission line along an undeveloped area instead of through development thereby minimizing disturbance to current residences or access to properties located along the paved 110th Street West. As such, land use impacts and visual impacts would be reduced.

Alternative 4: Chino Hills Alternatives. Five variations to the Chino Hills State Park alternatives considered by SCE in its PEA (RA Eliminated 6, Options 1 and 2) were considered as part of the Final EIR. Each of these routing options would avoid proximity of the transmission line to existing residences of the City of Chino Hills, would eliminate construction of approximately 16 miles of 500-kV structures along Segment 8A between S8A MP 19.2 and 35.2 (Mira Loma Substation). Upgrades along Segment 8B would still occur under Alternative 4, same as the proposed Project (Alternative 2).

- **Route A** would place a new double-circuit 500-kV transmission line in Segment 8A through Chino Hills State Park (CHSP) parallel to an existing double-circuit 220-kV transmission line. This alternative route would require construction of a new 500-kV switching station in CHSP, which would allow the new 500-kV transmission line to connect to existing 500-kV transmission lines located in this area that provide connections to the Mira Loma Substation.
- **Route B** represents a refinement to Route A, in which a new double-circuit 500-kV transmission line in Segment 8A would be routed completely through CHSP parallel to an existing double-circuit 220-kV transmission line. This alternative route would require construction of a new 500-kV switching station, which would be located east of and outside of the CHSP, and would allow the new double-circuit 500-kV transmission line to connect to existing 500-kV transmission lines located in this area that provide connections to the Mira Loma Substation.
- **Route C** represents a refinement to Route A, in which a new double-circuit 500-kV transmission line in Segment 8A would be placed parallel to an existing double-circuit 220-kV transmission line up to CHSP. At this point, this alternative route would turn east for approximately 2.4 miles, remaining just north of the CHSP boundary, to a new 500-kV switching station. A portion of the existing single-

circuit 500-kV transmission lines within CHSP would be re-routed to tie into the new switching station, which would allow the new double-circuit 500-kV transmission line to connect to these existing 500-kV transmission lines to allow power flow to continue on to the Mira Loma Substation. In addition, a portion of the existing 220-kV transmission line within CHSP would be re-routed outside of CHSP, paralleling the new 500-kV transmission line from just west of the CHSP boundary to the new switching station, and would then re-enter CHSP paralleling the re-routed 500-kV transmission lines to reconnect with the existing 220-kV transmission line.

- **Route C Modified** is similar to the original Route C option discussed above, with the exceptions that (1) the new gas-insulated switching station would be located on Aerojet property approximately 2,500 feet northwest of the location proposed for the original Alternative 4C, (2) transmission line configurations and access roads would be altered to account for relocation of the switching station, and (3) re-routing of the existing single-circuit 500-kV towers in CHSP to the new switching station would occur utilizing double-circuit 500-kV towers. As with the original Route C, this proposed Route 4C Modified would also diverge from the Project Segment 8A at Mile 19.2, as well as re-route the existing 500-kV and 220-kV transmission lines from within CHSP, through a new switching station located north of CHSP.
- **Route D** represents a refinement to Route A, in which a new double-circuit 500-kV transmission line in Segment 8A would be placed parallel to an existing double-circuit 220-kV transmission line up to CHSP. At this point, the alternative route would turn east and proceed to follow the northern boundary of CHSP for approximately 4.2 miles, then just east of Bane Canyon the alignment would turn southeast and cut across CHSP for approximately 1.3 miles to a new 500-kV switching station located immediately east of the boundary of CHSP (same location as Alternative 4, Route B). This switching station would allow the new double-circuit 500-kV transmission line to connect to existing 500-kV transmission lines located in this area to provide connections to the Mira Loma Substation.

Alternative 5: Partial Underground Alternative. This alternative would utilize Gas-Insulated Line (GIL) technology to place the proposed overhead lines underground along Segment 8A through the City of Chino Hills for approximately 3.5 miles to reduce significant visual impacts and address other community concerns.

Alternative 6: Maximum Helicopter Construction in the ANF Alternative. This alternative would utilize helicopter construction within the ANF to the maximum extent feasible. This alternative was requested by the Forest Service to reduce ground disturbance within the ANF by minimizing new road construction through the use of helicopter construction. Helicopter staging/support areas have been identified in the vicinity of Segments 6 and 11 to provide for helicopter construction activities within the ANF. A total of 148 new 500-kV towers would be constructed by helicopter under this alternative: 92 along Segment 6 and 56 along Segment 11.

Alternative 7: 66-kV Subtransmission Alternative. This alternative is comprised of four 66-kV subtransmission line elements, including the following: (1) Undergrounding the existing 66-kV subtransmission line on Segment 7 through the River Commons at the Duck Farm Project (Duck Farm Project) between MP 8.9 and MP 9.9 of Segment 7, in the planned Duck Farm Project area as requested by the Board of Supervisors County of Los Angeles to minimize the Project's effects to passive recreation opportunities in the planned Duck Farm Project area; (2) Re-routing and undergrounding the existing 66-kV subtransmission line around the Whittier Narrows Recreation area along Segment 7 (S7 MP 11.4 to 12.025) to provide habitat enhancement for least Bell's vireos as identified by SCE; (3) Re-routing the existing 66-kV subtransmission line through the Whittier Narrows Recreation Area in Segment 7 (S7 MP 12.0 to 13.6) immediately north of the existing 220-kV ROW to reduce the number of structures required (20-foot expanded ROW required); (4) Re-routing the existing 66-kV subtransmission line around the Whittier

Narrows Recreation Area along Segment 8A between the San Gabriel Junction at MP 2.2 and S8A MP 3.8 (2 routing options are provided in this area) to provide habitat enhancement for least Bell’s vireos as identified by SCE. As with the Project, Alternative 7 would traverse 42 miles of NFS lands in the ANF; however, this alternative would also traverse roughly 7.9 miles of lands that are owned by the USACE, which is approximately 1.5 miles more USACE lands than the Project or other Project alternatives.

The Project: Alternatives 2, 3, 6, and 7

The Findings of Fact included herein pertain to the significant effects of the project that the CPUC is approving in its CPCN. As discussed above, the approved Project is a combination of certain alternatives evaluated in the Final EIR, which collectively form the environmentally superior alternative. This combination will henceforth be referred to as “the Project” and includes elements of the following:

- Alternative 2 (SCE’s Proposed Project);
- Alternative 3 (West Lancaster);
- Alternative 6 (Maximum Helicopter Construction in the ANF); and
- Alternative 7 (66-kV Subtransmission) within Segment 7 (Duck Farm 66-kV Underground, Whittier Narrows 66-kV Underground Re-Route, and Whittier Narrows 66-kV Overhead Re-Route) and within Segment 8 between S8A MP 2.2 to 3.8 (Whittier Narrows 66-kV Overhead Re-Route – Option 1).

A summary of the components, by segment, for the Project as adopted are provided in the table below. A more detailed description of the segments follows the table.

Summary of Project (Combination of Alternatives 2, 3, 6, and 7) Components
<p>Overall Project Construction</p> <ul style="list-style-type: none"> • Proposed construction duration of 59 months (estimated to begin in December 2009 and end in October 2014); however, within Segments 6 and 11, where the need for substantial helicopter construction is required, a longer construction schedule may result due to the limited availability of specialized helicopters and personnel. The schedule for helicopter construction will be finalized as part of final engineering. • Transmission facility construction generally scheduled for Monday through Friday, 7:00 a.m. to 5:00 p.m.; however, if extended hours are necessary, such as 24-hour construction, a variance will be acquired • Substation construction generally scheduled for Monday through Friday, 7:00 a.m. to 5:00 p.m.; however, if extended hours are necessary a variance will be acquired • Workforce ranging in size from 10 to 300 persons, with daily average workforce of approximately 75 persons
<p>Segment 10: New Whirlwind – Windhub 500-kV Transmission Line (T/L)</p> <ul style="list-style-type: none"> • Initiates at the approved Windhub Substation (not part of Project) and ends at the new Whirlwind Substation • Construct new approximately 16.8-mile single-circuit Whirlwind – Windhub 500-kV T/L • All proposed permanent infrastructure to be located within new 330-foot-wide ROW (approx. 16.8 miles) • Erect approximately 96 new single-circuit 500-kV lattice steel towers (LSTs) (90-200 feet tall) • Will require approximately 16 new wire setup sites for pulling/tensioner/splicing of conductor wire
<p>Segment 4: Whirlwind 500/220 kV T/L Elements</p> <ul style="list-style-type: none"> • Initiates at the proposed Cottonwind Substation (not part of Project) and ends at the existing Antelope Substation • Construct two new parallel 4.0-mile single-circuit 220-kV T/Ls (Cottonwind – Whirlwind 220-kV No. 1 & No. 2) • Construct new approximately 16.0-mile single-circuit Vincent – Whirlwind 500-kV T/L (0.4 mile greater than Alt 2) • All proposed permanent infrastructure to be located within new 200-foot-wide ROW (approx. 20.0 miles total) • Erect approximately 164 new transmission structures (one less structure compared to Alt 2), including: <ul style="list-style-type: none"> ▪ 88 single-circuit 220-kV LSTs (73-138 feet tall) ▪ 76 single-circuit 500-kV LSTs (113-188 feet tall) • Will require approximately 28 wire setup sites for pulling/tensioner/splicing of conductor wire
<p>Segment 5: Antelope – Vincent No. 2 500-kV T/L</p> <ul style="list-style-type: none"> • Initiates at the existing Antelope Substation and ends at the existing Vincent Substation

Summary of Project (Combination of Alternatives 2, 3, 6, and 7) Components

- Remove the existing Antelope – Vincent 220-kV T/L and the existing Antelope – Mesa 220-kV T/L
- Construct new approximately 17.4-mile single-circuit Antelope – Vincent No. 2 500-kV T/L
- Most of the proposed permanent infrastructure (with the exception of side board width requirements of the new cutovers) to be located within existing ROW (approx. 17.4 miles)
- Erect approximately 67 new single-circuit 500-kV LSTs (90-193 feet tall)
- Will require approximately 37 wire setup sites for pulling/tensioner/splicing of conductor wire

Segment 11: New Mesa – Vincent (via Gould) 500/220-kV T/L

- Initiates at the existing Vincent Substation and ends at the existing Mesa Substation
- Remove approximately 4 miles of the existing Pardee – Vincent No. 1 220-kV T/L
- Remove approximately 15 miles of the existing Eagle Rock – Pardee 220-kV T/L
- Construct new approximately 18.7-mile 500-kV single-circuit T/L between Vincent and Gould Substations (initially energized at 220 kV)
- Re-route portions of two existing 220-kV lines into Vincent Substation using currently idle towers.
- String approximately 17.5 miles (approximately 3.3 miles are located on National Forest System [NFS] lands) of new 220-kV conductor on the vacant side of the existing double-circuit structures of the Eagle Rock-Mesa 220-kV T/L (10 existing structures are located on NFS lands)
- Most of the proposed infrastructure will be located within existing ROW; however, the ROW may need to be expanded by up to approximately 250 feet to the west along the approximately 16 miles north of Gould Substation to maintain safe clearances from the edge of the ROW due to wire swing of the new 500-kV T/L under wind loading conditions
- Erect approximately 76 total new transmission structures (59 LSTs on NFS lands), including:
 - 2 single-circuit 220-kV poles (120 feet tall)
 - 7 single-circuit 220-kV LSTs (120-160 feet tall)
 - 67 single-circuit 500-kV LSTs (100-198 feet tall), of which 17 are configured as delta towers (10 on NFS lands)
- Construction of between 16 and 56 structures by helicopter (all on NFS lands), supported by 10 helicopter staging areas (6 on NFS lands)
- Will require approximately 36 wire setup sites for pulling/tensioner/splicing of conductor wire (11 on NFS lands)
- The majority of this segment will be located on NFS lands including: S11 MP 1.5-3.5, 3.75-18.5, 19.25-20.3, 20.8-21.3, 21.8-22.6, 23.05-24.15, and 24.35-24.55 (in-holdings or other non-NFS lands are located between the mileposts listed)

Segment 6: Section of New Replacement Rio Hondo – Vincent No. 2 500-kV T/L (initially energized at 220 kV) and Section of New Mira Loma – Vincent 500-kV T/L

- Initiates at the existing Vincent Substation and ends at the southern boundary of the ANF
- Remove approximately 5 miles of the existing Rio Hondo – Vincent No. 2 220-kV T/L between Vincent Substation and the “crossover” span (S6 MP 5.0)
- Construct new approximately 5-mile single-circuit Mira Loma – Vincent 500-kV T/L from the Vincent Substation to the “crossover” span (S6 MP 5.0)
- Remove approximately 26.9 miles of the existing Antelope – Mesa 220 kV T/L from Vincent Substation to the southern boundary of the ANF
- Construct new approximately 26.9-mile single-circuit Rio Hondo – Vincent No. 2 500-kV T/L (initially energized at 220 kV)
- Eliminate the existing crossing of the Rio Hondo – Vincent No. 2 220-kV T/L over the Antelope – Mesa 220-kV T/L
- All proposed permanent infrastructure to be located within existing ROW (approx. 27 miles)
- Erect approximately 138 total new transmission structures (105 on NFS lands – 99 LSTs and 6 tubular steel poles [TSPs]), including:
 - 2 single-circuit 220-kV LSTs (90-120 feet tall)
 - 26 single-circuit 500-kV TSPs (75-200 feet tall)
 - 106 single-circuit 500-kV LSTs (85-193 feet tall)
 - 4 three-pole dead-end 500-kV structures (75-80 feet tall) [all off NFS lands]
- Construction of between 17 and 92 structures by helicopter (all on NFS lands), supported by 12 helicopter staging areas (11 on NFS lands)
- Will require approximately 19 wire setup sites for pulling/tensioner/splicing of conductor wire (16 on NFS lands – In addition, 5 alternate sites have been identified on NFS lands)
- The majority of this segment will be located on NFS lands including: S6 MP 1.45-1.7, 2.75-5.3, 5.65-6.7, 6.7-6.95, 7.05-24.8 (in-holdings or other non-NFS lands are located between the mileposts listed)

Segment 7: Section of New Replacement Rio Hondo – Vincent No. 2 500-kV T/L (initially energized at 220 kV) and Section of New Mira Loma – Vincent 500-kV T/L

Summary of Project (Combination of Alternatives 2, 3, 6, and 7) Components

- Initiates at the southern boundary of the ANF and ends at the existing Mesa Substation
- Remove approximately 15.8 miles of the existing Antelope – Mesa 220-kV T/L between the southern boundary of the ANF and the Mesa Substation
- Construct new approximately 15.8-mile 500-kV double-circuit T/L to include the Rio Hondo – Vincent No. 2 500-kV T/L (initially energized at 220 kV) and the new Mira Loma – Vincent 500-kV T/L
- Connect the new Rio Hondo – Vincent No. 2 500-kV T/L (initially energized at 220 kV) into the Rio Hondo Substation
- Relocate several existing 66-kV subtransmission lines between the existing Rio Hondo Substation and the existing Mesa Substation. With incorporation of Alternative 7, this segment includes two short segments of 66-kV underground and a segment of re-routed overhead 66-kV lines, as follows:
 - (1) an approximately 6,000-foot underground segment of 66-kV subtransmission line from S7 MP 8.9 to 9.9 through the Duck Farm Project; and
 - (2) an approximately 3,300-foot re-route of 66-kV subtransmission line, which will be placed underground, beginning at approx. S7 MP 11.4 and proceed north along Peck Road, then west along Durfee Road, rejoining the 220-kV ROW (Project ROW) at approx. S7 MP 12.025.
 - (3) relocation of the existing Rio Hondo – Amador – Jose – Mesa 66-kV subtransmission line to the north side of the existing 220-kV ROW beginning at Durfee Avenue (~S7 MP 12.0) through Legg Lake Park and the Whittier Narrows Recreation Area to just east of San Gabriel Boulevard (~S7 MP 13.6).
- All proposed permanent 500-kV infrastructure to be located within existing ROW (approx. 15.8 miles); New and expanded ROW required for 66-kV re-routes.
- Erect approximately 85 new transmission structures, including:
 - 1 double-circuit 220-kV LST (185 feet tall)
 - 2 double-circuit 500-kV TSPs (195-200 feet tall)
 - 3 single-circuit 500-kV LSTs (113-175 feet tall)
 - 79 double-circuit 500-kV LSTs (147-262 feet tall)
- Erect approximately 128 new double-circuit 66-kV Light Weight Steel Poles (LWSPs) and TSPs (22 fewer than Alt 2)
- Will require approximately 16 wire setup sites for pulling/tensioner/splicing of conductor wire

Segment 8: Section of New Mira Loma – Vincent 500-kV T/L

- Initiates near the existing Mesa Substation and ends at the existing Mira Loma Substation
- Remove various 220-kV T/L structures between the existing Mesa Substation and the existing Mira Loma Substation
- Construct approximately 33 miles of new double-circuit 500-kV T/L to include approximately 33 miles of the new Mira Loma – Vincent 500-kV T/L (Segments 8A/8C)
- Construct approximately 7 miles of new double-circuit 220-kV T/L from the Chino Substation to the Mira Loma Substation (Segment 8B)
- Relocate several existing 66-kV subtransmission lines in the area of the Mesa and Chino Substations. With incorporation of Alternative 7, this segment includes re-routing a short segment of 66-kV overhead out of the Whittier Narrows Recreation Area. Option 1 begins near the San Gabriel Junction (S8A MP 2.2) and continues southeast along San Gabriel Boulevard and then Siphon Road to rejoin the 220-kV ROW (proposed Project ROW) at approx. S8A MP 3.8.
- Most of the proposed infrastructure will be located within existing ROW, except for the following:
 - San Gabriel River Crossing [Option 1] (66-kV) new ROW (existing: none; future: 0.2-mile or 1,600-foot, 60-foot-wide)
 - Rose Hills Memorial Park ROW relocation (existing: 1.1-mile, 150-foot-wide; future: 1.4-mile, 240-foot-wide)
 - Hacienda Heights ROW expansion (existing: 2.15-mile, 150 to 230-foot-wide; future: 250 to 330-foot-wide)
 - Fullerton Road new ROW (existing: none; future: 0.4-mile, 100-foot-wide)
 - Ontario (near Mira Loma Substation) ROW expansion (existing: 0.45-mile, 175-foot-wide; future: 325-foot-wide)
- Erect approximately 226 new transmission structures, including:
 - 2 single-circuit 220-kV LSTs (65-75 feet tall)
 - 57 double-circuit 220-kV LSTs (113-180 feet tall)
 - 3 single-circuit 500-kV LSTs (128-149 feet tall)
 - 92 double-circuit 500-kV LSTs (147-255 feet tall)
 - 2 single-circuit 220-kV TSPs (85-95 feet tall)
 - 11 double-circuit 220-kV TSPs (75-115 feet tall)
 - 5 three-pole dead-end 220-kV structures (75-110 feet tall)
 - 4 single-circuit 500-kV TSPs (120-170 feet tall)
 - 50 double-circuit 500-kV TSPs (150-195 feet tall)
- Erect approximately 45 new double-circuit 66-kV subtransmission LWSPs (10 fewer than Alt 2)
- Will require approximately 33 wire setup sites for pulling/tensioner/splicing of conductor wire

Summary of Project (Combination of Alternatives 2, 3, 6, and 7) Components

Segment 9: Substation Facilities

- Construct new Whirlwind Substation; activity will require acquisition of a new approximately 106-acre substation property
- Expand and upgrade existing Antelope and Vincent Substations to accommodate new 500-kV and 220-kV equipment; activity will require acquisition of additional substation property – approximately 20 acres for Antelope upgrade and approximately 0.2 acre for Vincent upgrade; Vincent expansion will disturb approximately 20 acres
- Upgrade existing Mesa and Gould Substations to accommodate new 220-kV equipment
- Upgrade existing Mira Loma Substation to accommodate new 500-kV equipment

The Project will include the construction of new and upgraded transmission infrastructure along approximately 173 miles of new and existing rights-of-way (ROW) from the TWRA in southern Kern County south through Los Angeles County and the Angeles National Forest (ANF) and east to the existing Mira Loma Substation in Ontario, San Bernardino County, California. The major components of the Project have been separated into eight distinct segments. Under separate application to the CPUC, SCE previously requested approval for Segments 1, 2, and 3 of the Antelope Transmission Project. Consequently, the description of major components for the TRTP begins with Segment 4 and continues to Segment 11. Segments 4 through 8, as well as Segments 10 and 11 of the TRTP are transmission facilities, while Segment 9 addresses the addition and upgrade of substation facilities. The segments begin numerically (not geographically) with Segment 4 (S4) and continue through Segment 11 (S11); however the discussion below has been presented geographically, beginning with the northernmost point located in the TWRA (Segment 10) and ending at the southern/easternmost point in Ontario (Segment 8). Mileages along each segment are denoted first by the segment number (Sx, where x is between 4 and 11), followed by MP (for milepost) and then the mileage.

Segment 10: Whirlwind – Windhub 500-kV T/L (S10 MP 0.0 to 16.8)

Segment 10 includes a new approximately 16.8-mile-long single-circuit 500-kV T/L that will enable the interconnection of potential wind generation from the Windhub Substation to the proposed new Whirlwind Substation (see Final EIR Figures 2.2-1b through 2.2-1e). The new 500-kV T/L will be built in a new 330-foot-wide ROW to be acquired by SCE. This segment is identical to SCE's Proposed Project (Alternative 2).

Segment 4: Cottonwind – Whirlwind 220-kV T/Ls (S4 MP 0.0 to 4.0) and Vincent – Whirlwind 500-kV T/L (S4 MP 4.0 to 20.0)

Segment 4 consists of two new transmission line subsegments, each requiring a new 200-foot wide ROW to be acquired by SCE. The northern portion of Segment 4 (S4 MP 0.0 to 4.0) will include approximately 4 miles of two new parallel 220-kV T/Ls between the Cottonwind Substation² and the proposed new Whirlwind Substation (i.e., Cottonwind – Whirlwind 220-kV T/Ls) (see Final EIR Figures 2.2-1d through 2.2-1e).

The southern portion of Segment 4 will connect the Whirlwind Substation (S4 MP. 4.0) to SCE's existing Vincent Substation (S4 MP 20.0) near Acton by installing a new, approximately 16.0-mile, 500-kV single-circuit T/L that will connect to the northern end of the previously approved Antelope – Vincent 500-kV T/L (Segment 2) completing the circuit to Vincent Substation (i.e., Vincent – Whirlwind 500-kV T/L) (see Final EIR Figures 2.2-1e through 2.2-1g). Within this southern portion of Segment 4, Alternative 3 (West Lancaster Alternative) will be implemented, which will re-route the new 500-kV T/L along 115th Street West rather than 110th Street West, as shown in Final EIR Figure 2.3-1. The Project will deviate from SCE's

² The Cottonwind Substation is currently undergoing environmental review by the County of Kern in conjunction with a proposed wind farm development.

Proposed Project (Alternative 2) beginning at approximately S4 MP 14.9, where the new 500-kV T/L will instead turn south down 115th Street West for approximately 2.9 miles and turn east for approximately 0.5 mile, rejoining SCE's proposed route at S4 MP 17.9 (now S4 MP 18.3). This 3.4-mile re-route increase the overall distance of Segment 4 by approximately 0.4 mile (15.6 miles vs. 16.0 miles); however, the number of overall structures decreases by one due to greater spacing between structures compared to SCE's Proposed Project.

To match the overall system requirements, the existing Midway – Vincent No. 3 500-kV T/L, which the new Vincent – Whirlwind 500-kV T/L will parallel, will be cut and routed (or terminated) into the Whirlwind Substation (north end) and the Antelope Substation (south end). To minimize the number of physical 500-kV crossings, the Midway – Vincent No. 3 500-kV T/L will be cutover to the previously approved Antelope – Tehachapi 500-kV T/L (Segment 3A).

Segment 5: Antelope – Vincent No. 2 500-kV T/L (S5 MP 0.0 to 17.4)

Segment 5 consists of the construction of approximately 17.4 miles of new single-circuit 500-kV T/L structures between SCE's existing Antelope Substation and Vincent Substations, located in Lancaster and near Acton, respectively (see Final EIR Figures 2.2-1g through 2.2-1j). This new 500-kV T/L will be built next to a similar existing 500-kV T/L and will replace two 220-kV T/Ls that will be removed as part of the Project. Construction will mostly occur within existing ROW. This segment is identical to SCE's Proposed Project (Alternative 2).

Segment 11: Mesa – Vincent No. 2 (via Gould) 500/220-kV T/L

Segment 11 will replace approximately 19 miles of existing single-circuit 220-kV T/L structures from Vincent Substation, located near Acton, to Gould Substation in La Cañada Flintridge with a new approximately 18.7-mile single-circuit 500-kV T/L (Mesa – Vincent No. 2 500-kV T/L from S11 MP 0.0 to 18.7), initially energized to 220 kV (see Final EIR Figures 2.2-1j through 2.2-1n). The Project alignment along this portion of Segment 11 is identical to SCE's Proposed Project (Alternative 2); however, the amount of ground-based construction and helicopter construction will be altered as a result of implementing Alternative 6 (Maximum Helicopter Construction in the ANF). The amount of towers removed/constructed by helicopter will increase from SCE's original proposal of 16 towers with implementation of Alternative 6, which calls for 56 towers in Segment 11 to be constructed by helicopter. However, the final number of towers to be removed/constructed by helicopter in the ANF along Segment 11 will ultimately be determined by the Forest Service in their Record of Decision (ROD) and will fall within the approved range of 16 to 56 towers.

To accommodate the helicopter construction activities along the portion of Segment 11 in the ANF, and as a result of the combination of Alternatives 2/6, the following helicopter staging/support areas will be approved as part of the Project for utilization during construction, as shown in Final EIR Figures 2.2-83 and 2.6-1:

- (1) SCE#0: Adjacent to Beartrap Canyon, south of Aliso Canyon Road, and approximately 0.45 mile east of S11 MP 3.9 (off NFS lands – private in-holding);
- (2) SCE#1: Along north side of Mt. Gleason Road, approximately 0.3 mile east of S11 MP 7.6;
- (3) SCE#2: Along and south of Forest Road 3N27, immediately west of S11 MP 9.3 near Structure #36;
- (4) SCE#3: Along and north of Forest Road 3N27, west of S11 MP 10.75;

- (5) SCE#3B/Alt 6 Site #8: Terraced area near Big Tujunga Dam, approximately 0.15 mile west-southwest of Big Tujunga Canyon Road and S11 MP 14.5;
- (6) SCE#4: Adjacent to and west of Mt Lukens Road (Forest Road 2N76.3), Angeles Crest Station, and S11 MP 18.0 (off NFS lands);
- (7) SCE#5: Along Forest Road 2N69 just north of Gould Substation and west of S11 MP 18.6 (off NFS lands);
- (8) Alt 6 Site #2: South of Aliso Canyon Road and east of an existing SCE access road, east of S11 MP 3.75 (off NFS lands – located on a private in-holding within the ANF);
- (9) Alt 6 Site #4: Along south side of a non-Forest system road, near where road ends; approximately 0.15 mile north of Mt. Gleason Road, approximately 1.7 miles west of S11 MP 7.8; and
- (10) Site #10: Adjacent to the north of Angeles Forest Highway, approximately 0.25 north of intersection with Big Tujunga Canyon Road, 0.8 mile east of S11 MP 13.25.

As part of the implementation of Alternative 6, foundations for towers within the ANF will generally be installed using micropile methods, as described in Final EIR Section 2.2.12.5 (Tower and Pole Construction), to the maximum extent feasible, as determined by SCE in consultation with the Forest Service. Furthermore, a portable drill rig will be utilized for installation of micropile foundations rather than a tracked excavator, as it lacks the necessary precision. For those structures installed utilizing conventional footing construction, the construction method will be identical to that proposed for SCE Proposed Project (Alternative 2), as described in Final EIR Section 2.2.12.5.

As part of Segment 11, a second approximately 17.5-mile 220-kV T/L circuit will be installed on the currently empty side of the existing double-circuit towers, which currently hold only the Eagle Rock-Mesa 220-kV T/L, between the Gould Substation property in La Cañada Flintridge (S11 MP 18.7) and the Mesa Substation (S11 MP 36.2) in Monterey Park (see Final EIR Figures 2.2-1n through 2.2-1p and 2.2-1v). This portion of Segment 11 is identical to SCE's Proposed Project (Alternative 2).

Segment 11 will generally be within existing ROW, except for some areas north of Gould Substation (see Final EIR Figures 2.2-1k through 2.2-1n). In this area, the ROW width is currently irregular; therefore, SCE may need to expand the ROW up to approximately 250 feet to the west of the existing corridor to allow for a continuous width of 360 feet to provide the required clearances to accommodate the “swing” of the proposed 500-kV T/L under wind loading conditions. Overall, the majority of this segment will be located on NFS lands within the ANF (approximately 20.4 miles) including: S11 MP 1.5-3.5, 3.75-18.5, 19.25-20.3, 20.8-21.3, 21.8-22.6, 23.05-24.15, and 24.35-24.55 (in-holdings or other non-Forest properties are located between the mileposts listed).

Segment 6: Section of New Replacement Rio Hondo – Vincent No. 2 500-kV T/L and Section of New Mira Loma – Vincent 500-kV T/L

Segment 6 will consist of the construction of a total of approximately 32 miles of single-circuit 500-kV T/L structures in existing ROW from the Vincent Substation located near Acton to the southern boundary of the ANF (see Final EIR Figures 2.2-1j through 2.2-1k and 2.2-1q through 2.2-1t). Approximately 27 miles of the existing Antelope – Mesa 220-kV T/L structures will be rebuilt with 500-kV single-circuit structures from the Vincent Substation to the southern boundary of the ANF and be initially energized at 220 kV. In addition, approximately 5 miles of the existing Rio Hondo – Vincent No. 2 220-kV T/L structures will be rebuilt with 500-kV single-circuit structures from the Vincent Substation to the existing “crossover” span (S6 MP 4.8). The existing crossing or “crossover” of the Rio Hondo – Vincent No. 2 220-kV T/L over the

Antelope – Mesa 220-kV T/L will be eliminated. The completion of Segment 6 will result in two roughly parallel circuits constructed to 500-kV standards in the existing ROW from the Vincent Substation (S6 MP 0.0) to the southern boundary of the ANF (S6 MP 26.9). The easterly circuit will be the new Rio Hondo – Vincent No. 2 500-kV T/L initially energized at 220 kV (requires 26.9 miles of new 500-kV T/L). The westerly circuit will become a section of the new Mira Loma – Vincent 500-kV T/L (requires only approximately 5 miles of new 500-kV T/L, as the existing structures south of the “crossover span” to the southern boundary of the ANF are currently constructed to 500-kV standards with 500-kV structures). The majority of this segment (approximately 21.85 miles) will be located on NFS lands within the ANF including: S6 MP 1.45-1.7, 2.75-5.3, 5.65-6.7, 6.7-6.95, 7.05-24.8 (in-holdings or other non-Forest properties are located between the mileposts listed).

The Project alignment along Segment 6 is identical to SCE’s Proposed Project (Alternative 2); however, the amount of ground-based construction and helicopter construction will be altered as a result of implementing Alternative 6 (Maximum Helicopter Construction in the ANF). The amount of towers removed/constructed by helicopter will increase from SCE’s original proposal of 17 towers with implementation of Alternative 6, which calls for 92 towers in Segment 6 to be constructed by helicopter. However, the final number of towers to be removed/constructed by helicopter in the ANF along Segment 6 will ultimately be determined by the Forest Service in their Record of Decision (ROD) and will fall within the approved range of 17 to 92 towers.

To accommodate the helicopter construction activities along the portion of Segment 6 in the ANF, and as a result of the combination of Alternatives 2/6, the following helicopter staging/support areas will be approved as part of the Project for utilization during construction, as shown in Final EIR Figures 2.2-83 and 2.6-1:

- (1) SCE#6: West of Shortcut Station adjacent to Upper Big Tujunga Canyon Road (Forest Road 3N19), approximately 0.35 mile west of S6 MP 16.5;
- (2) SCE#6B/Alt 6 Site #7: Accessed via Barley Flats Road, approximately 1.8 miles west of S6 MP 16.75;
- (3) SCE#7/Alt 6 Site #9: Adjacent to Rincon-Redbox Road in the Newcomb Pass area, approximately 0.36 mile west of junction with Shortcut-Edison Trail, just west of S6 MP 19.5;
- (4) SCE#8/Alt 6 Site #11: West of Van Tassel Motorway in Monrovia, west of S6 MP 26;
- (5) SCE#9: Fish Canyon Rifle Range, 1.2 miles east of S7 MP 0.6 accessed via Fish Canyon Road in Azusa (off NFS lands);
- (6) SCE#10: Southwest of Cogswell Reservoir, accessed via Highway 39, San Gabriel Canyon Road;
- (7) Alt 6 Site #1: West of Angeles Forest Highway at the intersection with Mount Emma Road, east of S6 MP 3.0;
- (8) Alt 6 Site #3: South of Aliso Canyon Road and east of Price Ranch Road, in between Segments 6 and 11;
- (9) Alt 6 Site #5: Near Forest Road 4N18, adjacent and west of S6 MP 9.75;
- (10) Alt 6 Site #6: Adjacent and west of Upper Big Tujunga Canyon Road, approximately 0.25 to 0.30 mile west of S6 MP 14.0;
- (11) Alt 6 Site #12: A large roadside turnout area adjacent to Angeles Forest Highway north of Mill Creek Summit Station, east of S6 MP 6.6; and

- (12) Alt 6 Site #13: An existing helicopter landing area southeast of Mill Creek Summit Station, east of S6 MP 7.5.

As part of the implementation of Alternative 6, foundations for towers within the ANF will generally be installed using micropile methods, as described in Final EIR Section 2.2.12.5 (Tower and Pole Construction), to the maximum extent feasible, as determined by SCE in consultation with the Forest Service. Furthermore, a portable drill rig will be utilized for installation of micropile foundations rather than a tracked excavator, as it lacks the necessary precision. For those structures installed utilizing conventional footing construction, the construction method will be identical to that proposed for SCE Proposed Project (Alternative 2), as described in Final EIR Section 2.2.12.5.

Segment 7: Section of New Replacement Rio Hondo – Vincent No. 2 500-kV T/L and Section of New Mira Loma – Vincent 500-kV T/L

Segment 7 is a continuation of Segment 6 (see discussion above), where the existing Rio Hondo – Vincent No. 2 220-kV T/L on existing 500-kV structures (in the Rio Hondo – Vincent alignment) will be renamed the new Mira Loma – Vincent 500-kV T/L, and the existing Antelope – Mesa 220-kV T/L structures (in the Antelope – Mesa alignment) will be replaced by the new Rio Hondo – Vincent No. 2 500-kV T/L (initially energized to 220 kV) structures.

Segment 7 will consist of approximately 15.8 miles of single- and double-circuit 500-kV structures in the existing ROW from the southern boundary of the ANF, near the City of Duarte, south to SCE's existing Rio Hondo Substation in the City of Irwindale, and then continuing southwest across the San Gabriel Valley to SCE's existing Mesa Substation in the Monterey Park/Montebello area (see Final EIR Figures 2.2-1t through 2.2-1v). Federal lands (USACE) crossed by Segment 7 include approximately 1.7 miles in the Santa Fe Dam area (see Final EIR Figure 2.2-1u) and approximately 2.5 miles in the Whittier Narrows Recreation Area (see Final EIR Figure 2.2-1v).

Segment 7 will result in two parallel T/L circuits between the southern boundary of the ANF and the existing Rio Hondo Substation, primarily on double-circuit structures, which replaces the existing Antelope – Mesa 220-kV T/L structures (in the Antelope – Mesa alignment), where the east circuit will be the final section of the new Rio Hondo – Vincent No. 2 500-kV T/L and the west circuit will be a section of the new Mira Loma – Vincent 500-kV T/L. The new Rio Hondo – Vincent No. 2 500-kV T/L (initially energized to 220-kV) will connect into the existing Rio Hondo Substation; however, the new Mira Loma – Vincent 500-kV T/L will not and instead will continue on towards the Mesa Substation.

From the Rio Hondo Substation (S7 MP 5.1) to the San Gabriel Junction (S7 MP 13.7), the existing Antelope – Mesa 220-kV structures will be replaced with double-circuit structures, where the new Mira Loma – Vincent 500-kV T/L will be located on these new double-circuit structures. The double-circuit structures will be strung with 500-kV conductor (2B-2156 kcmil ACSR) and will be utilized in a split-phase configuration³. At this point (San Gabriel Junction), the new Mira Loma – Vincent 500-kV T/L will leave the Antelope – Mesa 220-kV T/L alignment and crossover to the existing Chino – Mesa 220-kV T/L alignment. This crossover point is the beginning of the Segment 8 (Subsegment 8A) section of the new Mira Loma – Vincent 500-kV T/L (refer to Segment 8 description below). For the final portion of Segment 7, from the San Gabriel Junction (S7 MP 13.7) to just east of the Mesa Substation (S7 MP 15.8), the existing

³ Split-Phasing (Split-Phase Circuit) – Use of double-circuit construction to carry the load of a single circuit in order to phase the circuit for electric field cancellation. In other words, the load of a circuit which is normally carried on one A, one B, and one C phase is carried by 2A, 2B, and 2C phases. These phases are then arranged A-B-C from top to bottom on one side of the double-circuit tower and C-B-A top to bottom (or equivalent) on the other side in order to achieve field cancellation. Split-phasing has been utilized in Segments 7 and 8 of the Project as a measure to reduce EMF.

Antelope – Mesa 220-kV single-circuit LSTs will be removed and replaced with new double-circuit 500-kV LSTs, located approximately adjacent to the existing structures.

The 500-kV T/L upgrades, as described above, within Segment 7 are identical to SCE's Proposed Project (Alternative 2).

To accommodate the 500-kV construction along Segment 7, various lower-voltage subtransmission lines between the Rio Hondo Substation and Mesa Substation will be relocated mostly within the existing ROW. For the approved Project, these subtransmission relocations are a combination of Alternative 2 (SCE's Proposed Project) and Alternative 7 (66-kV Subtransmission). The relocation of the Rio Hondo-Bradbury 66-kV line, Rio Hondo-Amador, Rio Hondo-Anita No. 2, Rio Hondo-Amador-Jose-Mesa, Mesa-Rush No. 2, Mesa-Anita-Eaton, Mesa-Narrows, and Mesa-Ravendale-Rush 66-kV lines will be identical to SCE's Proposed Project (Alternative 2), as described in Final EIR Section 2.2.8.1, with the following exceptions resulting from the implementation of Alternative 7.

Duck Farm 66-kV Underground

This element of the Project will consist of undergrounding the Rio Hondo-Amador-Jose-Mesa 66-kV subtransmission line along Segment 7 through the River Commons or Duck Farm Project, as shown in Final EIR Figure 2.7-1. Beginning at the north side of Valley Boulevard (Structure 43) located at approximately S7 MP 8.9, the 66-kV subtransmission line will be placed underground along the west edge of the ROW for a distance of approximately 6,000 feet to just south of Structure 48 (S7 MP 9.9), at which point the 66-kV subtransmission line will transition aboveground and continue overhead to Peck Road, as proposed under Alternative 2 (SCE's Proposed Project).

Whittier Narrows 66-kV Underground Re-Route

This element of the Project consists of re-routing and undergrounding the Jose-Mesa 66-kV subtransmission line around the Whittier Narrows Recreation area in Segment 7, as shown in Final EIR Figure 2.7-2. Beginning at Peck Road (S7 MP 11.4) the 66-kV subtransmission line, which under SCE's Proposed Project (Alternative 2) will be re-located to the western edge of the ROW, will leave the existing ROW at Peck Road and be placed underground. The new underground 66-kV subtransmission line will proceed approximately 300 feet north along Peck Road, then turn west and continue on Durfee Road for approximately 3,000 feet before rejoining SCE's proposed alignment (Alternative 2) at S7 MP 12.025 (just north of Structure 58).

Whittier Narrows 66-kV Overhead Re-Route

This element of the Project consists of relocating the existing Rio Hondo – Amador – Jose – Mesa 66-kV subtransmission line to the north side of the existing 220-kV ROW beginning at Durfee Avenue (~S7 MP 12.0) through Legg Lake Park and the Whittier Narrows Recreation Area to just east of San Gabriel Boulevard (~S7 MP 13.6). A 50-foot expansion of the existing ROW is required between approximately S7 MP 12.7 (Legg Lake) and S7 MP 13.6 (just east of San Gabriel Boulevard). The expanded ROW will provide the additional clearance for conductor sway required by the new double-circuit 500-kV structures thereby allowing taller 66-kV LWSPs to be installed in a one-for-one configuration with the new 500-kV structures. As such, fewer, but taller, 66-kV structures will be required along this portion of the Segment 7 alignment compared to SCE's Proposed Project (Alternative 2).

Segment 8: Section of New Mira Loma – Vincent 500-kV T/L

Segment 8 is divided into three subsegments (8A, 8B and 8C) and consists of approximately 33 miles of single-circuit and double-circuit 500-kV T/L structures beginning at the San Gabriel Junction (S8A MP 2.2)

and ending at the Mira Loma Substation in Ontario (see Final EIR Figures 2.2-1v through 2.2-1y). Existing ROW will be used for the majority of Segment 8, except where approximately three miles of new ROW outside Mira Loma Substation will be required. Also as part of Segment 8, various subtransmission and distribution lines near Mesa Substation and Chino Substation will be relocated.

As a general overview, Subsegments 8A, 8B, and 8C will consist of the following:

Subsegment 8A

Rebuild the existing Chino – Mesa 220-kV T/L (not currently energized) on 500-kV double-circuit structures beginning approximately 0.5 mile west of the Chino Substation (S8A MP 28.0) to a point just east of the Mesa Substation (See subtransmission line discussion below for the portion of the route between Chino Substation and 0.5 mile west of Chino Substation). From the Chino Substation at S8A MP 28.4 to a point approximately 0.75 mile west of the Mira Loma Substation at S8A MP 34.0, the existing Chino – Mira Loma No. 2 220-kV T/L and Chino – Mira Loma No. 3 220-kV T/L structures will be removed and replaced with 500-kV double-circuit structures. The new double-circuit will be energized as the Mira Loma – Vincent 500-kV T/L in a split-phased configuration. From this point (S8A MP 34.0), 500-kV single-circuit structures will be built parallel to the existing Chino – Mira Loma No. 1 220-kV T/L structures and the existing Lugo – Serrano 500-kV T/L structures into the Mira Loma Substation at S8A MP 35.2. The 500-kV upgrades as part of this subsegment are identical to SCE’s Proposed Project (Alternative 2).

The following subtransmission lines will be rearranged to accommodate the proposed 500-kV circuit:

- Under SCE’s Proposed Project, existing 66-kV LSTs will be removed and replaced with LWSPs beginning at the San Gabriel Junction (S8A MP 2.2) and continuing for approximately 2.1 miles (S8A MP 4.3) along the south side of the existing ROW; however, between the San Gabriel Junction (S8A MP 2.2) and the east side of the San Gabriel River (S8A MP 3.8) the 66-kV lines will instead be re-routed with implementation of Alternative 7, as described below under “Whittier Narrows 66-kV Overhead Re-Route, Option 1”.
- Beginning 0.5 miles west of Chino Substation (S8A MP 28.0), three spans of the existing Chino – Soquel 66-kV T/L (currently placed on 220-kV structures) will be rebuilt on 500-kV double-circuit structures to the Chino Substation.
- Multiple 66-kV lines in the vicinity of the Chino Substation beginning approximately 500 feet west of Central Avenue (S8A MP 27.7) to Magnolia Avenue (S8A MP 28.7) will be placed underground to make room for the new 500-kV double-circuit structures.

As noted above, with the inclusion of Alternative 7 as part of the approved Project, the following additional 66-kV re-route will be implemented as part of the Project.

- **Whittier Narrows 66-kV Overhead Re-Route, Option 1.** This element of the Project consists of relocating two 66-kV circuits (Mesa-Narrows 66-kV and Walnut-Hillgen-Industry-Mesa-Reno 66-kV), approximately 1.63 miles of overhead 66-kV lines (x2 lines), and vacating the southern end of the existing Project ROW from San Gabriel Boulevard (just west of the San Gabriel Junction, S8A MP 2.2) to the east side of the San Gabriel River (S8A MP 3.8). The existing 66-kV subtransmission lines currently split at the San Gabriel Junction (S8A MP 2.2) with one line proceeding along the existing 220-kV ROW and the other line proceeding southwest along San Gabriel Boulevard. As such, between the San Gabriel Junction and Lincoln Avenue existing infrastructure will be utilized. As shown in Final EIR Figure 2.7-2, these 66-kV circuits will be relocated beginning at the intersection of San Gabriel Boulevard and Lincoln Avenue and proceed southeast approximately 1,880 feet along San Gabriel Boulevard until Rosemead Boulevard, at which point the street name changes to Durfee Avenue. At this point, the 66-kV lines will continue for approximately 700 feet

southeast across Durfee Avenue utilizing new LWSPs and then continue approximately 2,100 feet southeast along Siphon Road to the San Gabriel River replacing the existing idle 66-kV structures with new TSPs. New ROW, approximately 1,600-feet long and 60-feet wide, will be required to cross from the existing 66-kV ROW on the west side of the San Gabriel River to the existing 220-kV ROW located on the east side of the San Gabriel River (near Structure 9), thereby allowing the new 66-kV lines to tie back into the 66-kV lines within the Project ROW (S8A MP 3.8) completing the circuit. In Segment 8A, the two 66-kV lines will transition within the existing ROW to underground for approximately 200 feet across the width of the ROW from the south side and then rise up on the north side of the ROW to join the existing lines.

Subsegment 8B

Rebuild the Chino – Mira Loma No. 1 220-kV T/L structures from the Chino Substation (S8B MP 0.0) to the Mira Loma Substation (S8B MP 6.8) with 220-kV double-circuit structures to accommodate the Chino – Mira Loma No. 1 220-kV and Chino – Mira Loma No. 2 220-kV T/Ls. This segment is identical to SCE's Proposed Project (Alternative 2).

Subsegment 8C

The new Chino – Mira Loma No. 3 220-kV T/L will occupy the south circuit on the new double-circuit 500-kV LSTs (installed as described in Subsegment 8A) from the Chino Substation (S8C MP 0.0) to approximately 0.8 miles west of the Mira Loma Substation (S8C MP 6.4). The northern circuit will be the new Mira Loma – Vincent 500-kV T/L as described above for Subsegment 8A. The new Chino – Mira Loma No. 3 220-kV T/L will utilize existing 220-kV double-circuit towers to connect into Mira Loma Substation. This segment is identical to SCE's Proposed Project (Alternative 2).

Segment 8 (Overall)

The completed Segment 8 from Chino Substation to just east of the Mesa Substation will result in 500-kV double-circuit structures, primarily on existing ROW, with conductors operated in a split-phased configuration to accommodate the new Mira Loma – Vincent 500-kV T/L. From the Chino Substation to the Mira Loma Substation, there will be approximately 5 miles of 500-kV double-circuit structures, and approximately 1.2 miles of 500-kV single-circuit structures, primarily on existing ROW. On the double-circuit section, the north circuit will be the new Mira Loma – Vincent 500-kV T/L (8A) and the south circuit will be the new Chino – Mira Loma No. 3 220-kV T/L (8C). The single-circuit section will accommodate the new Mira Loma – Vincent 500-kV T/L. In addition, between the Chino Substation and the Mira Loma Substation there will be approximately 7 miles of 220-kV double-circuit structures, primarily on existing ROW, accommodating the new Chino – Mira Loma No. 1 220-kV and Chino – Mira Loma No. 2 220-kV T/Ls (8C).

To reduce conductor swing that may occur between the existing 220-kV T/Ls and the new Mira Loma – Vincent 500-kV T/L, additional 220-kV structures will be added. These additional structures will reduce the span length between structures, which will reduce the conductor slack and thereby limit the range of motion for a given span. The new 220-kV structures will be added in various areas throughout Segment 8, including near S8A MP 2.2 (San Gabriel Junction), 4.2 (San Gabriel River Freeway crossing), 8.2 (near existing structure No. 30), 13.5 (Fullerton Road/Pathfinder Road), and 19.2 (turn tower). These inset towers are identical to those proposed as part of SCE's Proposed Project (Alternative 2).

Segment 9: Substation Facilities

Segment 9 includes additions and upgrades of substation facilities. For the Project, all portions of Segment 9 are identical to SCE's Proposed Project (Alternative 2). The Project includes the following: the new

500/220-kV Whirlwind Substation (the only new facility that will be constructed); upgrades to the existing Antelope, Vincent, Mesa, Gould, and Mira Loma Substations in order to accommodate new 500/220-kV equipment; and acquisition of approximately 20.2 acres (combined total) of additional substation property at the Antelope and Vincent Substations.

Whirlwind Substation. Whirlwind Substation will be a new 500/220-kV substation located approximately 4 to 5 miles south of the Cottonwind Substation near the intersection of 170th Street and Holiday Avenue in Kern County (see Final EIR Figure 2.2-75). The site chosen for the new substation encompasses approximately 106 acres, which will be acquired by SCE. Facilities associated with the proposed new substation, such as the substation pad, access road, and retention pond represent a permanent land disturbance of approximately 70 acres (see Final EIR Table 2.2-10 at the end of Chapter 2). In addition to the initial 70 acres, an area of approximately 27 acres (for a total of approximately 97 acres) will be graded within the fence line of the new substation to allow adequate room in the future for additional equipment that may be necessary to facilitate transmission of additional energy generation. No additional facilities or equipment will be installed as part of the Project within this future expansion area.

Antelope Substation. Segment 9 includes an upgrade of the Antelope Substation in order to accommodate new 500-kV transmission equipment (see Final EIR Figure 2.2-1g). The proposed expansion of the substation to accommodate 500 kV infrastructure was licensed and addressed in the Proponent's Environmental Assessment (PEA) submission to support the Antelope Transmission Project, Segment 1. The exceptions to the licensing were the installation of a 200 MVAR Static VAR Compensator (SVC) and two 500-kV, 150 MVAR each, shunt capacitor banks. The installation of the new equipment will be in an area of approximately 18 acres. Approximately 20 acres of additional land will be acquired by SCE; the additional land at the substation site will accommodate the additional new construction at the Antelope Substation (see Final EIR Figure 2.2-76).

Relocation of the Sagebrush Subtransmission Line. As part of the expansion of the Antelope Substation, the existing Sagebrush subtransmission line will be re-routed around the 500-kV expansion area (The Sagebrush line currently bisects this area). Beginning just south of West Avenue J, the Sagebrush line will be re-routed southeast for approximately 1,500 feet, paralleling the east side of the 500-kV expansion area, before turning southwest for approximately 1,500 feet, paralleling the south side of the 500-kV expansion area, to rejoin the existing alignment.

Vincent Substation. In order to accommodate the proposed transmission connections, Segment 9 requires an upgrade of the existing 500/220-kV Vincent Substation which includes two separate extensions of existing switchyards (see Final EIR Figure 2.2-1j and 2.2-77). At the southwestern corner of the facility, the south 220-kV bus extension requires an addition to the existing limits of the graded pad. To match the existing site grade, a retaining wall will be constructed and back-filled. The 500-kV switchyard will be extended to the west by approximately 1,100 feet, where extensive new grading will be required. The 500-kV substation expansion will be on the existing SCE-fee owned property. The 220-kV switchyard expansion will require approximately 0.2 acre of new property acquisition, and will disturb approximately 20 acres of existing and new substation land.

Gould Substation. The Gould Substation portion of Segment 9 includes upgrade of the existing 220-kV switchyard to accommodate the connection of the new Eagle Rock - Gould 220-kV T/L, as well as the 220-kV connections of the existing transformer banks to double breaker positions. All upgrades at the Gould Substation will take place within the existing fence line (see Final EIR Figure 2.2-1n).

Mesa Substation. The Mesa Substation portion of Segment 9 includes upgrades of the existing 220-kV switchyard with additional equipment to accommodate the connection of the new Mesa – Vincent No. 1

220-kV T/L in Segment 11. All upgrades at the Mesa Substation will take place within the existing fence line (see Final EIR Figure 2.2-1v).

Mira Loma Substation. The Mira Loma Substation portion of Segment 9 includes the construction of a new 500-kV position to terminate the new Mira Loma – Vincent 500-kv T/L, as described under Segment 8. All work will take place within the existing Mira Loma fence line (see Final EIR Figure 2.2-1y).

I.2 Project Objectives

An EIR must contain a clearly written statement of objectives that include the underlying purpose of the project (Section 15124(b) of the CEQA Guidelines). The purpose of the proposed TRTP, as described in the PEA submitted as part of SCE's application to the CPUC and the USDA Forest Service, is to provide the electrical facilities necessary to integrate levels of new wind generation in excess of 700 MW and up to approximately 4,500 MW in the TWRA (SCE, 2007). In addition to the purpose of the Project described above, SCE has identified the following objectives for the Project:

- Construct the project to reliably interconnect new wind generation resources in the TWRA, and enable SCE and other California utilities to comply with California's Renewables Portfolio Standard (RPS) in an expedited manner.
- Comply with all applicable reliability planning criteria required by the North American Electric Reliability Council (NERC), the Western Electricity Coordinating Council (WECC), and the CAISO.
- Construct facilities in an orderly, rational and cost-effective manner to maintain reliable electric service, by minimizing service interruptions, during construction.
- Address the reliability needs of the CAISO controlled grid due to projected load growth in the Antelope Valley.
- Address the South of Lugo transmission constraints, an ongoing source of concern for the Los Angeles Basin.
- Maximize the use of existing T/L right-of-ways in order to minimize effects on previously undisturbed land and resources.
- Minimize environmental impacts, through selection of routes, tower types and locations, while still meeting project objectives.
- Where existing right-of-way is not available, select the shortest feasible route that minimizes environmental impacts.
- Meet project needs in a cost-effective and timely manner.

The CPUC and Forest Service reviewed the Project objectives presented by SCE to determine which of the objectives represented an underlying purpose of the Project and, therefore, could appropriately be used to develop a range of reasonable Project alternatives for analysis in the Draft EIR/EIS. In addition to the purpose of the Project described by SCE to provide electrical facilities needed to integrate new wind generation, the Lead Agencies determined that the Project will also accomplish two other important objectives related to increasing transmission system reliability in the Antelope Valley and resolving transmission constraints south of Lugo Substation, which is located in Hesperia, California. Therefore, the Project's three primary objectives are to:

- Provide the electrical facilities necessary to reliably interconnect and integrate in excess of 700 MW⁴ and up to approximately 4,500 MW of new wind generation in the TWRA currently being planned or expected in the future, thereby enabling SCE and other California utilities to comply with the California RPS goals in an expedited manner (i.e., 20 percent renewable energy by year 2010 per California Senate Bill 107).⁵
- Further address the reliability needs of the CAISO-controlled grid due to projected load growth in the Antelope Valley.
- Address the South of Lugo transmission constraints, an ongoing source of concern for the Los Angeles Basin.

Section 1.2.1 of the Final EIR provides background information on the Renewables Portfolio Standard (RPS) requirements, the Tehachapi Wind Resource Area (TWRA), Projected Load Growth and Transmission Constraints, and Executive Order 13212.

II. Environmental Review Process

A joint Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) was published in February 2009 by the CPUC and USDA Forest Service in compliance with CEQA and NEPA requirements. A Final EIR on the Project was published in October 2009. The Final EIR has been prepared for the CPUC in accordance with CEQA and the CEQA Guidelines, as amended. As allowed for in CEQA Guidelines §15084(d)(2), the CPUC retained a consultant to assist with the preparation of the environmental documents. The CPUC, acting as State Lead Agency, has directed, reviewed and edited as necessary all material prepared by the consultant, and such material reflects the CPUC's independent judgment. The key milestones associated with the preparation of the Draft EIR/EIS and Final EIR are summarized below. In addition, an extensive public involvement and agency notification effort was conducted to solicit input on the scope and content of the Draft EIR/EIS and to solicit comment on the results of the environmental analysis presented in the Draft EIR/EIS. In general, the preparation of the Draft EIR/EIS and Final EIR included the following key steps and public notification efforts:

Draft EIR/EIS February 2009

- **Notice of Preparation.** A Thirty-nine day scoping process began with the CPUC's issuance of the Notice of Preparation (NOP) of a joint Draft EIR/EIS on August 31, 2007, and the USDA Forest Service's publication of the Notice of Intent (NOI) to prepare a joint Draft EIR/EIS in the Federal Register on September 7, 2007 (FR Vol. 72, No. 173, p. 51404)

The NOP was filed with the State Clearinghouse on August 31, 2007. The NOP and a separate notice of the nine public scoping meetings was mailed to over 15,000 property owners, regulatory agencies; environmental groups; private organizations; tribal government representatives; and elected officials. Copies of the NOP were available at 23 local libraries and agency offices.

- **Scoping Report.** In November 2007 and February 2008, a comprehensive Scoping Report and Comment Summary Report were issued respectively. The reports summarize issues and concerns

⁴ Segments 1, 2 and 3 of the Antelope Transmission Project would provide 700 MW. Segment 1 (SCH No. 2005061161) was previously analyzed and approved by the CPUC and Forest Service. Segments 2 & 3 (SCH No. 2006041160) have been approved by the CPUC.

⁵ FERC Order No. 2003 requires all public utilities that own, control, or operate facilities for transmitting electric energy in interstate commerce to provide interconnection service to electric generating facilities having a capacity of more than 20 megawatts.

received from the public and various agencies during the scoping period and in January 2008 to discuss the Chino Hills Alternative with concerned area citizens.

- **Draft EIR/EIS.** The CPUC and USDA Forest Service issued the Draft EIR/EIS on February 20, 2009. Copies of the full Draft EIR/EIS and Appendices were sent to 99 interested parties and agencies, and document repositories.
- **Notice of Completion.** The Notice of Completion for the Draft EIR/EIS was filed with the State Clearinghouse on February 13, 2009.
- **Notice of Availability of the Draft EIR/EIS.** A Notice of Availability (NOA) of the Draft EIR/EIS was mailed to approximately 15,400 addresses, including regulatory agencies, tribal governments, community organizations, interest groups, and property owners in the vicinity of the proposed Project and alternative routes in February 2009.
- **Public Meetings.** Three public informational workshops, two public meetings, and one formal Public Participation Hearing were held in March 2009. Over 300 members of the public, including representatives of organizations and government agencies, were documented in attendance at the CPUC Informational Workshops, Public Meetings, and Public Participation Hearing for the Draft EIR/EIS. However, no exact number was possible since Workshop participants were not required to sign in and Attendees of the public meetings and hearing were asked to sign-in or register before entering the meeting but were not required unless they were presenting testimony.
- One **Public Participation Hearing** was held in March 2009 by the Administrative Law Judge.

Final EIR October 2009

The CPUC issued the Final EIR on October 30, 2009. Copies of the full Final EIR were sent to approximately 50 interested parties and agencies, and document repositories. A Notice of Availability (NOA) of the Final EIR with CDs was also mailed to approximately 50 interested parties, agencies, and county and city departments that commented on the Draft EIR/EIS.

Project Resources

A Project e-mail address, telephone hotline, and a Project-specific internet site were available to provide another avenue for public comment and inquiry. All meetings and document publications up through the Draft EIR/EIS were advertised in sixteen local and regional newspapers in two Counties. All print notifications included information on the e-mail address, telephone hotline, and internet site.

III. Environmental Impacts and Findings

Pursuant to Public Resources Code §21081 and CEQA Guidelines §15091, no public agency shall approve or carry out a project for which an EIR has been certified, which identifies one or more significant effects on the environment that will occur if the project is approved or carried out unless the public agency makes one or more of the following findings with respect to each significant impact:

1. Changes or alterations have been required in, or incorporated into, the project, which mitigate or avoid the significant effects on the environment.
2. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

3. Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

The CPUC has made one or more of these specific written findings regarding each significant impact associated with the Project. Those findings are presented below, along with a presentation of facts in support of the findings. Concurrent with the adoption of these findings, the CPUC adopts the Mitigation Monitoring Program as presented in **Attachment XX of the Decision**.

The Final EIR evaluation includes a detailed analysis of impacts in 16 environmental disciplines, analyzing the Project and alternatives, including a No Project Alternative. The Final EIR discloses the environmental impacts expected to result from the construction and operation of the Project. Where possible, mitigation measures were identified to avoid or minimize significant environmental effects. In addition, SCE committed in advance to implementing measures to reduce the direct and indirect impacts that will result from Project activities. These measures, referred to as Applicant Proposed Measures (APMs), were identified by SCE in its CPCN Application to the CPUC, and are presented throughout Chapter 3 of the Final EIR, in respective issue area analyses. The analysis in the Final EIR assumes the APMs are part of the Project. The mitigation measures identified in the Final EIR are measures proposed by the Lead Agencies, responsible or trustee agencies or other persons, that were not proposed as part of the Project but will reduce or avoid adverse impacts in compliance with CEQA Guidelines §15126.4(a)(1)(A). Findings on mitigation measures proposed in public comments are provided below in sections V and VI.

No Environmental Effects

The EIS/EIR concludes that the Project will result in no environmental effects under some but not all Significance Criteria in the following environmental resource areas:

- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Environmental Contamination and Hazards
- Hydrology and Water Quality
- Geology, Soils, and Paleontology
- Land Use
- Public Services and Utilities
- Traffic and Transportation
- Wildfire Prevention and Suppression
- Electrical Interference and Hazards

Less-Than-Significant Impacts with No Mitigation Required

The EIS/EIR concludes that some but not all impacts of the Project in the following environmental resource areas will be less than significant without the implementation of mitigation measures:

- Agricultural Resources
- Air Quality
- Biological Resources
- Environmental Contamination and Hazards
- Geology, Soils, and Paleontology
- Hydrology and Water Quality
- Land Use
- Public Services and Utilities
- Traffic and Transportation
- Wilderness and Recreation
- Wildfire Prevention and Suppression
- Electrical Interference and Hazards

Less-Than-Significant Impacts with Implementation of Mitigation Measures

The EIS/EIR concludes that some but not all significant impacts of the Project in the following environmental resource areas will be less than significant after implementation of mitigation measures:

- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources

- Geology and Soils
- Hydrology and Water Quality
- Land Use
- Public Services and Utilities
- Traffic and Transportation
- Visual Resources
- Wilderness and Recreation
- Wildfire Prevention and Suppression
- Electrical Interference and Hazards

Significant and Unavoidable Impacts

The EIS/EIR concludes that some, but not all, impacts of the Project in the following environmental resource areas will remain significant and unavoidable despite imposition of all feasible mitigation:

- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Hydrology and Water Quality
- Land Use
- Noise
- Visual Resources
- Wilderness and Recreation
- Wildfire Prevention and Suppression

The following Sections III.1 (No Environmental Effects), III.2 (Environmental Impacts Found to be Less than Significant), III.3 (Significant Environmental Impacts that Have Been Reduced to a Less than Significant Level), and III.4 (Significant Environmental Impacts that Cannot Be Avoided or Reduced to a Less than Significant Level) provide discussions of the environmental impacts of the Project in detail.

III.1 No Environmental Effects

Section 15128 of the CEQA Guidelines requires an EIR to contain a statement briefly indicating the reasons why the lead agency determined that various possible effects of a project will not occur. The CPUC hereby finds that no environmental effects will result from the Project under the following Significance Criteria, as assessed in the 2009 Final EIS/EIR.

III.1.1 Agricultural Resources

Conflict with Williamson Act contract lands (Criterion AG3)

The Project will cross 0.91 miles of land under Williamson Act contract in Kern County, as part of Segment 4. This will be the only portion of the Project to traverse or run adjacent to Williamson Act contract land. Construction of access and spur roads, T/L towers, and stringing and pulling sites will temporarily convert a total of approximately 12.82 acres of land under Williamson Act contracts to non-agricultural uses. While the stringing and pulling site will be restored following the completion of construction activities, tower footings and foundations and access and spur roads will represent permanent disturbances to lands under Williamson Act contract. Consequently, the 11 T/L towers installed on land under Williamson Act contract will permanently convert a total of 0.033 acres to non-agricultural uses. The acreage of access and spur roads permanently converting land under Williamson Act contracts to non-agricultural uses will be 1.78 acres. As such, operation and maintenance will permanently convert 1.81 acres of land under Williamson Act contracts to non-agricultural uses.

Finding. The CPUC finds that the Project will not conflict with Williamson Act contracts. No impact will occur.

Rationale for Finding. The Project is an electrical infrastructure project licensed by the CPUC and Kern County considers these components to be allowable uses under Williamson Act contracts (Kern County Planning Department, 2007). Consequently, there would be no conflict with Williamson Act contracts.

Reference. Final EIR Section 3.2

III.1.2 Air Quality

Cumulative Impact AQ-6: The Project would not conform to Federal General Conformity Rules

This impact is strictly applicable to single project evaluation. Therefore, cumulative impacts do not apply and no impact would occur.

Finding. The CPUC finds that the Project will not result in a cumulative impact related to Federal General Conformity.

Rationale for Finding. Federal General Conformity evaluations are strictly applicable to single project evaluation; therefore, no cumulative impact would occur.

Reference. Final EIR Section 3.3

Cumulative Impact AQ-8: The Project would not conform to Angeles National Forest air quality strategies

This impact is strictly applicable to single project evaluation. Therefore, cumulative impacts do not apply and no impact would occur.

Finding. The CPUC finds that the Project will not result in a cumulative impact related to conforming with the Angeles National Forest air quality strategies.

Rationale for Finding. Evaluating a project's conformity with the Angeles National Forest air quality strategies is strictly applicable to single project evaluation; therefore, no cumulative impact would occur.

Reference. Final EIR Section 3.3

Cumulative Impact AQ-9: The Project would not conform with applicable Air Quality Management Plans

This impact is strictly applicable to single project evaluation. Therefore, cumulative impacts do not apply and no impact would occur.

Finding. The CPUC finds that the Project will not result in a cumulative impact related to conforming with applicable Air Quality Management Plans.

Rationale for Finding. Evaluating a project's conformity with applicable Air Quality Management Plans is strictly applicable to single project evaluation; therefore, no cumulative impact would occur.

Reference. Final EIR Section 3.3

Cumulative Impact AQ-10: Emissions would contribute to climate change

This impact is already evaluated in a globally cumulative context; therefore, cumulative impacts do not apply and no impact would occur.

Finding. The CPUC finds that the Project will not cumulatively contribute to climate change.

Rationale for Finding. Climate change evaluations are evaluated in a globally cumulative context; therefore, cumulative impacts do not apply and no cumulative impact would occur.

Reference. Final EIR Section 3.3

III.1.3 Biological Resources

Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinances (Criterion BIO6)

The following local and regional policy documents were reviewed for consistency with the Project:

- South Coast Resource Management Plan
- Southern California Association of Governments Regional Comprehensive Plan and Guide
- Los Angeles County Draft Preliminary General Plan
- Hacienda Heights Community Plan
- Rowland Heights Community Plan
- Altadena Community Plan
- City of La Cañada Flintridge General Plan
- City of Rosemead Draft General Plan
- City of Duarte Comprehensive General Plan Preliminary Draft
- City of Pasadena Comprehensive General Plan
- City of Baldwin Park 2020 General Plan
- Comprehensive General Plan of the City of San Gabriel, California
- Puente Hills Landfill Native Habitat Preservation Authority Resource Management Plan
- Rio Hondo Watershed Management Plan
- County of San Bernardino 2007 General Plan
- Land Management Plan: Southern California National Forests
- Antelope Valley Areawide General Plan
- Food and Agricultural Code Division 23: California Desert Native Plants Act
- Lancaster General Plan
- Palmdale Municipal Code

Generally, these policies and ordinances support the preservation, enhancement, and restoration of natural habitats. Detailed descriptions of the relevant biological policies and actions within these documents are presented in Section 3.4.3 of the Final EIR.

A total of six SEAs overlap with the Project: Joshua Tree Woodlands, San Andreas Rift Zone, Santa Clara River, San Gabriel Canyon, Rio Hondo Wildlife Sanctuary, and Puente Hills. Mitigation proposed below for special-status and unique resources will apply to SEAs as well to protect those resources.

The Project, as designed, may require the removal of oak trees and compliance with Section 22.56 of the Los Angeles County Zoning Code (Part 16). This ordinance requires a permit for the removal of any native oak tree greater than 8 inches in diameter (25 inches or greater in circumference) at breast height. Removed oak trees must be replaced at a ratio of 2:1 (using 15-gallon oaks of the same species, or greater, as determined by the hearing officer), maintained for two years, and replaced if mortality occurs. In addition, a permit is required for the removal of any vegetation on terrain with an 8 percent slope or greater (County Zoning Code Section 12.28). As described in Mitigation Measure B-1a (below) and consistent with the Los Angeles Zoning Code, all native oak trees shall be avoided where possible. Where avoidance is not possible, SCE shall replace or relocate impacted trees, or pay into the Oak Forest Special Fund.

Furthermore, the Project may result in the loss of Joshua trees and juniper trees in the Northern Region. These species receive protection from the Palmdale Native Desert Vegetation Ordinance. Chapter 14.04 of the City of Palmdale Municipal Code requires a desert vegetation preservation plan with minimum preservation standards for removal of vegetation at sites with Joshua trees and other species included in the California Desert Native Plants Act, California Food and Agriculture Code, Division 23. In compliance with these regulations, SCE shall obtain permits from both Los Angeles and Kern counties for the removal of Joshua trees and other native vegetation. If onsite preservation is not feasible, in lieu fees will fulfill the requirements of these regulations.

Finding. The CPUC finds that the Project will not conflict with local policies or ordinances protecting biological resources. No impact will occur.

Rationale for Finding. Because of the extensive planning involved in Project design, including implementation of APMs BIO-1 through BIO-7, and the mitigation measures described below, the Project is consistent with the local and regional policies and ordinances protecting biological resources including the Los Angeles County Tree Removal requirements, the Palmdale Municipal Code, and the California Desert Native Plants Act. Therefore, no impact will occur.

Reference. Final EIR Section 3.4

Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Communities Conservation Plan (NCCP), or other approved local, regional, or state HCP (Criterion BIO7)

There are no applicable HCPs, NCCPs, or other approved local, regional, or State HCPs in the Project area. The Northern Region of the Project is included in the proposed West Mojave Plan Habitat Conservation Plan (WMPHCP), which was completed in March of 2006 but has not been formally adopted on non-federal lands.

Finding. The CPUC finds that the Project will not conflict with any applicable HCPs, NCCPs, or other approved local, regional, or State HCPs. No impact will occur.

Rationale for Finding. No applicable HCPs, NCCPs, or other approved local, regional, or State HCPs occur in the Project area.

Reference. Final EIR Section 3.4

III.1.4 Cultural Resources

Substantial adverse change in a resource included in a local register (Criterion CR2)

Background research and local policy screening revealed that no properties currently listed on local registers of historical resources will be affected by the Project.

Finding. The CPUC finds that the Project will not result in a substantial adverse change in a cultural resource included in a local register.

Rationale for Finding. Background research and local policy screening revealed that no properties listed on local registers of historical resources will be affected by the Project, and as such no substantial adverse change in a resource included in a local register will occur.

Reference. Final EIR Section 3.5

III.1.5 Environmental Contamination and Hazards

Result in mobilization of contaminants currently existing in the soil, creating potential pathways of exposure to humans or other sensitive receptors (Criterion ECH2)

The Project does not traverse areas of intensive agricultural use where pesticides and herbicides will be applied regularly. Consequently, there is no potential to expose construction workers to residual pesticides and herbicides in the soil and no impact will occur.

Finding. The CPUC finds that the Project will not expose construction workers to residual pesticides and herbicides in the soil. No impact will occur.

Rationale for Finding. The Project does not traverse areas of intensive agricultural use where pesticides and herbicides will be applied regularly. Consequently, there is no potential to expose construction workers to residual pesticides and herbicides in the soil.

Reference. Final EIR Section 3.6

III.1.6 Geology, Soils, and Paleontology

Unique geologic features (Criterion GEO1)

No unique geologic features or geologic features of unusual scientific value for study or interpretation will be disturbed or otherwise adversely affected by the Project. No impact will occur.

Finding. The CPUC finds that the Project will not impact unique geologic features. No impact will occur.

Rationale for Finding. Given that no unique geologic features or geologic features of unusual scientific value for study or interpretation will be disturbed or otherwise adversely affected by the Project, no impact would occur.

Reference. Final EIR Section 3.7

Known mineral resources (Criterion GEO2)

Although known sand and gravel resources, limestone and dolomite, and stone quarries are located within the general Project area, only Segment 7 is located within or adjacent to areas of active production of these resources. The Segment 7 alignment traverses adjacent to and across several active gravel quarries in the Irwindale area; the Irwindale Pit consists of three adjacent pits (commonly known as Irwindale Pits #1, #2, and #3), owned by the United Rock Products Corp. The Project ROW crosses a portion of the easternmost pit; however the towers for the existing transmission line are located outside of the existing quarry boundaries and it is assumed that any new towers would be at similar tower spacing.

Finding. The CPUC finds that the Project will not impact mineral resources. No impact will occur.

Rationale for Finding. Given the distance of these known mineral resources sites from the Project ROW and the ability of mining-related equipment and vehicles to cross the ROW if necessary, construction and operation of the TRTP transmission line is not expected to interfere with future access to any metallic or non-metallic mineral resources. Therefore, no impact would occur.

Reference. Final EIR Section 3.7

Cumulative Impact G-1: Project activities could interfere with access to known energy resources

Interfering with access to known energy resources could occur if Project-related construction interfered with operation of the oil field that the Project traverses. This impact is less than significant (Class II) for the

Project, as discussed in Section III.3.6, below. The potential for this impact to combine with similar effects of other projects would only occur if other projects were implemented in the same area at the same time as the Project. However, construction of the Project will preclude other projects from being implemented concurrently in the same location. Furthermore, Mitigation Measure G-1 (Coordination with oil field operations) will be implemented to prevent Project-related interference with oil field operations. Therefore, Project impacts will not have the potential to combine with similar effects from other projects and will not be cumulative in nature.

Finding. The CPUC finds that the Project will not combine with other past, present, or reasonably foreseeable projects to cumulatively interfere with access to known energy resources. No impact will occur.

Rationale for Finding. Given the Project-related interference with oil field operations will be less than significant with implementation of Mitigation Measure G-1 and construction of the Project will preclude other projects from being implemented concurrently in the same location, Project impacts will not have the potential to combine with similar effects from other projects and will not be cumulative in nature. No impact will occur.

Reference. Final EIR Section 3.7

Cumulative Impact G-2: Erosion could be triggered or accelerated due to construction activities

While Impact G-2 could occur during construction-related excavation and grading in areas underlain by soils with high erosion potential, this impact is less than significant (Class II) for the Project as discussed in Section III.3.6, below. The potential for this impact to combine with similar effects of other projects would only occur if other projects were implemented in the same area at the same time as the proposed Project. However, construction of the Project will preclude other projects from being implemented concurrently in the same location. Furthermore Mitigation Measure H-1a (Implement an Erosion Control Plan and demonstrate compliance with water quality permits) will be implemented to reduce or prevent erosion impacts during construction. Therefore, Project impacts will not have the potential to combine with similar effects from other projects and will not be cumulative in nature.

Finding. The CPUC finds that the Project will not combine with other past, present, or reasonably foreseeable projects to cumulatively trigger or accelerate erosion during construction. No impact will occur.

Rationale for Finding. Given the Project-related erosion will be less than significant with implementation of Mitigation Measure H-1a and construction of the Project will preclude other projects from being implemented concurrently in the same location, Project impacts will not have the potential to combine with similar effects from other projects and will not be cumulative in nature. No impact will occur.

Reference. Final EIR Section 3.7

Cumulative Impact G-3: Excavation or grading during construction activities could cause slope instability or trigger landslides

While Impact G-3 could occur if Project-related excavation and grading were to trigger slope failures, this impact is less than significant (Class II) for the Project as described in Section III.3.6, below. The potential for this impact to combine with similar effects of other projects would only occur if other projects were implemented on the same slopes at the same time as the proposed Project. However, construction of the Project will preclude other projects from being implemented concurrently in the same location. Furthermore Mitigation Measure G-3 (Conduct geological surveys for landslides and protect against slope instability) will be implemented to minimize the potential for construction triggered slope failures. Therefore, Project

impacts will not have the potential to combine with similar effects from other projects and will not be cumulative in nature.

Finding. The CPUC finds that the Project will not combine with other past, present, or reasonably foreseeable projects to cumulatively cause slope instability or trigger landslides during excavation or grading activities associated with construction. No impact will occur.

Rationale for Finding. Given the Project-related excavation and grading during construction will be less than significant with implementation of Mitigation Measure G-3 and construction of the Project will preclude other projects from being implemented concurrently in the same location, Project impacts will not have the potential to combine with similar effects from other projects and will not be cumulative in nature. No impact will occur.

Reference. Final EIR Section 3.7

III.1.7 Hydrology and Water Quality

Depletion of Groundwater Supplies or Interference with Groundwater Recharge (Criterion HYD2)

Should groundwater be encountered during construction-related excavation, dewatering of the construction site will be required. In accordance with APM HYD-6 (Drilling and Construction Site Dewatering Management), dewatering operations will include, as applicable, the use of sediment traps and sediment basins per BMP NS-2 (Dewatering Operations) from the California Stormwater Quality Association's (CASQA) California Stormwater BMP Handbook – Construction (CASQA, 2003). Any groundwater encountered during construction will be returned to the subsurface as a part of the dewatering process.

Creation of new impervious surfaces through construction of the Project could interfere with groundwater recharge by reducing the amount of surface area through which precipitation and surface water percolates to underground aquifers. Impervious surfaces that will result from construction of the Project include concrete tower footings, concrete pads beneath various substation elements, such as transformer banks, and paved or sealed access roads.

Operation of the Project will consist of transmission of electric current through the transmission line as well as periodic maintenance, which will consist of driving construction vehicles along or within the transmission ROW, and will have no effect on groundwater recharge.

Finding. The CPUC finds that the Project will not impact groundwater supplies or interfere with groundwater recharge. No impact will occur.

Rationale for Finding. Although construction-related excavation activities may encounter perched groundwater, thus requiring dewatering activities in accordance with APM HYD-6, such activities would not contribute to the depletion of groundwater supplies or the interference with groundwater recharge. With respect to new impervious surfaces created as part of the Project, the concrete tower footings and concrete pads beneath various substation elements would cover very small areas and would be distributed over a large geographic region, and therefore would not substantially interfere with groundwater recharge. Furthermore, operations of the Project would involve the transmission of electric current through transmission lines with periodic maintenance activities consisting of driving construction vehicles along or within the transmission ROW, which would have no effect on groundwater recharge. Therefore, construction and operation of the Project will have no impact on groundwater supplies or interfere with groundwater recharge.

Reference. Final EIR Section 3.8

Flooding from Increased Rate or Amount of Surface Runoff (Criterion HYD4)

Although grading will occur at tower locations, new and/or expanded substations, crane pads, pulling and splicing stations, and access roads, this ground disturbance will be spread over a large geographic area and will not alter the overall topography of the Project area. Impervious surfaces that will result from construction of the Project include concrete tower footings, concrete pads beneath various substation elements such as transformer banks and paved or sealed access roads. Concrete tower footings and concrete pads beneath various substation elements will cover very small areas and will be distributed over a large geographic region, and therefore will not substantially interfere with groundwater infiltration. The Project will not alter precipitation amounts or intensities, or the amount of precipitation or imported water that infiltrates into the groundwater. Therefore, the rate or amount of surface runoff resulting from the Project will not change relative to existing conditions. Therefore, the Project will not alter any precipitation amounts or intensities, nor will it require any additional water to be imported into the Project area.

Finding. The CPUC finds that the Project will not result in flooding as a result of increase rates or amounts of surface runoff. No impact will occur.

Rationale for Finding. Ground disturbance associated with Project construction will be spread over a large geographic area and will not alter the overall topography of the Project area. Furthermore, the creation of impervious surfaces associated with the Project will cover very small areas and will also be distributed over a large geographic area. Therefore, no impacts from flooding resulting from increased rates or amount of surface runoff will occur.

Reference. Final EIR Section 3.8

III.1.8 Land Use

Cumulative Impact L-1: Construction of the Project would temporarily disrupt, displace or preclude existing residential land uses

No projects will be constructed at the same time as the Project that would affect the residential land uses within 1,000 feet of the Project's construction-related activities. Furthermore, construction disturbances are temporary in nature and will not continue beyond the construction period. As such, temporary disruptions, displacement, or preclusion of existing residential land uses will not potentially combine with the effects of future projects following Project construction.

Finding. The CPUC finds that the Project will not combine with other past, present, or reasonably foreseeable projects to cumulatively disrupt, displace or preclude existing residential land uses within 1,000 feet of the Project's construction-related activities. No impact will occur.

Rationale for Finding. No projects will be constructed at the same time as the Project that would affect the residential land uses within 1,000 feet of the Project's construction-related activities; therefore, no cumulative impacts resulting from temporary disruptions, displacement, or preclusion of existing residential land uses will occur.

Reference. Final EIR Section 3.9

Cumulative Impact L-2: Construction of the Project would temporarily disrupt, displace or preclude existing non-residential land uses

No projects will be constructed at the same time as the Project that would affect the non-residential land uses within 1,000 feet of the Project's construction-related activities. Furthermore, construction disturbances

are temporary in nature and will not continue beyond the construction period. As such, temporary disruptions, displacement, or preclusion of existing non-residential land uses will not potentially combine with the effects of future projects following Project construction.

Finding. The CPUC finds that the Project will not combine with other past, present, or reasonably foreseeable projects to cumulatively disrupt, displace or preclude existing non-residential land uses within 1,000 feet of the Project's construction-related activities. No impact will occur.

Rationale for Finding. No projects will be constructed at the same time as the Project that would affect the non-residential land uses within 1,000 feet of the Project's construction-related activities; therefore, no cumulative impacts resulting from temporary disruptions, displacement, or preclusion of existing non-residential land uses will occur.

Reference. Final EIR Section 3.9

III.1.9 Public Services and Utilities

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

In the North Region of the Project area, the allocation amounts to approximately 38.1 billion gallons of water, and in the South Region, approximately 230 billion gallons of water will be allocated. With such an established system, the Project will connect with existing water services and will not require expanded resources. In addition, during Project construction, water will be required for dust suppression, and domestic drinking and sanitary purposes. The amount of water required will be largely dependent on site-specific conditions, and will be used over the 59-month construction period for the Project. Therefore, water used during construction will not increase the demands of the water suppliers, and will not require new or expanded water facilities, sources, or entitlements. During the operation and maintenance period, the insulators will not require annual cleaning. Consequently, the Project will require negligible amounts of water for maintenance activities. Water demands of the Project will not pose an impact.

Finding. The CPUC finds that the Project will not require new or expanded water entitlements and resources. No impact will occur.

Rationale for Finding. The Project will connect with existing water services and will not require expanded resources. The amount of water required during construction will be largely dependent on site-specific conditions, and will be used over the 59-month construction period for the Project. Therefore, water used during construction will not increase the demands of the water suppliers, and will not require new or expanded water facilities, sources, or entitlements. Additionally, the Project will require negligible amounts of water for maintenance activities.

Reference. Final EIR Section 3.11

III.1.10 Traffic and Transportation

Construction would be inconsistent with transportation plans (Criterion TRA9)

An average of approximately 75 workers will commute to various locations along the proposed route ROW each workday during Project construction. Transmission line workers will be dispersed in groups throughout the Project area and will not typically be working at the same place at any one time. Haul truck traffic will include trucks carrying equipment and materials, spoils for disposal, and new and old tower support pieces. Trips will 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 will preclude Project-related construction traffic from exceeding any of the CMP thresholds of the affected counties.

Finding. The CPUC finds that the Project will not be inconsistent with transportation plans. No impact will occur.

Rationale for Finding. The dispersion of workers at various worksites along the approximate 173-mile route will preclude Project-related construction traffic from exceeding any of the CMP thresholds of the affected counties.

Reference. Final EIR Section 3.13

III.1.11 Wildfire Prevention and Suppression

Cumulative Impact F-4: Construction and/or maintenance activities would increase the risk of personnel injury or death in the event of fire

While the Project will increase the risk of construction and maintenance personnel injury or death in the event of an uncontrolled wildland fire to a less-than-significant level after mitigation, this effect will not combine with other past, present, or reasonably foreseeable projects to result in a cumulative impact to personnel. Therefore this impact would not be cumulatively significant.

Finding. The CPUC finds that construction and/or maintenance activities associated with the Project will not result in a cumulative increase in the risk of personnel injury or death in the event of a fire. No impact will occur.

Rationale for Finding. Because the Project will not combine with other past, present, or reasonably foreseeable projects to result in a cumulative impact to personnel in the event of a fire, no impact will occur.

Reference. Final EIR Section 3.16

Cumulative Impact F-5: Presence of the overhead transmission line would increase the risk of wildfire and compromise firefighter safety

While the Project will not result in a new ongoing source of potential wildfire ignitions within a fireshed, the existing transmission lines within the Tehachapi Fireshed that the Project will replace represent an ongoing source of potential wildfire ignitions. Once operational, the potential for wildfire ignitions as a result of the presence of a transmission line will persist, but will not increase. Past, present, and reasonably foreseeable projects that have been/would be constructed near fuel-laden wildlands would also increase the probability of igniting a wildfire that would result in widespread damages. Even a single ignition that escapes containment in the highly fire-prone Tehachapi Fireshed could have devastating effects on communities, firefighter health and safety, and natural resources, and these mitigation measures would not ensure prevention or containment of all ignitions.

Finding. The CPUC finds that the presence of overhead transmission lines will not combine with other past, present, or reasonably foreseeable projects to cumulatively increase the risk of wildfire or compromise firefighter safety. No impact will occur.

Rationale for Finding. Because the risk of wildfire ignition will not increase as a result of the Project, this effect will not combine with other past, present, and reasonably foreseeable projects to result in a cumulative impact. Therefore this impact would not be cumulatively significant and no impact will occur.

Reference. Final EIR Section 3.16

III.1.12 Electrical Interference and Hazards

Cumulative Impact EIH-1: The Project would cause radio, television, communications, or electronic equipment interference

The electrical interference and hazards associated with the Project occur in the immediate vicinity of the transmission line ROW. These impacts would be similar to the impacts of the existing transmission lines which the Project is adjacent to and would not be additive. No cumulative impact on radios, televisions, communications, or other electronic equipment resulting from electrical interference will occur as a result of the Project.

Finding. The CPUC finds that the Project will not combine with other past, present, or reasonably foreseeable projects to result in cumulative interferences of radio, television, communications, or other electronic equipment. No impact will occur.

Rationale for Finding. Because the electrical interference and hazards associated with the Project occur in the immediate vicinity of the transmission line ROW, these impacts would not be cumulatively considerable. No impact will occur.

Reference. Final EIR Section 3.16

Cumulative Impact EIH-2: The Project would cause induced currents and shock hazards in joint use corridors

The electrical interference and hazards associated with the Project occur in the immediate vicinity of the transmission line ROW. These impacts would be similar to the impacts of the existing transmission lines which the Project is adjacent to and would not be additive. No cumulative impact from induced currents or shock hazards in joint use corridors will occur as a result of the Project.

Finding. The CPUC finds that the Project will not combine with other past, present, or reasonably foreseeable projects to result in cumulative induced currents or shock hazards in joint use corridors. No impact will occur.

Rationale for Finding. Because the electrical interference and hazards associated with the Project occur in the immediate vicinity of the transmission line ROW, these impacts would not be cumulatively considerable. No impact will occur.

Reference. Final EIR Section 3.16

Cumulative Impact EIH-3: Project operation would result in electric fields that would affect cardiac pacemakers

The electrical interference and hazards associated with the Project occur in the immediate vicinity of the transmission line ROW. These impacts would be similar to the impacts of the existing transmission lines which the Project is adjacent to and would not be additive. No cumulative impact to cardiac pacemakers will occur as a result of the Project.

Finding. The CPUC finds that the Project will not combine with other past, present, or reasonably foreseeable projects to result in cumulative impacts to cardiac pacemakers. No impact will occur.

Rationale for Finding. Because the electrical interference and hazards associated with the Project occur in the immediate vicinity of the transmission line ROW, these impacts would not be cumulatively considerable. No impact will occur.

Reference. Final EIR Section 3.16

Cumulative Impact EIH-4: Project structures would be affected by wind and earthquakes

The affects of wind and earthquakes would occur in the immediate vicinity of the transmission line ROW. These impacts would be similar to the impacts of the existing transmission lines which the Project is adjacent to and would not be additive. No cumulative impact from structures being affected by wind and earthquakes will occur as a result of the Project.

Finding. The CPUC finds that the Project will not combine with other past, present, or reasonably foreseeable projects to result in cumulative impacts from Project structures being affected by wind and earthquakes . No impact will occur.

Rationale for Finding. Because the hazards associated with the Project structures being affected by wind and earthquakes occur in the immediate vicinity of the transmission line ROW, these impacts would not be cumulatively considerable. No impact will occur.

Reference. Final EIR Section 3.16

III.2 Environmental Impacts Found to be Less than Significant

The CPUC hereby finds that the following environmental impacts of the Project are less than significant without the implementation of mitigation measures. Under CEQA, no mitigation measures are required for impacts that are less than significant (14 Cal. Code Regs. § 15126.4(a)(3)). However, the discussion below identifies applicant proposed measures (APMs) and mitigation measures that will be implemented to further reduce Project impacts.

III.2.1 Agricultural Resources

For the analysis of agricultural resources impacts, the extent of the area analyzed was defined as (1) agricultural land uses immediately adjacent to the ROW, (2) agricultural land uses located near the construction equipment/materials transportation routes, (3) agricultural land uses affected by construction and operation activities, and (4) agricultural land uses that have national, regional, or local significance and are within one mile of the ROW. For the analysis of the conversion of Farmland and conflicts with Williamson Act contracts, specific impact acreages were calculated by determining how many transmission structures and pulling and stringing sites will traverse Farmland and the length of access and spur roads that will traverse these lands. Impact acreages assumed 0.92 acres of temporary disturbance per transmission structure, 0.92 acres of temporary disturbance per pulling and stringing site, 0.003 acres of permanent disturbance per transmission structure, and access and spur road widths of 14 feet which will be counted for both temporary and permanent disturbance.

Impact AG-2: Operation would permanently convert Farmland to non-agricultural use.

The Project will traverse 7.98 miles of Prime Farmland, 0.92 miles of Unique Farmland, and 0.18 miles of Farmland of Statewide Importance and will include 2.99 miles of access and spur roads, with a total of 44 T/L towers and approximately 10 stringing and pulling sites located on agricultural lands in Segments 4 and 8. While the stringing and pulling sites will be restored following the completion of construction activities, tower footings and foundations and some access and spur roads will represent permanent disturbances to land uses, including Farmland.

Of the 44 T/L towers, 24 towers will be LSTs along Segment 4 and 20 towers will be a mix of LSTs and TSPs along Segments 8A, 8B, and 8C. Towers installed in the portions of Segments 8A and 8C traversing Farmland will be TSPs while towers installed in the portions of Segment 8B traversing Farmland will be LSTs. Segments 8A and 8C will include 12 TSPs on Farmland while Segment 8B will include 8 LSTs on Farmland. A single LST will permanently convert 0.003 acres of land while a single TSP will permanently convert 0.001 acres of land. Consequently, T/L towers associated with the Project will permanently convert a total of 0.76 acres of Farmland to non-agricultural uses.

Finding. The CPUC finds that Impact AG-2 will be less than significant without mitigation.

Rationale for Finding. Applicant Proposed Measures (APMs) included as part of the Project minimize this potential impact. Specifically, APM AG-2 (Locate Project Activities to Minimize Impacts to Active Agricultural Operations) will help to minimize the area of permanent conversion. The Project will permanently convert 5.83 acres of Farmland to non-agricultural use. As this total area is less than the minimum area necessary for sustainable agriculture and less than the minimum DOC mapping unit, the permanent conversion of Farmland under the Project to non-agricultural uses will not be significant.

Reference. Final EIR Section 3.2; Table ES-3

III.2.2 Air Quality

The air quality significance criteria were developed considering the CEQA significance criteria developed by the local air quality districts in the Project area, approved CEQA air quality checklists, and considering other federal criteria. The most stringent of the adopted regional thresholds for construction activities and for Project operations in each jurisdiction, including the South Coast Air Quality Management District (SCAQMD), Antelope Valley Air quality Management District (AVAQMD), and Kern County Air Pollution Control District (KCAPCD), were applied to the Project. The SCAQMD recommends additional localized significance thresholds (LSTs) for toxic air contaminants (TACs), odors, and ambient air quality, and as such these were also applied to the Project. In addition to the regional and local significance criteria, the General Conformity Rule applicability “de minimis” emission were applied to those Project areas in federal jurisdiction and control that are in nonattainment of the National Ambient Air Quality Standards (NAAQS). Finally, greenhouse gas (GHG) significance was determined based on whether the Project will result in greenhouse gas emissions that substantially exceed baseline greenhouse gas emissions and that following construction will not impel a regional reduction in GHGs.

Impact AQ-2: Operating emissions would exceed the SCAQMD, AVAQMD, and/or KCAPCD regional emission thresholds.

Operation and maintenance of the Project will result in short-term direct and indirect impacts to ambient air quality. The Project direct operating emissions are comprised of increased inspection and maintenance activities. The emissions caused directly by operation, maintenance, and inspection of the Project will be below all applicable regional daily and annual emission thresholds, and will not result in significant direct operational emissions within any jurisdiction. Therefore, direct operational impacts of the Project will not conflict with any air quality management plan. Project indirect emissions are comprised of the Project’s impact on the transmission grid and operation of existing and forecast power plants. The indirect emissions for the Project have not been calculated by CAISO, but it is assumed that the indirect emission reductions from the displacement of fossil-fuel fired power plant emissions are higher than the maximum daily direct emission increases and much higher than the annual direct emission increase from the limited inspection and maintenance activities required to maintain the new transmission lines and associated facilities.

Finding. The CPUC finds that Impact AQ-2 will be less than significant without mitigation. The Project's direct operating emissions are minor and will therefore not conflict with any air quality management plans and will have a less-than-significant impact in all jurisdictions. Additionally, the Project's transmission of renewable energy is assumed to help facilitate an indirect emission decrease and an overall emissions decrease. Therefore, the operations of the Project will provide a beneficial operating emissions impact.

Rationale for Finding. The direct maximum daily operating emissions are minimal and the Project is assumed to create an indirect emission reduction. The operating emissions occur over a large area as a result of non-stationary activities such as line inspection and road maintenance so that a significant amount of normal operating emissions will not occur in any single location in quantities that could approach the SCAQMD, AVAQMD, and/or KCAPCD regional emission thresholds.

Reference. Final EIR Section 3.3; Table ES-3

Impact AQ-4: Operation of the Project would expose sensitive receptors to substantial pollutant concentrations.

Operations of the Project will result in short-term direct and indirect impacts to ambient air quality. The Project direct operating emissions are comprised of increased inspection and maintenance activities.

Finding. The CPUC finds that Impact AQ-4 will be less than significant without mitigation. Operation of the Project will not cause localized emissions above the SCAQMD LST thresholds, and Project operation will not have a significant impact on local sensitive receptors.

Rationale for Finding. The direct maximum daily operating emissions are minimal and the Project is assumed to create an indirect emission reduction. The operating emissions occur over a large area as a result of non-stationary activities such as line inspection and road maintenance so that a significant amount of normal operating emissions will not occur in any single location in quantities that could approach the SCAQMD LST thresholds.

Reference. Final EIR Section 3.3; Table ES-3

Impact AQ-5: Construction or operation of the Project would generate toxic air contaminant emissions that would exceed SCAQMD risk thresholds.

While the construction of the Project will generate large quantities of criteria pollutant emissions, the Project covers a very large area and does not generate large quantities of emissions at any one site, such as a major stationary source, nor does it generate large quantities of toxic air contaminants, with the potential exception of diesel particulate matter (DPM). Additionally, the Project's construction occurs over a limited period of time that will further reduce the long term chronic exposures (carcinogenic and non-carcinogenic exposures) to DPM and other air toxic contaminants.

Finding. The CPUC finds the Impact AQ-5 will be less than significant without mitigation. The Project's toxic air contaminant emissions will not exceed SCAQMD risk thresholds such that the Project will have less-than-significant health risk impacts.

Rationale for Finding. The risk from Project construction at any given receptor area will be well below the SCAQMD significance thresholds. Operation emissions of toxic air contaminants are negligible and as noted previously the Project will result in an indirect net emission decrease that will lower risk from toxic air contaminants.

Reference. Final EIR Section 3.3; Table ES-3

Impact AQ-7: The Project would create objectionable odors.

Construction equipment and equipment used during construction operations, such as the potential for small areas of asphalt paving (minor hot or cold mix patching); and the operations maintenance/inspection equipment may create mildly objectionable odors.

Finding. The CPUC finds that the odor impacts from the Project's construction and operation will be less than significant, and Impact AQ-7 will be less than significant without mitigation..

Rationale for Finding. These odors will be temporary and will not affect a substantial number of people. No mitigation measures for odor reduction are necessary for this Project.

Reference. Final EIR Section 3.3; Table ES-3

Impact AQ-10: Emissions would contribute to climate change.

During construction the Project will cause short-term greenhouse gas (GHG) emissions. GHG emissions include truck transport emissions to the site from the last major shipping terminal (port, rail yard, etc.) but do not include rail or ship transport of cable, steel, electrical equipment, etc. During operation of the Project, minor quantities of direct long-term GHG emissions, in the form of additional SF₆ equipment leak emissions will occur. Inspection and maintenance activities will also cause a small increase in GHG emissions. The Project's construction and operating GHG emission increases will be more than offset by the Project providing greater renewable energy transmission and providing improved transmission effectiveness and efficiency, which partially implements one of the Intergovernmental Panel on Climate Change (IPCC) key strategies for mitigating climate change.

Finding. The CPUC finds that the Project's direct operating GHG emissions are minor and will be less than significant without mitigation. Additionally, the Project will create a substantial indirect emission decrease, resulting in a beneficial GHG emissions impact.

Rationale for Finding. The Project's direct operating GHG emissions are minor and the Project will create a substantial indirect emission decrease that, even considering the Project's construction GHG emissions, will create an overall GHG emissions decrease over the Project's life. Additionally, the Project's purpose will implement key strategies for mitigating climate change proposed by the California Energy Commission and the IPCC to improve transmission and increase renewable energy use. Therefore, the Project will provide a beneficial GHG emissions impact.

Reference. Final EIR Section 3.3; Table ES-3

Cumulative Impact AQ-2: Operating emissions would exceed the SCAQMD, AVAQMD, and/or KCAPCD regional emission thresholds.

Direct operating emissions for the Project are very minimal and will occur over a large area and will not cumulatively have the potential to exceed SCAQMD, AVAQMD, and KCAPCD emission significance thresholds. Indirectly the Project will reduce operating emissions.

Finding. The CPUC finds that operation of the Project will have a less-than-significant cumulative regional impact to air quality.

Rationale for Finding. Direct operating emissions for the Project are minimal, occur over a large area, and will not have the potential to exceed regional emission thresholds; therefore, operating emissions will not be cumulatively significant. Furthermore, the Project will indirectly reduce operating emissions and therefore will not result in a cumulatively adverse or significant impact.

Reference. Final EIR Section 3.3; Table ES-3

Cumulative Impact AQ-4: Operation of the Project would expose sensitive receptors to substantial pollutant concentrations.

Direct operating emissions for the Project are minimal, will occur over a large area, and will not cumulatively exceed SCAQMD, AVAQMD, or KCAPCD significance thresholds. Indirectly the Project will reduce operating emissions.

Finding. The CPUC finds that operation of the Project will have a less-than-significant cumulative localized air quality impact to sensitive receptors.

Rationale for Finding. Since the Project's operation will have minimum direct localized operating emissions and the Project will help create an overall net emission decrease, it will have a less-than-significant cumulative localized impact to sensitive receptors.

Reference. Final EIR Section 3.3; Table ES-3

Cumulative Impact AQ-5: Construction or operation of the Project would generate toxic air contaminant emissions that would exceed SCAQMD risk thresholds.

Construction activities associated with the Project do not have large amounts of toxic air contaminant emissions, are of short duration, and do not have significant emissions in any single area that could create a significant risk to local populations. Similarly, the cumulative projects construction will not be expected to have significant emissions of toxic air contaminants, and will not have the potential to cumulatively exceed SCAQMD risk thresholds.

Finding. The CPUC finds that the Project will have a less-than-significant cumulative health risk associated with toxic air contaminant emissions.

Rationale for Finding. Given the temporary nature and low toxic air contaminant emission level for the Project and cumulative projects, the Project will have a less-than-significant cumulative health risk.

Reference. Final EIR Section 3.3; Table ES-3

Cumulative Impact AQ-7: The Project would create objectionable odors.

Construction equipment and operations, such as asphalt paving, may create temporary and mildly objectionable odors. Such odors will not significantly affect a substantial number of people. To have the potential to combine with odors from the Project, odor-generating activities from other current and Projects will have to occur concurrently, occur in very close proximity with the odor-generating activities of the Project, and result in a cumulatively worse odor condition.

Finding. The CPUC finds that odor impacts related to the Project will be adverse but not cumulatively significant.

Rationale for Finding. Given the temporary nature and relative mildness of the Project's construction odors, odor impacts related to the Project will be adverse but not cumulatively significant.

Reference. Final EIR Section 3.3; Table ES-3

III.2.3 Biological Resources

As discussed in Section 3.4 (Biological Resources) of the Final EIR, extensive literature searches were conducted consisting of a review of relevant databases, maps, technical reports, jurisdictional plans and

polices, as well as relevant environmental documents to determine the federal and State listed endangered, threatened, proposed endangered or threatened, rare, and special-status plant and wildlife species that have potential to occur within the vicinity of the Project. In addition, extensive field surveys were conducted in order to verify the location of any habitat or species that will be affected by Project development and areas of temporary construction activity. Biological reconnaissance surveys, focused surveys, and protocol surveys were conducted throughout the Project area during 2007, 2008, and 2009.

For the purposes of the analysis in the Final EIR and based on CEQA requirements, biological resources identified include all plant and wildlife species and habitat observed during field studies and all those included in the results of the literature review. Those identified were analyzed in order to identify portions of the ROW and substation locations that are known to support listed and special-status plant and wildlife species, or are most likely to support habitat for listed and special-status plant and wildlife species.

Impact B-11: The Project could result in mortality of desert tortoises as a result of increased predation by common ravens.

Construction of the Project will increase the number and size of transmission towers and substation-associated structures that provide potential nest sites for common ravens. This species is a known predator of juvenile desert tortoises.

Finding. The CPUC finds that impacts resulting from raven predation on desert tortoises will be less than significant without mitigation.

Rationale for Finding. Raven population increases appear to be more associated with increased food supplies made available via human disposal (e.g., landfills, dumpsters, and litter) than access to perch sites. In addition, perch sites in the Project area do not appear to be a limiting factor as many of the existing towers are utilized by ravens and other birds as roosting sites and Joshua trees are relatively abundant in the northernmost portion of the Project where desert tortoises have the potential to occur. Raven population increases, if they occur, are expected to be small and food supplies will not change appreciably. Therefore, increased predation on the desert tortoise, if present, is not expected to result from additional towers. No raven-control mitigation is necessary for this Project.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-20: The Project could result in electrocution of State and/or federally protected birds.

Direct and operational impacts from the Project include electrocution of large aerially perching bird species. Indirect effects associated with this impact include increased risk of wildfire due to electrocuted birds or nests contacting flammable vegetation or other materials. APMs BIO-4 and BIO-9, included as part of the Project, state that SCE construction and operations crews will use BMPs, and that transmission facilities will be designed to be raptor-safe in accordance with the *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006* (APLIC, 2006).

Finding. The CPUC finds that electrocution impacts to State and/or federally protected birds will be less than significant without mitigation.

Rationale for Finding. None of the wingspans or heights of any of the birds that could occur in the Project area are long enough to simultaneously contact two energized phase conductors for the Project. Furthermore, the risk of electrocution on lines energized at voltages above 69 kV is extremely low. Although special-status birds may under some circumstances be subject to electrocution, the likelihood of electrocutions occurring at voltages greater than 69 kV is extremely low (APLIC, 2006). With the

implementation of APMs BIO-4 and APM BIO-9, impacts to State and/or federally protected birds resulting from electrocution will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-21: The Project could result in collision with overhead wires by State and/or federally protected birds.

Mortality of bird species due to collision with overhead power lines, towers, cranes, or other Project components could occur during construction as well as during operation of the Project. APM BIO-9, included as part of the Project, ensures the incorporation of raptor safety protection into the Project design.

Finding. The CPUC finds that impacts to State and/or federally protected birds resulting from transmission line collisions will be less than significant without mitigation.

Rationale for Finding. Because the majority of the Project includes replacing existing lines with new lines, the overall risk to birds will be similar to baseline risks. On NFS lands, avian safety measures in the form of swan wrap will be required on towers/shield/conductor lines where it is deemed necessary by the USDA Forest Service. APM BIO-9 will also be implemented as part of the Project. This measure states that all transmission structures will be designed to be raptor-safe in accordance with the *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006* (APLIC, 2006). No further mitigation is required.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-28: The Project could disturb wintering mountain plovers.

In the Project area, mountain plovers are known to winter in the Northern Region where they forage and roost mainly in recently tilled agricultural fields, although they are also known to roost in recently graded road beds. The Project will affect approximately 24 acres of agriculture lands scattered along Segment 4 in the Northern Region. Of this acreage, an unknown portion will be recently tilled during the time of year (mid-October to mid-February) in which mountain plovers may be present.

Finding. The CPUC finds that impacts to wintering mountain plovers will be less than significant without mitigation.

Rationale for Finding. Because the total acreage of impacted habitat is small compared to what is available regionally, and implementation of the Project will not restrict the range of the species, impacts to wintering mountain plovers resulting from construction disturbance will be less than significant. No further mitigation is required.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-34: The Project could result in transmission line strikes by special-status bat species.

Special-status and Forest Service Sensitive bat species with the potential to occur in the Project include the pallid bat, Townsend's big-eared bat, western red bat, hoary bat, spotted bat, western mastiff bat, big free-tailed bat, and pocketed free-tailed bat. A potential impact to these species resulting from Project implementation is the direct loss of individuals from fatal strikes with transmission lines.

Finding. The CPUC finds that impacts to special-status bats from collision with the transmission lines will be less than significant without mitigation.

Rationale for Finding. The pallid bat and Townsend's big-eared bat generally fly too low while foraging to be impacted by additional transmission lines; the number of fatal strikes for these species is expected to be very low and not significant. In addition, pallid bats primarily forage on the ground for terrestrial insects such as scorpions and beetles. The western mastiff bat, big free-tailed bat, pocketed free-tailed bat, spotted bat, hoary bat, and western red bat all fly high enough to potentially be impacted by additional transmission lines. However, given that most bat species can use echolocation to discriminate objects as small as 0.4 to 0.004 inch in size (Vaughan and Vaughan, 1986), and the size of guard lines and 500-kV or 220-kV transmission lines are typically equal to or greater than 0.5 inch in diameter, the frequency of transmission line strikes is expected to be extremely low. Therefore, the number of fatal strikes is still expected to be quite low and insufficient to substantially reduce the number of these species. No mitigation is required.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-40: The Project could interfere with established bird and bat migratory corridors.

A potential impact to migrating bird and bat species resulting from Project implementation is the interference with established migratory corridors as a result of fatal collisions with transmission lines.

Finding. The CPUC finds that impacts resulting from interference with established bird and bat migratory corridors will be less than significant without mitigation.

Rationale for Finding. There are no known bird or bat migratory corridors that will be directly impeded by the Project. Large concentrations of migrants are not known to utilize any portion of the Project (See Appendix B of the *Biological Specialist Report* [Aspen and H.T. Harvey & Associates, 2009], Avian Risk Assessment). Further, bats are expected to avoid transmission lines because they can detect objects as small as 0.4 to 0.004 inch in size through echolocation (Vaughan and Vaughan, 1986), and the size of guard lines and transmission lines is typically greater than or equal to 0.5 inch in diameter. Therefore, the impact to bird and bat migratory corridors from the Project will be less than significant. No mitigation is required.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-41: Corona noise could result in disturbance to wildlife.

As discussed in Section 3.10.2 of the Final EIR (Affected Environment: Noise), the most notable noise source in the immediate vicinity of the majority of the Project route is the corona noise from the existing transmission lines. Corona generates audible noise during operation of transmission lines. The noise is generally characterized as a crackling, hissing, or humming sound and is most noticeable during wet conductor conditions such as rain or fog. Audible noise from transmission lines is often masked by the background noise at locations beyond the edge of the ROW, particularly where the line runs near a source of background noise such as a freeway, creek, or river channel. In addition, wind, OHV use, and highways noise can often be much louder than corona noise, even in relatively undisturbed areas such as the ANF. The amount of corona produced by a transmission line is a function of the voltage of the line, the diameter of the conductor (or bundle of conductors), the elevation of the line above sea level, the condition of the conductor and hardware, and the local weather conditions. This noise increases with the voltage of the line, irregularities on the conductor surface caused either by age or moisture, and wet ambient meteorological conditions, when high humidity, fog, or rain occur. While a wealth of information related to the effects of anthropogenic noise on wildlife is available in the literature, studies focused on corona noise are extremely limited.

Finding. The CPUC finds that impacts to wildlife resulting from corona noise will be less than significant without mitigation.

Rationale for Finding. The effects of corona noise on wildlife are poorly understood, and it is difficult to predict the degree to which the increase in corona noise will impact local wildlife. In the Project area, animals are already subject to existing corona noise from about <20 to 51 dBA (see Table 3.10-3 of the Final EIR), and while the Project will result in louder corona noise for most segments (estimated to be approximately 22 to 60 dBA; see Table 3.10-5 of the Final EIR), wildlife are expected to have already been exposed and likely habituated to this disturbance. In addition, corona noise attenuates rapidly at short distances from the ROW. Thus, impacts to wildlife resulting from corona noise will be less than significant. No mitigation is required.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-11: The Project could result in mortality of desert tortoises as a result of increased predation by common ravens.

The Project will increase the number of transmission towers and substation-associated structures that provide potential nest and perch sites for common ravens, which are known predators of juvenile desert tortoises. Raven population increases appear to be associated with increased perch sites and food supplies made available to ravens via human disposal (e.g., landfills, dumpsters, and litter). Past actions (e.g., development, urbanization, landfill construction, litter, recreation) have resulted in considerable incremental adverse impacts to desert tortoises resulting from common raven predation. Although natural events such as drought and fire have also adversely impacted desert tortoise populations, no natural event has been linked to population increases of common ravens and their predation of desert tortoises. Foreseeable future actions in this area will also result in incremental adverse impacts to desert tortoises resulting from common raven predation. Foreseeable future actions include projects such as the PdV, Alta, and Pine Tree wind farms; Route 58 Mojave Alignment Project; Hyundai Corporation Test Track Facility and Habitat Conservation Plan; California High-Speed Train System; and at least 12 separate small- and large-scale residential and planned community developments in southern and central Kern County.

Finding. The CPUC finds that the Project's contribution to cumulative impacts resulting from raven predation on desert tortoises will be less than significant without mitigation.

Rationale for Finding. Raven population increases, if they occur, are expected to be small, and food supplies are not expected to change appreciably in portions of the Project area where desert tortoises may occur. Therefore, the construction of additional towers and substation-associated structures is not expected to result in a significant increase in cumulative predation of the desert tortoise, if present, by common ravens. The Project will not make a cumulatively considerable contribution to a significant cumulative impact. No mitigation is required.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-13: The Project could result in the loss of Critical Habitat for the Santa Ana sucker.

Critical habitat for the Santa Ana sucker exists downstream of Cogswell Reservoir, in an area that includes a potential access road for heavy equipment (West Fork Cogswell Road). This access road is paved and runs for approximately 7.4 miles adjacent to the West Fork San Gabriel River, which is designated critical habitat for the Santa Ana sucker. Use of this access road could result in accidental spills, increased turbidity due to vehicles using wet crossings, and potentially alter light regimes from the trimming and/or removal of some riparian vegetation. Vehicle passage through flowing water or leakage onto roadways that is transported into the river during storm events could result in the degradation of habitat. However, this road is not proposed

for use under Alternative 6. As the construction of the Project on NFS lands will be a combination of Alternatives 2 and 6, the ultimate decision whether or not to allow SCE to use this road during construction will be determined in the USDA Forest Service's Record of Decision on the TRTP. The West Fork Cogswell Road will not be used for access to the transmission line during operation and maintenance of the Project.

Mitigation measures included in the Project which address the Project's incremental contribution to this cumulative effect include Mitigation Measures B-1a (Provide restoration/compensation for impacts to native vegetation communities), B-1b (Implement a Worker Environmental Awareness Program), B-2 (Implement RCA Treatment Plan), B-3a (Prepare and implement a Weed Control Plan), B-8b (Conduct biological monitoring), B-12 (Implement avoidance and minimization measures for Santa Ana sucker and other aquatic organisms), H-1a (Implement an Erosion Control Plan and demonstrate compliance with water quality permits), and H-1b (Dry weather construction).

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts to the Santa Ana sucker. Due to the inclusion of Project mitigation listed above, the incremental impacts of the Project to Santa Ana sucker critical habitat will be less than significant should the West Fork Cogswell Road be used as a construction access route. If it is not used, there will be no impact to Santa Ana sucker critical habitat.

Rationale for Finding. Direct loss of critical habitat for this species will not occur from the Project. However, degradation of critical habitat may occur from the accidental release of mud, petroleum products, heavy metals, or other construction materials if the West Fork Cogswell Road is used for construction access to the Project. However, through the implementation of project minimization measures described under Impact B-12 (see Section III.3.3), these effects will be minimized or avoided. With the implementation of these measures the Project will not appreciably diminish the value of the habitat or affect the constituent elements required for occupancy by this species. Operational effects will not occur because once the Project has been completed use of the West Fork Cogswell Road will not occur. Because Project mitigation will minimize or eliminate effects to critical habitat for the Santa Ana sucker, the Project's incremental contribution will be negligible. In addition, other projects with the potential to impact Santa Ana sucker critical habitat in the Project area will be conditioned on mitigation similar to the Project as they will occur on federal lands under the jurisdiction of the USDA Forest Service. Therefore, the Project will not make a cumulatively considerable contribution to a significant cumulative impact. No additional mitigation is required.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-20: The Project could result in the electrocution of State and/or federally protected birds.

Direct and operational impacts from the Project include electrocution of large aerially perching bird species. Indirect effects associated with this impact include increased risk of wildfire due to electrocuted birds or nests contacting flammable vegetation or other materials. Similar risks could also occur on other transmission line projects in the region, namely the Antelope Transmission Project Segments 2 and 3 in the Northern Region.

APMs BIO-4 and BIO-9, which are included as part of the Project, state that SCE construction and operations crews will use BMPs, and that transmission facilities will be designed to be raptor-safe in accordance with the *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006* (APLIC, 2006).

Finding. The CPUC finds that the Project's contribution to cumulative impacts of electrocution by transmission lines on State and federally protected birds resulting from the Project and other past, present, and reasonably foreseeable projects will be less than cumulatively significant.

Rationale for Finding. The likelihood of electrocutions occurring on transmission lines of voltages greater than 69 kV is low (APLIC, 2006). Although approximately 17 miles of transmission lines proposed in the Antelope Transmission Project Segment 2 will come within close proximity (>0.5 miles) to Segments 10 and 5 of the Project in the Northern Region, the likelihood of electrocution on this line is also low because it will be a 500-kV line. Large, aerial-perching birds such as hawks and eagles are most susceptible to electrocution from power lines, however the elements of a 500-kV or 220-kV line are spaced far enough apart that even the largest raptors are unlikely to be electrocuted. Additionally, the implementation of APMs BIO-4 and BIO-9 as part of the Project will minimize the Project's incremental contribution to this cumulative effect. The cumulative impacts of electrocution by transmission lines on state and federally protected birds resulting from the Project and other past, present, and reasonably foreseeable projects will be less than cumulatively significant. No further mitigation is required.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-31: The Project could disturb nesting California spotted owls.

California spotted owls are known to nest within the ANF in Segments 6 and 11 of the Project. In many areas, both access roads and tower locations cross occupied habitat including known nesting areas. Direct impacts to nesting California spotted owls include lower reproductive success, nest abandonment, predation, and increased stress levels due to chronic noise levels, fugitive dust, vibration, and air turbulence associated with heavy equipment and helicopter operations. Other direct impacts include the loss of suitable nest trees as a result of vegetation clearing for tower pads, tower removal sites, pulling and tensioning sites, and construction, grading, and widening of new spur roads and existing access roads. Operational impacts include collisions with transmission lines and disturbance due to increased human presence as a result of public use of new or improved spur and access roads.

Fuel treatments are proposed by the USDA Forest Service for both Mill Creek Summit and Upper Big Tujunga Canyon, and both of these areas directly overlap with Segment 6. Fuel treatments at these sites will reduce the amount of tree cover and create considerable noise of short duration adjacent to Segment 6.

Mitigation measures under the Project include Mitigation Measures B-1b (Implement a Worker Environmental Awareness Program), B-30 (Conduct pre- and during construction nest surveys for spotted owl), and AQ-1a (Implement Construction Fugitive Dust Control Plan), which will minimize the Project's incremental contribution to this cumulative impact.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts to nesting California spotted owls. With the inclusion of Project mitigation listed above, the Project's cumulative contribution to nesting California spotted owls will be less than significant.

Rationale for Finding. Other fuels reduction projects proposed in the Project area will be subject to the same requirements as the Project with regard to California spotted owls, and will be mitigated similarly to the Project. The Project construction activities would potentially result in disturbance to nesting California spotted owls in the Central Region of the Project. However, implementation of APMs BIO-2 and BIO-4 through BIO-6, which are included as part of the Project, as well as Mitigation Measures B-1b, B-30, and

AQ-1a will reduce the Project's incremental contribution to this cumulative impact. Cumulative impacts would not be significant and no further mitigation is required.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-34: The Project could result in transmission line strikes by special-status bat species.

The Antelope Transmission Project Segments 1-3 proposes the construction of approximately 51 miles of transmission lines for the western Antelope Valley in the vicinity of the Project. This transmission line project in combination with the TRTP will cumulatively increase the probability of transmission line strikes for special-status bat species in the Northern Region.

Finding. The CPUC finds that cumulative impacts resulting from transmission line strikes by special-status bats will be less than significant.

Rationale for Finding. The frequency of transmission line strikes by special-status bats is expected to be quite low, due to the ability of these bat species to detect and avoid transmission lines during echolocation. Therefore, the cumulative impacts of transmission line strikes on special-status bat species resulting from the Project and other past, present, and reasonably foreseeable projects will be less than significant. No mitigation is required.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-40: The Project could interfere with established bird and bat migratory corridors.

The loss of established bird and bat migratory corridors as a result of transmission line construction could be cumulatively significant within the Northern Region of the Project, where approximately 17 miles of transmission lines proposed in the Antelope Transmission Project Segment 2 will come within close proximity (>0.5 mile) to Segment 5 of the Project. The Antelope Transmission Project in combination with the TRTP could occur along a significant migratory route in the Antelope Valley for migratory bats, including western red bat and hoary bat.

Finding. The CPUC finds that cumulative impacts resulting from interference with established bird and bat migratory corridors will be less than significant.

Rationale for Finding. The Antelope Transmission Project and TRTP transmission lines are not located along major landbird migration routes and are not expected to have a significant cumulative effect on migratory patterns or migration routes for birds within the Northern Region. Bat migratory corridors will not be lost owing to the ability of these bat species to detect and avoid transmission lines during echolocation. Therefore, the cumulative impacts of transmission lines on bird and bat migratory corridors resulting from the Project and other past, present, and reasonably foreseeable projects will be less than significant. No mitigation is required.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-41: Corona noise could result in disturbance to wildlife.

Corona noise from the Project as well as other proposed transmission lines in the Project vicinity have the potential to disturb wildlife. Specifically, the Antelope Transmission Project will be located in close proximity to the Project in the Northern Region.

Finding. The CPUC finds that cumulative impacts to wildlife resulting from corona noise will be less than significant.

Rationale for Finding. As the effects of corona noise on wildlife are poorly understood, it is difficult to predict the degree to which the increase in corona noise resulting from the TRTP and other cumulative projects will impact local wildlife, including special-status species. Animals, especially breeding birds and other wildlife that use sound for communication, will be expected to move away from the line in order to minimize interference with communication. However, because of the availability of habitats in the Project area, this will not be expected to constitute a substantial impact. Corona noise is already present along most of the Project, and while the Project will result in louder corona noise for most segments, wildlife can be expected to have already been exposed and likely habituated to this disturbance. As such, corona noise from the Project is not expected to combine with noise from other projects in a cumulatively significant manner. Therefore, the cumulative impacts of corona noise to wildlife resulting from the Project and other past, present, and reasonably foreseeable projects will be less than significant and no mitigation is required.

Reference. Final EIR Section 3.4; Table ES-3

III.2.4 Environmental Contamination and Hazards

The majority of listed hazard sites are located in the southern portion of the Project in Los Angeles and San Bernardino counties. To collect information on the existing conditions for the TRTP, a search of regulatory agency databases was conducted by Environmental Data Resources, Inc. The agency databases identify sites with current or past hazardous waste concerns, such as the use and storage of chemicals, leaks and spills of chemicals, and leaking underground storage tanks. Such database searches by third-party specialized contractors are often relied upon by agencies and others to identify known or potential sources of contamination. Review of other available regulatory agency databases (SWRCB Geotracker and DTSC Envirostor) and of aerial photographs to verify land uses of concern was also performed. This review was performed in order to note any issues related to use and storage of hazardous materials within the Project area.

No Phase I Environmental Site Assessments (ESAs) have been or were conducted as part of this study; however, SCE will conduct Phase I ESA studies at each new or expanded substation location and along newly acquired transmission line rights-of-way (ROW). Each Phase I ESA will include an electronic records search of federal, state and local environmental databases. The database search will cover the entire TRTP route and will then be reviewed to identify any potential areas of concern that will require further assessment. (See APM HAZ-1 in Table 3.6-13 of the Final EIR.)

Impact E-1: Soil or groundwater contamination results due to improper handling and/or storage of hazardous materials during construction activities.

During construction operations, hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids will be used and stored in construction staging yards. Gasoline, diesel fuel, oil, hydraulic fluid, lubricants paints, solvents, adhesives, and cleaning chemicals used in construction activities, equipment, and vehicles can be released during construction as a result of accidents, and/or leaking equipment or vehicles. Spills and leaks of hazardous materials during construction activities could result in soil or groundwater contamination. Accidental spills or releases of hazardous materials into a dry stream bed or wash, or on the banks of a stream channel, could indirectly impact water quality through runoff during a subsequent storm event, when the spilled material will be washed into a stream or water body. Additionally, accidental spills or releases of hazardous materials could indirectly impact groundwater through leaching. Hazardous material spills that are left on the ground surface for an extended period or that are followed

quickly by a storm event could leach through the soil and into the groundwater, thereby resulting in the degradation of groundwater quality.

APMs included as part of the Project will minimize the potential for this impact to occur, including APM HAZ-2 (Hazardous Materials and Waste Handling Management Program) and, as discussed in detail in Section 3.8 (Hydrology and Water Quality), APMs HYD-1 (Construction SWPPP), HYD-2 (Environmental Training Program), HYD-3 (Accidental Spill Control), and HYD-4 (Non-storm Water and Waste Management Pollution Controls).

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts to soil or groundwater contamination due to improper handling and/or storage of hazardous materials during construction activities. With the inclusion of the APMs and Project mitigation listed above, the Project's cumulative contribution to soil or groundwater contamination due to improper handling and/or storage of hazardous materials during construction activities will be less than significant.

Rationale for Finding. If improper handling and/or storage of hazardous materials occurs during Project construction, APM HAZ-2, and APMs HYD-1 through HYD-4, will reduce the potential for contamination of groundwater by ensuring that any spilled material and any resulting surficial contaminated soil will be quickly and correctly cleaned up and disposed of, resulting in limited to no exposure of hazardous materials to the environment and workers. In particular, APM HAZ-2 (Hazardous Materials and Waste Handling Management Program) will be included as part of the Project in order to reduce the likelihood of spills through implementation of several measures including: proper storage and handling procedures; standard hazardous waste transport; Project-specific training for personnel; procedures for fueling and maintaining construction equipment and helicopters; and an emergency response program to ensure quick and safe cleanup of accidental spills.

Reference. Final EIR Section 3.6; Table ES-3

Impact E-5: Soil or groundwater contamination could result from an accidental spill during operation.

Soil or groundwater contamination could result from accidental spill or release of hazardous materials at the substations during facility operation or along the transmission line during maintenance operations. This could potentially result in exposure of facility workers and the public to hazardous materials.

APM HAZ-5 (Spill Prevention, Countermeasure, and Control Plan and Hazardous Materials Business Plan), included as part of the Project, will minimize the potential for this impact to occur

Finding. The CPUC finds that impacts to soil or groundwater contamination from an accidental spill during Project operation will be less than significant with no mitigation required.

Rationale for Finding. Implementation of APM HAZ-5 will minimize the potential for Impact E-5 to occur. According to APM HAZ-5, SCE will minimize and/or avoid unforeseen spills of hazardous materials during operation at the substations by updating and utilizing the Spill Prevention, Countermeasure, and Control (SPCC) plan and Hazardous Materials Business Plans (HMBPs) for the upgraded substations (Antelope, Vincent, Rio Hondo, Mesa, Gould, Chino, and Mira Loma) and by preparing and utilizing SPCC and HMBP plans for the new Whirlwind substation. In the event of a spill, APM HAZ-5 will reduce the potential for contamination and exposure of workers or the public to hazardous materials by ensuring that any spilled material and any resulting surficial contaminated soil will be quickly and correctly cleaned up and disposed of, resulting in limited to no exposure of hazardous materials to the environment and workers.

Reference. Final EIR Section 3.6; Table ES-3

Cumulative Impact E-1: Soil or groundwater contamination results due to improper handling and/or storage of hazardous materials during construction activities.

The Project area consists of both undeveloped and open space land where there is little likelihood of significant soil or groundwater contamination or commercial and industrial land with current or historic soil or groundwater contamination. Soil or groundwater contamination due to improper handling and/or storage of hazardous materials during construction activities could occur through accidental releases of hazardous materials used during construction. The Project would make a cumulatively considerable contribution to a cumulative impact if, when combined with other projects, it would result in volumes of contaminated soil requiring off-site treatment that exceed the capacity of available treatment facilities or would result in substantial exposure of hazardous materials to the public.

APM HAZ-2 (Hazardous Materials and Waste Handling Management), included as part of the Project, will ensure that this Project impact is less than significant.

Finding. The CPUC finds that this impact will not have the potential to combine with impacts of other projects and will not be cumulatively significant.

Rationale for Finding. APM HAZ-2 will be implemented as part of the Project. It will decrease the potential for accidental releases to occur and will ensure potentially harmful materials are cleaned up in the unlikely event of a release. Since any spills of contaminated material will be immediately cleaned, soil or groundwater contamination will be less than significant as a result of improper handling and/or storage of hazardous materials. Therefore, the Project will not make a cumulatively considerable contribution to a cumulatively significant impact.

Reference. Final EIR Section 3.6; Table ES-3

Cumulative Impact E-2: Excavation or grading could result in mobilization of existing soil or groundwater contamination from known sites

Excavation or grading could result in mobilization of existing soil or groundwater contamination from known sites if preexisting soil and groundwater contamination is encountered during Project construction, which will result in exposure of construction workers to potential health hazards. Such exposure will be hazardous to people in the immediate vicinity of the contamination because the contaminant will either be limited to the medium in which it is discovered or will volatilize and become airborne. If fumes from potential contamination volatilized, risk of exposure will decrease as distance from the source of contamination increased due to dispersal of the fumes.

APM HAZ-1 (Phase I Environmental Site Assessment (ESA)) which will be implemented as part of the Project, will minimize the Project's incremental contribution to this impact, as well as Mitigation Measures E-2a (Perform Phase I ESAs along existing transmission line ROWs) and E-2b (Perform Phase II Investigations for potentially contaminated sites).

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts to mobilization of existing soil or groundwater contamination from known sites. With the inclusion of the APMs and Project mitigation listed above, the Project's cumulative contribution to mobilization of existing soil or groundwater contamination from known sites will be less than significant.

Rationale for Finding. APMs and mitigation that will be implemented under the Project will require investigation of potentially contaminated sites along the proposed transmission line route as well as clean up of any contamination identified, and will minimize the Project's incremental contribution to this impact.

Because any contamination encountered will be removed and/or remediated prior to construction, this impact will not have the potential to combine with impacts of other projects and will not make a cumulatively considerable contribution to a cumulatively significant impact.

Reference. Final EIR Section 3.6; Table ES-3

Cumulative Impact E-3: Landfill gas and/or natural gas located near active, inactive or abandoned oil wells could be encountered during excavation or grading, resulting in explosions or exposure of workers to toxic gases.

Landfill gas and/or natural gas located near active, inactive or abandoned oil wells could be encountered during excavation or grading, resulting in explosions or exposure of workers to toxic gases along portions of the Project alignment that are in close proximity to landfills and active, inactive, and abandoned oil wells. Although, Mitigation Measures E-3a (Determine if landfill gases are present), E-3b (Implement personnel safety and monitoring measures), and E-3c (Verify location and status of abandoned oil and natural gas wells) will reduce the potential for encountering methane and other natural gases, the potential for encountering natural gases will still exist. A cumulative impact will occur if natural gas encountered by the Project combines with gas encountered during concurrent construction activities of a project located in very close proximity to the Project.

Finding. The CPUC finds that this impact does not have the potential to combine with impacts of other projects and will not be cumulatively significant.

Rationale for Finding. No concurrent projects located immediately adjacent to the portions of the route located near landfills or oil wells have been identified.

Reference. Final EIR Section 3.6; Table ES-3

Cumulative Impact E-4: Unanticipated preexisting soil and/or groundwater contamination could be encountered during excavation or grading.

Unanticipated preexisting soil and/or groundwater contamination could be encountered during excavation or grading if pre-existing soil and groundwater contamination is encountered during Project construction, which will result in exposure of construction workers to potential health hazards. Such exposure will be hazardous to people in the immediate vicinity of the contamination since the contaminant will either be limited to the medium in which it is discovered or will volatilize and become airborne. If fumes from potential contamination volatilized, risk of exposure will decrease as distance from the source of contamination increased due to dispersal of the fumes.

APM HAZ-3 (Soil Management Plan), which will be implemented as part of the Project, and Mitigation Measures E-4a (Appoint individuals with correct training for sampling, data review, and regulatory coordination) and E-4b (Document compliance with APM HAZ-3) will reduce the Project's incremental contribution to this cumulative impact.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts resulting from unanticipated preexisting soil and/or groundwater contamination. With the inclusion of the APMs and Project mitigation listed above, the Project's cumulative contribution resulting from unanticipated preexisting soil and/or groundwater contamination will be less than significant.

Rationale for Finding. Any contamination encountered during Project activities will be removed and/or remediated prior to construction in accordance with APM HAZ-3, MM E-4a, and MM E-4b, which would

be implemented under the Project. This impact will not have the potential to combine with impacts of other projects and will not be cumulatively significant.

Reference. Final EIR Section 3.6; Table ES-3

Cumulative Impact E-5: Soil or groundwater contamination could result from an accidental spill during operation.

Soil or groundwater contamination could result from an accidental spill at the substations during facility operation or along the transmission line during maintenance operations.

APM HAZ-5 (Spill Prevention, Countermeasure, and Control Plan and Hazardous Materials Business Plan), included as part of the Project, will minimize the Project's incremental contribution to this cumulative impact.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts to soil or groundwater contamination from an accidental spill during operation. With the inclusion of the APM listed above, the Project's cumulative contribution to soil or groundwater contamination from an accidental spill during operation will be less than significant.

Rationale for Finding. APM HAZ-5 will require measures to minimize and/or avoid unforeseen spills of hazardous materials during operations as well as to clean up potentially harmful materials in the unlikely event of a release. These measures will greatly reduce the likelihood of a release as well as the potentially harmful effect of a release. Because measures will be in place to greatly reduce the likelihood of a release as a result of Project activities, this impact will not be cumulatively significant.

Reference. Final EIR Section 3.6; Table ES-3

III.2.5 Geology, Soils, and Paleontology

The CPUC and USDA Forest Service examined the regional topography, geology, seismicity, soils, and paleontology in the Project area, by collecting baseline geologic, seismic, soils, and paleontological information from published and unpublished literature, GIS data, and online sources for the Project and the surrounding area. The literature and data review was supplemented by field reconnaissance. The literature review and field reconnaissance focused on the identification of specific geologic hazards and paleontologic resources along and adjacent to the Project ROW.

Impact G-8: Grading and excavation could destroy paleontologic resources.

Grading activities for new access and spur roads, and excavation for tower and substation building foundations could encounter potentially fossil-bearing deposits throughout nearly all of the Project segments underlain by Quaternary alluvial deposits (Segments 4, 5, 7, 8, 9, 10, and 11) and Tertiary sedimentary rock in the Montebello, Puente, and Chino Hills (Segment 8). Construction activities could destroy the fossils contained in the earth materials and the opportunity to properly retrieve, study, catalog, and archive them will be lost.

The Applicant will implement APMs PALEO-1 through PALEO-9, which are included as part of the Project. These measures will minimize impacts to paleontologic resources.

Finding. The CPUC finds that the potential for paleontological resources to be destroyed as a result of the Project will be less than significant with no mitigation required.

Rationale for Finding. APM PALEO-1 (Retention of Paleontologist), APM PALEO-2 (Conduct Pre-construction survey), and APM PALEO-3 (Prepare and implement a Paleontological Resource Management Plan [PRMP]) will be completed prior to construction to allow a certified paleontologist to plan for and supervise the pre-construction planning and field surveys. SCE's APM PALEO-4 (Environmental training), APM PALEO-5 (Construction monitoring), APM PALEO-6 (Recovery and testing), and APM PALEO-7 (Prepare monthly progress reports) will occur during construction. These activities will train construction supervisors and crews to be aware of paleontologic resources and provide procedures to follow in the event fossils are encountered during excavation. In addition, the construction-related paleontology APMs will require a paleontologic monitor, under the supervision of the Project certified paleontologist, to monitor ground-disturbing activities on a part-time or full-time basis in areas with rock units of moderate to high sensitivity. At the conclusion of construction, SCE's APM PALEO-8 (Analysis and prepare final Paleontologic Resource Recovery Report) and APM PALEO-9 (Curation) will provide for documenting and preserving all of the paleontologic resources discovered during construction. These measures will reduce the potential for paleontological resources to be destroyed to a less than significant level.

Reference. Final EIR Section 3.7; Table ES-3

Cumulative Impact G-4: Project structures could be damaged by surface fault rupture at crossings of active faults exposing people or structures to hazards.

Failure of Project structures could result in power outages, damage to nearby roads or structures, and injury or death to nearby people. Past and future projects located in close proximity to Project structures will be exposed to the same conditions and therefore the same impacts. Collapse Failure of Project structures and adjacent structures will combine to result in a significant impact where such structures are in close proximity to other structures or people, such as other parallel and crossing transmission lines and substations, and residential and commercial developments located adjacent to the Project route along Segments 5, 7, 8 and the southern portions of Segment 11 between S11 MP 18.5 to 19.

Implementation of Mitigation Measure G-4 (Avoid placement of Project structures within active fault zones), which is required under the Project, will minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts to damage of structures by surface fault rupture at crossings of active faults exposing people or structures to hazard. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to damage of structures by surface fault rupture at crossings of active faults exposing people or structures to hazard will be less than significant.

Rationale for Finding. The placement of Project structures outside of active fault zones, as required by Mitigation Measure G-4 of the Project, will result in cumulative impacts that are less than significant. Additionally, due to similar policies regarding construction within active fault zones that have been imposed on past projects and that will likely be imposed on reasonably foreseeable projects, this cumulative impact will be less than significant.

Reference. Final EIR Section 3.7; Table ES-3

Cumulative Impact G-5: Project structures could be damaged by seismically induced groundshaking and/or ground failure exposing people or structures to hazards.

Seismically induced groundshaking and/or ground failure could result in damage to Project structures which could result in power outages, damage to nearby roads or structures, and injury or death to nearby people. Past and future projects located in close proximity to Project structures will be exposed to the same conditions and therefore the same impacts. Failure of Project structures and adjacent structures will combine to result in a significant impact where such structures are in close proximity to other structures or people, such as other parallel and crossing transmission lines and substations, and residential and commercial developments located adjacent to the Project route along Segments 5, 7, 8, and the southern portion of Segment 11.

Implementation of Mitigation Measures G-3 (Conduct geological surveys for landslides and protect against slope instability), G-5a (Reduce effects of groundshaking), and G-5b (Conduct geotechnical investigations for liquefaction), which are required under the Project, will minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts associated with Project structures being damaged by seismically induced groundshaking and/or ground failure. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts associated with Project structures being damaged by seismically induced groundshaking and/or ground failure will be less than significant.

Rationale for Finding. Mitigation Measure G-5a requires site-specific seismic analyses to avoid damage from seismic groundshaking, Mitigation Measure G-5b requires design-level geotechnical investigations designed to assess the potential for liquefaction and design of Project features to avoid damage from liquefaction, and Mitigation Measure G-3 requires identification of existing and potential unstable slopes to minimize the potential slope failures. These mitigation measures of the Project will minimize the Project's contribution to this cumulative impact. Due to similar policies regarding construction within areas of potentially substantial seismic shaking and seismically induced ground failures that have been imposed on past projects and that will likely be imposed on reasonably foreseeable projects, this cumulative impact will be less than significant.

Reference. Final EIR Section 3.7; Table ES-3

Cumulative Impact G-6: Project structures could be damaged by problematic soils exposing people or structures to hazards.

Unidentified expansive and corrosive soils could damage Project structures and facilities and could comprise their structural integrity, which could result in power outages, damage to nearby roads or structures, and injury or death to nearby people, as described in Section 3.7.6.1 where such structures are in close proximity to other structures or people, such as other parallel and crossing transmission lines and substations, and residential and commercial developments located adjacent to the Project route along Segments 5, 7, 8 and the southern portion of Segment 11.

Implementation of Mitigation Measure G-6 (Conduct geotechnical studies to assess soil characteristics and aid in appropriate foundation design), which is required under the Project, will minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts associated with Project structures being damaged by problematic soils. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts associated with Project structures being damaged by problematic soils will be less than significant.

Rationale for Finding. Implementation of Mitigation Measure G-6 will minimize the Project's contribution to this cumulative impact by requiring studies to identify the presence of unsuitable soils and designing of Project features to avoid damage from problematic soils. Also, due to similar policies regarding construction within areas of potentially unsuitable and damaging soils that have been imposed on past projects and that will likely be imposed on reasonably foreseeable projects, this cumulative impact will be less than significant

Reference. Final EIR Section 3.7; Table ES-3

Cumulative Impact G-7: Transmission line structures could be damaged by landslides, earth flows, or debris slides, during operation.

Failure of Project structures and adjacent structures will combine to result in a significant impact where such structures are in close proximity to other structures or people, such as other parallel and crossing transmission lines and substations, and residential and commercial developments located adjacent to the Project route along Segments 5, 7, 8 and the southern portion of Segment 11.

Implementation of Mitigation Measure G-3 (Conduct geological surveys for landslides and protect against slope instability), which is required under the Project, will minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts associated with Project structures being damaged by landslides, earth flows, or debris slides during operation. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts associated with Project structures being damaged by landslides, earth flows, or debris slides during operation will be less than significant.

Rationale for Finding. Implementation of Mitigation Measure G-3 will minimize the Project's contribution to this cumulative impact by requiring identification of existing and potential unstable slopes to minimize the potential slope failures which will minimize the Project's contribution to this cumulative impact. Due to similar policies regarding construction within areas of unstable and potentially unstable slopes that have been imposed on past projects and that will likely be imposed on reasonably foreseeable projects, this cumulative impact will be less than significant

Reference. Final EIR Section 3.7; Table ES-3

Cumulative Impact G-8: Grading and excavation could destroy paleontologic resources.

Unknown, unrecorded paleontological resources may be found at nearly any development site. It is not known what paleontological resources, if any, will be affected by development of all present and future projects along and near the Project; however, given the density of past development in these areas and the large number of reasonably foreseeable projects in the area, it is reasonable to assume that paleontologic resources exist and will be expected to be uncovered in at least several of these sites.

APMs PALEO-1 through PALEO-9, which are included as part of the Project, will minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that the incremental contribution of the Project to Cumulative Impact G-8 will be less than significant, and the Project will not result in a significant impact associated with effects of grading and excavation on paleontologic resources.

Rationale for Finding. APMs of the Project that will be employed during construction will reduce the potential that any scientifically important fossils will be destroyed and will provide for the systematic collection, analysis, and documentation of any such discoveries. Should resources be discovered during construction of current and future projects, they will be subject to legal requirements designed to protect them, thereby reducing the effect of impacts. Therefore Project impacts, when combined with impacts from past, present and reasonably foreseeable projects, will not be significant and no additional mitigation measures are necessary.

Reference. Final EIR Section 3.7; Table ES-3

III.2.6 Hydrology and Water Quality

Impacts to hydrology and water quality have been assessed in comparison to baseline conditions for the affected environment of the Project Area, including climate, topography, surface water resources, groundwater basins, floodplains, water quality, and land use. 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 Project.

Impact H-3: Operation and maintenance activities would degrade water quality through the accidental release of potentially harmful or hazardous materials.

Surface water quality will be degraded if harmful or hazardous materials are accidentally released within a stream channel during Project operation and maintenance activities at stream crossings along access roads and near tower locations. Due to the use of vehicles and other motorized equipment during operations and maintenance, some of the potentially hazardous substances that could be released include: diesel fuel, gasoline, lubricant oils, hydraulic fluid, antifreeze, transmission fluid, and lubricant grease. Surface water could be directly contaminated through contact with a flowing stream, and groundwater resources could be indirectly affected if hazardous materials are left on the ground surface and allowed to leach into the groundwater. In contrast with construction activities, which will include more intensive use of heavy equipment for longer periods of time, operation of the Project will include activities with substantially less potential to result in water quality degradation from the accidental spill of hazardous materials. Operational activities will include annual visual inspections of Project facilities via helicopter and light truck, with maintenance performed on an as-needed basis.

APMs HYD-2 (Environmental Training Program) and HYD-3 (Accidental Spill control), which are included as part of the Project, will substantially reduce the potential for water quality degradation through accidental release of potentially harmful or hazardous materials by ensuring that inspection and maintenance personnel have the knowledge and means to quickly and effectively address accidental releases of hazardous materials.

Finding. The CPUC finds that impacts to water quality resulting from the accidental release of harmful or hazardous materials during operation and maintenance of the Project will be less than significant without the implementation of mitigation measures.

Rationale for Finding. APMs HYD-2 (Environmental Training Program) and HYD-3 (Accidental Spill control) will minimize the potential for accidental spills of potentially harmful or hazardous materials to directly contact or be carried into nearby waterways, or leach into the groundwater. No mitigation is necessary for this impact.

Reference. Final EIR Section 3.8; Table ES-3

Cumulative Impact H-3: Operation and maintenance activities would degrade water quality through the accidental release of potentially harmful or hazardous materials.

Surface and groundwater quality could be degraded through the accidental release of potentially harmful or hazardous materials during Project operation and maintenance activities. Within the cumulative analysis area, several large residential development projects are already approved, and several more large residential development projects are planned, such as the Aera Master Planned Community near the City of Diamond Bar and the New Model Colony near the City of Ontario. Operational activities for a residential development would include occupancy of the development, use of the residential facilities, including use of water resources and discharge of wastewater, and vehicle trips by residents and visitors to and from the residential development. These residential development operation activities could lead to an accidental release of potentially harmful or hazardous materials. These potential impacts would affect many of the same streams that would be crossed by the Project. However, existing water quality regulations will greatly reduce the potential for an accidental release of hazardous materials.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts resulting from operation and maintenance activities causing degradation of water quality through the accidental release of potentially harmful or hazardous materials. APMs HYD-2 (Environmental Training Program) and HYD-3 (Accidental Spill control) will minimize the potential for accidental spills of potentially harmful or hazardous materials to directly contact or be carried into nearby waterways, or leach into the groundwater. In addition, existing water quality regulations will greatly reduce the potential for an accidental release of hazardous materials. Therefore, the Project's cumulative contribution will be less than significant.

Rationale for Finding. This impact of the Project is less than significant and site-specific. Therefore, the potential for this impact to combine with similar impacts of past, present, and reasonably foreseeable future projects is unlikely. Cumulatively, this impact is less than significant with no mitigation required.

Reference. Final EIR Section 3.8; Table ES-3

Cumulative Impact H-4: Project structures would cause erosion, sedimentation, or other flood-related damage by impeding flood flows.

Encroachment of a Project structure into a stream channel or floodplain could result in flooding of or erosion damage to the encroaching structure, diversion of flows and increased flood risk for adjacent property, or increased erosion on adjacent property. Impact H-4 is most likely to occur where transmission towers or other permanent Project features are constructed in or closely adjacent to a watercourse. None of the infrastructure associated with the Project will be situated within a watercourse. However, some towers will be placed in areas subject to periodic overland flow and flooding, such as the Santa Fe Flood Control Basin, the Whittier Narrows Flood Control Basin, and some broad, ephemeral washes in the Northern Region. Numerous present and foreseeable residential development projects, such as the Aera Master Planned Community near the City of Diamond Bar and the New Model Colony near the City of Ontario, could impede flood flows if proper design features were not implemented.

This impact of the Project will be reduced to a less-than-significant level with implementation of Mitigation Measure H-1a (Implement an Erosion Control Plan and demonstrate compliance with water quality permits), which will also minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts resulting from Project structures causing erosion, sedimentation, or other flood-related damage by impeding flood flows. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts resulting from Project structures causing erosion, sedimentation, or other flood-related damage by impeding flood flows will be less than significant.

Rationale for Finding. This impact of the Project is less than significant and site-specific. Therefore, the potential for this impact to combine with similar impacts of past, present, and reasonably foreseeable future projects is unlikely. Cumulatively, this impact is less than significant with no mitigation required.

Reference. Final EIR Section 3.8; Table ES-3

Cumulative Impact H-5: Project structures would be inundated by mudflow.

Mudflows are a type of mass wasting or landslide, where earth and surface materials are rapidly transported downhill under the force of gravity. Mudflow may be triggered by heavy rainfall that the soil is not able to sufficiently drain or absorb. As a result, soil and rock materials become unstable and eventually slide away from their existing location, in a mudflow event.

APMs HYD-1 (Construction SWPPP) and HYD-7 (Flood and Erosion Structure Damage Protection) which are included as part of the Project, and Mitigation Measure G-3 (Conduct geological surveys for landslides and protect against slope instability), which is required under the Project, will minimize the potential for inundation of Project structures by mudflow, and will minimize the potential for this impact of the Project to combine with similar impacts in the cumulative scenario.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts resulting from the inundation of Project structures by mudflow. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts from the inundation of Project structures by mudflow will be less than significant.

Rationale for Finding. APMs HYD-1 and HYD-7, and Mitigation Measure G-3 will minimize the Project's incremental contribution to this cumulative effect. While the present and reasonably foreseeable residential development projects in the cumulative effects area could potentially increase the probability that Project structures will be inundated by mudflow, this potential is likely very low because residential development projects tend to decrease the overall slope in an area through grading and earth movement. An overall decrease in slope will lower the probability that Project structures will be inundated by mudflow. No mitigation is required.

Reference. Final EIR Section 3.8; Table ES-3

III.2.7 Land Use

The identification of existing land uses was based upon a consolidation of the classification scheme used by the Southern California Association of Governments (SCAG) for its mapping of existing land uses. Use of the SCAG General Plan land use designation data ensures a consistent classification scheme across all of the various jurisdictions potentially affected by the Project. Identified land uses were subsequently

verified through review of recent aerial photographs and published maps, as well as field reconnaissance. Additionally, adopted General Plans and related land use management and planning documents of the jurisdictions affected by the Project were collected and reviewed for consistency.

Impact L-3: Operation and maintenance of the Project would cause long-term disruption of existing and planned residential land uses.

The Project's new and expanded ROW, in conjunction with its substation expansion needs, will require an estimated 1,298 acres of land in the North Region, 27 acres of land in the Central Region (including all of Segment 11), and 43.4 acres of land in the South Region (with an estimated 27 acres of ROW abandoned). In addition, the Project will result in the permanent disturbance of an estimated 180.6 to 244.3 acres of land, including an estimated 65.7 to 88.7 acres in the North Region, 99.3 to 134.4 acres in the Central Region, and 15.6 to 17.2 acres in the South Region. Due to the incorporation of Alternative 6 into the Project, a greater number of helicopter inspections will be required because of the number of towers that will not be accessible by truck. Operation and maintenance of the Duck Farm 66-kV Underground Re-Route and the Whittier Narrows 66-kV Underground Re-Route and Whittier Narrows 66-kV Overhead Re-Route options associated with Alternative 7 will occur within the same ROW as the Project.

Finding. The CPUC finds that the Project's preclusion of, and incompatibility with, current and future residential land uses both within proposed new and expanded ROWs, and adjacent to existing ROWs, will be adverse but less than significant. Similarly, operation and maintenance of re-route options under the Project will be adverse but less than significant. No mitigation is required.

Rationale for Finding. With the exception of the substation expansions, it is unknown how much new and expanded ROW acreage will be acquired in fee or easement by SCE. However, regardless of whether these lands are made available by lease, easement, or purchase, SCE's required acquisition of the rights to construct and operate the Project with affected private property owners, in conjunction with its acquisition of the regulatory approvals required for new and expanded ROWs and substation sites, will inherently allow for the preclusion of either future residential development or the expansion of existing residential development. Additionally, operation and maintenance of the Re-Route options will not be anticipated to require additional activities that could increase long-term preclusions of, disturbances to, or incompatibilities with existing and planned residential land uses. The partial removal (e.g., undergrounding) of the existing Hondo-Amador-Jose-Mesa 66-kV and Jose-Mesa 66-kV subtransmission lines will likely be considered a beneficial impact to those residents that are adjacent to their respective ROWs.

Reference. Final EIR Section 3.9; Table ES-3

Cumulative Impact L-3: Operation and maintenance of the Project would cause long-term disruption of existing and planned residential land uses.

Portions of the Project Segments 10 and 4 and the proposed Whirlwind Substation will be constructed within the planned residential development boundaries of the Willow Springs Specific Plan. Segments 4 and 5 will also abut existing or planned residential properties in Los Angeles County. Other energy projects have been proposed that will affect these same land uses. The proposed PdV/Manzana Wind Energy Project will occupy 6,435 acres in the Willow Springs area, which may preclude future residential development. The Antelope Transmission Project Segments 1 through 3 will be constructed parallel to the Project through the existing and future residential communities of Ritter Ranch and Anaverde (City of Palmdale).

Finding. The CPUC finds that because SCE will purchase or lease new and expanded substation sites and ROWs in full agreement with existing property owners, the Project's incremental contribution to this cumulative impact will be less than significant.

Rationale for Finding. Prior to construction of Project Segments 10 and 4, SCE will be required to acquire regulatory approvals for new and expanded ROWs and substation sites, as well as the rights to construct and operate the Project with affected private property owners. In addition, Segment 5 will be located within existing ROW and will not preclude residential development.

Reference. Final EIR Section 3.9; Table ES-3

Cumulative Impact L-5: Construction, operation or maintenance of the Project would conflict with relevant federal, State, or local land use plans, goals, or policies.

The Project traverses multiple jurisdictions, all of which have adopted plans related to land use planning, development, and management. As a preliminary step toward identifying those plans which contain policies and goals specific to the development, operation and maintenance of transmission lines and their associated substations, a policy screening analysis was conducted. Of the various policies, goals and objectives identified in the Policy Screening Report for detailed evaluation, seventeen were directly related to land use and the construction, operation and maintenance of transmission lines. Table 3.9-20 of the Final EIR provides the consistency analysis for these seventeen policies, goals and objectives.

The implementation of Mitigation Measures L-2b (Aircraft flight path and safety provisions and consultation) and L-4 (Consult with federal, State and local agencies), required under the Project, will minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts resulting from conflict with USDA Forest Service land use policies and local land use plans and policies as they relate to transmission lines and associated facilities. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts resulting from conflict with USDA Forest Service land use policies and local land use plans and policies as they relate to transmission lines and associated facilities will be less than significant.

Rationale for Finding. The Project will be authorized by the USDA Forest Service through its permitting and Forest Plan amendment prior to construction. Additionally, the implementation of Mitigation Measures L-2b and L-4 will avoid conflicts with any applicable federal, State or local land use plans, goals, or policies.

Reference. Final EIR Section 3.9; Table ES-3

III.2.8 Public Services and Utilities

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

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

The use of helicopters during construction in the ANF could interfere with emergency response aircrafts if an emergency were to occur in the vicinity of proposed helicopter construction sites. In addition, portions of Segment 6, Segment 7, Segment 8A, and Segment 11 will increase the existing maximum height of transmission lines and towers by approximately 50 feet (change in height will not apply to the Alternative 3 or Alternative 7 portions of the Project). This height increase will decrease the effectiveness of aerial

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

Finding. The CPUC finds that any potential interference with aerial firefighting operations during a wildfire event in the areas surrounding the Project will be eliminated by FAA restrictions, and Impact PSU-3 will be less than significant with no mitigation required.

Rationale for Finding. Should construction or maintenance activities require the use of helicopters, Project helicopters will be restricted by FAA rules on temporary flight restrictions from flying in designated areas, therefore eliminating any potential interference with aerial firefighting operations during a wildfire event in the areas surrounding the Project.

Reference. Final EIR Section 3.11; Table ES-3

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

Construction of the Project will require water on a daily basis at construction sites for dust suppression, and human consumption and sanitary purposes. The amount of water used per day for dust suppression will depend on the length of access roads used, weather conditions, road surface conditions, and other site-specific conditions. Water required for consumption and sanitary purposes by construction crews will be a very small portion of the Project's water use during construction.

Adequate local water supplies are available to meet the temporary water requirements associated with Project construction. Therefore, based on the construction and consumption activities that will require water, the Project will not create a demand for water that will burden the existing water supply or require increased allotments from the State Water Project. The Project will be constructed in eight segments between approximately December 2009 and October 2014, thereby dispersing water use over a 59-month period. Once constructed, the Project will only require water for maintenance purposes, such as substation irrigation and equipment cleaning, and for drinking and sanitary purposes for crews visiting substation locations.

Finding. The CPUC finds that water requirements of the Project will not change the ability of the water suppliers to serve existing customers, and Impact PSU-6 will be less than significant with no mitigation required.

Rationale for Finding. Temporary increased demand for water from local water purveyors along the proposed route will not be large enough to affect the existing supply, especially considering that water usage for the Project will be spread over a 59-month period and across multiple locations, thereby not creating a significant increase in demand at one particular time or place.

Reference. Final EIR Section 3.11; Table ES-3

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

Wastewater generated during Project construction will be limited to that generated by Project personnel and will be accommodated by portable toilets brought to staging areas for construction crews. These portable toilets will be emptied into septic tanks or municipal sewage systems. The workforce necessary for

construction of the Project is anticipated to range from approximately 10 to 350 personnel, with an estimated average daily workforce of 75 personnel.

Finding. The CPUC finds that wastewater generation associated with the Project will not place a significant burden on wastewater facilities serving the area and will not necessitate expansion of wastewater collection or treatment facilities serving the area; therefore, Impact PSU-7 will be less than significant with no mitigation required.

Rationale for Finding. Wastewater generation associated with the Project will be temporary and will not require expansion of the capacity of local wastewater collection or treatment systems. As the ANF has no wastewater treatment facilities, there will be no impacts on NFS lands. The operation of the Project substations will generate small quantities of additional wastewater that will not necessitate any expansion of the capacity of local facilities.

Reference. Final EIR Section 3.11; Table ES-3

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

Various solid waste materials will be generated during construction of the Project. SCE will recycle at least 50 percent of projected construction and demolition waste in accordance with the Integrated Waste Management Act of 1989. For waste materials that cannot be reused or recycled, solid waste management facilities located within the vicinity of the Project will be used for the disposal of waste. According to SCE, the average daily solid waste disposal will be approximately 528 tons; however, this is an overestimate since it only takes in account scrap metal recycling and materials reusable at SCE or on site. The actual disposal amount is expected to be substantially less, when cribbing wood, cardboard boxing and crating, soil, and vegetation are recycled to the extent practical. The remaining waste will be disposed regularly over the 59-month construction period, and is not expected to result in a considerable percentage of the daily disposal limits or remaining capacity of the landfills.

Landfills serving the Project area have remaining capacities estimated to handle the inert waste generated by the Project, and the quantity of construction-related materials transported to these landfills will not affect any daily volume thresholds established by the facility. Once constructed, Project operations will generate minimal amounts of solid waste. Broken equipment and small quantities of solid waste will be generated through routine operation and maintenance of substations. However, such quantities will not affect existing landfill capacities.

Finding. The CPUC finds that impacts on waste facilities will be adverse but not significant. While no mitigation measures are required to reduce this impact to a less-than-significant level, implementation of Mitigation Measure PSU-9 (Recycle construction waste) will ensure that maximum recycling activities will occur. Impact PSU-8 of the Project will be less than significant with no mitigation required.

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

Rationale for Finding. The average daily amount of waste generated by the Project is conservatively estimated to be 528 tons. Spread out over the 59-month construction schedule, this amount is not expected to exceed the available capacity of the landfills serving the Project area, and recyclable material will be taken to recycling facilities. After the construction period, operation and maintenance activities will not generate solid waste.

Reference. Final EIR Section 3.11; Table ES-3

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

Construction of the Project could result in potentially hazardous conditions that will require emergency services. If construction activities for other projects in the area also result in potentially hazardous conditions that require emergency services and such potentially hazardous conditions are introduced in the same general area and timeframe as such conditions under the Project, the resulting impacts could be significant to emergency service providers.

The implementation of Mitigation Measures PSU-1a (Revise SCE's Fire Management Plan), PSU-1b (Review of construction methods by county fire departments), PSU-1c (Practice safe welding procedures), and PSU-1d (Fire preventive construction equipment requirements), required under the Project, will minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts to emergency services as a result of an accident or other emergency incident at a construction site. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts to emergency services as a result of an accident or other emergency incident at a construction site will be less than significant.

Rationale for Finding. Due to mitigation measures required for the Project, the likelihood of the need for emergency response teams as a result of construction accidents will be low.

Reference. Final EIR Section 3.11; Table ES-3

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

Construction of the Project will interfere with the regular flow of traffic due to temporary lane closures. From a cumulative impacts perspective, emergency vehicles will be adversely affected if construction of other projects listed in the Cumulative Scenario were to occur in the proximity of the Project.

The implementation of Mitigation Measure T-1a (Traffic Control Plan), required under the Project, will minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts associated with interference with emergency vehicles due to temporary lane closures during construction. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts associated with interference with emergency vehicles due to temporary lane closures during construction will be less than significant,

Rationale for Finding. With implementation of the Traffic Control Plan required by Mitigation Measure T-1a, emergency access will not be significantly impeded by multiple construction sites in the same vicinity and timeframe.

Reference. Final EIR Section 3.11; Table ES-3

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

Construction and operation of the Project could interfere with emergency aircraft services. Construction of other projects in the vicinity of the Project could also cause interruptions for emergency response operations.

Finding. The CPUC finds that the Project's incremental contribution to this cumulative impact will not be cumulatively considerable.

Rationale for Finding. All flight operations will be restricted by FAA rules on temporary flight restrictions from flying in designated areas.

Reference. Final EIR Section 3.11; Table ES-3

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

Disruptions in the flow of utility services for co-located utilities are likely to occur during the construction period, and will require the implementation of Mitigation Measure PSU-4 (Notification of utility service interruption) in order to reduce the Project's impacts to a less-than-significant level. Construction of other projects in the vicinity of the Project may also cause temporary utility disruptions. It is unlikely that utility disruptions will occur at the same time.

The implementation of Mitigation Measure PSU-4 (Notification of utility service interruption), required under the Project, will minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts associated with disruption of utility systems during construction. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts associated with disruption of utility systems during construction will be less than significant.

Rationale for Finding. If a disruption is known to be unavoidable, SCE will coordinate with the affected jurisdiction/s and service provider/s in order to avoid multiple or extended disruptions, in accordance with Mitigation Measure PSU-4.

Reference. Final EIR Section 3.11; Table ES-3

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

Construction of the Project will likely result in disruptions at Public Works maintenance yards. The implementation of Mitigation Measure PSU-5 (Notification of public service interruption), required under the Project, will minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts associated with disruption of Public Works maintenance yards during construction. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts associated with disruption of Public Works maintenance yards during construction will be less than significant.

Rationale for Finding. If a disruption is known to be unavoidable, SCE will coordinate with the appropriate Public Works Department/s in accordance with Mitigation Measure PSU-5, in order to avoid multiple or extended disruptions.

Reference. Final EIR Section 3.11; Table ES-3

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

Water will be required for dust suppression during the entire construction period. Each jurisdiction along the proposed route will contribute to the water required by Project construction, which is reasonably expected to be a small fraction of the available water supply. From a cumulative perspective, the majority of planned and proposed projects included in the cumulative scenario are residential developments, which require substantially more water and water infrastructure during construction than the Project.

Finding. The CPUC finds that the Project's contribution to this cumulative impact will not be cumulatively considerable.

Rationale for Finding. The majority of planned and proposed cumulative projects will require substantially more water and water infrastructure during construction than the Project and the existing water supply for each region, which is listed in Section 3.11.2.2 (Affected Environment: Water), shows that multiple water allocations are available along the entire length of the proposed route.

Reference. Final EIR Section 3.11; Table ES-3

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

Construction of present and reasonably foreseeable future projects in the vicinity of the proposed route will contribute to wastewater generation.

Finding. The CPUC finds that the Project's contribution to this impact will not be cumulatively considerable.

Rationale for Finding. The generation of wastewater from construction personnel associated with the Project or construction from surrounding developments will not exceed the capabilities of wastewater facilities. While the Project, in combination with present and reasonably foreseeable future projects will incrementally increase the generation of wastewater, this will not significantly impact the capabilities of waste management and will not have a cumulatively considerable impact. Therefore, the Project will not make a cumulatively considerable contribution to a cumulatively significant impact.

Reference. Final EIR Section 3.11; Table ES-3

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

Waste generated by the Project will be disposed of (including through recycling) over the 59-month construction period and is not expected to exceed the available capacity of the landfills noted in Table 3.11-9. In the cities of Lancaster and Palmdale, the Project and other present and reasonably foreseeable future projects are generally located west of the established development, in previously undeveloped land.

Finding. The CPUC finds that the Project's contribution to this impact will not be cumulatively considerable.

Rationale for Finding. Waste management services are abundant and there are numerous disposal facilities with available space. Therefore, while the Project and the present and reasonably foreseeable future projects will require waste capabilities during construction, such waste is not expected to exceed the capabilities of existing waste disposal facilities and recycling facilities. The cumulative impact will not be significant.

Reference. Final EIR Section 3.11; Table ES-3

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

The Project will be in full compliance with the Integrated Waste Management Act of 1989, which requires all local and county governments to adopt a Source Reduction and Recycling Element to identify means of reducing the amount of solid waste sent to landfills. Mitigation Measure PSU-9 (Recycle construction waste) will ensure compliance for Project-related impacts. In addition, other planned, proposed, or reasonably foreseeable projects are also subject to the Integrated Waste Management Act of 1989 and must therefore incorporate maximum recycling efforts during construction activities. Therefore, Impact PSU-9 would not be cumulatively considerable.

Finding. The CPUC finds that the Project's contribution to this impact will not be cumulatively considerable.

Rationale for Finding. Compliance with the Integrated Waste Management Act of 1989 will be adhered to by the Project and all other cumulative projects. Therefore, the Project-related impacts will not be cumulatively considerable and impacts will be less than significant.

Reference. Final EIR Section 3.11; Table ES-3

III.2.9 Traffic and Transportation

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. Lane information was obtained from aerial photographs, local government agencies, public maps, and field reconnaissance.

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

Construction of the Project is not expected 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. The Alternative 6 portions of the Project will use several centralized staging areas for construction of Segment 6 and Segment 11, and fewer roadways will be traveled by construction vehicles than the comparable portion of Alternative 2; however, although the potential for this impact to occur will be decreased due to the incorporation of Alternative 6, the impact will still occur.

APM TRA-5 (Repair Damaged Streets), included as part of the Project, will require any damage to local streets to be repaired, and streets be restored to their pre-Project condition.

Finding. The CPUC finds that impacts of construction vehicles and equipment to road ROWs will be less than significant with no mitigation required.

Rationale for Finding. APM TRA-5 will ensure that any physical damage to roads, sidewalks, or medians as a result of construction will be restored to their pre-Project condition.

Reference. Final EIR Section 3.13; Table ES-3

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

Construction of the Project could result in roadway closures at locations where the construction activities, especially transmission line stringing, will 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 will 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 Project. The Alternative 6 portions of the Project will 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 will incrementally increase the contribution of the Project to this cumulative impact.

The implementation of Mitigation Measures T-1a (Prepare Traffic Control Plans) and T-1b (Restrict lane closures), required under the Project (inclusive of portions of Alternative 6), will minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts associated with substantial congestion as a result of closure of roads to through traffic or reduction of travel lanes. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts associated with substantial congestion as a result of closure of roads to through traffic or reduction of travel lanes will be less than significant.

Rationale for Finding. Past projects in the Project Area will not combine with impacts of the Project because construction of those projects is complete and lane closures associated with such construction will no longer be necessary. Reasonably foreseeable projects in the Project Area will not combine with impacts of the Project to result in a significant impact due to Mitigation Measures T-1a and T-1b, which are required under the Project and would facilitate advanced planning for potential traffic impacts.

Reference. Final EIR Section 3.13; Table ES-3

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

Construction of the Project will temporarily increase traffic (through Project trip generation) on the regional and local roadways. Past development within the Project area outside of the ANF has substantially contributed to congestion on area roadways. Current and reasonably foreseeable projects in these areas will also temporarily increase traffic in these areas during construction. Additionally, 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 will be completed and partially occupied by the time Project construction begins in this area. Traffic associated with these future residential developments will contribute to congestion on area roadways. Alternative 6 portions of the Project will 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 will also incrementally increase the contribution of Alternative 6 to this cumulative impact.

The implementation of Mitigation Measures T-2 (Prepare Construction Transportation Plan), required under the Project (inclusive of portions of Alternative 6), will minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts associated with congestion on area roadways as a result of construction traffic. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts associated with congestion on area roadways as a result of construction traffic will be less than significant.

Rationale for Finding. Current and reasonably foreseeable projects in the Project Area could temporarily increase traffic in a similar way as the Project. However, the Project's incremental contribution to this cumulative impact will be minimized through Mitigation Measure T-2 (Prepare Construction Transportation Plan), and no significant cumulative impact would occur.

Reference. Final EIR Section 3.13; Table ES-3

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

Lane closures associated with construction of the Project could disrupt the routes traveled by emergency providers. Other current and reasonably foreseeable projects will have the same potential to restrict emergency service provider routes. However, the implementation of Mitigation Measures T-1a (Prepare Traffic Control Plans), required under the Project, will minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts associated with interference with emergency response as a result of construction activities. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts associated with interference with emergency response as a result of construction activities will be less than significant.

Rationale for Finding. 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 and, additionally, lane closures associated with the Project will be of very short duration and the Project's incremental contribution to the cumulative impact will not be significant.

Reference. Final EIR Section 3.13; Table ES-3

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

Lane closures associated with construction of the Project could disrupt the routes traveled by bus transit services. Other current and reasonably foreseeable projects will have the same potential to restrict transit service routes. However, the implementation of Mitigation Measure T-4 (Avoid disruption of bus service), required under the Project, will minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts associated with interference with emergency response as a result of construction activities. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts associated with interference with emergency response as a result of construction activities will be less than significant.

Rationale for Finding. Mitigation Measure T-4 (Avoid disruption of bus service) requires construction activity to be coordinated in advance with school districts and transit providers and, additionally, lane closures associated with the Project will be of very short duration and the Project's incremental contribution to the cumulative impact will not be significant.

Reference. Final EIR Section 3.13; Table ES-3

Cumulative 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. However, the implementation of Mitigation Measure T-6 (Ensure pedestrian and bicycle circulation and safety), required under the Project, will minimize the Project's incremental contribution to this cumulative effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts associated with interference with the use of pedestrian/bicycle paths as a result of construction activities. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts associated with interference with the use of pedestrian/bicycle paths as a result of construction activities will be less than significant.

Rationale for Finding. Implementation of Mitigation Measure T-6 (Ensure pedestrian and bicycle circulation and safety) will ensure that impacts of the Project will not contribute to cumulatively significant impacts by requiring establishment of alternative pedestrian and bicycle routes around the Project construction zone for safe passage as well as temporary detours for trail users.

Reference. Final EIR Section 3.13; Table ES-3

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

The Project will result in construction of structures greater than 200 feet in height, and will 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. The Project, as well as any other project that will result in construction of features over 200 feet in height, will be required to submit a Notice of Construction to the FAA Air Traffic Division for review and approval.

Finding. The CPUC finds that the Project's contribution to this impact will not be cumulatively significant.

Rationale for Finding. Final design of all projects with structures greater than 200 feet in height will have to comply with FAA guidelines. Projects located within military flight pathways will be required to submit the project application to the appropriate US Military Branch for review to ensure conflicts will not occur.

Reference. Final EIR Section 3.13; Table ES-3

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

Due to the incorporation of Alternative 7 into the Project, underground construction activities will occur in the Southern Region and could potentially block access to property entrances and driveways.

Finding. The CPUC finds that the Project's contribution to this impact will not be cumulatively significant.

Rationale for Finding. The regulatory agency responsible for issuing encroachment permits for the Project and other projects in the cumulative scenario will ensure that work within a public road will not occur simultaneously with the Project to avoid significant cumulative impacts.

Reference. Final EIR Section 3.13; Table ES-3

III.2.10 Wilderness and Recreation

Under the significance criteria used to assess wilderness and recreation impacts of the Project in the Final EIR, and considering the combined effects of Alternatives 2, 3, 6, and 7, all direct or indirect Project-level wilderness and recreation impacts of the Project require mitigation to be less than significant. However, two cumulative impacts of the Project will be less than significant without the implementation of mitigation measures, as discussed below.

Cumulative Impact R-2: Operational and maintenance activities would restrict access to or disrupt activities within established recreational areas.

Operation and maintenance activities associated with the Project will have the potential to temporarily restrict access to or disrupt activities within some recreational areas and Developed Recreation resources as a result of site-specific activities needed to operate and maintain the transmission line. Recreational resources and opportunities located within the Project ROW will be particularly susceptible to this impact. If operation and maintenance activities associated with other projects in the geographic scope of this cumulative analysis will also result in temporary access restriction or disruption of existing activities within established recreational areas, and such effects of the operation and maintenance of other projects occur at the same time as they will for the Project, a cumulative impact will result. However, it is highly unlikely that operation and maintenance activities for multiple projects will result in similar impacts to the same recreational resources at the same time.

Finding. The CPUC finds that cumulative impacts resulting from operational and maintenance activities that will restrict access to or disrupt activities within established recreational areas will be less than cumulatively considerable without the implementation of mitigation measures.

Rationale for Finding. Any restriction or disruption of recreational activities associated with operation and maintenance of the Project will be site-specific and will not combine with similar impacts of other projects. No mitigation is required.

Reference. Final EIR Section 3.15; Table ES-3

Cumulative Impact R-3: Project activities (construction or operation and maintenance) would cause or contribute to the degradation of one or more of the four primary characteristics of a designated Wilderness Area, as defined by the Wilderness Act, Public Law 88-577 (16 U.S.C. 1131-1136).

The Project has the potential to cause or contribute to the degradation of one of the primary characteristics of a designated Wilderness Area in the ANF, which is the characteristic of “solitude and unconfined recreation” in the San Gabriel Wilderness Area. From a cumulative perspective, existing development has occurred across NFS lands in the ANF in the past (utility corridors, communication sites, powerhouses, reservoirs, and mining sites) and it is reasonably foreseeable that similar future projects will occur in the ANF, but it is considered highly unlikely that at least one such project would have the potential to cause or contribute to the degradation of a primary characteristic of the San Gabriel Wilderness Area in the same way and/or during the same timeframe as the Project. Therefore, cumulative impacts are less than significant.

Finding. The CPUC finds that cumulative impacts resulting from the degradation of one or more of the our primary characteristics of a designated Wilderness Area are less than significant.

Rationale for Finding. It is reasonably foreseeable that similar future projects will occur in the ANF, but it is considered highly unlikely that at least one such project would have the potential to cause or contribute to the degradation of a primary characteristic of the San Gabriel Wilderness Area in the same way and/or

during the same timeframe as the Project. Therefore, cumulative impacts are less than significant. No mitigation is required.

Reference. Final EIR Section 3.15; Table ES-3

Cumulative Impact R-5: The Project would contribute to degradation of Off-Highway Vehicle (OHV) trails or Open Riding Areas, or would result in a loss of recreational opportunity for OHV users.

Impacts to OHV resources and opportunities will not occur in the North or South Regions of the Project Area. In the Central Region, which is largely comprised of NFS lands in the ANF, the Project will require temporary road closures that will contribute to the temporary loss of recreational opportunities for OHV users. Road closures associated with construction traffic may affect existing OHV routes, thereby temporarily removing such routes from availability to OHV recreationists.

Finding. The CPUC finds that cumulative impacts of the Project associated with the degradation of OHV trails or Open Riding Areas, or the loss of recreational opportunity for OHV users, will be less than cumulatively considerable without the implementation of mitigation measures.

Rationale for Finding. Impacts to OHV resources or opportunities associated with the Project will be temporary in nature, and similar impacts of other projects in the Central Region are highly unlikely. No mitigation is required.

Reference. Final EIR Section 3.15; Table ES-3

III.2.11 Wildfire Prevention and Suppression

The TRTP corridor currently contains several other high-voltage transmission lines. The Project will be constructed primarily within existing ROW adjacent to these existing structures, which create an ongoing source of potential wildfire ignitions.

Numerous wildland-urban interface communities exist throughout the Tehachapi Fireshed. These communities are situated in harm's way when a large fire sweeps through the area. Furthermore, the presence of humans in the fuel-laden Tehachapi Fireshed has increased the number of human-related wildfire ignitions in recent decades, which has resulted in shorter intervals between large fires. Human activities have altered natural fire regimes relative to their historic range of variability (Syphard et al., 2007). California chaparral shrublands have experienced such substantial human population growth and urban expansion that the increase in ignitions, coupled with the most severe fire weather in the country (Schroeder et al. 1964), have increased fire frequency above the historic range of variability (Keely et al., 1999). Impacts to ecosystems, communities, and species are possible if a disturbance regime, like wildfire, exceeds its natural range of variability (Landres et al., 1999; Dale et al., 2000).

The Project will be accessed by several narrow, unpaved roads in the ANF and Puente Hills Landfill Native Habitat Preservation Authority (PHLNHPA) lands, and construction activities could limit emergency vehicle access. If adequate road access cannot be maintained in remote areas of the ANF due to construction and maintenance activities, or due to the presence of parked vehicles and large equipment on narrow single-lane roads, the access restriction could directly result in delay or disruption of firefighting response in the event of fire. Such delays or disruptions will result in reduced effectiveness of firefighting efforts.

Impact F-2: Presence of new or taller overhead transmission line would reduce the effectiveness of firefighting.

Portions of Segment 6, Segment 7, Segment 8A, and Segment 11 will increase the maximum height of transmission lines in the shared ROW through the Tehachapi Fireshed. The height increase will be approximately 50 feet on average along these segments. The increased height of transmission lines in these areas will decrease the effectiveness of aerial firefighting activities because firefighting aircraft will have to fly at higher altitudes to avoid conflicts with the transmission lines and towers. Flying at higher altitudes can reduce the accuracy of targeted drops of water and flame retardant used to suppress and contain wildfires.

Finding. The CPUC finds that the impact of increased heights of transmission lines in Segments 6, 7, 8A, and 11 to aerial firefighting effectiveness will be less than significant without the implementation of mitigation measures.

Rationale for Finding. Because there are existing transmission lines in the shared ROW, aerial firefighting crews avoid making drops near the ROW under existing conditions, and the addition of Project infrastructure will present only a marginal increase in the required altitude of aerial vehicles working through the shared ROW. Impacts will be less-than-significant.

Reference. Final EIR Section 3.16; Table ES-3

Impact F-5: Presence of the overhead transmission line would increase the risk of wildfire.

The Tehachapi Fireshed is a high-risk fireshed based on its wildfire history, fuels present, and wildland-urban interface communities at risk. Any T/L faults that create sparks or ignite nearby vegetation in the Tehachapi Fireshed could result in a large and catastrophic wildfire, which will put large areas and potentially many households at risk. The potential for unavoidable ignitions related to the presence of the overhead transmission line to occur during extreme fire weather increases the likelihood of a catastrophic wildfire. The risk of ignitions and the risk of damage from a Project-related ignition will be substantially reduced through implementation of adequate line clearances in compliance with CPUC General Order 95 (“GO 95”) Rule 35, and by performing adequate inspections to detect imminent component failures in compliance with GO 95 Rule 31.2. The portions of Project that will be located within the Tehachapi Fireshed will replace existing transmission lines. Therefore, the existing transmission lines within the Tehachapi Fireshed that the Project will replace represent an ongoing source of potential wildfire ignitions. Once operational, the potential for wildfire ignitions as a result of the presence of a transmission line will persist, but will not be increased.

Finding. The CPUC finds that the impacts of the Project’s overhead transmission line to increased risk of wildfire will be less than significant without the implementation of mitigation measures.

Rationale for Finding. The presence of the Project will not increase the likelihood of a catastrophic wildfire. The transmission lines constructed within the Tehachapi Fireshed will have the same potential for igniting a wildfire as the existing transmission lines the project will replace. Therefore, Impact F-5 will be less than significant.

Reference. Final EIR Section 3.16; Table ES-3

Cumulative Impact F-1: Construction and/or maintenance activities would reduce the effectiveness of firefighting.

Construction activities related to the Project in the ANF, residential development near the ANF (such as the Tejon Mountain Village), and maintenance of existing transmission lines in the shared ROW through the

ANF could limit emergency vehicle access in the Forest. If adequate road access cannot be maintained in remote areas of the ANF due to construction and maintenance activities, the access restriction could delay firefighting response. Existing transmission line maintenance activities that block roads within the ANF could combine to seriously delay firefighting operations during the fire season in the event of a fire in the ANF.

APM HAZ-4 (Fire Management Plan, Specification E-2005-104; February 21, 2006), included as part of the Project, and Mitigation Measure F-1(Prepare wildland traffic control plans), required under the Project, will minimize the Project's incremental contribution to this effect.

Finding. The CPUC finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the Project's contribution to cumulative impacts associated with a reduction of the effectiveness of firefighting. With the inclusion of the Project mitigation listed above, the Project's cumulative contribution to impacts associated a reduction of the effectiveness of firefighting will be less than significant.

Rationale for Finding. APM HAZ-4 (Fire Management Plan, Specification E-2005-104; February 21, 2006) requires SCE to follow its Fire Management Plan during construction of the Project. The Fire Management Plan covers fire safety provisions, equipment, communication, and reporting during construction. Should construction or maintenance activities require the use of helicopters, Project helicopters will be restricted by FAA rules on temporary flight restrictions from flying in designated areas, eliminating any potential interference with aerial firefighting operations during a wildfire event in the areas surrounding the Project. In addition, implementation of Mitigation Measure F-1(Prepare wildland traffic control plans) requires SCE to develop wildland traffic control plans as part of the Traffic Control Plans required by Mitigation Measure T-1a (Prepare Traffic Control Plans) in consultation with the USDA Forest Service (ANF) and Puente Hills Landfill Native Habitat Preservation Authority (PHLNHPA), as appropriate. The wildland traffic control plans shall stipulate mechanisms through which narrow roads shall be kept passable for emergency service providers in a wildfire-related or other emergency situation. SCE will appoint a Road Master, who shall administer the wildland traffic control plans and facilitate emergency vehicle access in the event of a wildfire-related or other emergency. The wildland traffic control plans shall identify strategic locations for adequate construction and maintenance vehicle parking, as necessary, in consultation with the land management agency, and alternate routes for large equipment and vehicle evacuation shall be identified to the extent possible. Wildland traffic control plans will be prepared in consultation with the land management agencies for both construction and maintenance activities and shall be submitted to the USDA Forest Service and PHLNHPA at least 30 days prior to construction in areas managed by these agencies.

Reference. Final EIR Section 3.16; Table ES-3

Cumulative Impact F-2: The presence of new or higher overhead transmission line would reduce the effectiveness of firefighting.

The addition of the aboveground transmission lines on towers of substantially higher maximum height than existing towers through the Tehachapi Fireshed will only marginally reduce the effectiveness of firefighting activities within the Fireshed by limiting aerial operations and will therefore not combine with other past, present, and reasonably foreseeable projects in the area to result in a cumulative impact. The cumulative effect will be less than significant.

Finding. The CPUC finds that the impacts of the Project's overhead transmission line to reduce the effectiveness of firefighting will be less than significant and will therefore not combine with other past,

present and reasonably foreseeable projects in the area to result in a cumulative impact. Impacts are less than significant and no mitigation measures are required.

Rationale for Finding. The addition of larger, taller aboveground transmission structures through the Tehachapi Fireshed will only marginally reduce the effectiveness of firefighting activities within the Fireshed by limiting aerial operations and will therefore not combine with other past, present, and reasonably foreseeable projects in the area to result in a cumulative impact. The cumulative effect will be less than significant.

Reference. Final EIR Section 3.16; Table ES-3

III.2.12 Electrical Interference and Hazards

Electrical interference and electrical hazards include both safety and nuisance issues, such as interference with radio, television, communications, or electronic equipment; induced currents or shock hazards; interference with cardiac pacemakers; and hazards related to wind or earthquake events.

Impact EIH-3: Project operation would result in electric fields that would affect cardiac pacemakers.

The electric fields associated with the Project's transmission lines may be of sufficient magnitude to impact operation of a few older model pacemakers resulting in them reverting to an asynchronous pacing. Cardiovascular specialists do not consider prolonged asynchronous pacing to be a problem; periods of operation in this mode are commonly induced by cardiologists to check pacemaker performance. There are, however, exceptions which include: individuals that are completely dependent on their pacemakers for maintaining all cardiac rhythms; individuals whose pacemakers function in inhibited modes, where field interference could severely compromise cardiovascular function; and individuals with compromised coronary circulation who are prone to episodes of reduced cardiac blood flow. The precise coincidence of an individual being exposed to high electric fields within a transmission line ROW and a biological need of that individual for the full function of his/her pacemaker would appear, in general, to be a rare event. However, given the data available, the probability of such a coincidence to occur cannot be estimated. Clear exceptions to this conclusion are individuals who are completely dependent on a pacemaker for all cardiac rhythms.

Finding. The CPUC finds that Project-related interference with cardiac pacemakers will be of short duration and will not result in significant impacts. No mitigation is required.

Rationale for Finding. Given the rarity of an exposure event to occur simultaneously with a biological need for full function pacemakers, it would be unlikely that the transmission line's electric field would cause harmful interference to the operations of cardiac pacemakers. Furthermore, while the proposed transmission lines would generate electric fields that may impact operation of some older model pacemakers, the resulting interference would be of short duration and is not considered significant or harmful.

Reference. Final EIR Section 3.17; Table ES-3

Impact EIH-4: Project structures would be affected by wind and earthquakes.

Wind. Transmission line structures used to support overhead transmission lines must meet the requirements of the California Public Utilities Commission, General Order No. 95, Rules for Overhead Electric Line Construction. This design code and the NESC include loading requirements related to wind conditions. Transmission support structures are designed to withstand different combinations of loading conditions including extreme winds. These design requirements include use of safety factors that consider the type of loading as well as the type of material used (e.g., wood, steel or concrete). Failures of transmission line

support structures are extremely rare and are typically the result of anomalous loading conditions such as tornadoes or ice storms. The Project will be constructed on steel lattice towers or tubular steel poles, and failure would be extremely unlikely.

Earthquake. Overhead transmission lines consist of a system of support structures and interconnecting wire that is inherently flexible. Industry experience has demonstrated that under earthquake conditions structure and member vibrations generally do not occur or cause design problems. Overhead transmission lines are designed for dynamic loading under variable wind conditions that generally exceed earthquake loads.

Finding. The CPUC finds that risk to Project structures associated with high winds or earthquake that could cause transmission line structures to threaten public safety is less than significant. No mitigation is required.

Rationale for Finding. The Project will be constructed on steel lattice towers or tubular steel poles, where failure as a result of extreme wind conditions is highly unlikely. Overhead transmission lines are designed for dynamic loading under variable wind conditions that generally exceed earthquake loads. Consequently, the risk that Project structures will be affected by high winds or an earthquake is less than significant.

Reference. Final EIR Section 3.17; Table ES-3

III.3 Significant Environmental Impacts that Have Been Reduced to a Less than Significant Level

The CPUC hereby finds that the following environmental impacts can and will be mitigated to below a level of significance based upon the implementation of mitigation measures identified in the Final EIR and listed in this section. These findings are based on the discussion of impacts in the detailed issue area analyses in Chapter 3 (Affected Environment and Environmental Consequences) of the Final EIR. An explanation of the rationale for each finding is presented below.

III.3.1 Agricultural Resources

Impact AG-1: Construction activities would temporarily preclude the agricultural use of some Farmland.

Project construction activities will include the installation of 220-kV and 500-kV T/Ls, installation of structure foundations, extension of spur roads, and the stringing of conductor and overhead groundwire in areas of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance (Farmland). In Farmland traversed by Segment 4, 24 T/L towers will be constructed, 8 stringing and pulling areas will be cleared, and approximately 2.13 miles of access and spur road will be graded. While Segment 5 will cross approximately 0.15 miles of Prime Farmland, no construction will occur within this parcel of Farmland. In Farmland crossed by Segments 8A, 8B, and 8C, 20 T/L towers will be constructed, 2 stringing and pulling areas will be cleared and approximately 0.86 miles of access and spur roads will be graded. In total, the Project will require the construction of 44 T/L towers, 10 stringing and pulling areas, and 2.99 miles of access and spur roads on Farmland, which will temporarily convert a total of approximately 54.75 acres of Farmland to non-agricultural uses, which will result in a significant impact.

APMs AG-1 (Coordinate with Landowner) and AG-2 (Locate Project Activities to Minimize Impacts to Active Agricultural Operations), included as part of the Project, will reduce the significance of this impact.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact AG-1. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact AG-1 to a less-than-significant level.

- **MM AG-1 Coordinate construction activities with agricultural landowners.** SCE shall coordinate with property owners of Farmland (Prime Farmland, Farmland of Statewide Importance, Unique Farmland) and Williamson Act lands that will be used for construction of the Project, including access and spur roads, staging areas, and other Project-related activities. The purpose of this coordination is to establish the use of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Williamson Act lands during construction in order to: (1) schedule construction activities at a location and time when damage to agricultural operations would be minimized, to the extent practicable; and (2) ensure that any areas damaged or disturbed by construction are restored to a condition that closely approximates conditions that existed prior to construction-related disturbance, to the extent practicable.

SCE's coordination with the agricultural landowners in the areas where Farmland or Williamson Act land will be temporarily disturbed is intended to minimize disruption to agricultural operations. This includes avoiding construction during peak planting, growing, and harvest seasons, if feasible, based on outage limitations. If damage or destruction occurs, SCE shall perform restoration activities on the disturbed area in order to return the area to a condition that closely approximates conditions that existed prior to construction-related disturbance. This could include activities such as soil preparation, regrading, and reseeding. SCE shall document its coordination efforts with affected agricultural landowners regarding the continued use of Farmland and/or Williamson Act lands and shall submit this documentation to the CPUC at least 30 days prior to the start of any construction activities on the affected agricultural parcels.

Rationale for Finding. Applicant proposed measures AG-1, AG-2, and AG-3 require towers, roads, and pulling and splicing areas to be sited in locations that will minimize impacts to agricultural lands. These measures will reduce a portion of the impacts to Farmlands. Mitigation Measure AG-1 (Coordinate construction activities with agricultural landowners) requires coordination with property owners of Farmland to determine construction scheduling, compensation for damages, and specifications for the restoration of disturbed land. It clarifies timing and reporting requirements and requires the restoration of disturbed land to pre-determined or pre-construction conditions. Together with the applicant proposed measures, implementation of Mitigation Measure AG-1 will reduce temporary preclusion of agricultural uses of Farmland to a less-than-significant level.

Reference. Final EIR Section 3.2; Table ES-3

Impact AG-3: Construction activities would interfere with agricultural operations.

The Project will be constructed across approximately 23.69 miles of agricultural land in Kern County, approximately 31.92 miles of agricultural land in Los Angeles County, and approximately 19.94 miles of agricultural land in San Bernardino County. Construction activities across these agricultural lands will primarily consist of construction of the 220-kV and 500-kV T/Ls in Segments 4, 5, 6, 8A, 8B, and 8C, but will also include the construction of Cottonwind Substation on grazing land in Kern County and the expansion of the Antelope Substation in Los Angeles County. These construction activities could conflict with existing agricultural operations.

The presence and use of heavy equipment, including road graders, dozers, excavators, and trucks, needed to construct the new spur roads could interfere with agricultural operations by damaging crops or soil, impeding access to certain fields or plots of land, obstructing farm vehicles, or potentially disrupting drainage and irrigation systems. These events could result in the temporary reduction of agricultural productivity in the area. Similar to the construction of spur roads, the construction of the 220-kV and 500-kV T/Ls, including tower installation and wire stringing, the construction of the Cottonwind Substation, and

expansion of the Antelope Substation, will also interfere with agricultural operations. These interferences could result in a temporary decrease in agricultural productivity resulting in a significant impact.

APMs AG-1 (Coordinate with Landowner), AG-2 (Locate Project Activities to Minimize Impacts to Active Agricultural Operations), and AG-3 (Avoid Harvest Season), included as part of the Project, will reduce the significance of this impact.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact AG-3. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact AG-3 to a less than significant level.

- **MM AG-1 Coordinate construction activities with agricultural landowners.** *(See above for full text)*

Rationale for Finding. APMs AG-1 (Coordinate with Landowner), AG-2 (Locate Project Activities to Minimize Impacts to Active Agricultural Operations), and AG-3 (Avoid Harvest Season) will be implemented to site construction in locations that will minimize Project impacts to agricultural lands, compensate agricultural operations for lost crops, and schedule work outside of harvest season. These APMs will reduce some of the impacts to agricultural operations, but address only a portion of the impacts. Mitigation Measure AG-1 (Coordinate construction activities with agricultural landowners) expands on APMs of the Project, clarifies timing and reporting requirements, and requires the restoration of disturbed land to pre-determined or pre-construction conditions. With implementation of these measures, impacts to agricultural operations from construction activities will be less than significant.

Reference. Final EIR Section 3.2; Table ES-3

Impact AG-4: Operation would interfere with agricultural operations.

Operation and maintenance of the Project will result in the presence of a 220-kV and 500-kV T/Ls, including tower structures and wire, and access and spur roads across agricultural lands. The presence of access and spur roads across agricultural operations could divide farm properties, which could create an obstacle to farming that impedes access to certain fields or plots, and creates irregularly shaped fields in which it will be difficult to maneuver farm equipment. New roadways could also disrupt drainage and irrigation systems, affect the efficacy of windbreaks, fragment farms, and allow for the introduction of invasive weeds within and around disturbed areas. These interferences could also permanently decrease the agricultural productivity of agricultural operations. Similar to the presence of new access and spur roads, the 220-kV and 500-kV T/Ls, Whirlwind Substation, and the Antelope Substation expansion could also interfere with agricultural operations, and could permanently decrease agricultural productivity.

APMs AG-1 (Coordinate with Landowner) and AG-2 (Locate Project Activities to Minimize Impacts to Active Agricultural Operations), included as part of the Project, will reduce the significance of this impact.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact AG-4. The following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact AG-4 to a less than significant level.

- **MM AG-1 Coordinate construction activities with agricultural landowners.** *(See above for full text)*

Rationale for Finding. APMs AG-1 (Coordinate with Landowner) and AG-2 (Locate Project Activities to Minimize Impacts to Active Agricultural Operations) will be implemented to site roads and structures in locations that will minimize the impacts to agricultural operations and compensate agricultural operations for lost crops. These APMs will reduce some of the impacts to agricultural operations, but address only a portion of the impacts. Mitigation Measure AG-1 (Coordinate construction activities with agricultural landowners) expands on these APMs, clarifies timing and reporting requirements, and requires the restoration of disturbed land to pre-determined or pre-construction conditions. With the implementation of these measures, long-term impacts to agricultural operations will be avoided and minimized such that impacts will be adverse but less than significant.

Reference. Final EIR Section 3.2; Table ES-3

III.3.2 Air Quality

Impact AQ-6: The Project would not conform to Federal General Conformity Rules.

The Project will result in significant impacts if the Project were to cause annual emissions that exceed the General Conformity de minimus thresholds and the Project cannot be shown to conform to the State Implementation Plan (SIP). Based on the current Project schedule, with implementation of a combination of Alternative 2/6 (with respect to the number of helicopter constructed towers), the annual NO_x emissions during the years affected (2010 to 2012) will exceed the general conformity de minimus level within the South Coast Air Basin.

Implementation of Mitigation Measures AQ-1a through AQ-1j and AQ-6, listed below, will reduce construction impacts to air quality to the maximum degree feasible.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact AQ-6. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact AQ-6 to a less-than-significant level.

- **MMAQ-1a Implement Construction Fugitive Dust Control Plan.** SCE shall develop a Fugitive Dust Emission Control Plan (FDECP) for construction work. The Plan shall be completed prior to construction and approved by the CPUC and FS. This Plan is in addition to any fugitive dust control plan required by the South Coast Air Quality Management District (SCAQMD). Measures to be incorporated into the plan shall include, but are not limited to the following:
 - Non-toxic soil binders, equivalent or better in efficiencies than the CARB approved soil binders, shall be applied per manufacturer recommendations to active unpaved roadways, unpaved staging areas, and unpaved parking area(s) throughout construction to reduce fugitive dust emissions. On NFS lands, SCE shall obtain FS approval of any soil binders to be used.
 - Unpaved road travel will be limited to the extent possible by; limiting the travel of heavy equipment in and out of the unpaved areas (move from construction site to construction site rather than back to marshalling or staging areas daily); through carpooling/busing construction workers to the maximum feasible extent; and by developing travel routes to each construction site that minimize unpaved road travel to the extent possible, according to FS or other regulatory agency road use restriction. The FDECP will include a road travel plan applicable for construction sites with unpaved access greater than one mile.
 - Water the disturbed areas of the active construction sites at least three times per day and more often if uncontrolled fugitive dust is noted.

- Enclose, cover, water twice daily, and/or apply non-toxic soil binders according to manufacturer's specifications to exposed piles with a five percent or greater silt content.
- Maintain unpaved road vehicle travel to the lowest practical speeds, and no greater than 15 miles per hour (mph), to reduce fugitive dust emissions.
- All vehicle tires shall be inspected, are to be free of dirt, and washed as necessary prior to entering paved roadways.
- Install wheel washers or wash the wheels of trucks and other heavy equipment where vehicles exit unpaved access to the construction sites.
- Cover all trucks hauling soil and other loose material, or require at least two feet of freeboard.
- Establish a vegetative ground cover (in compliance with biological resources impact mitigation measures) or otherwise create stabilized surfaces on all unpaved areas at each of the construction sites within 21 days after active construction operations have ceased.
- Increase the frequency of watering, if water is used as a soil binder for disturbed surfaces, or implement other additional fugitive dust mitigation measures, to all active disturbed fugitive dust emission sources when wind speeds (as instantaneous wind gusts) exceed 25 mph.

SCAQMD Rule 403 Best Available Control Measures (BACM) are required to be proposed in the FDECP and implemented when and if the BACM are as strict or stricter than the control measures listed above. Additionally, mitigation measures provided on the SCAQMD CEQA website Tables XI-A through XI-E (http://www.aqmd.gov/ceqa/handbook/mitigation/fugitive/MM_fugitive.html) or as updated by SCAQMD) must be implemented in the FDECP where applicable. This mitigation measure covers construction work performed within all three local air quality jurisdictions.

- **MM AQ-1b Off-road Diesel-fueled Equipment Standards.** All off-road construction diesel engines not registered under CARB's Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower (hp) or more, shall meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, section 2423(b)(1) unless that such engine is not available for a particular item of equipment. In the event a Tier 2 engine is not available for any off-road engine larger than 50 hp, that engine shall have tailpipe retrofit controls that reduce exhaust emissions of NOx and PM to no more than Tier 2 emission levels. Tier 1 engines will be allowed on a case-by-case basis only when the Project owner has documented that no Tier 2 equipment or emissions equivalent retrofit equipment is available for a particular equipment type that must be used to complete the Project's construction. This shall be documented with signed written correspondence by the appropriate construction contractor along with documented correspondence with at least two construction equipment rental firms. Equipment properly registered under and in compliance with CARB's Statewide Portable Equipment Registration Program are in compliance with this mitigation measure.
- **MM AQ-1c Limit Vehicle Traffic and Equipment Use.** Construction worker carpooling will be encouraged and other vehicle trips and equipment use will be limited to the extent practical by efficiently scheduling staff and daily construction activities to minimize the use of unnecessary/duplicate equipment when possible.
- **MM AQ-1d Heavy Duty Diesel Haul Vehicle On-road Equipment Standards.** Require the use of 2006 engines or pre-2006 engines with CARB certified Level 3 diesel emission controls for all on-road heavy duty diesel haul vehicles that are contracted on a continuing basis for use to haul equipment and waste for the Project.

- **MM AQ-1e On-road Vehicles Standards.** All on-road construction vehicles, other than those meeting the requirements of Mitigation Measure AQ-1d (Heavy Duty Diesel Haul Vehicle On-road Equipment Standards), shall meet all applicable California on-road emission standards and shall be licensed in the State of California. This does not apply to construction worker personal vehicles.
- **MM AQ-1f Properly Maintain Mechanical Equipment.** The construction contractor shall ensure that all mechanical equipment associated with Project construction is properly tuned and maintained in accordance with the manufacturer's specifications.
- **MM AQ-1g Restrict Engine Idling to 5 Minutes.** Diesel engine idle time shall be restricted to no more than 5 minutes. Exceptions are vehicles that need to idle as part of their operation, such as concrete mixer trucks.
- **MM AQ-1h Schedule Deliveries Outside of Peak Traffic Hours.** All material deliveries to the marshalling yards and from the marshalling yards to the construction sites shall be scheduled outside of peak traffic hours (6:00 to 9:30 am and 3:30 to 6:30 pm) to the extent feasible, and other truck trips during peak traffic hours shall be minimized to the extent feasible.
- **MM AQ-1i Off-road Gasoline-fueled Equipment Standards.** As practicable, all off-road stationary and portable gasoline powered equipment shall have EPA Phase 1/Phase 2 compliant engines, where the specific engine requirement shall be based on the new engine standard in affect two years prior to the initiating Project construction. In the event that EPA Phase 1/Phase 2 compliant engines are determined not to be practicable, SCE shall provide documentation to the CPUC and FS with an explanation.
- **MM AQ-1j Reduction of Helicopter Emissions.** Helicopter use will be limited to the extent feasible and helicopters with low emitting engines shall be used to the extent practical.
- **MM AQ-6 General Conformity Emission Offset Mitigation.** In the event that the final emission estimate for the selected Project alternative as provided in the Project's Conformity Analysis exceeds the NO_x and/or VOC emission applicability thresholds, and assuming the SCAQMD does not provide confirmation that the Project's emissions are accounted for in the State Implementation Plan (SIP) emission estimates per 40 CFR §93.158(a)(1), then the Project will obtain emission reduction credits to fully offset the NO_x and/or VOC emissions per 40 CFR §93.158(a)(2) for the years that the Project has been estimated to exceed the NO_x and/or VOC emission applicability thresholds. Credits shall be submitted to the CPUC and FS for review and approval.

SCE will have several options for obtaining emission offset mitigation, including:

- Traditional NO_x emission reduction credits (ERCs) that are in units of lbs/day, where 1 lb/day equals 365 lbs/year. These credits can now be subdivided into short-term yearly credits for purchase. These credits are available at market based prices that can be very expensive.
- Reclaim Trading Credits (RTCs) that are in units of lbs and are year specific. These credits have historically been much less expensive than traditional ERCs.
- Creation of new emission reduction credits, such as mobile source emission reduction credits (MSERCs), where considered enforceable by USEPA for purposes of General Conformity offsets, through methods such as the SCAQMD Regulation XVI Mobile Source Offset Programs or other methods similar to existing stationary source control programs such as the Carl Moyer Program.

While there are many options to obtain the necessary offset credits to comply with mitigation measure AQ-6, it is likely that RTCs will make up the bulk of the credits that SCE obtains, which should reduce the cost impact of this mitigation measure.

Rationale for Finding. Mitigation measure AQ-1a will reduce fugitive dust through the reduction of the creation of emissions by stabilizing unpaved road surfaces and using water to bind active soil handling activities among other measures. Mitigation measures AQ-1b to AQ-1j will reduce the on-road and off-road construction equipment exhaust emissions to the extent feasible. Mitigation Measures AQ-6 requires the Project applicant (SCE) obtain emission reduction credits to fully offset the NO_x and/or VOC emissions per 40 CFR §93.158(a)(2) for the years that the Project is estimated to exceed the NO_x and/or VOC emission applicability thresholds. Implementation of these mitigation measures ensures that the Project will conform to Federal General Conformity Rules and this impact will be less than significant.

Reference. Final EIR Section 3.3; Table ES-3

Impact AQ-8: The Project would not conform to Angeles National Forest air quality strategies.

Angeles National Forest air quality strategies are limited to the following: AIR 1- Minimize Smoke and Dust, and AIR 2 - Forest Air Quality Emissions. The ANF strategy AIR 1 is very general and is directed to “Control and reduce fugitive dust to protect human health, improve safety and moderate or eliminate environmental impacts.” The only action item of this strategy is to “Incorporate visibility requirements into project plans.” The combination of Alternatives 2 and 6 in the Project increases the amount of helicopter construction within the ANF from that required by Alternative 2 alone, which will increase certain emissions (NO_x and SO_x) and decrease others (PM₁₀ or fugitive dust) during the periods when helicopter construction occurs.

The ANF air quality strategy AIR 2 relates to providing an air quality inventory for prescribed burns and wildfires and therefore does not directly relate to the Project’s construction and operation emissions.

Implementation of Mitigation Measures AQ-1a through AQ-1j will reduce construction impacts to air quality to the maximum degree feasible.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact AQ-8. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact AQ-8 to a less-than-significant level.

- **MM AQ-1a** **Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
- **MM AQ-1b** **Off-road Diesel-fueled Equipment Standards.** *(See above for full text)*
- **MM AQ-1c** **Limit Vehicle Traffic and Equipment Use.** *(See above for full text)*
- **MM AQ-1d** **Heavy Duty Diesel Haul Vehicle On-road Equipment Standards.** *(See above for full text)*
- **MM AQ-1e** **On-road Vehicles Standards.** *(See above for full text)*
- **MM AQ-1f** **Properly Maintain Mechanical Equipment.** *(See above for full text)*
- **MM AQ-1g** **Restrict Engine Idling to 5 Minutes.** *(See above for full text)*
- **MM AQ-1h** **Schedule Deliveries Outside of Peak Traffic Hours.** *(See above for full text)*
- **MM AQ-1i** **Off-road Gasoline-fueled Equipment Standards.** *(See above for full text)*
- **MM AQ-1j** **Reduction of Helicopter Emissions.** *(See above for full text)*

Rationale for Finding. Mitigation measure AQ-1a will reduce fugitive dust through the reduction of the creation of emissions by stabilizing unpaved road surfaces and using water to bind active soil handling activities among other measures. Mitigation measures AQ-1b to AQ-1j will reduce the on-road and off-road

construction equipment exhaust emissions to the extent feasible. Therefore, the ANF air quality strategies will be met and impacts will be less than significant.

Reference. Final EIR Section 3.3; Table ES-3

Impact AQ-9: The Project would not conform with applicable Air Quality Management Plans.

The Project will be constructed in compliance with applicable federal, State, and local requirements. Additionally, the Project construction mitigation measures (AQ-1a through AQ-1j) required to mitigate regional emission impacts to the extent feasible were developed after consulting SCAQMD personnel to confirm mitigation measures that will be consistent with SCAQMD approved Air Quality Management Plans (AQMP). The operating emissions will result from minimal inspection and maintenance activities that will not significantly impact air quality and the Project will not directly or indirectly cause any population growth that is not considered in the current approved air quality plan.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact AQ-9. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact AQ-9 to a less-than-significant level.

- **MM AQ-1a** **Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
- **MM AQ-1b** **Off-road Diesel-fueled Equipment Standards.** *(See above for full text)*
- **MM AQ-1d** **Heavy Duty Diesel Haul Vehicle On-road Equipment Standards.** *(See above for full text)*

Rationale for Finding. Implementation of Mitigation Measures AQ-1a, AQ-1b, and AQ-1d, which limit fugitive dust and on- and off-road diesel fuel emissions, will ensure the Project is consistent with the currently approved Air Quality Management Plans and this impact will remain less than significant.

Reference. Final EIR Section 3.3; Table ES-3

III.3.3 Biological Resources

Impact B-1: Construction activities would result in temporary and permanent losses of native vegetation.

As discussed in Section 3.4 (Biological Resources) of the Final EIR, the Project will result in both temporary and permanent impacts to a variety of regionally unique habitats. Direct impacts to native vegetation communities will occur as a result of the removal of vegetation during construction activities. These ground-disturbing construction activities include clearing and grading for tower pad preparation, tower removal sites, pulling and tensioning sites, helicopter staging areas, and construction, grading, and widening of new spur roads and existing access roads. Indirect impacts to native vegetation communities could include alterations in existing topography and hydrology regimes, the accumulation of fugitive dust, disruptions to native seed banks from ground disturbance, and the colonization of non-native, invasive plant species. Ongoing operations and maintenance impacts will occur during routine inspection and maintenance of the Project facilities or as a result of facilitated public access. These impacts could include trampling or crushing of native vegetation by vehicular or foot traffic, alterations in topography and hydrology, increased erosion and sedimentation, and the introduction of non-native, invasive plants due to increased human presence.

APMs BIO-1 through BIO-7 have been incorporated into the Project to reduce impacts to native vegetation. A complete description of APMs applicable to Biological Resources is located in Final EIR Table 3.4-16. These APMs include avoiding or compensating for impacts to vegetation communities, personnel training,

restricting work to within predetermined limits of construction, implementing Best Management Practices (BMPs), construction monitoring, flagging vegetation for avoidance, and revegetation with appropriate seed mixes.

Even with implementation of the APMs, the Project will have a significant impact on native vegetation according to Significance Criterion BIO1 (Substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or FWS). The impacts will be significant because the APMs are not specific enough or do not provide enough mitigation to adequately compensate for the impacts. In addition to implementing the APMs, Mitigation Measures B-1a, B-1b, B-1c, H-1a, and AQ-1a will be required to mitigate Impact B-1 to a less-than-significant level.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-1 to a less-than-significant level.

- **MM B-1a Provide restoration/compensation for impacts to native vegetation communities.** The intent of this mitigation measure is to require SCE to restore disturbed sites to pre-construction conditions or the desired future conditions per the Angeles National Forest (ANF), Land Management Plan (LMP). Prior to construction SCE shall have a qualified biologist, where concurrence on the biologist has been provided by the CPUC and FS, document the community type and acreage of vegetation that would be subject to project disturbance. Impacts to all oaks and native trees (with >3 inch diameter at breast height [DBH]) will be documented by identifying the species, number, location, and DBH. On non-Federal lands all protection and replacement measures shall be consistent with applicable local jurisdiction requirements, such as the Los Angeles County Oak Tree Ordinance. Tree removal shall not be permitted until replacement trees have been planted or transplanting sites are approved.

For NFS lands, the FS shall prepare a Habitat Restoration and Revegetation Plan in discussion with SCE for the Project, which shall include plans for restoration, enhancement/re-vegetation and/or mitigation banking. For non-Federal lands SCE shall prepare the Habitat Restoration and Revegetation Plan. Both plans shall include at minimum: (a) the location of the mitigation site (off site mitigation may be required); (b) locations and details for top soil storage (c) the plant species to be used; (d) seed and cutting collecting guidelines; (d) a schematic depicting the mitigation area; (e) time of year that the planting will occur and the methodology of the planting; (f) a description of the irrigation methodology for container, bareroot or other planting needing irrigation; (g) measures to control exotic vegetation on site; (h) success criteria; (i) a detailed monitoring program; j) locations and impacts to all oaks and native trees (over 3 inches DBH), k) locations of temporary or permanent gates, barricades, or other means to control unauthorized vehicle access on access and spur roads as deemed necessary by the FS (NFS lands only).

SCE shall utilize a CPUC/FS/USACE-approved locally collected seed mix, locally collected cuttings, bare-root stock, etc. to revegetate areas disturbed by construction activities. All habitats dominated by non-native species prior to Project disturbance shall be revegetated using appropriate native species. FS approval is required for seeding on NFS land. The seed mix shall consist of native, locally occurring species collected from local seed sources. Cuttings and bare-root stock shall be of local origin. Restoration shall include the revegetation of stripped or exposed work sites and/or areas to be mitigated with vegetation native to the area. No commercially purchased seeds, stock, etc will be accepted without the approval of the FS on NFS lands and must be certified to be free of noxious weeds. Revegetation shall include ground cover, grass, shrub, and tree species in order to match disturbed areas to surrounding conditions and to restore or improve wildlife habitat

quality to pre-project or higher levels. The Habitat Restoration and Revegetation Plan shall also include a monitoring element. Post seeding and planting monitoring will be yearly from years one to five and every other year from years six to ten, or until the success criteria are met. SCE shall restore temporarily disturbed areas, including existing tower locations that are to be removed by the Project, to pre-construction conditions or the desired future conditions per the LMP. If the survival and cover requirements have not been met, SCE is responsible for replacement planting to achieve these requirements. Replacement plants shall be monitored with the same survival and growth requirements as previously mentioned.

The FS will conduct a preconstruction evaluation of the probable impacts to all oaks and native trees in all construction-related disturbance areas. This evaluation shall be incorporated into the Habitat Restoration Plan and shall include the species and number of individuals, their DBH, location and potential impact type. Construction within the driplines of all native trees and oak trees/shrubs, and incidental trimming or damage to trees along the proposed access/spur routes shall not occur until the trees are evaluated by an FS botanist or qualified arborist. This person shall identify appropriate measures to minimize tree loss, such as the placement of fence around the dripline, padding vehicles, minimizing soil removal or addition around driplines, and the placement of matting under the existing dripline during construction activities. On the ANF, if a tree must have any construction-related activities such as equipment or soil staging within the drip zone, root pruning, or excessive branch pruning (greater than 25% in one year), then the tree must be monitored for five years for tree mortality. If any of these identified trees dies during the monitoring period, then the tree must be mitigated at the rate appropriate to the DBH.

The replacement ratios (using rooted plants in liners or direct planting of acorns [for oaks]) for native trees or any oaks which are to be removed shall be as follows: trees from 3 to 5 inches DBH shall be replaced at 3:1; trees from 5 to 12 inches shall be replaced at 5:1; trees from 12 to 24 inches shall be replaced at 10:1; trees from 24 to 36 inches shall be replaced at 15:1; and all oaks greater than 36 inches shall be replanted at a ratio of 20:1. The replacement ratio for damaged trees shall be 2:1 for trees with DBH less than 12 inches and a 5:1 ratio for trees with DBH greater than 12 inches. The DBHs for scrub oaks will be measured following DFG guidelines. On the ANF any oak or native tree which must be removed or killed as a result of construction or other Project-related activities shall be replaced in kind or mitigated at a comparable value. Compliance shall be evaluated annually for years one to five and bi-annually for years six to ten (years after tree planting). Trees shall be planted at locations acceptable to the landowner or managing agency. All planting locations, procedures, and results shall be evaluated by a qualified arborist and FS botanist. On non-Federal lands all protection and replacement measures shall be consistent with applicable local jurisdiction requirements, such as the Los Angeles County Oak Tree Ordinance.

Permanent impacts on federal lands shall be determined by the appropriate federal manager (FS and USACE) and on non-federal lands shall be determined by the CPUC at the ratios stated below or at a comparable value. On NFS lands impacts will be considered permanent if they are not likely to recover after ten years post-disturbance. Where onsite restoration is planned for mitigation of temporary impacts to vegetation communities, SCE shall identify a Habitat Restoration Specialist, where concurrence has been provided by the CPUC/FS, to implement the method of restoration outlined by the FS in the Habitat Restoration Plan.

The creation or restoration of habitat shall be monitored annually for years one to five on both FS lands and private/State/USACE lands and bi-annually for years six to ten on FS lands, or until the success criteria are met, after mitigation site construction to assess progress and identify potential problems with the restoration site. Remediation activities (e.g. additional planting, removal of non-native invasive species, or erosion control) shall be taken during the ten-year period if necessary to ensure the success of the restoration effort. If the mitigation fails to meet the established performance criteria after the ten-year maintenance and monitoring period, monitoring and remedial

activities shall extend beyond the ten-year period until the criteria are met or unless otherwise specified by the CPUC/FS/USACE (as appropriate). If a fire occurs in a revegetation area within the ten year monitoring period, SCE shall be responsible for a one-time replacement. If a second fire occurs, no replanting is required, unless the fire is caused by SCE activity. Off-site mitigation for NFS and non-NFS lands may be required if mitigation rates exceed what can be achieved on NFS land. This may be in the form of funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts.

During and after construction, FS-identified entrances to access roads on NFS lands shall be gated or blockaded in some manner and maintained to prevent the unauthorized use of these roads by the general public. Signs prohibiting unauthorized use of the access roads shall be posted on these gates.

Mitigation Ratios for Impacts to Vegetation Communities				
Vegetation Community	Mitigation Ratios – Non-NFS Lands		Mitigation Ratios – NFS/Federal Lands	
	Temporary Impacts	Permanent Impacts	Temporary Impacts	Permanent Impacts
Woodland Vegetation				
Bigcone Douglas Fir-Canyon Oak Forest	1:1	2:1	2:1	5:1
Canyon Oak Forest	-	-	1:1	5:1
California Bay Forest	1:1	2:1	1:1	5:1
California Walnut Woodland	1:1	1.5:1	-	-
Coast Live Oak Woodland	1:1	1.5:1	1:1	5:1
Coulter Pine Forest	-	-	1:1	3:1
Joshua Tree Woodland	1:1	2:1	-	-
Mojavean Pinyon Woodland	1:1	2:1	2:1	5:1
Non-native Woodland	1:1*	1:1*	1:1*	1:1*
Yellow Pine Forest (Plantation)	-	-	1:1	3:1
Shrub-dominated Vegetation				
Big Sagebrush Scrub	1:1	1:1	1:1	3:1
Coastal Sage Scrub	1:1	1.5:1	2:1	5:1
Desert Saltbush Scrub	1:1	1:1	-	-
Chamise Chaparral	-	-	1:1	3:1
Mixed Chaparral	1:1	1:1	1:1	3:1
Scrub Oak Chaparral	-	-	1:1	5:1
Interior Live Oak Scrub	-	-	1:1	5:1
Mojave Creosote Bush Scrub	1:1	1:1	-	-
Mojave Mixed Woody Scrub	1:1	1:1	-	-
Mojavean Juniper Woodland and Scrub	1:1	1.5:1	2:1	5:1
Mojavean Pinyon and Juniper Woodland, Recently Burned	-	-	2:1	5:1
Mulefat Scrub	1:1	3:1	2:1	5:1
Rabbitbrush Scrub	1:1	1:1	-	-
<u>Restoration – California Buckwheat Scrub</u>	-	-	<u>1:1</u>	<u>1:1</u>
Riversidean Alluvial Fan Sage Scrub	1:1	3:1	2:1	5:1
Riparian Vegetation				
Desert Wash	1:1	3:1	2:1	5:1
Ruderal Wetland	1:1*	1:1*	-	-
Exotic-Giant Reed	1:1*	1:1*	1:1*	1:1*
Southern Arroyo Willow Riparian Forest	1:1	3:1	2:1	5:1

Mitigation Ratios for Impacts to Vegetation Communities				
Vegetation Community	Mitigation Ratios – Non-NFS Lands		Mitigation Ratios – NFS/Federal Lands	
	Temporary Impacts	Permanent Impacts	Temporary Impacts	Permanent Impacts
Southern Coast Live Oak Riparian Forest	1:1	3:1	2:1	5:1
Southern Cottonwood Willow Riparian Forest	1:1	3:1	2:1	5:1
Southern Sycamore-Alder Riparian Forest	1:1	3:1	2:1	5:1
Southern Willow Scrub	1:1	3:1	2:1	5:1
Sparsely Vegetated Streambed	1:1	3:1	2:1	5:1
Herbaceous Vegetation				
Bunchgrass Grassland	1:1	1.5:1	-	-
California Annual Grassland	1:1	1:1	1:1	3:1
Deerweed and Chia Herbaceous Field, Recently Burned	1:1	1:1	2:1	3:1
Desert Bunchgrass Grassland	1:1	1.5:1	-	-
Wildflower Field	1:1	1:1	2:1	3:1
Anthropogenic Vegetation				
Agriculture	0:1	0:1	-	-
Barren/developed	1:1*	1:1*	1:1*	1:1*
Ruderal Grassland	1:1*	1:1*	1:1*	1:1*
Ratios on Non-NFS Lands may be adjusted based on existing site conditions and disturbance levels with approval of the CPUC. Ratios could range from 0.5 to maximum noted in this Table based on site evaluation. *Non-native habitats will be reseeded with a native seed mix. Barren areas will be mitigated at a 1:1 ratio if they are determined to support sensitive wildlife (i.e. burrowing owls, etc.)				

- MM B-1b Implement a Worker Environmental Awareness Program.** A Worker Environmental Awareness Program (WEAP) shall be implemented for construction crews by a qualified biologist(s) provided by SCE, where concurrence has been provided by the CPUC/FS prior to the commencement of construction activities. Training materials and briefings shall include but not be limited to: discussion of the Federal and State Endangered Species Acts, Bald and Golden Eagle Protection Act, and the Migratory Bird Treaty Act; the consequences of non-compliance with these acts; identification and values of plant and wildlife species and significant natural plant community habitats; fire protection measures; sensitivities of working on NFS lands and identification of FS sensitive species; hazardous substance spill prevention and containment measures; a contact person in the event of the discovery of dead or injured wildlife; and review of mitigation requirements. The WEAP shall also include the protocol to be followed when road kill is encountered in the work area or along access roads to minimize potential for additional mortality of scavengers, including listed species such as the California condor. On NFS lands, road kill shall be reported to the FS or other applicable agency within 24 hours. On non-NFS lands, road kill shall be reported to the appropriate local animal control agency within 24 hours. Training materials and a course outline shall be provided to the CPUC and FS for review and approval at least 30 days prior to the start of construction. Maps showing the location of special-status wildlife, fish, or populations of rare plants, exclusion areas, or other construction limitations (i.e., limited operating periods) will be provided to the environmental monitors and construction crews prior to ground disturbance. SCE shall provide to the CPUC and FS a list of construction personnel who have completed training prior to the start of construction, and this list shall be updated by SCE as required when new personnel start work. No construction worker may work in the field for more than 5 days without participating in the WEAP.
- MM B-1c Treat cut tree stumps with Sporex.** All stumps of trees (conifers and hardwoods) 3 inches DBH or greater resulting from activities associated with construction of the Project shall be

treated with Sporax according to product directions to prevent the spread of annosus root disease. Only licensed applicators shall apply Sporax. Sporax shall not be used during rain events unless otherwise approved by the CPUC/FS/USACE.

- **MM AQ-1a Implement Construction Fugitive Dust Control Plan.** (*See above for full text*)
- **MM H-1a Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** SCE shall develop and submit to the CPUC and FS for approval 30 days prior to construction an Erosion Control Plan, and implement Best Management Practices (BMPs), as described below. (Note: The Erosion Control Plan may be part of the same document as the Stormwater Pollution Prevention Plan.) Within the Erosion Control Plan, the applicant shall identify the location of all soil-disturbing activities, including but not limited to new and/or improved access and spur roads, the location of all streams and drainage structures that would be directly affected by soil-disturbing activities (such as stream crossings by access roads), and the location and type of all BMPs that would be installed to protect aquatic resources. The Erosion Control Plan shall include a proposed schedule for the implementation and maintenance of erosion control measures and a description of the erosion control practices, including appropriate design details. As part of the Erosion Control Plan, SCE shall maintain a logbook of all precipitation events within the Project area that produce more than one inch of precipitation within a 24-hour period. The logbook shall contain the date of the precipitation event, the approximate duration of the event, and the amount of precipitation (measured as the largest amount recorded by a rain gage or weather station within one mile of the Project). Additionally, the logbook shall include a narrative evaluation (and/or a numerical evaluation, if required by the FS or other jurisdictional agency) of the erosion-prevention effectiveness of the existing BMPs, as well as a description of any post-storm modifications to those BMPs. The logbook shall be submitted to the CPUC and FS for review within 30 days following the first storm event (after construction has begun) that produces greater than one inch of precipitation within a 24-hour period. SCE shall re-submit the logbook annually after the first storm of the rainy season that produces more than one inch of precipitation within a 24-hour period. The logbook shall be retired 5 years after completion of construction.

In addition to the Erosion Control Plan, the applicant shall submit to the CPUC and the FS evidence of possession of all required permits before engaging in soil-disturbing construction/demolition activities, before entering flowing or ponded water, or before constructing a crossing at flowing or ponded water. Such permits may include, but are not limited to, a Streambed Alteration Agreement from the California Department of Fish and Game, a Clean Water Act (CWA) Section 404 permit from the USACE, a CWA Section 402 NPDES General Permit for Storm Water Discharges Associated with Construction Activities (General Permit) from the applicable Regional Water Quality Control Board(s) (RWQCBs), and/or a CWA Section 401 certification from the applicable RWQCBs. In addition, if construction-related excavation activities on National Forest System (NFS) lands encounter perched groundwater, triggering the need for dewatering activities to occur in compliance with Applicant-Proposed Measure HYD-6 (Drilling and Construction Site Dewatering Management), SCE shall notify the Forest Service at the onset of dewatering and, upon the completion of dewatering activities at the affected site(s), SCE shall submit to the Forest Service written description of all executed dewatering activities, including steps taken to return encountered groundwater to the subsurface.

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to vegetation communities by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will

ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area, the consequences of non-compliance with these laws and regulations, identification and values of significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, and review of mitigation requirements. Treating all stumps of trees resulting from Project construction activities with Sporangin will prevent the spread of annosus root disease. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to vegetation communities associated with fugitive dust generated during construction. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Together these measures will reduce Project impacts to vegetation communities to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-2: The Project would result in the loss of desert wash or riparian habitat.

Riparian and wash communities occur in a variety of the surface water resources that are present in the Project area. Direct impacts to desert wash and riparian habitat include the temporary disturbance and permanent removal of native vegetation within these communities. Indirect impacts to these communities will be similar to those discussed for native vegetation communities (Impact B-1), above. These include increased sediment transport, alterations to existing topographical and hydrological conditions, fugitive dust accumulation, and the introduction of non-native, invasive plant species. During the construction and operation of the Project, impacts could include trampling and crushing of native plants by increased vehicular and human traffic, increased erosion and sediment transport, and the introduction of noxious and exotic weeds due to increased human presence.

Riparian Conservation Areas (RCAs) were identified in the Project area on NFS lands. An RCA is defined as “an area delineated next to water features requiring special management practices to maintain and/or improve watershed and riparian-dependent resource conditions” (USDA, 2005). While riparian areas are considered on both NFS lands and non-NFS lands, RCAs are defined only for the ANF as required by the Forest LRMP. Actions conducted within an RCA must meet specific criteria defined by the USDA Forest Service which include both biological and watershed goals and functions. In addition, actions that result in effects considered other than neutral or beneficial may not be conducted without an amendment to the existing Forest Plan (USDA, 2005). Under Alternative 2, over 265 RCAs were identified during field assessments for the Project on NFS lands. These RCAs fall within the transmission line ROW or along access roads that will be used and upgraded during construction of the Project. Approximately 96 RCAs occur where the transmission line crosses a substantial stream or drainage. One hundred and seventy-one occur where access or spur roads cross ephemeral, intermittent, or perennial drainages. Of the 267 RCAs that occur on NFS lands, 95 will be subject to Project impacts that will not conform to the Forest Plan. These impacts will occur from road grading, tree removal, stream diversion, or similar actions. Under Alternative 6, the number of RCAs that occur where access or spur roads cross drainages is reduced to 86, with 58 being subject to potentially adverse impacts.

APMs BIO-3 through BIO-7, which are included as part of the Project, will help to reduce impacts to riparian and desert wash habitats. These APMs include avoiding or compensating impacts to jurisdictional waters and wetlands, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to habitats. However, these APMs will not fully mitigate the impacts to riparian and desert wash habitats. As such, Mitigation Measures B-1a, B-1b, B-2, H-1a, and AQ-1a will be required to mitigate Impact B-2 to a less-than-significant level.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-2. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-2 to a less-than-significant level.

- **MM B-1a Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-2 Implement RCA Treatment Plan.** SCE shall not construct or modify any structure, culvert, or bridge or modify any habitat without the appropriate permits from regulatory agencies. SCE shall not construct or modify any structure, culvert, or bridge or modify any habitat on NFS lands in Riparian Conservation Areas (RCAs) without the authorization of the FS. Vegetation removal or road construction shall not occur in RCAs during the breeding season for nesting birds (February 1-August 15) unless otherwise approved by the FS. SCE shall prepare and implement a FS RCA Treatment Plan for the Project. This Plan shall include the specific activities that will occur at each of the RCA points crossed by the Project including the amount and type of vegetation to be cleared, the type of road crossing or improvement allowed for wet and dry crossings, and the methods that would be employed to reduce the effects of the Project on water quality. The Plan shall include timing restrictions for vehicle or equipment passage, restrictions on what activities may occur such as grading, vegetation removal or tree trimming, monitoring requirements, seasonal restrictions, and restoration requirements. This Plan shall be submitted to the FS for approval prior to construction or the grading of any access road. The Plan shall also be submitted to the CPUC for review.
- **MM AQ-1a Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
- **MM H-1a Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to riparian communities and desert wash habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area, the consequences of non-compliance with these laws and regulations, identification and values of significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, and review of mitigation requirements. The implementation of an RCA Treatment Plan will ensure that activities conducted within RCAs are approved by the USDA Forest Service prior to implementation and are conducted in such a way as to minimize disturbance to sensitive resources. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to vegetation communities associated with fugitive dust generated during construction. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Together these measures will reduce Project impacts to riparian and desert wash communities to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-3: The Project would result in the establishment and spread of noxious weeds.

The Project construction, operation, and maintenance activities will include ground disturbance which has the potential to result in the introduction of nonnative and invasive plant species. Weed seed sources exist throughout the Project area, and Project activities can spread weeds into areas that currently support light infestations or are weed-free.

There are no specific APMs designed to reduce the spread or establishment of noxious weeds in the Project area, but APMs that will reduce this impact include BIO-2, and BIO-4 through BIO-6. These APMs include minimizing vegetation removal at construction sites, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to vegetation. However, these APMs will not reduce Impact B-3 to a less-than-significant level. Therefore, to further reduce impacts of the Project from the spread or establishment of noxious weeds SCE shall implement Mitigation Measures B-1a, B-2, and B-3a through B-3c to reduce the establishment and spread of noxious weeds to a less-than-significant level.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-3. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-3 to a less-than-significant level.

- **MM B-1a Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-2 Implement RCA Treatment Plan.** *(See above for full text)*
- **MM B-3a Prepare and implement a Weed Control Plan.** SCE shall prepare and implement a comprehensive, adaptive Weed Control Plan on NFS lands for pre-construction and construction invasive weed abatement. The long term Weed Control Plan, including monitoring and eradication, will be defined as part of the 50 year Operations and Maintenance Permit. On the ROW easement lands administered by the FS, the Weed Control Plan shall incorporate all appropriate and legal agency-stipulated regulations. The Weed Control Plan shall be submitted to the FS for final authorization of weed control methods, practices, and timing prior to implementation of the Weed Control Plan on public lands. ROW easements located on private lands shall include adaptive provisions such as wheel and equipment washing for the implementation of the Weed Control Plan. The Weed Control Plan shall include the following:
 - A pre-construction weed inventory shall be conducted by surveying all areas subject to ground-disturbing activity, including, but not limited to, tower pad preparation and construction areas, tower removal sites, pulling and tensioning sites, assembly yards, and areas subject to grading for new or improved access and spur roads. Weed populations that: (1) are rated High or Moderate for negative ecological impact in the California Invasive Plant Inventory Database (Cal-IPC, 2006); and (2) aid and promote the spread of wildfires (such as cheatgrass, Saharan mustard, and medusa head); and (3) are considered by the FS as species of priority (for NFS lands only) shall be mapped and described according to density and area covered. In areas subject to ground disturbance, weed infestations shall be treated prior to construction according to control methods and practices for invasive weed populations designed in consultation with the FS. The Weed Control Plan shall be updated and utilized for eradication and monitoring post construction.
 - Weed control treatments shall include all legally permitted herbicide, manual, and mechanical methods applied with the authorization of the FS. The application of herbicides shall be in compliance with all state and federal laws and regulations under the prescription of a Pest Control Advisor (PCA), where concurrence has been provided by the CPUC/FS,

and implemented by a Licensed Qualified Applicator. Herbicides shall not be applied during or within 72 hours of a scheduled rain event. Herbicides shall not be used within Riparian Conservation Areas (RCAs) on the ANF without approval of the FS. In riparian areas only water-safe herbicides shall be used. Herbicides shall not be applied when wind velocities exceed 6 mph. Where manual and/or mechanical methods are used, disposal of the plant debris will follow the regulations set by the FS. The timing of the weed control treatment shall be determined for each plant species in consultation with the FS (on NFS lands) with the goal of controlling populations before they start producing seeds.

For the preconstruction and construction of the Project, measures to control the introduction and spread of noxious weeds in the Project work area shall be taken as follows.

- On the ANF, from the time construction begins until ten years after construction is complete, surveying for new invasive weed populations and the monitoring of identified and treated populations shall be required at all sites impacted by construction (tower pads, staging areas, landing zones, etc.), including access/spur roads disturbed during the Project. Surveying and monitoring for weed infestations shall occur annually for years one to five and bi-annually for years six to ten. Treatment of all identified weed populations shall occur at a minimum of once annually. When no new seedlings or resprouts are observed at treated sites for three consecutive, normal rainfall years, the weed population can be considered eradicated and weed control efforts may cease for that impact site.
- During Project preconstruction and construction, all seeds and straw materials shall be weed-free rice straw, and all gravel and fill material shall be certified weed free by the county Agriculture Commissioners' Offices. Any deviation from this will be approved by a FS botanist. All plant materials used during restoration shall be native, certified weed-free, and approved by the CPUC and FS.
- During Project preconstruction and construction, vehicles and all equipment shall be washed (including wheels, undercarriages, and bumpers) before and after entering FS identified areas. On non-NFS lands vehicles and equipment shall be washed prior to commencing work in off road areas. Vehicles shall be cleaned at existing construction yards or legally operating car washes. SCE shall document that all vehicles have been washed prior to commencing project work. In addition, tools such as chainsaws, hand clippers, pruners, etc. shall be washed before and after entering all Project work areas. All washing shall take place where rinse water is collected and disposed of in either a sanitary sewer or landfill, unless otherwise approved by the FS. A written daily log shall be kept for all vehicle/equipment/tool washing that states the date, time, location, type of equipment washed, methods used, and staff present. The log shall include the signature of a responsible staff member. Logs shall be available to the CPUC and FS for inspection at any time and shall be submitted to the CPUC and FS on a monthly basis.
- During Project operation and maintenance activities, clear and dispose of weeds in assembly yards, helicopter landing areas, tower pads, spur roads, staging areas, and any other disturbance areas in a FS-approved method.
- **MM B-3b Remove weed seed sources from construction access routes.** Prior to construction, SCE shall initiate invasive species eradication identified in the following Table. These populations were identified as small and isolated but having the potential to spread aggressively during construction. Post construction, these isolated populations will be included and treated according to the restoration plan. Per the FSM 2080 BMP guideline, SCE shall also remove or reduce sources of weed seed along the travel routes associated with Project construction identified in Figures A-2 through A-4 of Appendix A of the *Biological Specialist Report* (Aspen and H.T. Harvey & Associates, 2009) to prevent the introduction or control the spread of noxious weeds by mowing or other control methods to substantially reduce seed production in these infestations during Project construction. Following Project approval and during the time of year when weed

species can be observed and identified, SCE shall identify, using a qualified plant ecologist, any other weed seed sources that could contribute to Project-related weed spread on the ANF. The following weed populations, and any other target infestations identified by Project surveys, should be controlled prior to construction. SCE shall initiate eradication of the following weed populations and any other isolated, target infestations discovered during pre-construction surveys along construction routes.

Weed Populations Along Construction Routes*	
ANF Road Location	Noxious Weeds Identified
4N41	Isolated patch of Spanish broom
3N20	Isolated patches of Spanish broom, Scotch broom, and rockrose
3N23	Giant reed population in creek adjacent to road
2N23	Scattered Spanish broom infestations of a range of population sizes and densities. Some of the large populations along these routes observed during project surveys had been recently brushed for weed control by SCE contractors, but these populations should be rechecked and control efforts reapplied as necessary. Also isolated patches of tree tobacco, rockrose, horehound, and tocalote.
2N24	Scattered, isolated patches of Spanish broom and rockrose
2N25.2	Scattered, isolated patches of Spanish broom, rosemary, rockrose, and horehound
2N30.1	One isolated patch of Spanish broom
2N30.2	Scattered Spanish broom, bull thistle, tree of heaven, black locust, tocalote, rockrose, eupatory, horehound, smilo grass, and tree tobacco infestations of a range of population sizes and densities.
3N27 north of Big Tujunga Creek to Mt. Gleason Rd	Scattered, isolated patches of Spanish broom
2N45	Moderate patch of giant reed and tree of heaven
2N65.1	Moderate infestation of tree spurge
2N65.2	Moderate infestation of Spanish broom and thoroughwort
2N66	Moderate patch of Spanish broom and tree of heaven
2N75	Moderate patch of Spanish broom
2N79	Isolated patch of Spanish broom
1N36	Scattered Spanish broom, bull thistle, tree of heaven, black locust, tocalote, rockrose, Canadian thistle, hairy vetch, smilo grass, and tree tobacco infestations of a range of population sizes and densities.
Road west out of Shortcut Station	Isolated patches of Spanish broom
*Specific locations are found in Figures A-2 through A-4 of Appendix A of the Biological Specialist Report Noxious Weed Assessment. [Aspen and H.T. Harvey & Associates, 2009]	

- MM B-3c Remove weed seed sources from assembly yards, staging areas, tower pads, pull sites, landing zones, and spur roads.** Prior to construction and during each year of use for construction at all assembly yards, staging areas, tower pads, pull sites, landing zones, and spur roads within the ANF, weed infested areas should be mowed and/or treated as appropriate for the individual weed species under the guidance of a qualified plant ecologist or restoration ecologist, where concurrence on the ecologist has been provided by the FS. Unless otherwise authorized by the FS, weed control efforts in these areas shall be timed annually to reduce shortpod mustard, tocalote, and other noxious weed seed production, by mowing or weed-whacking infestations when flowering has just started, but before seeds have been produced. All plant debris shall be disposed of at a FS/CPUC-approved location. Weed control efforts shall commence in early spring (February – March), as indicated annually by a qualified plant ecologist or restoration ecologist in coordination with a FS botanist or Forest Weed Specialist.

Rationale for Finding. Restoration of disturbed areas with native vegetation will limit the introduction of nonnative and invasive weeds. The implementation of an RCA Treatment Plan will ensure that activities

conducted within RCAs are approved by the USDA Forest Service prior to implementation and are conducted in such a way as to minimize disturbance to sensitive resources. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Controlling known populations of nonnative and invasive weeds along construction access routes and from within assembly yards, staging areas, tower pads, pull sites, landing zones, and spur roads within the ANF will minimize the potential for spread of these species into and through work areas, as outlined in the USDA Forest Service Land Management Plan (2005). Together these measures will reduce Project impacts related to the establishment and spread of nonnative and invasive weeds to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-4: Construction activities, including the use of access roads and helicopter construction, would result in disturbance to wildlife and may result in wildlife mortality.

Direct impacts to wildlife associated with construction of the Project could include mortality from trampling or crushing; increased noise levels due to heavy equipment and helicopter use; light impacts from construction during low-light periods; increased vehicular and human presence along existing access roads and riparian areas; displacement due to habitat modifications, including vegetation removal; alterations of existing soil conditions; fugitive dust; and increased erosion and sediment transport. Indirect effects to wildlife as a result of construction of the Project include the introduction of non-native, invasive plant species, alterations to existing hydrological conditions, and exposure to contaminants.

APM BIO-1, included as part of the Project, requires SCE to conduct pre-construction clearance surveys for wildlife. Project-related effects on common species will be further minimized through the implementation of mitigation measures designed to educate workers of the presence and sensitivity of wildlife that may occur in the Project area; limitations on the work that may occur in RCAs; reducing the effect of fugitive dust on adjacent areas through dust control and reduced vehicle speeds; the restoration of habitat at the conclusion of construction; and the control of noxious weeds. The implementation of erosion control measures will also reduce the potential off-site transport of sediment to both aquatic and upland habitats. Mitigation Measures B-1a, B-1b, B-2, B-3a, H-1a, and AQ-1a will reduce construction-related impacts to wildlife to a less-than-significant level.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-4. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-4 to a less-than-significant level.

- **MM B-1a** Provide restoration/compensation for impacts to native vegetation communities. *(See above for full text)*
- **MM B-1b** Implement a Worker Environmental Awareness Program. *(See above for full text)*
- **MM B-2** Implement RCA Treatment Plan. *(See above for full text)*
- **MM B-3a** Prepare and implement a Weed Control Plan. *(See above for full text)*
- **MM AQ-1a** Implement Construction Fugitive Dust Control Plan. *(See above for full text)*
- **MM H-1a** Implement an Erosion Control Plan and demonstrate compliance with water quality permits. *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where

impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area, the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of an RCA Treatment Plan will ensure that activities conducted within RCAs are approved by the USDA Forest Service prior to implementation and are conducted in such a way as to minimize disturbance to sensitive resources. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to wildlife associated with fugitive dust generated during construction. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Together these measures will reduce Project impacts to wildlife to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-5: Construction activities conducted during the breeding season would result in the loss of nesting birds or raptors.

The Project area contains several vegetation communities that are known to support nesting for many bird species. Direct impacts to nesting birds or raptors as a result of construction activities for the Project could include the removal or disturbance of vegetation that supports nesting birds, increased noise levels from heavy equipment and helicopter operations, increased human presence, and exposure to fugitive dust. Indirect impacts could include the loss of habitat due to the colonization of noxious weeds and a disruption of breeding or foraging activity due to facilitated use of new or improved spur and access roads by the public. Operational impacts include increased human presence from maintenance personnel and collisions with transmission lines.

APMs BIO-1 and BIO-8 have been incorporated into the Project to reduce impacts to nesting birds and raptors. These APMs include conducting clearance surveys for wildlife and completing Project-wide raptor surveys. However, these APMs will not reduce Impact B-5 to a less-than-significant level. Therefore, SCE shall implement Mitigation Measures B-1a, B-, B-3a, B-5, and AQ-1a to reduce impacts to nesting birds and raptors to a less-than-significant level.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-5. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-5 to a less-than-significant level.

- **MM B-1a** **Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b** **Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-3a** **Prepare and implement a Weed Control Plan.** *(See above for full text)*

- MM B-5 Conduct pre-construction surveys and monitoring for breeding birds.** SCE shall conduct pre-construction surveys for nesting birds if construction and removal activities are scheduled to occur during the breeding season. Surveys shall be conducted in areas within 500 feet of tower sites, laydown/staging areas, substation sites, and access/spur road locations. Surveys for birds shall be conducted for all areas from February 1 to August 15. The required survey dates may be modified based on local conditions (i.e., high altitude locations) with the approval of the CPUC, California Department of Fish and Game (CDFG), USACE, and/or FS. SCE shall be responsible for designating qualified biologists who can conduct pre-construction surveys and monitoring for breeding birds. The resume of the proposed biologists will be provided to the CPUC, USACE, and FS for concurrence prior to ground disturbance. On NFS lands, the FS shall apply the FS Land Management Plan Standard S18 (Part 3 of the Land Management Plan), which states “Protect known active and inactive raptor nest areas. Extent of protection will be based on proposed management activities, human activities existing at the onset of nesting initiation, species, topography, vegetative cover, and other factors. When appropriate, a no-disturbance buffer around active nest sites will be required from nest-site selection to fledging.” On both NFS and non-NFS lands, if breeding birds with active nests are found, a biological monitor shall establish a 300-foot buffer around the nest for ground-based construction activities and a one-mile buffer for helicopter use if helicopters are flying below 300 feet, and no activities will be allowed within the buffer(s) until the young have fledged from the nest or the nest fails. If nesting bald or golden eagles are identified, a 660-foot no activity buffer will be implemented. The 300-foot (660-foot eagle and one-mile helicopter) buffer may be adjusted to reflect existing conditions including ambient noise, topography, and disturbance with the approval of the U.S. Fish and Wildlife Service (FWS), CPUC, USACE, CDFG, or FS, as appropriate. On NFS lands, the FS shall have the authority to define/redefine such buffers. The biological monitors shall conduct regular monitoring of the nest to determine success/failure and to ensure that Project activities are not conducted within the buffer(s) until the nesting cycle is complete or the nest fails. The biological monitors shall be responsible for documenting the results of the surveys and the ongoing monitoring and will provide a copy of the monitoring reports for impact areas to the respective agencies (e.g., On NFS lands documentation will be provided to the Forest Biologist). If for any reason a bird nest must be removed during the nesting season, SCE shall provide written documentation providing concurrence from the FWS and CDFG authorizing the nest relocation. On NFS lands, this will include coordination and written approval from the FS. On USACE lands, this will include coordination and written approval by the USACE. SCE shall provide a written report documenting the relocation efforts. The report shall include what actions were taken to avoid moving the nest, the location of the nest, what species is being relocated, the number and condition of the eggs taken from the nest, the location of where the eggs are incubated, the survival rate, the location of the nests where the chicks are relocated, and whether the birds were accepted by the adopted parent.
- MM AQ-1a Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area, the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in

the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Pre-construction surveys and monitoring for breeding birds by a qualified biologist, and protective buffers established around active nests, will ensure that impacts to breeding birds are minimized. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to breeding birds associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to breeding birds, including raptors, to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-6: The Project would cause the loss of foraging habitat for wildlife.

Direct impacts as a result of construction activities associated with the Project include the permanent removal and temporary disturbance of rare and non-rare vegetation communities utilized as foraging habitat for both common and rare wildlife, fugitive dust, and increased noise levels due to heavy equipment and helicopter operations occurring in these areas. These impacts will primarily occur during tower pad preparation; grading for helicopter staging areas; and construction, grading, and widening of new spur roads or existing access roads. Indirect impacts to foraging habitat could include alterations to existing topographical and hydrological conditions, increased erosion and sediment transport, and the establishment of noxious weed colonies. Operational impacts include increased human presence and the spread of noxious weeds due to public use of new or improved spur and access roads.

Implementation of Mitigation Measures B-1a, B-1b, B-2, B-3a, AQ-1a, and H-1a will facilitate the restoration of native vegetation communities following disturbance, minimize impacts to important riparian areas on NFS lands, minimize the spread or colonization of noxious weeds which can severely degrade habitat for common wildlife, and educate workers to avoid wildlife and their habitat.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-6. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-6 to a less-than-significant level.

- **MM B-1a** **Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b** **Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-2** **Implement RCA Treatment Plan.** *(See above for full text)*
- **MM B-3a** **Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM AQ-1a** **Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
- **MM H-1a** **Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that

could be encountered in the Project area, the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of an RCA Treatment Plan will ensure that activities conducted within RCAs are approved by the USDA Forest Service prior to implementation and are conducted in such a way as to minimize disturbance to sensitive resources. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to wildlife foraging habitat associated with fugitive dust generated during construction. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Together these measures will reduce Project impacts to foraging habitat for wildlife to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-7: The Project could disturb endangered, threatened, or proposed plant species or their habitat.

Protocol and focused botanical surveys of the Project alignment, helicopter staging areas, stringing and pulling locations, and all other areas of known disturbance were conducted in the summer and fall of 2007, spring and summer of 2008, and spring of 2009. Natural occurrences of listed plant species were not observed in or adjacent to the Project area or along any of the proposed access roads. However, if present, direct impacts to listed plant species could occur from construction activities that remove vegetation, grade soils, or cause sedimentation, including tower pad preparation, clearing helicopter staging areas, and the construction, grading, and widening of new spur roads and existing access roads. Indirect impacts could include the disruption of native seed banks through soil alterations, the accumulation of fugitive dust, increased erosion and sediment transport, and the colonization of non-native, invasive plant species. Operational impacts could include trampling or crushing due to public use of new or improved spur roads and access roads, increased erosion, and the spread and colonization of noxious weeds.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to avoid or minimize impacts to biological resources. These APMs include avoiding or compensating for impacts to vegetation communities, training personnel, restricting work to within predetermined limits of construction, implementing Best Management Practices (BMPs), construction monitoring, flagging vegetation for avoidance, and revegetation with appropriate seed mixes. As proposed, the APMs do not provide sufficient mitigation to reduce Project impacts to endangered, threatened, or proposed plant species to a less-than-significant level. Because the APMs are not considered to be adequate protection for listed plants, the following Mitigation Measures will be implemented to further reduce impacts of the Project on listed plants to a less-than-significant level: Mitigation Measures B-1a, B-1b, B-3a, B-7, AQ-1a, and H-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-7. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-7 to a less-than-significant level.

- **MM B-1a Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b Implement a Worker Environmental Awareness Program.** *(See above for full text)*

- **MM B-3a** **Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-7** **Conduct preconstruction surveys for State and federally Threatened, Endangered, Proposed, Petitioned, and Candidate plants and avoid any located occurrences of listed plants.** SCE shall conduct pre-construction surveys for State and federally listed Threatened and Endangered, Proposed, Petitioned, and Candidate plants in all areas subject to ground-disturbing activity, including, but not limited to, tower pad preparation and construction areas, tower removal sites, pulling and tensioning sites, assembly yards, and areas subject to grading for new access roads. The surveys shall be conducted during the appropriate blooming period(s) by a qualified plant ecologist/biologist according to protocols established by the FWS, CDFG, FS, and California Native Plant Society (CNPS). The resume of the proposed biologists will be provided to the CPUC and FS for concurrence prior to ground disturbance. All listed plant species found shall be marked and avoided. If a federally listed plant species cannot be avoided on private land, consultation with FWS will occur.

Prior to site grading, any populations of listed plant species identified during the surveys shall be protected by a buffer zone. The buffer zone shall be established around these areas and shall be of sufficient size to eliminate potential disturbance to the plants from human activity and any other potential sources of disturbance including human trampling, erosion, and dust. The size of the buffer depends upon the proposed use of the immediately adjacent lands, and includes consideration of the plant's ecological requirements (e.g., sunlight, moisture, shade tolerance, edaphic physical and chemical characteristics) that are identified by a qualified plant ecologist and/or Forest botanist. At minimum, the buffer shrub species shall be equal to twice the drip line (i.e., two times the distance from the trunk to the canopy edge) in order to protect and preserve the root systems of the plant. The buffer for herbaceous species shall be, at minimum, 50 feet from the perimeter of the population or the individual. A smaller buffer may be established, provided there are adequate measures in place to avoid the take of the species, with the approval of the FWS, CDFG, FS, USACE, and CPUC. If impacts to listed plants are determined to be unavoidable, the FWS shall be consulted for authorization, through the context of a Biological Opinion. Additional mitigation measures to protect or restore listed plant species or their habitat may be required by the FWS before impacts are authorized, whichever is appropriate.

- **MM AQ-1a** **Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
- **MM H-1a** **Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area, the consequences of non-compliance with these laws and regulations, identification and values of plant species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, and review of mitigation requirements. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Natural occurrences of listed plant species were not detected during multiple years of surveys for the Project. However, preconstruction surveys and avoidance of any listed plant species will ensure that effects to these species will be minimized. Implementation of a Construction

Fugitive Dust Control Plan will minimize impacts to listed plant species associated with fugitive dust generated during construction. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Together these measures will reduce Project impacts to listed plant species to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-8: The Project could result in the loss of California red-legged frogs and mountain yellow-legged frogs.

The California red-legged frog is known to occur in a stockpond adjacent to Amargosa Creek in the Leona Valley and has the potential to occur within the Project area at the Segment 5 Amargosa Creek crossing within the Northern Region. The closest known record of the mountain yellow-legged frog occurs in the upper reaches of Devil's Canyon approximately six miles from the closest section of the ROW. Focused and protocol surveys conducted in 2007, 2008, and 2009 did not detect either of these species in the Project area.

Although not detected in the Project area, direct impacts to the California red-legged frog and mountain yellow-legged frog, if present, could occur from construction activities as a result of mechanical crushing, loss of breeding or basking sites, fugitive dust, and human trampling. Disturbance will be associated with the removal of vegetation and alterations of existing topographical and hydrological conditions, particularly along or downstream of drainage crossings and within RCAs. Indirect impacts to these species could include the degradation of water quality, changes in water runoff due to spur road and access road construction or upgrades, increased erosion and sediment transport, and the spread of noxious weeds along riparian areas. Operational impacts include increased risk of mortality on access or spur roads through collision with vehicles and disturbance from increased public access along new or improved access and spur roads. Another operational impact could result from corona noise, which could potentially interfere with breeding and predator detection.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-8 to a less-than-significant level. Therefore, to reduce impacts to California red-legged frogs and mountain yellow-legged frogs to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-2, B-3a, B-8a, B-8b, AQ-1a, H-1a, and H-1b.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-8. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-8 to a less-than-significant level.

- **MM B-1a** **Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b** **Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-2** **Implement RCA Treatment Plan.** *(See above for full text)*
- **MM B-3a** **Prepare and implement a Weed Control Plan.** *(See above for full text)*

- **MM B-8a Conduct protocol surveys for California red-legged frogs and implement avoidance measures.** SCE shall conduct Fish and Wildlife Service (FWS)-approved protocol surveys for California red-legged frogs if suitable habitat is present near the proposed construction sites at the Amargosa Creek, Aliso Canyon (Segment 11), Monte Cristo Creek, Alder Creek, Big Tujunga Creek (Segment 6), and West Fork San Gabriel River within the Central Region. If surveys have been conducted to protocol within two years of start of construction and no red-legged frogs were identified, surveys would not need to be repeated prior to start of construction. Surveys will continue at least every two years until construction is complete in the identified potential habitat. The resumes of the proposed biologists will be provided to the CPUC and FS for concurrence prior to conducting the surveys.
 - Prior to the onset of construction activities, SCE shall provide the following information to all personnel who will be present within work areas or adjacent to the project area:
 - A detailed description of the red-legged frog including color photographs;
 - The protection the red-legged frog receives under the Endangered Species Act and possible legal action that may be incurred for violation of the Act;
 - The protective measures being implemented to conserve red-legged frogs and other species during construction activities associated with the Project; and
 - A point of contact if red-legged frogs are observed.
 - All trash that may attract predators of the red-legged frogs will be removed from work sites or completely secured at the end of each work day. At the Project crossing near the newly discovered population in Aliso Canyon, and anywhere California red-legged frogs are detected in or adjacent to the Project, the following shall apply:
 - A full-time monitor shall be present at the access road crossing near the newly discovered population of California red-legged frog in Aliso Canyon, while water is present.
 - Between 1 November and 31 March, no work will be authorized within one mile of occupied habitat and no vehicular crossings at wet fords of those channels will be authorized. The one-mile buffer distance may be reduced based on the topography of the site with the approval of the FWS, FS, and CPUC.
 - Between April 1 to 31 October, no work will be authorized within 500 feet of occupied habitat and no vehicular crossings at wet fords of those channels will be authorized.
 - If present, SCE shall monitor all related construction activities and develop and implement a monitoring plan that includes the following measures in consultation with the FWS and FS.
 - Prior to the onset of any construction activities, SCE shall meet on-site with the CPUC/FS-approved biologist (authorized biologist). The authorized biologist shall hold a current red-legged frog permit from FWS. SCE shall provide information on the general location of construction activities within habitat of the red-legged frog and the actions taken to reduce impacts to this species. Because red-legged frogs may occur in various locations during different seasons of the year, SCE, FS, and authorized biologists will, at this preliminary meeting, determine the seasons when specific construction activities would have the least adverse effect on red-legged frogs.
 - Where construction can occur in habitat where red-legged frogs are widely distributed, work areas will be fenced in a manner that prevents equipment and vehicles from straying from the designated work area into adjacent habitat. The authorized biologist will assist in determining the boundaries of the area to be

fenced in consultation with the FWS/CDFG/FS/CPUC. All workers will be advised that equipment and vehicles must remain within the fenced work areas.

- The authorized biologist will direct the installation of the fence and conduct a minimum of three nocturnal surveys to move any red-legged frogs from within the fenced area to suitable habitat outside of the fence. If red-legged frogs are observed on the final survey or during subsequent checks, the authorized biologist will conduct additional nocturnal surveys if he or she determines that they are necessary in concurrence with the FWS/CDFG/FS/CPUC.
 - Fencing to exclude red-legged frogs will be at least 24 inches in height.
 - Construction activities that may occur immediately adjacent to breeding pools or other areas where large numbers of red-legged frogs may congregate will be conducted during times of the year (winter) when individuals have dispersed from these areas or the species is dormant, unless otherwise authorized by CPUC, FS, and FWS. The authorized biologist will assist SCE in scheduling its work activities accordingly.
 - If red-legged frogs are found within an area that has been fenced to exclude red-legged frogs, activities will cease until the authorized biologist moves the red-legged frogs.
 - If red-legged frogs are found in a construction area where fencing was deemed unnecessary, work will cease until the authorized biologist moves the red-legged frogs. The authorized biologist in consultation with FWS/CDFG/ FS/CPUC will then determine whether additional surveys or fencing are needed. Work may resume while this determination is being made, if deemed appropriate by the authorized biologist.
 - Any red-legged frogs found during clearance surveys or otherwise removed from work areas will be placed in nearby suitable, undisturbed habitat. The authorized biologist will determine the best location for their release, based on the condition of the vegetation, soil, and other habitat features and the proximity to human activities. Clearance surveys shall occur on a daily basis in the work area.
 - The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed.
 - SCE shall restrict work to daylight hours, except during an emergency, in order to avoid nighttime activities when red-legged frogs may be present on the access road. Traffic speed should be maintained at 15 mph or less in the work area.
 - A qualified biologist must permanently remove, from within the Project area, any individuals of exotic species, such as bullfrogs, crayfish, and centrarchid fishes, to the maximum extent possible and ensure that activities are in compliance with the California Fish and Game Code.
 - No stockpiles of materials will occur in areas occupied by California red-legged frogs.
 - To ensure that diseases are not conveyed between work sites by the authorized biologist or his or her assistants, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force will be followed at all times.
 - Any spills of any fluids that may be hazardous to aquatic fauna (gasoline, hydraulic fluid, motor oil, etc) in areas that may contain California red-legged or mountain yellow-legged frogs will be reported to the FS, FWS, and CPUC within one hour.
- **MM B-8b Conduct biological monitoring.** SCE shall provide a qualified biologist with demonstrated expertise with the listed wildlife species likely to occur in the Project area. This

person(s) shall monitor all construction activities daily within suitable habitat for listed or sensitive wildlife. The resumes of the proposed biologists will be provided to the CPUC, USACE, and FS for concurrence prior to the onset of ground-disturbing activities.

- **MM AQ-1a Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
- **MM H-1a Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*
- **MM H-1b Dry weather construction.** Any construction activities within the ANF shall be scheduled to avoid anticipated precipitation events that are predicted to produce more than one-half inch of precipitation over a 24-hour period, unless expressly authorized by the FS. If an unexpected precipitation event occurs while construction activities are already underway, SCE shall contact the FS for guidance. The FS may require cessation of construction activities within their jurisdiction during any precipitation event in order to prevent excessive erosion and to protect aquatic resources. On NFS lands, SCE shall also observe any criteria promulgated by the FS regarding construction during precipitation events. SCE shall provide documentation to the CPUC monitor of all wet-weather coordination with the FS.

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area (including California red-legged frogs and mountain yellow-legged frogs), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of an RCA Treatment Plan will ensure that activities conducted within RCAs are approved by the USDA Forest Service prior to implementation and are conducted in such a way as to minimize disturbance to sensitive resources. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Protocol surveys for California red-legged frogs in suitable habitat, and , if found, the implementation of avoidance measures such as seasonal restrictions on Project activities within occupied habitat, exclusion fencing, restricting work to daytime hours, and relocation of individuals out of work areas will minimize effects to the species. Monitoring conducted by a qualified biologist will minimize the potential for direct effects to listed wildlife. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to California red-legged frogs and mountain yellow-legged frogs associated with fugitive dust generated during construction. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Avoiding construction during rain events will minimize the potential for Project activities to occur during the period when these species are most likely to be active. Together these measures will reduce Project impacts to California red-legged frogs and mountain yellow-legged frogs to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-9: The Project would result in the loss of arroyo toads.

The arroyo toad is federally endangered and a California Species of Special Concern. It is known to occur in the Project area within portions of the ANF, including Big Tujunga Creek, Mill Creek, Monte Cristo Creek, Alder Creek, and Lynx Gulch, a tributary to Big Tujunga Creek. This species also has the potential to occur at several other drainages within the Project area, including Kentucky Wash, Aliso Canyon, and Falls Creek. This species was detected by SCE biologists during surveys conducted on May 29, 2007 at Alder Creek. In addition, surveys conducted by SCE in June, 2008 detected this species at Lynx Gulch and Forest Service biologists located a crushed toad on the Lynx Gulch access road the same month.

Direct impacts to the arroyo toad could occur as a result of crushing from mechanized equipment, temporary disruption of foraging or thermoregulation sites in adjacent upland areas, fugitive dust, or the disruption of egg masses from impacts to water quality. Indirect effects to this species may be caused by the diversion or modification of water flows, increased downstream sediment transport, increased noise, attraction of predators to trash left by Project construction personnel, or the establishment of noxious weeds. Operational impacts to arroyo toad are similar to many of the construction impacts, and include increased sedimentation and dust due to use of access roads by the public and maintenance personnel and the spread of exotic weeds.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-9 to a less-than-significant level. Therefore, to reduce impacts to arroyo toads to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-2, B-3a, B-8b, B-9, AQ-1a, H-1a, and H-1b.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-9. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-9 to a less-than-significant level.

- **MM B-1a** **Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b** **Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-2** **Implement RCA Treatment Plan.** *(See above for full text)*
- **MM B-3a** **Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-8b** **Conduct biological monitoring.** *(See above for full text)*
- **MM B-9** **Conduct protocol surveys for arroyo toads and implement avoidance measures in occupied areas.** In areas known to support arroyo toads (Lynx Gulch, Monte Cristo Creek, and Alder Creek) the following avoidance measures shall be implemented.
 - SCE shall avoid ground disturbing activities (i.e. grading, stream crossing upgrades, parking) along access roads within the one mile buffer for arroyo toads during the activity period for arroyo toads (March-November). This date and buffer may be modified based on the existing temperature regime and habitat conditions with FS and FWS approval. An exception to this restriction may occur if the Forest Service determines that increased road

maintenance or reconstruction would need to occur based upon dry ravel or debris torrents resulting from the Station Fire of 2009.

- SCE shall limit use of the access roads in this area within the one-mile arroyo toad buffer area to daylight hours only during the activity period for arroyo toads (generally March-November), unless otherwise approved by the FS (on NFS land), FWS, and/or the CPUC (on private land). Use of these roadways during rain events shall not occur during the activity period for arroyo toads. Vehicle speeds shall be limited to 15 MPH and no parking or loitering shall occur along the access roads.
- SCE shall retain a qualified biologist with demonstrated expertise with arroyo toads to monitor all construction activities full time in occupied arroyo toad habitat. The monitor shall inspect the roadway, all Arizona crossings, and work sites throughout the day and log the time and weather conditions in the area. If adult or juvenile arroyo toads are found on the roadway, vehicle access shall be restricted until the animal has moved off the road or is relocated by a permitted arroyo toad biologist in accordance with the Biological Opinion.

SCE shall conduct Fish and Wildlife Service-approved protocol surveys for arroyo toad at the following locations if suitable habitat is present near the proposed construction sites: Kentucky Wash, Aliso Canyon, and Big Tujunga Creek (Segment 6/11) within two years of the start of construction. If arroyo toads are detected, further surveys within the area will not be required and the avoidance measures detailed below will be followed. If no arroyo toads are detected, habitat assessments will be conducted every year until construction is completed. If the habitat assessment determines that suitable habitat exists, protocol surveys shall be conducted.

- Prior to the onset of construction activities, SCE shall provide all personnel who will be present on work areas within or adjacent to the Project area the following information:
 - a. A detailed description of the arroyo toad including color photographs;
 - b. The protection the arroyo toad receives under the Endangered Species Act and possible legal action that may be incurred for violation of the Act;
 - c. The protective measures being implemented to conserve the arroyo toad and other species during construction activities associated with the Project; and
 - d. A point of contact if arroyo toads are observed.
- For all areas in which this species has been documented SCE shall develop and implement a monitoring plan that includes the following measures in consultation with the FWS and Forest Service.
 - SCE shall retain a qualified biologist with demonstrated expertise with arroyo toads to monitor all construction activities in occupied arroyo toad habitat and assist SCE in the implementation of the monitoring program. The resumes of the proposed biologists will be provided to the CPUC and FS for concurrence. This biologist will be referred to as the authorized biologist hereafter. The authorized biologist will be present during all activities immediately adjacent to or within habitat that supports populations of arroyo toad.
 - All trash that may attract predators of the arroyo toad will be removed from work sites or completely secured at the end of each work day. Prior to the onset of any construction activities, SCE shall meet on-site with staff from the FS and the authorized biologist. SCE shall provide information on the general location of construction activities within habitat of the arroyo toad and the actions taken to reduce impacts to this species. Because arroyo toads may occur in various locations during different seasons of the year, SCE, FS, and authorized biologists will, at this preliminary meeting, determine the seasons when specific construction activities would have the least adverse effect on arroyo toads.

- Any arroyo toads found during clearance surveys or otherwise removed from work areas will be placed in nearby suitable, undisturbed habitat. The authorized biologist will determine the best location for their release, based on the condition of the vegetation, soil, and other habitat features and the proximity to human activities. Clearance surveys shall occur on a daily basis in the work area.
 - The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed.
 - To ensure that diseases are not conveyed between work sites by the authorized biologist or his or her assistants, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force will be followed at all times.
 - SCE shall restrict work to daylight hours, except during an emergency, or unless otherwise authorized by the FS (on NFS land) or the CPUC (on private land) in order to avoid nighttime activities when arroyo toads may be present on the access roads. Traffic speed shall be maintained at 15 mph or less in the work area.
 - A qualified biologist must permanently remove, from within the Project area, any individuals of exotic species, such as bullfrogs, crayfish, and centrarchid fishes, to the maximum extent possible and ensure that activities are in compliance with the California Fish and Game Code.
 - No stockpiles of materials will occur in areas occupied by arroyo toads.
 - Any spills of any fluids that may be hazardous to aquatic fauna (gasoline, hydraulic fluid, motor oil, etc) in areas that may contain arroyo toads will be reported to the FS, FWS, and CPUC within one hour.
- **MM AQ-1a** **Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
 - **MM H-1a** **Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*
 - **MM H-1b** **Dry weather construction.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area (including arroyo toads), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of FS sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of an RCA Treatment Plan will ensure that activities conducted within RCAs are approved by the USDA Forest Service prior to implementation and are conducted in such a way as to minimize disturbance to sensitive resources. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Monitoring conducted by a qualified biologist will minimize the potential for direct effects to listed wildlife. Protocol surveys for arroyo toad in suitable habitat and the implementation of avoidance measures such as seasonal restrictions on Project activities within occupied habitat, restricting work to daytime hours, and relocation of individuals out of work areas will minimize effects to the species. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to arroyo

toads associated with fugitive dust generated during construction. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Avoiding construction during rain events will minimize the potential for Project activities to occur during the period when this species is most likely to be active. Together these measures will reduce Project impacts to arroyo toads to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-10: The Project could result in the loss of desert tortoises.

The desert tortoise is believed to be present in low densities within the Northern Region of the Project (Segments 4 and 10) based on recent information from the FWS. Direct impacts associated with construction of the Project could include mortality due to collisions with vehicles or heavy equipment, fugitive dust, crushing of burrows, and increased noise levels. Indirect impacts could include loss of habitat; the introduction of non-native, invasive plant species; and increased human presence.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-10 to a less-than-significant level. Therefore, to reduce impacts to desert tortoises to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-3a, B-10, and AQ-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-10. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-10 to a less-than-significant level.

- **MM B-1a Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-3a Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-10 Conduct presence or absence surveys for desert tortoise, preserve habitat, and implement avoidance measures.** SCE shall contract with a Fish and Wildlife (FWS)-authorized biologist to conduct FWS protocol-surveys for desert tortoise in the vicinity of the proposed Windhub Substation site at the northern terminus of Segment 10, where historic tortoise burrows were documented and habitat is suitable. The resumes of the FWS-authorized biologists will be provided to the CPUC for concurrence prior to conducting the surveys. This biologist will be referred to as the “authorized biologist” hereafter. Additionally, a qualified biologist shall conduct focused clearance surveys for desert tortoise prior to construction activities within Segment 10 and Segment 4 between the Cottonwind and Whirlwind substations. Clearance surveys shall be conducted 100 m into agricultural areas that are adjacent to suitable habitat. Clearance surveys shall follow the FWS’s desert tortoise survey protocol.

To mitigate potential permanent impacts to occupied desert tortoise habitat from Project construction, SCE will acquire habitat occupied by desert tortoises. Disturbance occurring along Segment 10 and along Segment 4 between the Cottonwind and Whirlwind substations shall be

mitigated through acquisition of occupied habitat at a ratio of 3:1 (acres of habitat acquired:acres of land permanently disturbed). Mitigation acquisition shall occur at a FWS- and CDFG-approved location and shall be coordinated through a FWS- and CDFG-approved entity. SCE shall enter into a binding legal agreement regarding the preservation of off-site lands describing the terms of the acquisition, enhancement, and management of those lands. Fee title acquisition of habitat lands or a conservation easement over these lands will be transferred to an entity approved by FWS and CDFG, along with funding for enhancement of the land and an endowment for permanent management of the lands. SCE will provide verification to the CPUC that FWS- and CDFG-approved lands have been acquired.

SCE shall develop and implement a mitigation and monitoring plan that includes the following measures in consultation with the FWS and CDFG.

- Prior to the onset of construction activities, SCE shall provide all personnel who will be present on work areas within or adjacent to the Project area the following information:
 - a. A detailed description of the desert tortoise including color photographs;
 - b. The protection the desert tortoise receives under the Endangered Species Act and possible legal action that may be incurred for violation of the Act;
 - c. The protective measures being implemented to conserve the desert tortoise and other species during construction activities associated with the Project; and
 - d. A point of contact if desert tortoises are observed.
- All trash that may attract predators of desert tortoises will be removed from work sites or completely secured at the end of each work day.
- In construction areas in occupied desert tortoise areas, work and staging areas will be fenced with approved desert tortoise fencing in a manner that prevents equipment and vehicles from straying from the designated work area into adjacent habitat. The authorized biologist will assist in determining the boundaries of the area to be fenced in consultation with the FWS/CDFG/CPUC. All workers will be advised that equipment and vehicles must remain within the fenced work areas. Installation of the fencing and any necessary surveys will be directed and/or conducted by the authorized biologist in concurrence with the FWS/CDFG/CPUC.
 - If desert tortoises are found within an area that has been fenced to exclude the species, activities will cease until the authorized biologist moves the desert tortoises within 500 m of their original location.
 - If desert tortoises are found in a construction area where fencing was deemed unnecessary, work will cease until the authorized biologist moves the individual(s) within 500 m of their original location. The authorized biologist in consultation with FWS/CDFG/CPUC will then determine whether additional surveys or fencing are needed. Work may resume while this determination is being made, if deemed appropriate by the authorized biologist.
 - Any desert tortoises found during clearance surveys or otherwise removed from work areas will be placed in nearby suitable, undisturbed habitat within 500 m of their original location. The authorized biologist will determine the best location for their release, based on the condition of the vegetation, soil, and other habitat features and the proximity to human activities. Clearance surveys shall occur on a daily basis in the work area if the area is not fenced. If the area is fenced, only monitoring will need to be conducted.
 - SCE shall follow the tortoise Handling Guidelines at all times if handling tortoises is required.

- The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed.
 - SCE shall restrict work to daylight hours, except during an emergency, in order to avoid nighttime activities when desert tortoise may be present on the access road. Traffic speed shall be maintained at 15 mph or less in the work area.
- **MM AQ-1a Implement Construction Fugitive Dust Control Plan.** (*See above for full text*)

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area (including desert tortoise), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Surveys for desert tortoise in suitable habitat and the implementation of avoidance measures such as exclusion fencing, restricting work to daytime hours, and relocation of individuals out of work areas will minimize effects to the species. Permanent impacts to occupied desert tortoise habitat will be mitigated through the acquisition of occupied habitat at a 3:1 ratio (habitat acquired: habitat permanently disturbed). Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to desert tortoises associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to desert tortoises to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-12: The Project could result in the loss of special-status fish.

Four special-status fish species have the potential to occur in the Project area. These include the federally listed Santa Ana sucker (*Catostomus santaanae*); the State and federally listed unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*); and two Forest Service sensitive species and California Species of Special Concern, the arroyo chub (*Gila orcuttii*) and Santa Ana speckled dace (*Rhinichthys osculus* ssp. 8). The unarmored threespine stickleback is also a State designated fully protected species.

Unarmored threespine sticklebacks are not expected to occur within the Project area but do occur approximately 6 miles downstream of the Project. The Santa Ana sucker is known to occur in Big Tujunga Creek, the San Gabriel River, and the Santa Ana River. In the Project area the arroyo chub is known to occur in Big Tujunga Creek and the west, east, and north forks of the San Gabriel River. The Santa Ana speckled dace's range has diminished dramatically to the headwaters of the San Gabriel and Santa Ana Rivers. If special-status fish species are present in the Project area, direct impacts could include mortality due to crushing by heavy equipment and vehicles, and water quality degradation caused by increased sedimentation, erosion, or accidental chemical spills. Indirect impacts could include loss of suitable breeding and spawning habitat, removal of riparian and aquatic vegetation, and decreased water quality due to sedimentation and erosion. Operational impacts will be similar due to an increase in human presence as a result of facilitated public use of new and improved spur roads and access roads.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-12 to a less-than-significant level. Therefore, to reduce impacts to special-status fish to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-2, B-3a, B-8b, B-12, H-1a, and H-1b.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-12. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-12 to a less-than-significant level.

- **MM B-1a Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-2 Implement RCA Treatment Plan.** *(See above for full text)*
- **MM B-3a Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-8b Conduct biological monitoring.** *(See above for full text)*
- **MM B-12 Implement avoidance and minimization measures for Santa Ana sucker and other aquatic organisms.** On or near the West Fork Cogswell road, SCE shall pre-stage a complete Hazardous Material Spill kit(s) capable of containing the largest potential vehicle spill of gasoline, diesel, or other hazardous materials. The kit(s) shall be located and maintained in areas accessible to crews in the event a bridge or other road blockage has occurred. Contents of the kit(s) shall be approved by the FS. A biological monitor with knowledge of the special-status fishes known to occur in the area shall inspect the roadway a minimum of three times a day from October 1 to April 30 and one time a day from May 1 through September 30 (unless otherwise approved by the FS) during construction to inspect for leaks, spills, or other debris that may enter the San Gabriel River. Spills on the roadway will be logged and reported to the FS and CPUC monitor weekly and cleaned up immediately. Any spills along this road will be reported to the FS and CPUC within one hour.

No loitering, maintenance, refueling, or equipment staging shall occur on the West Fork Cogswell road. Prior to vehicle access, metal plates, bridges, or other FS-approved structures shall be placed above all wet crossings, if deemed necessary by the FWS or the FS.

Prior to any work in the San Gabriel River, Big Tujunga River, or their tributaries where flowing or ponded water is present SCE shall conduct surveys for fish and other special-status aquatic organisms. The species noted in the project area shall be reported to the FS. No work shall be conducted in the flowing portion of the stream and water shall be diverted around the work area in a manner that does not restrict the movement of aquatic organisms unless authorized by the FS. Block nets or other barriers may be required, if deemed necessary by the FWS or the FS, and if fish or other special-status species are present. Block nets will not be used in areas supporting Santa Ana suckers. All activities that occur within ponded or flowing water shall be coordinated with the FS on NFS lands. Quarterly for duration of construction work in the San Gabriel and Big Tujunga Rivers, SCE shall prepare a report documenting the type and number of species located and any actions taken to relocate or exclude the species. This shall be reported to the FS and CPUC no later than 30 days following the completion of work at the San Gabriel or Big Tujunga Rivers.

If Santa Ana suckers occur in portions of the creek where construction activities are scheduled to occur, SCE shall retain a qualified biologist with a FWS permit for the Santa Ana sucker to monitor all construction activities in occupied Santa Ana sucker habitat and assist SCE in the implementation of the monitoring program. The resumes of the proposed biologists will be provided to the CPUC and FS for concurrence. This biologist will be referred to as the authorized biologist hereafter. The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed.

- **MM H-1a Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** (*See above for full text*)
- **MM H-1b Dry weather construction.** (*See above for full text*)

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area, the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of an RCA Treatment Plan will ensure that activities conducted within RCAs are approved by the USDA Forest Service prior to implementation and are conducted in such a way as to minimize disturbance to sensitive resources. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Monitoring conducted by a qualified biologist will minimize the potential for direct effects to listed wildlife. Avoidance and minimization measures such as the staging of Hazardous Material Spill Kit(s) along the West Fork Cogswell Road, daily inspection of the West Fork Cogswell Road by a qualified biological monitor, pre-construction fish surveys prior to any work where flowing or ponded water is present, and block nets in select areas will minimize effects to special-status fish. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Avoiding construction during rain events will minimize the potential for Project activities to occur during the period when these species are most likely to be present. Together these measures will reduce Project impacts to special-status fish to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-13: The Project could result in the loss of Critical Habitat for the Santa Ana sucker.

Critical habitat for the Santa Ana sucker exists downstream of Cogswell Reservoir, in an area that includes a potential access road for heavy equipment. This access road is paved and runs for approximately 7.4 miles adjacent to the West Fork San Gabriel River (West Fork Cogswell Road). West Fork Cogswell Road is proposed for use under Alternative 2, but not under Alternative 6. With the combination of Alternatives 2 and 6 under the Project, the ultimate decision on whether SCE will be allowed to use this road during Project construction will be made by the USDA Forest Service in their Record of Decision (ROD). For the purposes of this Findings of Fact, it is assumed that West Fork Cogswell Road will be used to some extent. Use of this access road could result in accidental spills, increased turbidity due to vehicles using wet

crossings, and potentially alter light and temperature regimes from the trimming and/or removal of some riparian vegetation.

Direct loss of critical habitat for this species will not occur from the Project, but degradation of critical habitat may occur from the accidental release of mud, petroleum products, heavy metals, or other construction materials. However, through the implementation of mitigation measures these effects will be minimized or avoided. With the implementation of these measures the Project will not appreciably diminish the value of the critical habitat or affect the constituent elements required for occupancy by this species. Operational effects will not occur because once the Project has been completed use of the West Fork Cogswell Road will not occur.

To reduce impacts to critical habitat for the Santa Ana sucker to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-2, B-3a, B-8b, B-12, H-1a, and H-1b.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-13. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-13 to a less-than-significant level.

- **MM B-1a** **Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b** **Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-2** **Implement RCA Treatment Plan.** *(See above for full text)*
- **MM B-3a** **Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-8b** **Conduct biological monitoring.** *(See above for full text)*
- **MM B-12** **Implement avoidance and minimization measures for fish and aquatic organisms.** *(See above for full text)*
- **MM H-1a** **Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*
- **MM H-1b** **Dry weather construction.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area (including Santa Ana sucker), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of an RCA Treatment Plan will ensure that activities conducted within RCAs are approved by the USDA Forest Service prior to implementation and are conducted in such a way as

to minimize disturbance to sensitive resources. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Monitoring conducted by a qualified biologist will minimize the potential for direct effects to listed wildlife, including the Santa Ana sucker. Avoidance and minimization measures such as the staging of Hazardous Material Spill Kit(s) along the West Fork Cogswell Road will minimize effects to Santa Ana sucker critical habitat. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Avoiding construction during rain events will minimize the potential for Project activities to occur during the period when this species is most likely to be present. Together these measures will reduce Project impacts to Santa Ana sucker critical habitat to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-14: The Project could result in the loss of California condors.

The California condor is considered present within the Northern and Central Regions and may soar over portions of the Southern Region of the Project. Although condors are not known to regularly use any particular site within the Project area, they likely occur broadly over the Project area during foraging trips. Direct impacts to condors, if present, could occur through the loss of or disruption of foraging habitat, noise from helicopter operation and ground-based construction activities, the introduction of micro-trash, and exposure to ethylene glycol antifreeze. Indirect effects could result from a disruption of normal foraging activity through the use of the new or improved access and spur roads and subsequent increase in human activities. Degradation and alteration of habitat due to construction activities could preclude use by condors. Operational effects could include collision or electrocution with the transmission line and increased human presence and microtrash due to new or improved access and spur roads.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-14 to a less-than-significant level. Therefore, to reduce impacts to California condors to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-2, B-3a, B-8b, and B-14.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-14. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-14 to a less-than-significant level.

- **MM B-1a** Provide restoration/compensation for impacts to native vegetation communities. *(See above for full text)*
- **MM B-1b** Implement a Worker Environmental Awareness Program. *(See above for full text)*
- **MM B-2** Implement RCA Treatment Plan. *(See above for full text)*
- **MM B-3a** Prepare and implement a Weed Control Plan. *(See above for full text)*
- **MM B-8b** Conduct biological monitoring. *(See above for full text)*
- **MM B-14** Monitor construction in condor habitat and remove trash and micro-trash from the work area daily. SCE shall retain a qualified biologist with demonstrated knowledge of

California condor identification to monitor all construction activities within the Project area and assist SCE in the implementation of the monitoring program. The resumes of the proposed biologist(s) will be provided to the CPUC and FS for concurrence. This biologist(s) will be referred to as the authorized biologist hereafter. The authorized biologist will be present during all activities immediately adjacent to or within known condor-occupied areas. The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed. If condors are observed in helicopter construction areas, SCE shall avoid further helicopter use until the animals have left the area. The authorized biologist will have radio contact with the project foreman, who will be in radio contact with the helicopter pilot. The biologist will provide information to SCE to avoid conflicts with condors. All condor sightings in the Project area will be reported to the FWS and FS (on NFS lands). SCE will coordinate with FWS on the construction schedule and helicopter work areas to determine if any condors have been tracked or observed in the vicinity of the Project area. If condors are observed in helicopter construction areas, then SCE shall avoid further helicopter use until the animals have left the area and the FWS will be notified immediately. Should condors be found roosting within 0.5 miles of the construction area, no construction activity shall occur between 1 hour before sunset to 1 hour after sunrise, or until the condors leave the area. Should condors be found nesting within 1.5 miles of the construction area, no construction activity will occur until further authorization from the FWS and FS on NFS lands.

Microtrash. All trash is required to be disposed of as written in the Proper Disposal of Construction Waste Plan for the Project. Additional language has been added to this Plan to address the disposal of microtrash. Workers will be trained on the issue of microtrash – what it is, its potential effects to California condors, and how to avoid the deposition of microtrash. In addition, daily sweeps of the work area will occur to collect and remove trash in locations with the potential for California condors to occur.

Worker Education. SCE will develop a flier that will be distributed to all workers on the project concerning information on the California condor. Information to be included consists of the following: species description with photos and/or drawings indicating how to identify the California condor and how to distinguish condors from turkey vultures and golden eagles; protective status and penalties for violation of the ESA; avoidance measures being implemented on the Project; and contact information for communicating condor sightings.

Reporting. All California condor sightings in the Project area will be reported directly to the FWS, FS, and CPUC. Prior to the commencement of helicopter activity, SCE will coordinate with a FWS condor biologist to determine if any condors have been tracked or observed in the vicinity of the Project area.

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area (including California condor), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of an RCA Treatment Plan will ensure that activities conducted within RCAs are approved by the USDA Forest Service prior to implementation and are conducted in such a way as

to minimize disturbance to sensitive resources. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Monitoring conducted by a qualified biologist will minimize the potential for direct effects to listed wildlife, including the California condor. Monitoring by an authorized biologist and avoidance of helicopter use if condors are present, daily clean-up of microtrash, worker education, and reporting of all condor sightings to the appropriate resource agencies will minimize effects to California condors. Together these measures will reduce Project impacts to California condors to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-15: The Project would disturb nesting southwestern willow flycatchers, least Bell's vireos, yellow-billed cuckoos, or their habitat.

Southwestern willow flycatchers have been documented within the Project area in Whittier Narrows, and in Upper Big Tujunga Canyon and Aliso Canyon on the ANF. The least Bell's vireo is known to nest along portions of Segment 8 and directly adjacent to Segment 7. Nesting Least Bell's vireos have been confirmed at the Whittier Narrows, Puente Hills Landfill Native Habitat Preservation Authority lands, and the Santa Fe Flood Control Basin. The yellow-billed cuckoo is not currently known to nest within the Project area; however, one individual yellow-billed cuckoo was observed at the Rio Hondo, just south of Segments 7 and 8, in 2009.

The overhead 66-kV subtransmission line re-route to Segment 8A associated with the Alternative 7 portion of the Project will reduce impacts to least Bell's vireos in the Whittier Narrows area because the re-route will place the line in marginal habitat primarily along an existing paved access road.

Direct impacts to southwestern willow flycatchers, least Bell's vireos, or yellow-billed cuckoos could include disruption of breeding activity due to increased dust, noise, and human presence associated with construction activities, and the loss of habitat due to improvement of access roads and altered hydrology. Indirect impacts include the loss of habitat due to the establishment of noxious weeds and a disruption of breeding activity or the flushing of adult or fledging birds through the use of the new or improved access and spur roads by the public. Operational impacts include collision with transmission lines, loss of habitat due to vegetation trimming and removal during maintenance activities, and disturbance of birds due to the presence of maintenance personnel.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-15 to a less-than-significant level. Therefore, to reduce impacts to nesting southwestern willow flycatchers, least Bell's vireos, and western yellow-billed cuckoos to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-2, B-3a, B-5, B-15, AQ-1a, and H-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-15. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-15 to a less-than-significant level.

- **MM B-1a Provide restoration/compensation for impacts to native vegetation communities.** (See above for full text)

- **MM B-1b** **Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-2** **Implement RCA Treatment Plan.** *(See above for full text)*
- **MM B-3a** **Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-5** **Conduct pre-construction surveys and monitoring for breeding birds.** *(See above for full text)*
- **MM B-15** **Conduct protocol or focused surveys for listed riparian birds and avoid occupied habitat.** If construction activities occur during the breeding season at the Whittier Narrows Recreation Area, Whittier Narrows Nature Center, Puente Hills Landfill Native Habitat Preservation Authority lands, and/or the Rio Hondo, or other areas including the ANF that have the potential to support listed riparian species, a qualified ornithologist shall conduct protocol surveys of the Project and adjacent areas within 500 feet. Fish and Wildlife Service (FWS) protocol surveys will be conducted for southwestern willow flycatcher and least Bell's vireo. In known occupied habitat for listed riparian birds, SCE shall only conduct focused surveys of the Project and adjacent areas within 500 feet. The surveys shall be of adequate duration to verify potential nest sites if work is scheduled to occur during the breeding season.

Protocol or focused surveys, as appropriate, should be conducted within one year of start of construction and will continue annually until completion of construction activities. However, on NFS lands, annual surveys in suitable habitat may be required during construction. These surveys may be modified through the coordination with the FWS, CDFG, FS, USACE, and the CPUC based on the condition of habitat, the observation of the species, or avoidance of riparian areas during the breeding season.

If a territory or nest is confirmed in a previously unoccupied area, the FWS and CDFG shall be notified immediately. On NFS lands, USACE lands, or State Park (under Alternative 4) lands, these agencies would be notified immediately. In coordination with the FWS and CDFG, a 500-foot disturbance-free buffer shall be established and demarcated by fencing or flagging. This buffer may be adjusted provided noise levels do not exceed 60 dB(A) hourly Leq at the edge of the nest site as determined by a qualified biologist in coordination with a qualified acoustician. If the noise meets or exceeds the 60 dB(A) Leq threshold, or if the biologist determines that the construction activities are disturbing nesting activities, the biologist shall have the authority to halt the construction and shall devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nest site and the construction activities, and working in other areas until the young have fledged. If noise levels still exceed 60 dB(A) Leq hourly at the edge of nesting territories and/or a no-construction buffer cannot be maintained, construction shall be deferred in that area until the nestlings have fledged. All active nests shall be monitored on a weekly basis until the nestlings fledge. No construction or vehicle traffic shall occur within this buffer during the breeding season for these species.

- **MM AQ-1a** **Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
- **MM H-1a** **Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable

restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area, the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of an RCA Treatment Plan will ensure that activities conducted within RCAs are approved by the USDA Forest Service prior to implementation and are conducted in such a way as to minimize disturbance to sensitive resources. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Pre-construction surveys and monitoring for breeding birds by a qualified biologist, and protective buffers established around active nests, will ensure that impacts to breeding birds are minimized. Protocol and focused surveys conducted for listed riparian birds and the implementation of avoidance measures such as a disturbance-free buffer around active nests or territories will minimize impacts to southwestern willow flycatchers, least Bell's vireos, and western yellow-billed cuckoos. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to breeding birds associated with fugitive dust generated during construction. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Together these measures will reduce Project impacts to southwestern willow flycatchers, least Bell's vireos, and western yellow-billed cuckoos to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-16: The Project would result in the loss of coastal California gnatcatchers.

The coastal California gnatcatcher is known to nest within the Southern Region along Segments 7 and 8 in the Montebello Hills, Santa Fe Dam Recreation Area east of Interstate 605, and the Puente-Chino Hills. Direct impacts to coastal California gnatcatcher could include disruption of breeding activity due to increased dust, noise, and human presence associated with construction activities, and the loss of habitat due to improvement of access roads. Additional loss of habitat could occur through the construction of towers, crane pads, staging areas, pulling/splicing locations, and concrete batch plants. Indirect impacts include the loss of habitat due to the establishment of noxious weeds and a disruption of breeding activity or the flushing of adult or fledging birds through the use of the new or improved access and spur roads by the public. Operational impacts include collision with transmission lines, loss of habitat due to vegetation trimming and removal during maintenance activities, and disturbance of birds due to the presence of maintenance personnel.

APMs BIO-1, BIO-2, and BIO-4 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-16 to a less-than-significant level. Therefore, to reduce impacts to coastal California gnatcatchers to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1b, B-16, and AQ-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-16. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-16 to a less-than-significant level.

- **MM B-1b** **Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-16** **Conduct protocol or focused surveys for coastal California gnatcatcher and implement avoidance measures.** SCE shall conduct protocol surveys for coastal California gnatcatchers in areas supporting coastal sage scrub habitat that may be affected by the Project. In known occupied habitat for the California gnatcatcher, SCE shall only conduct focused surveys for coastal California gnatcatchers to determine the locations of nests and territories. Survey areas shall include a 500-foot buffer around Project disturbance areas.

If a territory or nest is confirmed, the FWS shall be notified immediately. In coordination with the FWS a 300-foot disturbance-free buffer shall be established and demarcated by fencing or flagging. This buffer may be adjusted provided noise levels do not exceed 60 dB(A) hourly Leq at the edge of the nest site as determined by a qualified biologist in coordination with a qualified acoustician. If the noise meets or exceeds the 60 dB(A) Leq threshold, or if the biologist determines that the construction activities are disturbing nesting activities, the biologist shall have the authority to halt the construction and shall devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nest site and the construction activities, and working in other areas until the young have fledged. If noise levels still exceed 60 dB(A) Leq hourly at the edge of nesting territories and/or a no-construction buffer cannot be maintained, construction shall be deferred in that area until the nestlings have fledged. All active nests shall be monitored on a weekly basis until the nestlings fledge. No Project activities may occur in these areas unless otherwise authorized by FWS. SCE shall obtain incidental take authorization from the FWS prior to further activities.

Protocol or focused surveys, as appropriate, shall be conducted, at a minimum, within one year of start of construction and can stop at commencement of construction activities. These surveys may be modified through the coordination with the FS on NFS lands, USACE on USACE lands, and the CPUC based on the condition of habitat, the observation of the species, or avoidance of nesting areas during the breeding season. Non-protocol nesting bird surveys for California gnatcatcher shall also occur in the Aliso Canyon in chaparral communities. This area shall also require a qualified gnatcatcher biologist to be present during any construction activities conducted during the breeding season.

Construction activities in occupied gnatcatcher habitat will be monitored by a full-time qualified biologist. The monitoring shall be of a sufficient intensity to ensure that the biologist could detect the presence of a bird in the construction area. At a minimum one full-time monitor shall be present for every two miles of active construction within occupied habitat.

SCE shall retain a FWS-permitted biologist to monitor construction activities within 100 feet of an active California gnatcatcher nests in the Montebello Hills area only and assist SCE in the implementation of the monitoring program. In the Montebello Hills, grading and vegetation management, including activities conducted during Project operations and maintenance, shall be conducted outside of the breeding season (March – August). A 300-foot buffer is required for all other areas. A biologist with applicable avian experience with the California gnatcatcher will monitor all construction activities within 300 feet of occupied California gnatcatcher habitat. The resumes of the permitted biologists will be provided to the CPUC for concurrence. This biologist will be referred to as the authorized biologist hereafter. The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed.

- **MM AQ-1a** **Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area (including coastal California gnatcatcher), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. Surveys for coastal California gnatcatchers and avoidance measures such as disturbance-free buffers around active nests or territories, full-time monitoring by a qualified biologist, and conducting vegetation removal and management activities outside of the breeding season in the Montebello Hills will minimize impacts to this species. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to coastal California gnatcatchers associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to coastal California gnatcatchers to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-17: The Project would result in the loss of critical and/or occupied habitat of the coastal California gnatcatcher.

The Project area contains designated critical habitat for the coastal California gnatcatcher, including two areas along Segment 7 (Montebello Hills and Whittier Narrows Recreation Area) and several portions along Segment 8A in the Montebello, Puente, and Chino Hills including the Puente Hills Native Habitat Preservation Authority lands. The proposed transmission line traverses 0.5 mile of designated critical habitat in Segment 7 and 8 miles of critical habitat in Segment 8.

Direct impacts to occupied and/or critical habitat of the coastal California gnatcatcher include loss of habitat due to grading and clearing for road improvements, staging areas, helicopter landing sites, pulling/splicing locations, etc. Indirect impacts to habitat include the accumulation of dust and the spread of noxious weeds. Operational impacts include the degradation of habitat due to increased human presence associated with use of new or improved access and spur roads by the public, and loss of habitat due to vegetation trimming and removal during maintenance activities. Construction activities, including the installation of permanent structures and/or roads, will result in the loss of an estimated 2.4 acres (<0.001 acre permanent and 2.4 acres temporary) of gnatcatcher critical habitat on Segment 7 and 44.8 acres (4.4 acres permanent and 40.5 acres temporary) on Segment 8. The overall loss of critical habitat will be small and is not expected to diminish the value or remove essential constituent elements of occupied critical habitat for this species.

APMs BIO-2 and BIO-4 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include minimizing vegetation removal at construction sites, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-17 to a less-than-significant level. Therefore, to reduce impacts to coastal California gnatcatcher critical and/or occupied habitat to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-3a, B-16, B-17, and AQ-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-17. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-17 to a less-than-significant level.

- **MM B-1a Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-3a Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-16 Conduct protocol or focused surveys for coastal California gnatcatcher and implement avoidance measures.** *(See above for full text)*
- **MM B-17 Preserve off-site habitat and/or habitat restoration for the coastal California gnatcatcher.** To mitigate effects from Project construction, SCE shall acquire habitat occupied by the coastal California gnatcatcher and/or restore unoccupied coastal sage scrub. Mitigation acquisition shall occur at a 3:1 ratio for permanent effects unless otherwise approved by the FWS upon consultation. Temporary impacts will be mitigated at a 1:1 ratio on site. For lands located within the Montebello Hills HCP a 1:1 ratio for permanent effects will be implemented unless otherwise approved by the FWS. SCE shall enter into a binding legal agreement regarding the preservation of off-site lands describing the terms of the acquisition, enhancement, and management of those lands. Management of coastal California gnatcatcher mitigation areas will be necessary to maintain habitat suitability over time. Activities that need to be addressed in the management plan include disturbances that reduce shrub cover, such as frequent fire, mechanical disruption, livestock grazing, off-highway vehicle use, and military training activities. Fee title acquisition of these habitat lands or a conservation easement shall be transferred to an entity approved by the FWS and the CPUC, along with funding for enhancement of the land and an endowment for management of the land in perpetuity.
- **MM AQ-1a Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Surveys for coastal California gnatcatchers and avoidance measures such as disturbance-free buffers around active nests or territories, full-time monitoring by a qualified biologist, and conducting vegetation removal and management activities outside of the breeding season in the Montebello Hills will minimize impacts to this species. Permanent impacts to occupied gnatcatcher habitat will be mitigated through the acquisition of occupied habitat and/or the restoration of unoccupied coastal sage scrub at a 3:1 ratio (1:1 for impacts in the Montebello Hills), and the ongoing management of those lands to ensure suitability for the species. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to coastal California gnatcatcher habitat associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to coastal California gnatcatcher critical and/or occupied habitat to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-18: The Project could disturb nesting Swainson's hawks.

There are five CNDDDB records of Swainson's hawk in the vicinity of the Project in the Northern Region, including two recent nest records within 10 miles. In addition, five active nests were observed during construction of the Antelope Transmission Project within four miles of the Project in spring of 2009. Direct impacts to Swainson's hawks could include disruption of breeding activity due to increased dust, noise, and human presence associated with construction activities, and the loss of habitat due to improvement of access

roads. Additional loss of habitat could occur through the construction of towers, crane pads, staging areas, and pulling/splicing locations. Indirect impacts include the loss of habitat due to the establishment of noxious weeds and a disruption of breeding activity or the flushing of adult or fledging birds through the use of the new or improved access and spur roads by the public. Operational impacts include collision with transmission lines and disturbance of birds due to the presence of maintenance personnel.

APMs BIO-1, BIO-2, and BIO-4 through BIO-9, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, implementation of best management practices, biological monitoring, personnel training, coordinating and compensating for impacts to wildlife with the regulatory agencies, raptor surveys and coordination with the Regulatory Agencies before moving nests, and design of the transmission and sub-transmission structures to be raptor-safe. However, these APMs alone will not reduce Project Impact B-18 to a less-than-significant level. Therefore, to reduce impacts to nesting Swainson's hawks to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1b, B-18a, B-18b, and AQ-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-18. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-18 to a less-than-significant level.

- **MM B-1b Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-18a Conduct pre-construction surveys for Swainson's hawks.** To assure that nesting Swainson's hawks are not disturbed by construction activities, a qualified ornithologist shall conduct pre-construction surveys within one mile of the Project in regions with suitable nesting habitat for Swainson's hawks. The survey periods follow a specified schedule: Period I occurs from 1 January to 20 March, Period II occurs from 20 March to 5 April, Period III occurs from 5 April to 20 April, Period IV occurs from 21 April to 10 June, and Period V occurs from June 10 to July 30. Surveys are not recommended during Period IV because identification is difficult, as the adults tend to remain within the nest for longer periods of time. No fewer than three surveys per period in at least two survey periods shall be completed immediately prior to the start of Project construction. If a nest site is found, consultation with CDFG shall be required to ensure Project construction will not result in nest disturbance. CDFG recommends that no new disturbances or other Project-related activities that may cause nest abandonment or forced fledging be initiated within 0.25 mile of an active nest between 1 March and 15 September, or until 15 August if a Management Authorization is obtained for the Project from the CDFG (CDFG, 1994). These buffer zones may be adjusted as appropriate in consultation with a qualified ornithologist and CDFG.
- **MM B-18b Removal of nest trees for Swainson's hawks.** Nest trees for Swainson's hawks along the Project shall not be removed unless avoidance measures are determined to be infeasible. If a nest tree for a Swainson's hawk must be removed, a Management Authorization (including conditions to offset the loss of the nest tree) must be obtained from the CDFG. The Management Authorization will specify the tree removal period, generally between 1 October and 1 February. If construction or other Project-related activities that may cause nest abandonment by a Swainson's hawk or forced fledging are necessary within the specified buffer zone, monitoring of the nest site (funded by SCE) by a qualified biologist shall be required to determine if the nest is abandoned. If the nest is abandoned and if the nestlings are still alive, SCE shall fund the recovery and hacking (controlled release of captive reared young) of the nestling(s).
- **MM AQ-1a Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area (including Swainson's hawks), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. Pre-construction nest surveys and a 0.25-mile disturbance-free buffer around active nests will minimize impacts to nesting Swainson's hawks. If nest trees for Swainson's hawks must be removed, a Management Authorization must be obtained from CDFG. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to nesting Swainson's hawks associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to Swainson's hawks to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-19: The Project would result in the loss of foraging habitat for Swainson's hawks.

Direct impacts to potential Swainson's hawk foraging habitat include the temporary and permanent loss of habitat due to grading and clearing for road improvements, staging areas, helicopter landing sites, pulling/splicing locations, tower locations, etc. Indirect impacts to habitat include the accumulation of dust and the spread of noxious weeds. Operational impacts include the potential loss of habitat due to vegetation trimming and removal during maintenance activities.

APMs BIO-2 and BIO-4 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include minimizing vegetation removal at construction sites, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-19 to less than significant. To reduce impacts to Swainson's hawk habitat to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-3a, B-18a, B-19, and AQ-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-19. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-19 to a less-than-significant level.

- **MM B-1a** Provide restoration/compensation for impacts to native vegetation communities. *(See above for full text)*
- **MM B-3a** Prepare and implement a Weed Control Plan. *(See above for full text)*
- **MM B-18a** Conduct pre-construction surveys for Swainson's hawks. *(See above for full text)*
- **MM B-19** Compensate for loss of foraging habitat for Swainson's hawks. Loss of foraging habitat for Swainson's hawks shall be mitigated by providing Habitat Management (HM) lands as described in the CDFG's *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California* (CDFG, 1994) because the site is known foraging habitat for Swainson's hawks. The final acreage of HM lands to be provided on site shall depend on the distance between the Project area and the nearest active nest site (CDFG, 1994),

as determined by nest surveys conducted in the spring prior to Project construction. Guidance on the acreage of HM lands to be acquired by SCE can be found in the 1994 CDFG staff report.

Management Authorization holders/Project sponsors shall provide for the long-term management of the HM lands by funding a management endowment (the interest on which shall be used for managing the HM lands).

- **MM AQ-1a Implement Construction Fugitive Dust Control Plan.** (*See above for full text*)

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Pre-construction nest surveys and a 0.25-mile disturbance-free buffer around active nests will minimize impacts to nesting Swainson's hawks. Loss of foraging habitat for Swainson's hawks shall be mitigated through the acquisition of Habitat Management lands. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to Swainson's hawk foraging habitat associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to Swainson's hawk foraging habitat to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-22: The Project could result in disturbance to Mohave ground squirrels.

In 2006, two potential observations of the Mohave ground squirrel were recorded near Oak Creek Road close to the proposed Windhub site at the northern terminus of Segment 10. In 2008 SCE conducted protocol surveys for this species near Oak Creek Road. Mohave ground squirrels were not observed or trapped during this event. While this area is generally outside the known range of the Mohave ground squirrel and habitat conditions do not meet the accepted criteria for this species, there remains a potential for this species to be present based on the observations and known presence of this species in the region. Direct impacts to Mohave ground squirrels, if present, include crushing of burrows, mortality due to road kill, and loss of habitat. Indirect impacts include degradation of habitat due to the spread of noxious weeds and dust. Operational impacts include increased risk of road kill and disturbance due to increased use of access roads by the public and maintenance personnel.

APMs BIO-1, BIO-2, and BIO-4 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-22 to a less-than-significant level. Therefore, to reduce impacts to Mohave ground squirrels to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-3a, B-22a through B-22c, and AQ-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-22. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-22 to a less-than-significant level.

- **MM B-1a Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-3a Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-22a Conduct protocol surveys for Mohave ground squirrels.** Protocol-level surveys for Mohave ground squirrels shall be performed in the portion of the Project containing suitable habitat for Mohave ground squirrel unless further consultation with the CDFG determines the surveys are not required. A qualified biologist will perform these surveys according to CDFG's (2003b) *Mohave Ground Squirrel Survey Guidelines*. The resumes of the proposed biologists will be provided to the CDFG and CPUC for concurrence prior to conducting the surveys.

If at any time a Mohave ground squirrel is detected, trapping will cease. If these surveys obtain positive results for Mohave ground squirrel, or if Mohave ground squirrel presence is assumed within potential habitat, SCE shall obtain incidental take authorization from CDFG. If these surveys determine that the Mohave ground squirrel is absent, then no further action is necessary.

- **MM B-22b Implement construction monitoring for Mohave ground squirrels.** A qualified biological monitor shall be on the site to survey for Mohave ground squirrel during initial ground-disturbing activities. The resumes of the proposed biologists will be provided to the CDFG and CPUC for concurrence prior to conducting the surveys. The name and phone number of the biological monitor shall be provided to a CDFG regional representative at least 14 days before the initiation of ground-disturbing activities. If the biological monitor observes a Mohave ground squirrel on the construction site, determines that a Mohave ground squirrel was killed by Project-related activities during construction, or observes a dead Mohave ground squirrel, a written report shall be sent to CDFG within five calendar days. The report will include the date, time of the finding or incident (if known), and location of the carcass and circumstances of its death (if known). Mohave ground squirrel remains shall be collected and frozen as soon as possible, and CDFG shall be contacted regarding ultimate disposal of the remains.
- **MM B-22c Preserve off-site habitat for the Mohave ground squirrel.** To mitigate potential permanent impacts to occupied Mohave ground squirrel habitat from Project construction, SCE will acquire habitat occupied by Mohave ground squirrels. Guidance on Habitat Management (HM) lands to be acquired by SCE can be found in CDFG's (2003b) *Mohave Ground Squirrel Survey Guidelines*.
 - Three acres of off-site habitat supporting Mohave ground squirrels will be preserved for each acre of Mojave creosote bush scrub and Joshua tree woodland outside of the Habitat Conservation Area (HCA) delineated in the WMP.
 - One acre of off-site habitat supporting Mohave ground squirrels will be preserved for each acre of desert saltbush scrub that includes desert wash impacted by the Project outside of the HCA delineated in the WMP.
 - One-half acre of off-site habitat supporting Mohave ground squirrels will be preserved for each acre of desert saltbush scrub impacted by the Project outside of the HCA delineated in the WMP.
 - No mitigation will occur for agricultural, California annual grassland, or barren/developed ground within the Project area north of Vincent Substation.

Mitigation acquisition shall occur at a CDFG-approved location and shall be coordinated through a CDFG-approved entity. SCE shall enter into a binding legal agreement regarding the preservation

of off-site lands describing the terms of the acquisition, enhancement, and management of those lands. Fee title acquisition of habitat lands or a conservation easement over these lands will be transferred to an entity approved by CDFG and CPUC, along with funding for enhancement of the land and an endowment for permanent management of the lands. Management of off-highway vehicles is necessary on Mohave ground squirrel mitigation areas to prevent burrow collapse, especially during the aestivation season. Mitigation areas should be relatively flat with a perennial plant cover ranging from 10 to 20 percent (Zembal and Gall, 1980) and should support several plant species necessary for Mohave ground squirrel survival, including herbaceous annuals, winterfat (*Krascheninnikovia lanata*), spiny hopsage (*Grayia spinosa*), creosote bush (*Larrea tridentata*), and burrobush (*Ambrosia dumosa*) (Best, 1995).

- **MM AQ-1a Implement Construction Fugitive Dust Control Plan.** (See above for full text)

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area (including Mohave ground squirrels), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Protocol surveys for Mohave ground squirrels in the Project area and construction monitoring for Mohave ground squirrels will minimize impacts to the species. In addition, permanent impacts to occupied Mohave ground squirrels habitat will be mitigated through the acquisition and management of occupied lands. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to Mohave ground squirrels associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to Mohave ground squirrels to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-23: The Project would result in the loss of candidate, Forest Service Sensitive, or special-status plant species.

During the 2007, 2008, and 2009 botanical surveys, several rare plants were identified in the Project alignment and associated staging areas and access and spur roads. Direct impacts to the rare plant species identified in the Project area may occur in a variety of ways, including the direct removal of plants during the course of construction. Clearing and grading associated with the placement of towers or the grading of access or spur roads may also result in the alteration of soil conditions, including the loss of native seed banks and changes to the topography and drainage of a site such that the capability of the habitat to support special-status species is impaired. Indirect impacts include the creation of conditions that are favorable for the invasion of weedy exotic species that prevent the establishment of desirable vegetation and may adversely affect wildlife. Construction on steep hillsides may also result in off-site sediment transport that may bury rare plants in adjacent habitat or alter soil conditions. Dust from road travel, grading, or other construction activities may also reduce photosynthetic capacity in plants over time or inhibit reproduction by

physically coating reproductive structures or excluding insect pollinators. Soil disturbance may also result in the spread of invasive plant species. Operational impacts include trampling or crushing due to public use of new or improved spur roads and access roads, increased erosion, and the spread and colonization of noxious weeds. Other operational impacts include removal and trimming of vegetation during maintenance activities.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to special-status resources with the regulatory agencies. However, these APMs will not reduce Project Impact B-23 to a less-than-significant level. Therefore, to reduce impacts to candidate, Forest Service Sensitive, and special-status plant species to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-3a, B-7, B-23, AQ-1a, and H-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-23. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-23 to a less-than-significant level.

- **MM B-1a** Provide restoration/compensation for impacts to native vegetation communities. *(See above for full text)*
- **MM B-1b** Implement a Worker Environmental Awareness Program. *(See above for full text)*
- **MM B-3a** Prepare and implement a Weed Control Plan. *(See above for full text)*
- **MM B-7** Conduct preconstruction surveys for State and federally Threatened, Endangered, Proposed, Petitioned, and Candidate plants and avoid any located occurrences of listed plants. *(See above for full text)*
- **MM B-23** Preserve off-site habitat/management of existing populations of special-status plants. SCE shall conduct rare plant surveys, and implement avoidance/minimization/compensation strategies. SCE shall conduct surveys according to established and accepted protocol during the floristic period appropriate for each of the rare plant species identified with the potential to occur within the Project ROW and within 100 feet of all surface-disturbing activities. The completion of these surveys shall be coordinated with the CPUC and federal land manager. Populations of rare plants shall be flagged and mapped prior to construction. If rare plants are located during the focused surveys, then modification of the placement of structures, access roads, laydown areas, and other ground-disturbing activities would be implemented in order to avoid the plants, if feasible. A report of special-status plants observed shall be prepared and submitted to the CPUC and the federal land manager (FS and USACE). Impacts to non-listed plant species (i.e., FS Sensitive, CNPS List 1,2 and 4 species) shall first be avoided where feasible, and, where not feasible, impacts shall be compensated through reseeded (with locally collected seed stock), or other FS, USACE, and CPUC approved methods. If Project activities will result in loss of more than 10 percent of the known individuals within an existing population of FS Sensitive, and/or special-status plant species SCE shall preserve existing off-site occupied habitat that is not already part of the public lands in perpetuity at a 2:1 mitigation ratio (habitat preserved: habitat impacted). On federal lands, this ratio may be reduced at the discretion of the federal land manager. The CPUC may reduce this ratio depending on the sensitivity of the plant on non-federal lands. The preserved habitat shall be occupied by the plant species impacted, and be of superior or similar habitat quality to the impacted

areas in terms of soil features, extent of disturbance, habitat structure, and dominant species composition, as determined by a qualified plant ecologist.

All special-status plant species impacted by Project activities shall be documented in an annual report and submitted to the CPUC and federal land manager (FS and USACE). Where reseeded plants have occurred, SCE shall track the success of the plants during the course of the annual restoration monitoring. This information shall be submitted as part of the annual report to the CPUC and federal land manager (FS and USACE).

- **MM AQ-1a** **Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
- **MM H-1a** **Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area, the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Preconstruction surveys and avoidance of any listed plant species will ensure that effects to these species will be minimized. Protocol surveys will be conducted to determine the location of all rare plants that could be impacted by construction of the Project. Rare plants will be avoided, or if avoidance is not feasible, will be compensated through reseeded or other approved methods. If Project activities will result in loss of more than 10 percent of the known individuals within an existing population of a rare plant species, SCE shall preserve existing off-site occupied habitat that is not already part of the public lands in perpetuity at a 2:1 mitigation ratio (habitat preserved: habitat impacted). Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to rare plant species associated with fugitive dust generated during construction. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Together these measures will reduce Project impacts to candidate, Forest Service Sensitive, or special-status plant species to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-24: The Project could result in mortality or injury of, and loss of nesting habitat for, southwestern pond turtles.

Construction activities will potentially impact a number of small creeks and drainages, large reservoirs, and other suitable habitat for this species. Direct effects to southwestern pond turtle may occur from construction activity as a result of mechanical crushing; loss of nesting, breeding or basking sites; disruption of basking activity; impacts to water quality; fugitive dust; and human trampling. Indirect impacts to southwestern pond turtle could include alteration of habitat that precludes pond turtle use, degradation of water quality over time due to siltation and sedimentation, and the spread of noxious weeds. Operational impacts include risk of mortality by vehicles and disturbance on access roads due to increased use by the public and

maintenance personnel. Other operational impacts include removal and trimming of vegetation during maintenance activities.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-24 to a less-than-significant level. Therefore, to reduce impacts to southwestern pond turtles to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-3a, B-12, B-24, AQ-1a, H-1a, and H-1b.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-24. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-24 to a less-than-significant level.

- **MM B-1a** Provide restoration/compensation for impacts to native vegetation communities. *(See above for full text)*
- **MM B-1b** Implement a Worker Environmental Awareness Program. *(See above for full text)*
- **MM B-3a** Prepare and implement a Weed Control Plan. *(See above for full text)*
- **MM B-12** Implement avoidance and minimization measures for fish and aquatic organisms. *(See above for full text)*
- **MM B-24** Conduct focused presence/absence surveys for southwestern pond turtle and implement monitoring, avoidance, and minimization measures. A qualified biologist shall conduct focused surveys for southwestern pond turtle in the area of Project crossings, including access and spur roads, at Amargosa Creek, Big Tujunga Creek (Segment 6), Alder Creek, Rio Hondo Substation, Whittier Narrows Recreation Area, Aliso Creek, and Tonner Creek. Since Southwestern pond turtles were observed at the San Gabriel River (Segments 6 and 7 and West Fork/Cogswell Road) and Brea Canyon during reconnaissance surveys conducted in September 2007, the species shall be assumed present at these locations. The resume of the proposed biologists will be provided to the CPUC, FS, and USACE (as appropriate) for concurrence prior to conducting the surveys. This biologist will be referred to as the authorized biologist hereafter. Focused surveys shall also occur on access and spur roads where road crossings could affect suitable habitat for this species. Focused surveys shall consist of a minimum of four daytime surveys, to be completed between 1 April and 1 June. The survey schedule may be adjusted in consultation with the CPUC, FS, and/or USACE, as appropriate, to reflect the existing weather or stream conditions. If southwestern pond turtles are detected in or adjacent to the Project, nesting surveys shall be conducted.

Focused surveys for evidence of southwestern pond turtle nesting shall be conducted in, or adjacent to, the Project when suitable nesting habitat exists within 1,300 feet of occupied habitat in an area where Project-related ground disturbance will occur (i.e., tower sites, access/spur roads, wire setup sites, marshalling yards). If both of those conditions are met, a qualified biologist shall conduct focused, systematic surveys for southwestern pond turtle nesting sites. The survey area shall include all suitable nesting habitat located within 1,300 feet of occupied habitat in which Project-related ground disturbance will occur. This area may be adjusted based on the existing topographical features on a case-by-case basis with the approval of the CPUC, FS, and/or USACE, as appropriate.

Surveys will entail searching for evidence of pond turtle nesting, including remnant eggshell fragments, which may be found on the ground following nest depredation.

If a southwestern pond turtle nesting area would be adversely impacted by construction activities, SCE shall avoid the nesting area. If avoidance of the nesting area is determined to be infeasible, the authorized biologist shall coordinate with CDFG, CPUC, FS (on NFS lands), and USACE (on Army Corps lands) to identify if it is possible to relocate the pond turtles. Eggs or hatchlings shall not be moved without the written authorization from the CDFG and FS (on NFS lands).

A qualified biologist with demonstrated expertise with southwestern pond turtles shall monitor construction activities where pond turtles are present or assumed present. The resume of the proposed biologist will be provided to the CPUC, FS, and USACE (as appropriate) for concurrence prior to the onset of ground-disturbing activities. This biologist will be referred to as the authorized biologist hereafter. The authorized biologist will be present during all activities immediately adjacent to, or within, habitat that supports populations of southwestern pond turtles. If the installation of fencing is deemed necessary by the authorized biologist, one clearance survey for southwestern pond turtles shall be conducted at the time of the fence installation. Clearance surveys for southwestern pond turtles shall be conducted by the authorized biologist prior to the initiation of construction each day.

- **MM AQ-1a** **Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
- **MM H-1a** **Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*
- **MM H-1b** **Dry weather construction.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area (including southwestern pond turtles), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Avoidance and minimization measures such as the staging of Hazardous Material Spill Kit(s) along the West Fork Cogswell Road, daily inspection of the West Fork Cogswell Road by a qualified biological monitor, and block nets in select areas will minimize effects to southwestern pond turtles. Focused pre-construction surveys and monitoring for southwestern pond turtles, and avoidance and minimization measures such as relocation of individuals and exclusion fencing will also minimize impacts to this species. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to southwestern pond turtles associated with fugitive dust generated during construction. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Avoiding construction during rain events will minimize the potential for Project activities to occur during the period when this species is most likely to be active. Together these measures will reduce Project impacts to southwestern pond turtles to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-25: The Project could result in injury or mortality of, and loss of habitat for, two-striped garter snakes and south coast garter snakes.

Two-striped garter snakes were observed at various locations on the ANF during surveys in 2008. No south coast garter snakes were detected during surveys conducted for the TRTP. Within the Project area, these species have the potential to occur in the vicinity of perennial or nearly perennial aquatic habitat associated with a number of drainages, including Amargosa Creek, Aliso Creek, Lynx Gulch, Alder Creek, Upper Big Tujunga Creek, North Fork Mill Creek, West Fork San Gabriel River, Rio Hondo, and Tonner Creek. Potential direct impacts due to construction activities include mortality or injury of individual two-striped garter snakes and south coast garter snakes as a result of mechanical crushing; loss of nesting, breeding or basking sites; fugitive dust; and human trampling. Other direct effects to these species include degradation of water quality through siltation caused by vehicles using wet ford stream crossings; removal of vegetation; and grading tower pads, staging areas, helicopter pads, and pulling sites. Indirect effects include compaction of soils and introduction of exotic plant species. Furthermore, Project implementation may result in loss of habitat due to permanent structures and/or roads and temporary loss of habitat from construction activities. Operational impacts include risk of mortality by vehicles and disturbance on access roads due to increased use by the public and maintenance personnel. Other operational impacts include removal and trimming of vegetation during maintenance activities.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-25 to a less-than-significant level. Therefore, to reduce impacts to two-striped and south coast garter snakes to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-3a, B-12, B-25, AQ-1a, H-1a, and H-1b.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-25. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-25 to a less-than-significant level.

- **MM B-1a** **Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b** **Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-3a** **Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-12** **Implement avoidance and minimization measures for Santa Ana sucker and other aquatic organisms.** *(See above for full text)*
- **MM B-25** **Conduct focused surveys for two-striped garter snakes and south coast garter snakes and implement monitoring, avoidance, and minimization measures.** A qualified biologist shall conduct focused surveys for two-striped garter snakes (both on and off NFS lands) and south coast garter snakes (non-NFS lands only) where suitable habitat is present and directly impacted by construction vehicle access, or maintenance. The resume of the proposed biologists will be provided to the CPUC, FS and USACE (as appropriate) for concurrence prior to conducting

the surveys. This biologist will be referred to as the authorized biologist hereafter. Focused surveys shall consist of a minimum of four daytime surveys, to be completed between 1 April and 1 September. The survey schedule may be adjusted in consultation with the CPUC, FS, and/or USACE to reflect the existing weather or stream conditions. If either species is detected in or adjacent to the Project or at any wet fords to be traversed by motorized vehicles as part of Project construction activities, the following minimization measures will be required. SCE shall retain a qualified herpetologist with demonstrated expertise with garter snakes to monitor construction activities. The resume of the proposed biologist will be provided to the CPUC, FS, and USACE (as appropriate) for concurrence prior to the onset of ground-disturbing activities or vehicular crossings at wet fords. This biologist will be referred to as the authorized biologist hereafter. The authorized biologist will be present during all activities immediately adjacent to or within habitat that supports populations of the two-striped garter snake and/or south coast garter snake. Clearance surveys for garter snakes shall be conducted by the authorized biologist prior to the initiation of construction each day. Any snakes found within the area of disturbance or potentially affected by the Project will be relocated to the nearest suitable habitat that will not be affected by the Project.

- **MM AQ-1a** **Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
- **MM H-1a** **Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*
- **MM H-1b** **Dry weather construction.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area (including garter snakes), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Avoidance and minimization measures such as the staging of Hazardous Material Spill Kit(s) along the West Fork Cogswell Road, daily inspection of the West Fork Cogswell Road by a qualified biological monitor, and block nets in select areas will minimize effects to garter snakes. Focused pre-construction surveys and monitoring for two-striped garter snakes and south coast garter snakes, and relocation of individuals found within the construction area, will also minimize impacts to these species. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to garter snakes associated with fugitive dust generated during construction. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Avoiding construction during rain events will minimize the potential for Project activities to occur during the period when these species are most likely to be active. Together these measures will reduce Project impacts to two-striped garter snakes and south coast garter snakes to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-26: The Project could result in injury or mortality of, and loss of habitat for, Coast Range newts.

Coast range newts have been identified on the ANF in several of the small drainages that cross the access roads on Segment 6 near Monrovia Peak. In addition, this species is likely to occur in many of the perennial or nearly perennial aquatic habitats on the south slopes of the San Gabriel Mountains. Direct impacts to Coast Range newts include mechanical crushing or road kill during construction, human trampling, loss of breeding sites due to water quality degradation, fugitive dust, and loss of foraging habitat. Indirect impacts include degradation of water quality through siltation caused by vehicles using wet ford stream crossings; removal of vegetation; and grading tower pads, staging areas, helicopter pads, roads, and pulling sites. Other indirect effects include compaction of soils and introduction of exotic plant species. Operational impacts include risk of mortality by vehicles and disturbance on access roads due to increased use by the public and maintenance personnel. Other operational impacts include removal and trimming of vegetation during maintenance activities.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-26 to a less-than-significant level. Therefore, to reduce impacts to coast range newts to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-3a, B-26, AQ-1a, H-1a, and H-1b.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-26. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-26 to a less-than-significant level.

- **MM B-1a** **Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b** **Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-3a** **Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-26** **Conduct focused surveys for coast range newts and implement monitoring, avoidance, and minimization measures.** A qualified biologist shall conduct focused surveys for Coast Range newt in suitable habitat on non-NFS lands, including Eaton Wash, Brea Canyon, and Tonner Creek. In addition, all tributary drainages that support habitat for this species shall be inspected if they are subject to Project disturbance. Focused surveys shall consist of a minimum of four daytime surveys, to be completed between 1 April and 1 September. If Coast Range newts are detected in or adjacent to the Project or at any wet fords to be traversed by motorized vehicles as part of Project construction activities, no work shall be authorized within 0.5 mile of the occupied active drainage channel and no vehicular crossings at fords of those channels shall be authorized until the biologist has inspected and cleared these areas.

SCE shall retain a qualified biologist with demonstrated expertise with amphibians to monitor construction activities and assist SCE in the implementation of the monitoring program. The resume of the proposed biologist will be provided to the CPUC for concurrence prior to the onset of ground-disturbing activities or vehicular crossings at wet fords. This biologist will be referred to as the authorized biologist hereafter. The authorized biologist will be present during ground-disturbing

activities immediately adjacent to or within habitat that supports populations of Coast Range newt. Clearance surveys for Coast Range newts shall be conducted by the authorized biologist prior to the initiation of construction each day. If individuals are found within the proposed area of disturbance they will be relocated to an area that will not be affected by construction activities.

- **MM AQ-1a** **Implement Construction Fugitive Dust Control Plan.** (See above for full text)
- **MM H-1a** **Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** (See above for full text)
- **MM H-1b** **Dry weather construction.** (See above for full text)

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area (including Coast Range newts), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Focused pre-construction surveys and monitoring for Coast Range newts, and relocation of individuals found within the construction area, will minimize impacts to this species. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to Coast Range newts associated with fugitive dust generated during construction. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Avoiding construction during rain events will minimize the potential for Project activities to occur during the period when this species is most likely to be active. Together these measures will reduce Project impacts to Coast Range newts to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-27: The Project could result in injury or mortality of, and loss of habitat for, terrestrial California Species of Special Concern and Forest Service Sensitive amphibian and reptile species.

Several special-status reptiles and amphibians (herpetofauna) could be affected by the Project. These include the following terrestrial California Species of Special Concern and USDA Forest Service Sensitive species: San Gabriel Mountains slender salamander (*Batrachoseps gabrieli*), western spadefoot (*Spea hammondi*), San Diego horned lizard (*Phrynosoma coronatum blainvillii*), California horned lizard (*Phrynosoma coronatum frontale*), silvery legless lizard (*Anniella pulchra pulchra*), orange-throated whiptail (*Aspidoscelis hyperythra*), coastal rosy boa (*Charina trivirgata*), San Bernardino ringneck snake (*Diaophis punctatus modestus*), San Bernardino mountain kingsnake (*Lampropeltis zonata parvirubra*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), and northern red diamond rattlesnake (*Crotalus ruber ruber*). Several of these species, including the San Bernardino mountain kingsnake and an undetermined subspecies of the coast horned lizard, were detected during surveys in 2008 on the ANF. The San Bernardino ringneck snake, northern red diamond rattlesnake, and western spadefoot toad are known to occur within the Puente Hills Landfill Native Habitat Preservation Authority lands. Given the ecology of

these species, and their cryptic nature it is likely that some or all of the species identified above may occur in the Project area. The special-status terrestrial herpetofauna potentially present in the Project area will all be subject to similar types of potential impacts.

Direct impacts to special-status terrestrial herpetofauna include being hit by vehicles on access roads; mechanical crushing during tower site preparation, grading of spur roads, and preparation of staging and stringing/pulling locations; fugitive dust; and general disturbance due to increased human activity. Furthermore, Project implementation may result in permanent loss of habitat due to permanent structures and/or roads and temporary loss of habitat from construction activities. Individuals of one or more of the special-status terrestrial herpetofauna could be injured or killed during ground-disturbing Project activities in undeveloped upland habitats and in some developed areas throughout the Project. Indirect impacts to these species include compaction of soils and the introduction of exotic plant species. Operational impacts include risk of mortality by vehicles and disturbance on access roads due to increased use by the public and maintenance personnel. Other operational impacts include removal and trimming of vegetation during maintenance activities.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-27 to a less-than-significant level. Therefore, to reduce impacts to special-status terrestrial herpetofauna to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-3a, B-27, and AQ-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-27. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-27 to a less-than-significant level.

- **MM B-1a Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-3a Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-27 Monitoring, avoidance, and minimization measures for special-status terrestrial herpetofauna.** A qualified biologist with demonstrated expertise with special-status terrestrial herpetofauna shall monitor all construction activities and assist SCE in the implementation of the monitoring efforts. The resume of the proposed biologist will be provided to the CPUC, USACE, and FS (as appropriate) for concurrence prior to the onset of ground-disturbing activities. This biologist will be referred to as the authorized biologist hereafter. The authorized biologist will be present during ground-disturbing activities immediately adjacent to or within habitat that supports populations of the special-status terrestrial herpetofauna. Any special-status terrestrial herpetofauna found within a Project impact area shall be salvaged by the authorized biologist and relocated to suitable habitat outside the impact area. If the installation of exclusion fencing is deemed necessary by the authorized biologist, the authorized biologist will direct the installation of the fence. Clearance surveys for special-status herpetofauna shall be conducted by the authorized biologist prior to the initiation of construction each day.

- **MM AQ-1a Implement Construction Fugitive Dust Control Plan.** (*See above for full text*)

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area, the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Monitoring by a qualified biologist, exclusion fencing in select areas, and relocation of individuals found within the construction area will minimize impacts to special-status terrestrial herpetofauna. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to these species associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to special-status terrestrial herpetofauna to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-29: The Project would result in the loss of occupied burrowing owl habitat.

The burrowing owl, a CDFG Species of Special Concern, has been observed within the Project area during reconnaissance-level surveys. Burrowing owls are known from the Puente Hills Landfill Native Habitat Preservation Authority, and there are several CNDDDB records within, or in the vicinity of, the Project. Burrow surveys conducted by SCE in March and August through November 2007 identified one burrowing owl and occupied habitat in the northern portion of Segment 6, as well as occupied habitat along Segment 8 near Cucamonga Creek. Suitable habitat exists along Segments 10, 4, 5, 6, 7, and 8.

Direct impacts to burrowing owls as a result of construction activities for the Project could include the crushing of burrows, removal or disturbance of vegetation, increased noise levels from heavy equipment and helicopter operations, increased human presence, and exposure to fugitive dust. Indirect impacts could include the loss of habitat due to the colonization of noxious weeds and a disruption of breeding activity due to facilitated use of new or improved spur and access roads by the public. Operational impacts include increased human presence from maintenance personnel that will flush or otherwise disturb burrowing owls.

APMs BIO-1, BIO-2, and BIO-4 through BIO-9, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, implementation of best management practices, biological monitoring, personnel training, coordinating and compensating for impacts to wildlife with the regulatory agencies, raptor surveys and coordination with the Regulatory Agencies before moving nests, and design of the transmission and sub-transmission structures to be raptor-safe. However, these APMs will not reduce Project Impact B-29 to a less-than-significant level. Therefore, to reduce impacts to occupied burrowing owl habitat to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-3a, B-29, and AQ-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-29. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-29 to a less-than-significant level.

- **MM B-1a Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-3a Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-29 Implement CDFG protocol for burrowing owls.** In conformance with federal and State regulations regarding the protection of raptors, a habitat assessment in accordance with CDFG protocol for burrowing owls (CBOC, 1993) shall be completed on non-NFS lands prior to the start of construction. Burrowing owl habitat within the Project area and within a 500-foot buffer zone shall be assessed (“Assessment Area”). If the habitat assessment concludes that the Assessment Area lacks suitable burrowing owl habitat, no additional action is required. However, if suitable habitat is located on the Assessment Area, all ground squirrel colonies or potential burrow locations shall be mapped at an appropriate scale, and the following mitigation measures shall be implemented:
 - In conformance with federal and State regulations regarding the protection of raptors, a pre-construction survey for burrowing owls, in conformance with CDFG protocol, consisting of three site visits, shall be completed no more than 30 days prior to the start of construction within suitable habitat at the Project site(s) and buffer zone(s).
 - Occupied burrows shall not be disturbed during the nesting season (1 February through 31 August) unless a qualified biologist approved by CDFG verifies through non-invasive methods that either the birds have not begun egg-laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent survival. Eviction outside the nesting season may be permitted pending evaluation of eviction plans and receipt of formal written approval from the CDFG authorizing the eviction.
 - Any damaged or collapsed burrows will be replaced with artificial burrows in adjacent habitat.
 - Unless otherwise authorized by CDFG, a 250-foot buffer, within which no activity will be permissible, will be maintained between Project activities and nesting burrowing owls during the nesting season. This protected area will remain in effect until 31 August or at CDFG’s discretion and based upon monitoring evidence, until the young owls are foraging independently.
 - If accidental take (disturbance, injury, or death of owls) occurs, the CDFG/CPUC/FS/USACE lead monitor will be notified immediately.
- **AQ-1a Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that

could be encountered in the Project area (including burrowing owls), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. A Habitat Assessment, pre-construction protocol surveys, avoidance of occupied burrows during the nesting season, replacement of damaged burrows with artificial burrows in adjacent habitat, and a 250-foot disturbance-free buffer during the nesting season will minimize impacts to burrowing owls. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to this species associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to burrowing owls and their habitat to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-30: The Project would result in the loss of occupied California spotted owl habitat.

The California spotted owl is a USDA Forest Service Sensitive species and is known to be present on the ANF within portions of Segments 6 and 11 of the Project, where they primarily utilize bigcone Douglas fir-canyon oak forest and canyon oak forest. Specifically, spotted owl Protected Activity Centers (PACs) have been identified near Mount Gleason Road near one of the proposed helicopter staging areas; south of Big Tujunga Creek along Big Tujunga Road; and at numerous locations along the primary access road (Shortcut Trail 2N23). Direct effects to California spotted owls include the direct removal of habitat including possible nest trees and foraging areas; noise from human disturbance and construction equipment; fugitive dust; and vehicle travel along the access and spur roads that occur in the Project area. Indirect effects could include the degradation of foraging or nesting habitat, the spread of invasive weeds, and increased human disturbance as new areas of the forest will be accessible to recreationists.

APMs BIO-1, BIO-2, and BIO-4 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-30 to a less-than-significant level. Therefore, to reduce impacts to occupied California spotted owl habitat to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-3a, B-30, and AQ-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-30. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-30 to a less-than-significant level.

- **MM B-1a Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-3a Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-30 Conduct pre- and during construction nest surveys for spotted owls.** Prior to tree removal or construction activities within suitable habitat, SCE shall have a qualified biologist conduct FS protocol surveys for the California spotted owl to establish or confirm the location of nests within the Project. The resumes of the proposed biologists shall be provided to the FS and

CPUC for concurrence. If nests or breeding pairs are found during the surveys, the limited operating period (LOP) will be applied according to the Forest Plan (Standard 20 – Part 3). No project-related activities will be allowed within these dates (February 1-August 15) or until chicks have fledged. Where a biological evaluation by a qualified ornithologist determines that a nest site would be shielded from planned activities by topographic or other features that would minimize disturbance, the buffer distance may be reduced upon approval of the FS on NFS lands. In addition, no helicopter construction will be allowed within 0.5 mile of breeding spotted owl territories. No helicopter overflights shall be authorized without FS approval. If approved minimum altitudes will be 300 feet above a territory at an altitude designated by the FS. This buffer may be adjusted through consultation with the FS and CPUC.

- **MM AQ-1a Implement Construction Fugitive Dust Control Plan.** (*See above for full text*)

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Nest surveys, Limited Operating Periods (LOPs), no helicopter construction within 0.5 mile of breeding spotted owl territories, and a buffer between territories and helicopter overflights will minimize impacts to California spotted owls. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to California spotted owl habitat associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to California spotted owls and their habitat to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-31: The Project could disturb nesting California spotted owls.

California spotted owls are known to nest within the ANF in Segments 6 and 11 of the Project. In many areas, both access roads and tower locations cross occupied habitat including known nesting areas. Direct impacts to nesting California spotted owls could include lower reproductive success, nest abandonment, predation, and increased stress levels due to chronic noise levels, fugitive dust, vibration, and air turbulence associated with heavy equipment and helicopter operations. Other direct impacts include the loss of suitable nest trees as a result of vegetation clearing for tower pads, tower removal sites, pulling and tensioning sites, and construction, grading, and widening of new spur roads and existing access roads. Operational impacts could include collisions with transmission lines and disturbance due to increased human presence as a result of public use of new or improved spur and access roads.

Biological Resources APMs BIO-1, BIO-2, and BIO-4 through BIO-9, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, implementation of best management practices, biological monitoring, personnel training, coordinating and compensating for impacts to wildlife with the regulatory agencies, raptor surveys and coordination with the Regulatory Agencies before moving nests, and design of the transmission and sub-transmission structures to be raptor-safe. However, these APMs will not reduce Project Impact B-31 to a less-than-significant level. Therefore, to reduce impacts to nesting California spotted owls to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1b, B-30, and AQ-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-31. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-31 to a less-than-significant level.

- **MM B-1b** **Implement a Worker Environmental Awareness Program.** (*See above for full text*)
- **MM B-30** **Conduct pre- and during construction nest surveys for spotted owls.** (*See above for full text*)
- **MM AQ-1a** **Implement Construction Fugitive Dust Control Plan.** (*See above for full text*)

Rationale for Finding. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area (including California spotted owls), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. Nest surveys, Limited Operating Periods (LOPs), no helicopter construction within 0.5 mile of breeding spotted owl territories, and a buffer between territories and helicopter overflights will minimize impacts to California spotted owls. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to California spotted owls associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to nesting California spotted owls to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-32: The Project could disturb nesting avian “species of special concern.”

Several passerine bird species listed as Species of Special Concern by the CDFG, including loggerhead shrike, yellow warbler, yellow-breasted chat, and tricolored blackbird, have been identified as either nesting or potentially nesting within the Project area.

Ground-disturbing activity, including tower pad preparation, stringing and pulling locations, and the grading of access roads, has the potential to disturb vegetation utilized by nesting birds. The construction and use of access roads could also disturb nesting birds. Noise and human disturbance could result in the displacement from territories, interference with breeding, and abandonment of nests. The removal of habitat during the breeding season will likely result in the displacement of breeding birds and the abandonment of active nests. Increased noise from helicopter construction could also adversely impact nesting birds, particularly where helicopters are required to hover in or adjacent to riparian areas for extended periods of time. Breeding birds and other wildlife may temporarily or permanently leave their territories to avoid construction activity, which could lead to reduced reproductive success and increased mortality.

Biological Resources APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs will not reduce Project Impact B-31 to a less-than-significant level. Therefore, to reduce impacts to nesting avian

Species of Special Concern to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-2, B-3a, B-5, B-15, and AQ-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-32. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-32 to a less-than-significant level.

- **MM B-1a Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-2 Implement RCA Treatment Plan.** *(See above for full text)*
- **MM B-3a Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-5 Conduct pre-construction surveys and monitoring for breeding birds.** *(See above for full text)*
- **MM AQ-1a Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area, the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of an RCA Treatment Plan will ensure that activities conducted within RCAs are approved by the USDA Forest Service prior to implementation and are conducted in such a way as to minimize disturbance to sensitive resources. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Pre-construction surveys and monitoring for breeding birds by a qualified biologist, and protective buffers established around active nests, will ensure that impacts to breeding birds are minimized. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to breeding birds associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to nesting avian “species of special concern” to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-33: The Project could result in mortality of, and loss of habitat for, special-status bat species.

Pallid bat, Townsend’s big-eared bat, western red bat, hoary bat, spotted bat, western mastiff bat, big free-tailed bat, and pocketed free-tailed bat are all California Species of Special Concern that have the potential to occur within the Project area. Pallid bat, Townsend’s big-eared bat, and western red bat are also USDA Forest Service Sensitive species. Several of these species, most notably the pallid bat, have CNDDDB and

other records of occurrence within the Project. Five pallid bats were located in artificial “bat houses” under a bridge about 325 yards northwest of Alternative 6 helicopter site 3 near Aliso Canyon. Furthermore, the Western red bat, pallid bat, pocketed free-tailed bat and Western mastiff bat are known to occur within the Puente Hills Landfill Native Habitat Preservation Authority lands. The Project area includes numerous locations that constitute suitable bat foraging and roosting habitat, including rock outcroppings, mine shafts, hollow trees, dense forests, and abandoned water tanks. The steep rocky canyon and dense riparian forest at the West Fork of the San Gabriel River located along the West Fork Cogswell Road provides many opportunities for both foraging and roosting.

Direct impacts to these species include mortality of individuals during construction activities, permanent loss of habitat due to construction of permanent structures (e.g., new towers or access roads) or other construction activities (removal of roosting habitat at pulling and assembly sites), and temporary disturbance during construction (noise, air turbulence, dust, and ground vibrations from helicopters and construction equipment). Bats that forage near the ground, such as the pallid bat, could also be subject to crushing or disturbance by vehicles driving at dusk, dawn, or during the night. Construction-related activities, which will generate noise, traffic, dust, and diesel fumes, could result in the direct loss of roosting habitat and subsequent mortality to adult bats or pups if any bats were present in the Project area. Indirect effects could include increased traffic, dust, and human presence in the Project area that could result in bats abandoning their roosts or maternal colonies. Impacts to bats during operation of the Project include disturbance by vehicles and individuals utilizing new or improved access and spur roads, and the spread of noxious weeds.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs do not clearly address impacts to bats and will not reduce Project Impact B-33 to a less-than-significant level. Therefore, to reduce impacts to special-status bat species to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-2, B-3a, B-33a through B-33c, and AQ-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-33. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-33 to a less-than-significant level.

- **MM B-1a Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-2 Implement RCA Treatment Plan.** *(See above for full text)*
- **MM B-3a Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-33a Maternity colony or hibernaculum surveys for roosting bats.** SCE shall conduct a pre-activity (e.g., vegetation removal, grading) survey for roosting bats within 200 feet of project activities within 15 days prior to any grading of rocky outcrops or removal of towers or trees (particularly trees 12 inches in diameter or greater at 4.5 feet above grade with loose bark or other cavities).

SCE shall also conduct surveys for roosting bats during the maternity season (1 March to 31 July) within 300 feet of project activities. Trees and rocky outcrops shall be surveyed by a qualified bat biologist (i.e., a biologist holding a CDFG collection permit and a Memorandum of Understanding with CDFG allowing the biologist to handle bats). Surveys shall include a minimum of one day and one evening. The resume of the biologist shall be provided to the CPUC, FS, and USACE (as appropriate) for concurrence prior to any Project activities.

If active maternity roosts or hibernacula are found, the rock outcrop or tree occupied by the roost shall be avoided (i.e., not removed) by the Project, if feasible. If avoidance of the maternity roost is not feasible, the bat biologist shall survey (through the use of radio telemetry or other CDFG/FS/USACE approved methods) for nearby alternative maternity colony sites. If the bat biologist determines in consultation with and with the approval of the CDFG, FS, USACE (as appropriate), and CPUC that there are alternative roost sites used by the maternity colony and young are not present then no further action is required, and it will not be necessary to provide alternate roosting habitat (i.e., Mitigation Measure B-33b would not apply although Mitigation Measure B-33c would still apply). However, if there are no alternative roosts sites used by the maternity colony, Mitigation Measure B-33b is required. If no active roosts are found, then no further action is required. If active maternity roosts are absent, but a hibernaculum (i.e., a non-maternity roost) is present, then Mitigation Measure B-33b is not necessary, but Mitigation Measure B-33c is required.

- **MM B-33b Provision of substitute roosting bat habitat.** If a maternity roost will be impacted by the Project, and no alternative maternity roosts are in use near the site, substitute roosting habitat for the maternity colony shall be provided on, or in close proximity to, the Project site no less than three months prior to the eviction of the colony. Alternative roost sites will be constructed in accordance with the specific bats requirements in coordination with CDFG and the FS. By making the roosting habitat available prior to eviction (Mitigation Measure B-33c), the colony will have a better chance of finding and using the roost. Large concrete walls (e.g., on bridges) on south or southwestern slopes that are retrofitted with slots and cavities are an example of structures that may provide alternative roosting habitat appropriate for maternity colonies. Alternative roost sites must be of comparable size and proximal in location to the impacted colony. The CDFG shall also be notified of any hibernacula or active nurseries within the construction zone.
- **MM B-33c Exclude bats prior to demolition of roosts.** If non-breeding bat hibernacula are found in towers or trees scheduled to be removed or in crevices in rock outcrops within the grading footprint, the individuals shall be safely evicted, under the direction of a qualified bat biologist, by opening the roosting area to allow airflow through the cavity or other means determined appropriate by the bat biologist (e.g., installation of one-way doors). The resume of the bat biologist shall be provided to the CPUC, FS, and USACE (as appropriate) for concurrence prior to any Project activities. In situations requiring one-way doors, a minimum of one week shall pass after doors are installed and temperatures should be sufficiently warm for bats to exit the roost because bats do not typically leave their roost daily during winter months in southern coastal California. This action should allow all bats to leave during the course of one week. Roosts that need to be removed in situations where the use of one-way doors is not necessary in the judgment of the qualified bat biologist shall first be disturbed by various means at the direction of the bat biologist at dusk to allow bats to escape during the darker hours, and the roost tree shall be removed or the grading shall occur the next day (i.e., there shall be no less or more than one night between initial disturbance and the grading or tree removal).

If an active maternity roost is located in an area to be impacted by the Project, and alternative roosting habitat is available, the demolition of the roost site must commence before maternity colonies form (i.e., prior to 1 March) or after young are flying (i.e., after 31 July) using the exclusion techniques described above.

- **MM AQ-1a Implement Construction Fugitive Dust Control Plan.** (*See above for full text*)

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area, the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of an RCA Treatment Plan will ensure that activities conducted within RCAs are approved by the USDA Forest Service prior to implementation and are conducted in such a way as to minimize disturbance to sensitive resources. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Surveys for roosting bats and maternity colonies, provision of substitute roosting bat habitat, and exclusion of bats prior to demolition of roosts will minimize impacts to special-status bat species. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to bats associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to special-status bats to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-35: The Project could result in mortality of, and loss of habitat for, special-status mammals.

The Los Angeles pocket mouse, Tehachapi pocket mouse, San Joaquin pocket mouse, Northwestern San Diego pocket mouse, Southern grasshopper mouse, Tulare grasshopper mouse, and San Diego black-tailed jackrabbit are all California Species of Special Concern that have the potential to occur within the Project area (the Los Angeles pocket mouse and Tehachapi pocket mouse are also USDA Forest Service Sensitive species). Direct impacts to special-status mammals could include mechanical crushing by vehicles and construction equipment, trampling, dust, and loss of habitat. Construction disturbance can also result in the flushing of small animals from refugia which increases the predation risk for small rodents. Indirect impacts include alteration of soils, such as compaction that could preclude burrowing, and the spread of exotic weeds. Operational impacts include risk of road kill on access and spur roads by the public and maintenance personnel, the spread of noxious weeds, and disturbance due to increased human presence. However, these impacts will not substantially reduce regional populations below self-sustaining levels or restrict the range of these species.

APMs BIO-1, BIO-2, and BIO-5 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs do not clearly address impacts to special-status mammals and will not reduce Project Impact B-35 to a less-than-significant level. Therefore, to reduce impacts to special-status mammals to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-2, B-3a, and AQ-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-35. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-35 to a less-than-significant level.

- **MM B-1a Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-2 Implement RCA Treatment Plan.** *(See above for full text)*
- **MM B-3a Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM AQ-1a Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area, the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of an RCA Treatment Plan will ensure that activities conducted within RCAs are approved by the USDA Forest Service prior to implementation and are conducted in such a way as to minimize disturbance to sensitive resources. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to special-status mammals associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to special-status mammals to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-36: The Project could result in mortality of San Diego desert woodrats.

The San Diego desert woodrat is a California Species of Special Concern that has the potential to occur within the Project area. This species is known from the Puente Hills Landfill Native Habitat Preservation Authority lands. Potential San Diego desert woodrat nests were frequently observed during reconnaissance surveys in 2007 and 2008 of the Project in the Puente and Chino Hills and portions of the ANF. Direct impacts from construction activities could include the mortality of individual San Diego desert woodrats or disturbance (noise, air turbulence, dust, and ground vibrations from helicopters and construction equipment) to occupied desert woodrat nests. Construction and use of access roads could also result in impacts to this species. Indirect impacts to San Diego desert woodrats include the spread of noxious weeds that will degrade habitat quality and alteration of soils. Operational impacts could include disturbance to woodrat nests, clearing and trimming of vegetation during maintenance activities, the spread of noxious weeds, and disturbance due to use of new or improved access and spur roads by the public and maintenance personnel.

APMs BIO-1, BIO-2, and BIO-5 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, implementation of best management practices, minimizing vegetation removal at construction sites, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs do not clearly address impacts to San Diego desert woodrats and will not reduce Project Impact B-36 to a less-than-significant level. Therefore, to reduce impacts to San Diego desert woodrats to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-3a, B-36, and AQ-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-36. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-36 to a less-than-significant level.

- **MM B-1a** **Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b** **Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-3a** **Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-36** **Conduct focused surveys for San Diego desert woodrats and passively relocate.** SCE shall implement pre-construction surveys for the San Diego desert woodrat in suitable habitats. If present, active woodrat nests will be flagged and ground-disturbing activities shall be avoided within a minimum of 10 feet surrounding each active nest unless otherwise authorized by the CDFG and CPUC. If avoidance is not possible, SCE will take the following sequential steps: (1) all understory vegetation will be cleared in the area immediately surrounding active nests followed by a period of one night without further disturbance to allow woodrats to vacate the nest, (2) each occupied nest will then be disturbed by a qualified wildlife biologist until all woodrats leave the nest and seek refuge off-site, and (3) the nest sticks shall be removed from the Project site and piled at the base of a nearby hardwood tree (preferably a coast live oak or California walnut). Relocated nests shall not be spaced closer than 100 feet apart, unless a qualified wildlife biologist has determined that a specific habitat can support a higher density of nests. SCE shall document all woodrat nests moved and provide a written report to the CPUC, USACE (as appropriate), and CDFG. The resumes of the proposed biologists shall be provided to the CPUC, and USACE (as appropriate) for concurrence.
- **MM AQ-1a** **Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area (including San Diego desert woodrats), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and

containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Focused surveys, a 10-foot disturbance-free buffer around active nests, and passive relocation if avoidance is not feasible will minimize impacts to San Diego desert woodrats. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to San Diego desert woodrats associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to San Diego desert woodrats to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-37: The Project could result in mortality of, and loss of habitat for the ringtail.

The ringtail, a fully protected species in California, has the potential to occur in chaparral, oak woodlands, bigcone Douglas fir and canyon oak forest, or riparian habitats within canyons of the Project area; especially on steeper south or west-facing slopes with oaks or other hardwoods present. Ringtails have been observed in Big Tujunga Canyon and near Mt. Gleason in the vicinity of the Project area. Areas within the Project that contain suitable habitats include Amargosa Creek, Upper Big Tujunga Creek, Santa Anita Canyon, San Gabriel River, Monte Cristo Creek, Mill Creek, Saucer Branch/Millard Canyon, and Tonner Canyon.

Direct impacts due to construction activities could include mortality of individual ringtail or disturbance of ringtail maternity dens during the pup-rearing season (1 May to 1 September). The construction and use of access roads in riparian areas could also disturb denning ringtails. Construction noise, dust, human presence, or ground disturbance could result in the abandonment of nest sites or result in mortality of juvenile animals. Indirect impacts to ringtail could include the spread of noxious weeds that will degrade habitat quality, degradation of water quality due to siltation, and alteration of soils. Operational impacts could include disturbance to ringtail dens, clearing and trimming of vegetation during maintenance activities, the spread of noxious weeds, and disturbance due to use of new or improved access and spur roads by the public and maintenance personnel.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs do not clearly address impacts to the ringtail and will not reduce Project Impact B-37 to a less-than-significant level. Therefore, to reduce impacts to the ringtail to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-3a, B-37, AQ-1a, and H-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-37. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-37 to a less-than-significant level.

- **MM B-1a** **Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b** **Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-3a** **Prepare and implement a Weed Control Plan.** *(See above for full text)*

- **MM B-37 Conduct focused surveys for ringtail and passively relocate during the non-breeding season.** SCE shall conduct pre-construction ringtail surveys on non-NFS lands at sites with suitable denning habitat within the Project area. This includes at a minimum Amargosa Creek, Santa Anita Canyon, San Gabriel River, and Tonner Canyon within 200 feet of any ground disturbing activity. SCE shall provide a list to the CPUC of the proposed survey areas for approval. Occupied dens will be flagged and ground-disturbing activities within 200 feet will be avoided. If occupied dens are found in the Project area and avoidance is not possible, denning ringtail shall be safely evicted under the direction of a qualified biologist (as determined by a Memorandum of Understanding with CDFG). The qualified biologist shall facilitate the removal of ringtail by delaying construction activity for a minimum 20 days during the early pup-rearing season (1 May to 15 June) and a minimum of 5 days during the rest of the year (16 June to 30 April). If the qualified biologist documents ringtail voluntarily vacating the den site during this period, then construction may begin within 7 days following this observation. If the ringtails do not vacate the den voluntarily within the required period, then the qualified biologist will coordinate with CDFG to passively relocate ringtail (excluding the early pup-rearing season: 1 May to 15 June). All activities that involve the ringtail shall be documented and reported to the CDFG and CPUC within 30 days of the activity.
- **MM AQ-1a Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
- **MM H-1a Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area (including the ringtail), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Focused surveys, a 200-foot disturbance-free buffer around occupied dens, and passive relocation in consultation with the CDFG if avoidance is not feasible, will minimize impacts to the ringtail. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to the ringtail associated with fugitive dust generated during construction. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Together these measures will reduce Project impacts to the ringtail to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-38: The Project could result in mortality of American badgers.

Areas within the Project that contain suitable habitats for American badgers include the Antelope Valley and Chino and Puente Hills. American badgers have been observed within the Puente Hills Landfill Native Habitat Preservation Authority lands. Foothill sections of the ANF may also support this species. Direct impacts to American badger could include mechanical crushing of individuals or burrows by vehicles and

construction equipment, noise, dust, and loss of habitat. Indirect impacts could include alteration of soils, such as compaction that could preclude burrowing, and the spread of exotic weeds. Operational impacts could include risk of road kill on access and spur roads by the public and maintenance personnel, the spread of noxious weeds, and disturbance due to increased human presence. Construction activities including clearing and grading of tower sites, staging areas, and access roads could result in mortality of individual badgers or disturbance of badger maternity dens during the pup-rearing season (15 February to 1 July).

APMs BIO-1, BIO-2, and BIO-5 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs do not clearly address impacts to the American badger and will not reduce Project Impact B-38 to a less-than-significant level. Therefore, to reduce impacts to the American badger to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-3a, B-38, and AQ-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact B-38. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-38 to a less-than-significant level.

- **MM B-1a** Provide restoration/compensation for impacts to native vegetation communities. *(See above for full text)*
- **MM B-1b** Implement a Worker Environmental Awareness Program. *(See above for full text)*
- **MM B-3a** Prepare and implement a Weed Control Plan. *(See above for full text)*
- **MM B-38** Conduct focused surveys for American badgers and passively relocate during the non-Breeding season. SCE shall implement pre-construction surveys for American badger within suitable habitat on non-NFS lands. If present, occupied badger dens shall be flagged and ground-disturbing activities avoided within 50 feet of the occupied den avoided. Maternity dens shall be avoided during pup-rearing season (15 February through 1 July) and a minimum 200-foot buffer established. Buffers may be modified with the concurrence of CDFG and CPUC. Maternity dens shall be flagged for avoidance, identified on construction maps, and a biological monitor shall be present during construction.

If avoidance of a non-maternity den is not feasible, badgers shall be relocated by slowly excavating the burrow (either by hand or mechanized equipment under the direct supervision of the biologist, removing no more than 4 inches at a time) before or after the rearing season (15 February through 1 July). Any relocation of badgers shall occur only after consultation with the CDFG, USACE (as appropriate), and CPUC monitor. A written report documenting the badger removal shall be provided to the CDFG, USACE (as appropriate), and CPUC within 30 days of relocation.

- **MM AQ-1a** Implement Construction Fugitive Dust Control Plan. *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable

restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area (including the American badger), the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Focused surveys, a 50-foot disturbance-free buffer around occupied dens (200-foot buffer around active maternity dens), and passive relocation (outside of the pup-rearing season and in consultation with the CDFG) if avoidance is not feasible, will minimize impacts to the American badger. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to the American badger associated with fugitive dust generated during construction. Together these measures will reduce Project impacts to the American badger to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-39: The Project could result in the loss of wetland habitats.

Some of the creeks and drainages that occur in the Project area include Amargosa Creek, Oak Creek, and Cottonwood Creek in the Northern Region; Big Tujunga Creek, the San Gabriel River, and Mill Creek in the Central Region; and the San Gabriel River, the Rio Hondo, and Walnut Creek in the Southern Region. In addition to these and other perennial, ephemeral, and intermittent drainages are numerous other tributaries, unnamed drainages, gullies, and rills that are crossed by the Project. In some areas these crossings will be subject to improvement or grading to ensure the safe passage of vehicles and equipment. This may involve the placement of rock or the construction of culverts. At two locations, SCE has proposed major stream crossing repairs or upgrades. This includes repairing the washed-out Falls Creek crossing at Big Tujunga, a span of over 200 feet, and major upgrades to the San Gabriel River crossing, an existing damaged concrete Arizona crossing. In addition, the maintenance of existing access roads, which includes grading the road to a minimum of 16 feet in many areas; the construction of new access and spur roads in areas above jurisdictional waters such as Mill Creek, Tujunga Reservoir, and the San Gabriel River; and the installation or replacement of culverts in and adjacent creeks and drainages could result in the discharge of fill into drainages under the jurisdiction of the USACE. Alteration of jurisdictional waters in turn could result in adverse impacts to plant and wildlife species that are dependent on these areas.

Direct impacts to wetland habitats could include the removal of native riparian vegetation, the discharge of fill, degradation of water quality, and increased erosion and sediment transport. Most of these impacts will occur during access road improvements and heavy equipment and vehicle passage where jurisdictional waters cross access roads. Indirect impacts could include alterations to the existing topographical and hydrological conditions and the introduction of non-native, invasive plant species. Operational impacts to wetland habitats will be similar to indirect impacts and will primarily occur as a result of facilitated use of new or improved spur roads and access roads.

As required by law SCE will comply with the regulations regarding conducting Project activities in water bodies under the jurisdiction of the State and federal government. As such SCE will obtain required permits pursuant to Section 401 and 404 of the CWA and the State Porter-Cologne Act and CDFG Code 1602. On NFS lands SCE will comply with the Forest Service requirements regarding RCAs. In accordance with the Clean Water Act, there will be no net loss of wetlands from the implementation of the Project. As such, SCE

will mitigate permanent and temporary impacts at a minimum 1:1 ratio for riparian vegetation (Mitigation Measure B-1a). Mitigation will include restoration, enhancement, and/or compensation, as appropriate.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs do not clearly address impacts to wetland habitats and will not reduce Project Impact B-39 to a less-than-significant level. Therefore, to reduce impacts to wetland habitats to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a, B-1b, B-2, B-3a, B-12, AQ-1a, and H-1a.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-39. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-39 to a less-than-significant level.

- **MM B-1a** **Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b** **Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-2** **Implement RCA Treatment Plan.** *(See above for full text)*
- **MM B-3a** **Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-12** **Implement avoidance and minimization measures for fish and aquatic organisms.** *(See above for full text)*
- **MM AQ-1a** **Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
- **MM H-1a** **Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area, the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, and review of mitigation requirements. The implementation of an RCA Treatment Plan will ensure that activities conducted within RCAs are approved by the USDA Forest Service prior to implementation and are conducted in such a way as to minimize disturbance to sensitive resources. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Avoidance and minimization measures such as the staging of Hazardous Material Spill Kit(s) along the West Fork Cogswell Road and daily inspection of the West Fork Cogswell Road by a qualified biological monitor will minimize effects to wetland habitats. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to wetland

habitats associated with fugitive dust generated during construction. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Together these measures will reduce Project impacts to wetland habitats to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

Impact B-42: The Project would result in effects to Management Indicator Species.

The ANF NF Land Resources Management Plan (USDA, 2005) requires forest scale monitoring of habitat status and trend for select Management Indicator Species (MIS) on the ANF. MIS (and their associated habitat) potentially located in the Project area on the ANF include: mule deer (Healthy Diverse Habitats); mountain lion (Fragmentation); California spotted owl (Montane Conifer Forest); song sparrow (Riparian Habitat); arroyo toad (Aquatic Habitat); blue oak, Englemann oak, and valley oak (Oak Regeneration); bigcone Douglas-fir (Bigcone Douglas-fir Forest); and Coulter pine (Coulter Pine Forest). Of these MIS, impacts to the mule deer and mountain lion will be less than significant. Project-related impacts to the California spotted owl are described under Impacts B-30 and B-31, above. Impacts to the song sparrow will be similar those described for other nesting birds under Impacts B-5, B-15, and B-32 above. Project-related impacts to the arroyo toad are described under Impact B-9, above. Blue oak, valley oak, and Engelmann's oak were not identified in the utility corridor and will not be impacted by Project construction. Implementation of the Project will impact approximately 7 acres of bigcone Douglas fir habitat, and approximately 8 acres of Coulter pine habitat will be impacted by the Project.

APMs BIO-1 through BIO-7, which are included as part of the Project, will help to reduce impacts to biological resources. These APMs include conducting clearance surveys for wildlife, minimizing vegetation removal at construction sites, avoiding streambeds to the extent practicable, implementation of best management practices, biological monitoring, personnel training, and coordinating and compensating for impacts to wildlife with the regulatory agencies. However, these APMs do not clearly address impacts to MIS and will not reduce Project Impact B-42 to a less-than-significant level. Therefore, to reduce impacts to MIS to a less-than-significant level, the following mitigation measures shall be implemented: Mitigation Measures B-1a through B-1c, B-2, B-3a through B-3c, B-5, B-8b, B-9, B-30, AQ-1a, H-1a, and H-1b.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact B-42. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact B-42 to a less-than-significant level.

- **MM B-1a** Provide restoration/compensation for impacts to native vegetation communities. *(See above for full text)*
- **MM B-1b** Implement a Worker Environmental Awareness Program. *(See above for full text)*
- **MM B-1c** Treat cut tree stumps with Sporax. *(See above for full text)*
- **MM B-2** Implement RCA Treatment Plan. *(See above for full text)*
- **MM B-3a** Prepare and implement a Weed Control Plan. *(See above for full text)*
- **MM B-3b** Remove weed seed sources from construction routes. *(See above for full text)*
- **MM B-3c** Remove weed seed sources from assembly yards, staging areas, tower pads, pull sites, landing zones, and spur roads. *(See above for full text)*

- **MM B-5** **Conduct pre-construction surveys and monitoring for breeding birds.** *(See above for full text)*
- **MM B-8b** **Conduct biological monitoring.** *(See above for full text)*
- **MM B-9** **Conduct protocol surveys for arroyo toads and implement avoidance measures in occupied areas.** *(See above for full text)*
- **MM B-30** **Conduct pre- and during construction nest surveys for spotted owl.** *(See above for full text)*
- **MM AQ-1a** **Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
- **MM H-1a** **Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*
- **MM H-1b** **Dry weather construction.** *(See above for full text)*

Rationale for Finding. The preparation and implementation of a Habitat Restoration and Revegetation Plan will compensate for impacts to habitat by restoring areas temporarily disturbed during construction. Where impacts are permanent, compensation for the loss of habitats will occur through the preservation, enhancement, or restoration of comparable off-site lands, or through funding for land purchase for inclusion into the Angeles National Forest, mitigation banking, removing existing structures, or comparable restoration efforts. The implementation of a Worker Environmental Awareness Program will ensure that all construction personnel are familiar with applicable regulations and laws regarding sensitive species that could be encountered in the Project area, the consequences of non-compliance with these laws and regulations, identification and values of plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on NFS lands and identification of USDA Forest Service sensitive species, hazardous substance spill prevention and containment measures, a contact person in the event of the discovery of dead or injured wildlife, and review of mitigation requirements. Treating all stumps of trees resulting from Project construction activities with Sporangin will prevent the spread of annosus root disease that could infect MIS or habitat for MIS. The implementation of an RCA Treatment Plan will ensure that activities conducted within RCAs are approved by the USDA Forest Service prior to implementation and are conducted in such a way as to minimize disturbance to sensitive resources. The implementation of a Weed Control Plan will ensure that the spread and establishment of weeds due to Project activities is minimized. Controlling known populations of nonnative and invasive weeds along construction access routes and from within assembly yards, staging areas, tower pads, pull sites, landing zones, and spur roads within the ANF will minimize the potential for spread of these species into and through work areas, as outlined in the USDA Forest Service Land Management Plan (2005). Pre-construction surveys and monitoring for breeding birds by a qualified biologist, and protective buffers established around active nests, will ensure that impacts to breeding birds (including song sparrows and California spotted owls) are minimized. Monitoring conducted by a qualified biologist will minimize the potential for direct effects to listed wildlife, including arroyo toads. Protocol surveys for arroyo toad in suitable habitat and the implementation of avoidance measures such as seasonal restrictions on Project activities within occupied habitat, restricting work to daytime hours, and relocation of individuals out of work areas will minimize effects to the species. Nest surveys, Limited Operating Periods (LOPs), no helicopter construction within 0.5 mile of breeding spotted owl territories, and a buffer between territories and helicopter overflights will minimize impacts to California spotted owls. Implementation of a Construction Fugitive Dust Control Plan will minimize impacts to MIS associated with fugitive dust generated during construction. Implementation of an Erosion Control Plan and compliance with water quality permits will minimize impacts associated with erosion and water quality. Avoiding construction during rain events will minimize the potential for Project activities to occur during the

period when arroyo toads are most likely to be active. Together these measures will reduce Project impacts to MIS to a less-than-significant level.

Reference. Final EIR Section 3.4; Table ES-3

III.3.4 Cultural Resources

As described in Final EIR Section 3.5.4.1, cultural resources are places or objects that are important for historical, scientific, and religious reasons and are of concern to cultures, communities, groups, or individuals. These resources may include historic buildings and architectural remains, archaeological sites and other artifacts that provide evidence of past human activity, human remains, or traditional cultural properties. In addition, under both federal and State law, Native American human remains and associated grave goods are granted special significance.

For cultural resources, the impact assessment in the Final EIR is based on a comparison of known resource locations with the placement of ground disturbing Project activities that have the potential to remove, relocate, damage, or destroy the physical evidence of past cultural activities. A GIS-based impact analysis was performed for the Project using data on the locations of known sites and Project elements provided by SCE, subcontractors to SCE, and Aspen Environmental Group, augmented by field survey data.

Impact C-1: Construction may diminish the integrity of properties eligible for the National Register of Historic Places (NRHP).

Properties that are eligible for the NRHP (i.e., “historic properties” as defined at 36 CFR 800.16(1)), as well as properties that may be eligible but have not been evaluated, occur within and near several tower sites and at other locations within or adjacent to the Project Area of Potential Effect (APE). Direct impacts are considered to be any ground-disturbing activities, including tower site preparation and construction, grading of new access or spur roads, reconductoring, tower removal, transportation, storage, and maintenance of construction equipment and supplies, staging area and material yard preparation and use, and use or improvement of existing access roads, that have the potential to disturb known cultural resources. Impacts could also result from inadvertent trespass out of designated work areas or roads.

Adverse effects to individual sites cannot be precisely identified until the final tower locations are defined, specific tower sites are determined, detailed engineering plans for all Project roads and facilities are completed, the precise relationship of these Project elements to known sites is determined, and final NRHP eligibility of affected cultural resources has been evaluated; thus planning for these activities must account not only for sites determined eligible for the NRHP, but also for unevaluated sites. If direct impacts to these sites cannot be avoided, the CPUC, Forest Service, and the USACE, in consultation with the California State Historic Preservation Officer (SHPO), will make a final determination of adverse effect. Since this is a complex undertaking that will be built in phases, and since the CPUC, a non-federal agency, has decision-making responsibilities, the USDA Forest Service, USACE, CPUC, and SCE will execute a Programmatic Agreement (PA) with the SHPO that will guide the resolution of adverse effects to historic properties.

Indirect impacts may occur to properties eligible for the NRHP within and in the vicinity of the Project APE during operation and long-term presence of the Project. Increased erosion could result as an indirect Project impact to cultural resources.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact C-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact C-1 to a less-than-significant level.

- **MM C-1a Development and Execution of a Programmatic Agreement (PA).** Since the Project's effects on historic properties cannot be fully determined before the Project has been approved, and the CPUC is a non-federal agency with decision-making responsibilities, the Forest Service, USACE, CPUC, and SCE, along with the Advisory Council on Historic Preservation if they choose to participate, will develop and execute a PA for the TRTP with the SHPO in accordance with 36 CFR 800.14(b)(ii) and (iii). The PA will guide the resolution of adverse effects to and management of historic properties. Consultation to develop the PA will follow 36 CFR 800.6. The PA will contain minimum standards and guidelines for identifying historic properties and evaluating their significance. It will include requirements for development and implementation of Historic Properties/Historical Resources Management Plans, Construction Phase Management Plans, archaeological monitoring, reporting, professional qualifications, artifact curation, Native American consultation, treatment of human remains, discovery of unknown cultural resources, cost, dispute resolution, amendment, termination, confidentiality, annual meetings, and duration.
- **MM C-1b Inventory cultural resources in the APE.** APM CR-1 calls for intensive archaeological inventories of areas that may be disturbed by construction. As described in Section 3.5.2, cultural resource inventories have been completed for most of the APE. However, some elements of the Project remain undefined and additional inventories may be necessary. Prior to construction and all other surface disturbing activities, SCE shall submit cultural resources inventory reports to the Forest Service, USACE, and CPUC for any portions of the APE which have not been inventoried previously, including but not limited to existing and newly proposed access and spur roads, construction turn-arounds, guard pole locations, marshalling yards, wire setup areas, helicopter staging areas, helicopter landing zones, and any other projected areas of potential ground disturbance outside of the previously surveyed areas. The nature and extent of additional inventory shall be determined by the Forest Service, USACE, and CPUC in consultation with the State Historic Preservation Officer (SHPO). Results of these inventories shall also be filed with the appropriate Information Centers of the California Historical Resources Information System. Site-specific field surveys also shall be undertaken at all projected areas of impact within the previously surveyed corridor that coincide with previously recorded resource locations to further refine the assessment of potential Project effects. The selected tower locations and other direct impact areas shall be staked prior to the cultural resource field surveys.
- **MM C-1c Avoid and protect resources.** APMs CR-2, CR-2a, and CR-2c call for avoidance of impacts through Project redesign or use of protective buffer zones. The Forest Service, USACE, and CPUC may require the relocation of transmission lines, ancillary facilities, or temporary facilities or work areas, if any, where relocation would avoid or reduce damage to cultural resource values. Where operationally feasible, NRHP-eligible resources shall be protected from direct Project impacts by Project redesign and inclusion of sites in exclusion areas.

All cultural resources that will not be impacted directly but are within 50 feet of direct impact areas shall be designated as Environmentally Sensitive Areas (ESAs). Protective fencing or other markers, at the Forest Service, USACE, or CPUC's discretion, shall be erected and maintained to protect ESAs from inadvertent trespass for the duration of construction in the vicinity. Construction personnel and equipment shall be instructed on how to avoid ESAs. ESAs shall not be identified specifically as cultural resources. A monitoring program shall be developed as part of the Historic Properties Treatment Plan (see Mitigation Measure C-1e, Develop and implement a Historic Properties Treatment Plan) and implemented by the SCE to ensure the effectiveness of ESAs.

- **MM C-1d Evaluate the significance of cultural resources that cannot be avoided.** APMs CR-3, CR-3a, and CR-3b call for formal significance evaluation of archaeological sites and historical buildings and structures that cannot be avoided during construction. APM CR-3c calls for consultation with Native Americans regarding traditional cultural values that may be associated with archaeological sites. Where the Forest Service, USACE, and/or CPUC decide that cultural

resources cannot be protected from direct impacts by Project redesign or avoidance, SCE shall undertake additional studies to evaluate the resources' NRHP eligibility and to recommend further treatment, if necessary. The nature and extent of this evaluation shall be determined by the Forest Service in consultation with the USACE, CPUC, SCE, and the SHPO. Consultation shall include direct contact with Native American tribal representatives to seek their views on the significance of resources having a Native American component. Significance evaluations will be based on surface remains, subsurface testing, archival and ethnographic resources, and in the framework of the historic context and research questions important to the general Project area. Results of those evaluation studies and recommendations for mitigation of Project effects shall be incorporated into a Historic Properties Treatment Plan consistent with Mitigation Measure C-1e (Develop and implement a Historic Properties Treatment Plan).

- **MM C-1e Develop and implement Historic Properties/Historical Resources Treatment Plan.** Upon Forest Service, USACE, and CPUC approval of the inventory report and the NRHP eligibility evaluations, consistent with Mitigation Measures C-1b (Inventory cultural resources in the Final APE), C-1c (Avoid and protect resources), and C-1d (Evaluate the significance of cultural resources that cannot be avoided), SCE shall prepare and submit for approval a Historic Properties Treatment Plan (HPTP) or Historical Resources Management Plan (HRMP) for NRHP/CRHR - eligible cultural resources to mitigate or avoid identified impacts. Treatment of cultural resources shall follow the procedures established by the Advisory Council on Historic Preservation for compliance with Section 106 of the National Historic Preservation Act and the Secretary of Interiors Standards and Guidelines for the Treatment of Historic Properties. Mitigation alternatives may include, but are not limited to, avoidance, recordation, additional analysis of existing collections, and data recovery excavation. The HPTP or HRMP (herein HP/HRMP) shall be submitted to the Forest Service, USACE, and CPUC for review and approval.

As part of the HP/HRMP, SCE shall prepare a research design and a scope of work for data recovery or additional treatment of significant sites that cannot be avoided. Data recovery on most resources would consist of sample excavation and/or surface artifact collection, and site documentation. A possible exception would be a site where human remains or sacred features are discovered that cannot be avoided.

The HP/HRMP shall define and map all known significant properties affected, or potentially affected, by the Project, and shall identify the cultural values that contribute to their eligibility for the NRHP. A Construction Phase Management Plan shall be included that details how cultural resources will be avoided and protected during construction, in accordance with the PA. Measures shall include, at a minimum, designation and marking of Environmentally Sensitive Areas (ESAs), archaeological monitoring, personnel training, and effectiveness reporting. The plan shall detail what measures will be used; how, when, and where they will be implemented; and how protective measures and enforcement will be coordinated with construction personnel.

The HP/HRMP shall also define any additional areas that are considered to be of high-sensitivity for discovery of buried NRHP-eligible cultural resources, including burials, cremations, or sacred features. The HP/HRMP shall detail provisions for monitoring construction in these high-sensitivity areas. It shall also detail procedures for halting construction, making appropriate notifications to agencies, officials, and Native Americans, assessing NRHP-eligibility in the event that unknown cultural resources are discovered, and the timelines for assessing NRHP-eligibility, formulating a mitigation plan, and implementing treatment. Treatment plans for unanticipated discoveries shall be approved by the Forest Service, USACE, CPUC, appropriate Native Americans, and the SHPO prior to implementation.

The HP/HRMP shall include provisions for analysis of data in a regional context, reporting of results within one year of completion of field studies, and curation of artifacts and data (maps, field notes,

archival materials, recordings, reports, photographs, and analysts' data) at a facility that is approved by Forest Service, USACE, and CPUC, and dissemination of reports to local and State repositories, libraries, and interested professionals. The Forest Service will retain ownership of artifacts collected from Forest Service managed lands. SCE shall attempt to gain permission for artifacts from privately held land to be curated with the other Project collections. The HP/HRMP shall specify that archaeologists and other discipline specialists conducting the studies meet the Secretary of the Interior's Professional Qualifications Standards (per 36 CFR 61).

- **MM C-1f Conduct data recovery excavation or other actions to reduce adverse effects.** If NRHP eligible resources, as determined by the CPUC, Forest Service, USACE, and SHPO, cannot be protected from direct impacts of the Project, SCE shall implement data-recovery investigations or other actions to reduce adverse effects to the characteristics of each property that make it eligible for the NRHP. For archaeological sites eligible under Criterion d, significant data would be recovered through excavation and analysis. For properties eligible under Criteria a, b, or c, treatment may include historical documentation, photography, collection of oral histories, architectural or engineering documentation, preparation of a scholarly work, or some form of public awareness or interpretation. Information gathered during the evaluation phase and the research design element of the HP/HRMP shall guide plans and data thresholds for data recovery; treatment will be based on the resource's research potential beyond that realized during resource recordation and evaluation studies. If data recovery excavation is necessary, appropriate sampling methods will be proposed. Sampling will be confined, as much as possible, to the direct impact area. Data-recovery methods, sample sizes, and procedures shall be detailed in the HP/HRMP consistent with Mitigation Measure C-1e (Develop and implement Historic Properties/Historical Resources Treatment Plan) and implemented by SCE only after approval by the Forest Service, USACE, and CPUC. Following any field investigations required for data recovery, SCE shall document the field studies and findings, including an assessment of whether adequate data were recovered to reduce adverse Project effects, in a brief field closure report. The field closure report shall be submitted to the Forest Service, USACE, and CPUC for their review and approval, as well as to the appropriate State repositories and local governments. Construction work within 100 feet of cultural resources that require data-recovery fieldwork shall not begin until authorized by the Forest Service, USACE, or CPUC, as appropriate.
- **MM C-1g Conduct cultural resources monitoring.** APM CR-5 calls for preparation of a construction monitoring and inadvertent discovery plan. A professional archaeologist shall monitor subsurface construction disturbance at all locations identified in the HP/HRMP where monitoring is required (see Mitigation Measure C-1e, Develop and implement a Historic Properties/Historical Resources Treatment Plan). These locations and their boundaries shall be defined and mapped in the HP/HRMP. Intermittent monitoring may occur in areas of moderate archaeological sensitivity at the discretion of the Forest Service, USACE, and/or CPUC. Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historical and prehistoric resources that could be encountered within the Project APE, and under direct supervision of a principal archaeologist. The qualifications of the principal archaeologist and archaeological monitors shall be approved by the Forest Service, USACE, and CPUC. A Native American monitor may be required at culturally sensitive locations. SCE shall retain and schedule any required Native American monitors.

Compliance with and effectiveness of the cultural resources monitoring plan shall be documented by SCE in a monthly report to be submitted to the Forest Service, USACE, and CPUC, for the duration of Project construction. In the event that cultural resources are not properly protected by ESAs, all Project work in the immediate vicinity shall be diverted by the archaeological monitor until authorization to resume work has been granted by the Forest Service, USACE, and CPUC. SCE shall notify the Forest Service of any damage to cultural resource ESAs. SCE shall consult with the

Forest Service, USACE, and CPUC to mitigate damages and to increase effectiveness of ESAs. At the discretion of the Forest Service, USACE, and CPUC, such mitigation may include, but not be limited to modification of protective measures, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection.

- **MM C-1h Workers Environmental Awareness Program.** APM CR-2b calls for a pre-construction worker education program. All construction personnel shall be trained regarding the recognition of possible buried cultural remains and protection of all cultural resources, including prehistoric and historic resources during construction, prior to the initiation of construction or ground-disturbing activities. SCE shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American burials. Training shall inform all construction personnel that Environmentally Sensitive Areas (ESAs) must be avoided and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of artifacts or other cultural materials on or off the ROW by SCE, their representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate State and federal laws and violations will be grounds for removal from the Project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction:
 - All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits, their responsibility to avoid and protect all cultural resources, and the penalties for collection, vandalism, or inadvertent destruction of cultural resources.
 - SCE shall provide a background briefing for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential ESA, and procedures and notifications required in the event of discoveries by Project personnel or archaeological monitors. Supervisors shall also be briefed on the consequences of intentional or inadvertent damage to cultural resources. Supervisory personnel shall enforce restrictions on collection or disturbance of artifacts or other cultural resources.
 - Upon discovery of potential buried cultural materials by archaeologists or construction personnel, or damage to an ESA, work in the immediate area of the find shall be diverted and SCE's archaeologist notified. Once the find has been inspected and a preliminary assessment made, SCE's archaeologist will consult with the Forest Service, USACE, or CPUC, as appropriate, to make the necessary plans for evaluation and treatment of the find(s) or mitigation of adverse effects to ESAs.

SCE shall provide to the CPUC, USACE, and Forest Service a list of construction personnel who have completed the cultural resources identification training prior to start of construction, and this list shall be updated by SCE as required when new personnel start work. No construction worker may work in the field without first participating in the Environmental Awareness Training.

- **MM C-1i Protect and monitor NRHP-eligible properties.** SCE shall design and implement a long-term plan which will be included in the HP/HPMP to protect NRHP-eligible sites from direct impacts of Project operation and maintenance and from indirect impacts, such as erosion, that result from the presence of the Project. The plan shall be developed in consultation with the Forest Service, USACE, and CPUC to design measures that will be effective against Project maintenance impacts and Project-related vehicular impacts. The plan shall also include protective measures for significant properties within the TRTP corridor that will experience operational and access impacts as a result of the Project. The proposed measures may include restrictive fencing or gates, permanent access and spur road closures, signage, stabilization of erosion, site capping, site

patrols, interpretive/educational programs, and/or other measures that will be effective for protecting cultural resources. The plan shall be property specific and shall include provisions for monitoring and reporting its effectiveness and for addressing inadequacies or failures that result in damage to significant properties. The plan shall be submitted to the Forest Service, USACE, and CPUC for review and approval one year after execution of the PA as stated in the PA.

Monitoring of selected sites shall be conducted annually by a professional archaeologist for a period of three years following completion of Project construction. Monitoring shall include inspection of all site loci and defined surface features, documented by photographs from fixed photo-monitoring stations and written observations. A monitoring report shall be submitted to the Forest Service, USACE, and CPUC within one month following the annual resource monitoring. The report shall indicate any properties that have been impacted by erosion or vehicle or maintenance impacts. For properties that have been impacted, SCE shall provide recommendations for mitigating impacts and for improving protective measures. After the third year of resource monitoring, the Forest Service, USACE, or CPUC, as appropriate, will evaluate the effectiveness of the protective measures and the monitoring program. Based on that evaluation, the Forest Service, USACE, or CPUC may require that SCE revise or refine the protective measures, or alter the monitoring protocol or schedule. If the CPUC, USACE, and Forest Service (for NFS lands) do not authorize alteration of the monitoring protocol or schedule, those shall remain in effect for the duration of Project operation.

If the annual monitoring program identifies adverse effects to NRHP-eligible properties from operation or long-term presence of the Project, or if, at any time, SCE, Forest Service, USACE, or CPUC become aware of such adverse effects, SCE shall notify the Forest Service, USACE, and CPUC immediately and implement mitigation for adverse effects, as directed by the agencies. At the discretion of the Forest Service, USACE, and CPUC, such mitigation may include, but not be limited to modification of protective measures, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection.

Rationale for Finding. In many cases, direct impacts can be avoided through minor design modifications and Project effects will be reduced to a less-than-significant level by the avoidance and protection measures listed in Mitigation Measures C-1a through C-1h, above; this is the preferred treatment for all cultural resources. Once final design is completed and the APE has been defined fully, additional surveys and evaluations may be necessary, as discussed in Mitigation Measure C-1b (Inventory cultural resources in the APE). Using best available data, known cultural resources should be avoided wherever possible through Project redesign and engineering modifications as described in Mitigation Measure C-1c (Avoid and protect significant resources). If cultural resources are identified through additional surveys or construction activities, then Mitigation Measures C-1e (Develop and implement Historic Properties Treatment Plan), C-1f (Conduct data recovery excavation or other actions to reduce adverse effects), C-1g (Conduct cultural resources monitoring), and C-1h (Workers Environmental Awareness Program) as detailed above, will be implemented by SCE to ensure discovery, evaluation, and treatment of unknown buried prehistoric and historical archaeological sites. Mitigation Measure C-1i also serves to minimize indirect Project impacts. Implementation of these measures will reduce impacts to less-than-significant levels under CEQA.

Reference. Final EIR Section 3.5; Table ES-3

Impact C-2: Native American human remains could be uncovered, exposed, and/or damaged during Construction.

Native American human remains or sacred features, in the form of primary inhumations, cremations, ceremonial bundles, or mourning ceremony features, could be inadvertently uncovered, exposed, and/or otherwise damaged during Project construction.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact C-2. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact C-2 to a less-than-significant level.

- **MM C-2 Treatment of human remains discovered during construction.** APM CR-6 addresses the inadvertent discovery of human remains. If human remains are discovered during construction, all work will be diverted from the area of the discovery and the CPUC, USACE, and Forest Service authorized officer will be informed immediately. SCE shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains. As requested, SCE shall assist and support the CPUC, USACE, and Forest Service to comply with Native American Graves Protection and Repatriation Act (NAGPRA). SCE shall comply with all relevant Public Resource Codes and Health and Safety Codes regarding the discovery and handling of human remains, shall support consultation with Native Americans and appropriate agencies and commissions, and shall comply with and implement actions and studies as directed by the CPUC, USACE, and/or Forest Service.

Rationale for Finding. Implementation of Mitigation Measure C-2 will reduce impacts to a level of less than significant by providing a mechanism to treat human remains discovered during construction.

Reference. Final EIR Section 3.5; Table ES-3

Cumulative Impact C-2: Native American human remains could be uncovered, exposed, and/or damaged during Construction.

Exposure of unanticipated Native American human remains or sacred features during construction could result in a significant impact to the remains and an adverse effect under the regulations in the National Historic Preservation Act.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant cumulative effects on the environment from Cumulative Impact C-2. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Cumulative Impact C-2 to a less-than-significant level.

- **MM C-2 Treatment of human remains discovered during construction.** (*See above for full text*)

Rationale for Finding. Implementation of Mitigation Measure C-2 (Treatment of human remains discovered during construction) will reduce Project-specific impacts to a level of less than significant by requiring all work to be diverted in the event human remains are discovered, and requiring compliance with the NAGPRA and all relevant Public Resource Codes and Health and Safety Codes regarding the discovery of human remains. Similar measures would be required for any past, present or reasonably foreseeable projects; therefore, this impact would not be cumulatively considerable.

Reference. Final EIR Section 3.5; Table ES-3

III.3.5 Environmental Contamination and Hazards

Impact E-2: Excavation or grading could result in mobilization of existing soil or groundwater contamination from known sites.

Depth to groundwater throughout the Project area is generally at least 75 feet below ground surface (bgs), although shallow and perched groundwater may be present locally near Whittier Narrows and Chino Valley.

The maximum construction-related excavation depth is approximately 40 feet bgs and therefore, direct contact with groundwater (or contaminated groundwater) would be expected to occur only locally during construction of the Project. Many areas of the Project, such as the undeveloped lands along Segments 4, 5, 6, 10 and 11, are unlikely to have existing soil or groundwater contamination. However, in developed urban areas along Segments 7, 8, and 11 (south of S11 MP 26), environmental contamination may be present at each new or expanded substation location and along newly acquired transmission line ROWs. There are several sites with existing contamination along this portion of the route. Such contamination includes leaking underground storage tanks (LUST), landfills, industrial and manufacturing sites, and former defense sites. SCE has committed to implementation of Phase I ESAs under APM HAZ-1, which will require existing contamination at these sites to be further investigated. However, contamination may also be present along *existing* transmission line ROWs due to the nature of the industrial/commercial setting of adjacent sites along some segments of the Project alignment. Any potential areas of concern, such as LUST and industrial sites with on-going investigation and clean up, landfills, and oil fields, will need to be evaluated for possible further assessment.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact E-2. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact E-2 to a less than significant level. With implementation of Mitigation Measures E-2a and E-2b, below, this impact would be reduced to a level of less than significant.

- **MME-2a Perform Phase I ESAs along existing transmission line ROWs.** SCE shall conduct Phase I Environmental Site Assessments (ESAs) within a 0.25-mile corridor along the segments identified below to determine whether there is a record of hazardous material contamination which would affect construction activities. This investigation will determine the likelihood of on-site contamination and shall identify the need for further investigation and/or remediation of soil or groundwater within areas of ground disturbance for the Project. For example, if there would be little or no human contact with contaminated materials by avoidance of the area or because no excavation is required during construction, no further mitigation would be required. However, if Project construction activities would involve human contact with contaminated materials that could potentially affect the health or safety of workers or the public during construction of the Project, then Mitigation Measure E-2b (Perform Phase II Investigations for potentially contaminated sites) shall be implemented.
 - Segment 7 from S7 MP 1.8 to MP 15.8
 - Segment 8A from S8A MP 2.2 to MP 7.0, S8A MP 15.2 to MP 15.5, S8A MP 24 to 35.2
 - Segment 8B from S8B MP 0.0 to MP 6.8
 - Segment 8C from S8C MP 0.0 to MP 6.4
 - Segment 11 from S11 MP 26 to MP 36.2
- **MME-2b Perform Phase II Investigations for potentially contaminated sites.** Phase II Environmental Site Investigations (ESIs) shall be performed on sites that have been determined by the Phase I ESAs performed under APM HAZ-1 and Mitigation Measure E-2a (Perform Phase I ESAs along existing transmission line ROWs) to be potentially contaminated. If it is determined that disturbance or excavation of contaminated soils or groundwater would occur during construction at a given site, SCE would undertake a Phase II ESI involving sampling and further characterization of potentially contaminated areas within the Project ROW or reroute the line away from the contamination area. Should further investigation reveal high levels of hazardous materials, SCE would mitigate health and safety risk according to Los Angeles County Certified Unified

Program Agency (CUPA) or Regional Water Quality Control Board (RWQCB) regulations or requirements. This would include site-specific Health and Safety Plans, Work Plans, and/or Remediation Plans.

Rationale for Finding. Implementation of Mitigation Measures E-2a and E-2b will reduce the potential for excavation or grading to result in mobilization of existing soil or groundwater contamination to a less-than-significant level by providing a mechanism to check for existing contamination and then mitigating the health and safety risks according to existing regulations and requirements.

Reference. Final EIR Section 3.6; Table ES-3.

Impact E-3: Landfill gas and/or natural gas located near active, inactive or abandoned oil wells could be encountered during excavation or grading, resulting in explosions or exposure of workers to toxic gases.

The proximity of the Project alignment to designated landfill areas represents a potential risk for encountering methane gas during construction. Toxic and inflammable gases that have migrated from a landfill or oil well could accumulate in excavations or depressions at construction sites and could result in explosions or exposure of workers to these toxic gases.

The Segment 7 alignment, which extends east from the Mesa Substation, traverses very near the North Parcel of the Operating Industries Landfill (EDR Site No. 0 in Final EIR Table 3.6-6) from approximately S7 MP 14.8 to S7 15.8, a 190-acre designated Superfund site. In addition, Segment 7 nears EDR Sites 35 (S7 MP 2), 47 (S7 MP 4.2), 50, 51, 52, 56 (S7 MP 4.3-4.4), 62, 64 (S7 MP 4.7-4.9), 165 (S7 MP 10.8), and 185/193 (S7 MP 14.2-14.5), which are all noted as landfill operations, located along the San Gabriel River northeast of the Mesa Substation. Segment 8 nears landfill areas (EDR Sites 207, 219 and 254), located at approximately S8A MP 4.8 to 6.0, S8B MP 4.4 and S8B MP 0.3, respectively. Segment 11 approaches EDR identified landfill Sites 20, 170 and 174, located at S11 MP 26, and at the Mesa Substation, respectively. EDR Site 33 is a designated USEPA and Cal EPA Brownfield with Deed Restriction, located at mile marker S11 MP 28 in the City of Pasadena. These sites pose a low but potential risk for encountering methane gas or toxic fumes during excavation or grading.

Additionally, the proximity of the Project alignment to active, inactive, and abandoned oil wells may expose workers to natural gas leaking leaks from improperly sealed wells. According to oil field maps (DOGGR, 2003, 2004a, 2004b, 2005, and 2006), portions of Segments 7, 8, and 11 are located within 200 to 500 feet of plugged and abandoned wells, dry holes, or active oil wells. Considering the proximity of the Project to these oil wells, there is potential for contacting natural gas pocket(s) during construction. Oil wells within 500 feet of the Project are located at S7 MP 13.6 to 14.6, S8A MP 2.2 to 4.0, S8A MP 4.7 to 5.5, and S11 MP 35.1 to 35.4.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact E-3. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact E-3 to a less-than-significant level. With implementation of Mitigation Measures E-3a through E-3c, below, this impact would be reduced to a level of less than significant.

- **MM E-3a Determine if landfill gases are present.** To assess the likelihood that contamination from identified landfills could be present in the Project alignment construction zone, SCE shall complete a search of landfill records, plans, maps and gas monitoring to determine the limits of landfill waste and landfill gas plume for all landfills listed below. For all locations at which the records review cannot confirm a gas-free landfill perimeter adjacent to the Project construction

zone, a soil vapor survey shall be conducted. The soil vapor survey shall consist of driving probes in areas of proposed excavation and grading activities along the transmission line corridors and substation sites. Vapor samples shall be tested for methane, other flammable gases, and volatile organic compounds. Laboratory test results shall be reported to the Department of Toxic Substances Control (DTSC) or the appropriate County Environmental Health Division and shall include an assessment of the contamination potential in the excavation area. Documentation of all site research and a copy of the Los Angeles CUPA approval letter shall be provided to the CPUC at least 30 days prior to the start of construction within the appropriate Project segment.

Landfill Sites Near the Project Alignment		
Segment	Milepost	Corresponding EDR Site ID Nos.
Segment 7	MP 2	35
Segment 7	MP 4.2	47
Segment 7	MP 4.3-4.4	50-52, 56
Segment 7	MP 4.7-4.9	62, 64
Segment 7	MP 10.8	165
Segment 7	MP 14.2-14.5	185, 193
Segment 7	MP 14.8-15.8	0
Segment 8A	MP 4.8-6.0	207
Segment 8B	MP 0.3	254
Segment 8B	MP 4.4	219

Source: EDR, 2007a.

- MME-3b Implement personnel safety and monitoring measures.** If laboratory tests indicate the presence of landfill gases in the construction areas, a Health and Safety Plan shall be developed by a licensed industrial hygienist and a gas monitoring program shall be implemented by SCE or its contractors. A Health and Safety Plan shall also be developed for work in areas within 500 feet of active, inactive or abandoned oil wells that includes requirements for gas monitoring of excavations. A copy of the Health and Safety Plan and monitoring program shall be submitted to the appropriate CUPA agency and the CPUC at least 30 days prior to the start of construction within the appropriate Project segment.
- MME-3c Verify location and status of abandoned oil and natural gas wells.** Prior to excavation and construction activities, SCE shall contact the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) for specific information on wells located within 500 feet of the transmission line route, including location and abandonment details. SCE shall avoid construction near (within 50 feet) abandoned oil or gas wells. If a tower or trench is located within 50 feet of a plugged or abandoned well, SCE shall coordinate with DOGGR and provide written confirmation to the CPUC that the well has been correctly abandoned and does not require remedial plugging or the installation of a gas venting system. If an unrecorded well is encountered during construction, SCE shall stop construction and notify DOGGR immediately. Although SCE would not be responsible to properly abandon oil wells in the vicinity of the Project, construction at the location will resume only after SCE provides the CPUC with written confirmation that the well has been correctly abandoned and does not require remedial plugging or the installation of a gas venting system.

Rationale for Finding. Implementation of Mitigation Measures E-3a, E-3b, and E-3c will reduce the potential for encountering toxic gas or natural gas located near landfills or active, inactive or abandoned oil wells to a less-than-significant level by requiring a search of landfill records plans, maps and gas monitoring to determine the limits of landfill waste and landfill gas plume for all landfills in the Project vicinity and conducting a soil vapor survey, as required (MM E-3a); developing a Health and Safety Plan, if required (MM E-3b); and contacting DOGGR to verify the location and status of abandoned oil and natural gas wells, and coordinating with DOGGR as appropriate (MM E-3c).

Reference. Final EIR Section 3.6; Table ES-3.

Impact E-4: Unanticipated preexisting soil and/or groundwater contamination could be encountered during excavation or grading.

Depth to groundwater throughout the Project area is generally greater than 75 feet bgs, and the maximum construction-related excavation depth is approximately 40 feet bgs and therefore, direct contact with groundwater (or contaminated groundwater) would be expected to occur only locally during construction of the Project. However, unanticipated soil and/or groundwater contamination could exist along the Project alignment due to illegal dumping or other historical activities (e.g., mining). Possible types of contamination include gasoline and diesel fuel residuals, heavy metals, and/or other hazardous materials. SCE's Soil Management Plan developed under APM HAZ-3 will be incorporated into the Project in order to identify and dispose of potentially impacted soil (by assigning appropriately trained professionals to monitor soil conditions, identifying and assessing any impacted soil, performing soil excavation, and/or verifying sampling and disposal). However, this measure will not reduce Project impacts to a less-than-significant level. It does not specify how or who would determine if regulatory limits are exceeded. If laboratory data are not properly interpreted, environmentally contaminated soil or groundwater could be improperly handled and disposed of, resulting in additional environmental contamination or exposure of workers to contaminated materials. In addition, this measure does not include requirements for documentation and reporting of incidents of encountered contaminants, such as documenting locations of occurrence, sampling results, and reporting actions taken to remediate contaminated materials to the CPUC and Forest Service (if on NFS lands).

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact E-4. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact E-4 to a less than significant level. With implementation of Mitigation Measures E-4a and E-4b, below, this impact would be reduced to a level of less than significant.

- **MM E-4a Appoint individuals with correct training for sampling, data review, and regulatory coordination.** In the event that potential contaminated soil or groundwater is encountered during construction activities, samples shall be collected by an Occupational Safety and Health Administration (OSHA) trained individual with a minimum of 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) worker training. Laboratory data from suspected contaminated material shall be reviewed by the contractor's Health and Safety Officer and/or SCE's Field Environmental Representative and they shall coordinate with the appropriate regulatory agency (RWQCB or local CUPA agency) if contamination is confirmed, to determine the suitable level of worker protection and the necessary handling and/or disposal requirements.
- **MM E-4b Document compliance with APM HAZ-3.** If the visual or olfactory evidence of contamination in the exposed soil is observed during grading or excavation work, the location and the potential contamination, results of laboratory testing, recommended remediation (if contamination is verified), and actions taken shall be documented in a report and submitted to the CPUC and FS (for NFS lands) for each event. This report shall be submitted within 30 days of receipt of laboratory data.

Rationale for Finding. Implementation of Mitigation Measures E-4a and E-4b will ensure that laboratory data is properly interpreted by trained personnel regarding contamination levels for reporting to the appropriate regulatory agency and documentation that these measures are properly implemented, which will reduce the impact from encountering unknown contamination to less than significant.

Reference. Final EIR Section 3.6; Table ES-3.

III.3.6 Geology and Soils

Impact G-1: Project activities could interfere with access to known energy resources.

Construction traffic and work areas for the Project (Segments 7, 11, and 8A) along oil field access roads could interfere with daily operation of the oil field, including but not limited to impeding access to oil field structures and facilities by temporarily blocking access roads during construction.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant cumulative effects on the environment from Impact G-1. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact G-1 to a less-than-significant level.

- **MM G-1 Coordination with oil field operations.** Operations and management personnel for the oil fields shall be consulted regarding access requirements, and SCE and its contractors shall coordinate construction activities across and along necessary oil field access roads in a manner to limit interference with oil field operations. A plan to avoid or minimize interference with oil field operations shall be prepared in conjunction with oil field operators prior to construction. SCE shall document compliance with this measure by submitting the plan to the CPUC for review 30 days prior to the start of construction in the affected Project segments.

Rationale for Finding. Implementation of Mitigation Measure G-1 (Coordination with oil field operations) requires that operations and management personnel for the oil fields shall be consulted regarding access requirements, and SCE and its contractors shall coordinate construction activities across and along necessary oil field access roads in a manner to limit interference with oil field operations. A plan to avoid or minimize interference with oil field operations shall be prepared in conjunction with oil field operators prior to construction. SCE shall document compliance with this measure by submitting the plan to the CPUC for review 30 days prior to the start of construction in the affected Project segments reducing potential adverse impacts to less than significant.

Reference. Final EIR Section 3.7; Table ES-3

Impact G-2: Erosion could be triggered or accelerated due to construction activities.

Soils along all segments (Segments 4, 5, 6, 7, 8, 9, 10, and 11) of the Project alignment have potential hazards of erosion for off-road/off-trail ranging from slight to very severe and on-road/on-trail ranging from slight to severe. Soil loosened by Project construction could migrate by wind or water to nearby waterways potentially causing damage to aquatic habitat, or could add to particulate air pollution if picked up by the wind or disturbed by vehicles. Erosion could cause rutting and loss of topsoil.

APMs GEO-3 (Construction SWPPP) and HYD-1 (Construction SWPPP), which are included as part of the Project, will minimize this impact of the Project, along with Mitigation Measure H-1a (Implement an Erosion Control Plan and demonstrate compliance with water quality permits).

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant cumulative effects on the environment from Impact G-2. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact G-2 to a less-than-significant level.

- **MM H-1a Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** (See above for full text).

Rationale for Finding. APMs GEO-3 and HYD-1 will reduce the amount of erosion that will result from construction by developing and implementing a Project-specific SWPPP as required in accordance with the Clean Water Act. Mitigation Measure H-1a (Implement an Erosion Control Plan and demonstrate compliance with water quality permits) will require that pre-construction plans be developed to identify and properly implement any necessary BMPs to control erosion and/or sedimentation, and for the identification and mitigation of any disturbances to drainages and/or riparian areas. Implementation of this measure will ensure impacts from soil erosion due to Project construction will be less than significant.

Reference. Final EIR Section 3.7; Table ES-3

Impact G-3: Excavation and grading during construction activities could cause slope instability or trigger landslides.

Destabilization of the natural or constructed slopes could occur as a result of construction activities due to excavation and/or grading operations. Excavation operations associated with tower foundation construction and grading operations for temporary and permanent access roads and staging and work areas could result in slope instability, resulting in landslides, soil creep, or debris flows. Portions of Segments 5, 6, 11, and 8A traverse moderate to steep mountains and hills underlain by landslide prone sedimentary and metamorphic rocks. The alignments also cross numerous mapped landslides (see Tables 2-8, 2-9, 2-11, and 2-12 of the *Geology, Soils, and Paleontology Specialist Report (GTC, 2009)*).

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant cumulative effects on the environment from Impact G-3. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact G-3 to a less-than-significant level.

- **MM G-3 Conduct geological surveys for landslides and protect against slope instability.**
Design-level geotechnical investigations performed by SCE shall include geological surveys for landslides that will allow identification of specific areas with the potential for unstable slopes, landslides, earth flows, and debris flows along the approved transmission line route and in other areas of ground disturbance, such as access and spur roads and staging and work areas. The geotechnical investigations shall evaluate subsurface conditions, identify potential hazards, and provide information for development of excavation plans and procedures. If the results of the geotechnical survey indicate the presence of unstable slopes at or adjacent to Project structures, appropriate support and protection measures shall be designed and implemented to maintain the stability of slopes adjacent to newly graded or re-graded access and spur roads, work areas, and Project structures during and after construction, and to minimize potential for damage to Project facilities. These design measures shall include, but are not limited to, retaining walls, visqueen, removal of unstable materials, and avoidance of highly unstable areas. Appropriate construction methods and procedures, in accordance with State and federal health and safety codes, shall be followed to protect the safety of workers and the public during drilling and excavation operations. SCE shall document compliance with this measure by submitting a report to the CPUC and FS (for NFS lands) for review at least 30 days prior to final Project design. The report shall document the investigations and detail the specific support and protection measures that will be implemented. Additionally, along Segment 8A (between approximately S8A MPs 5.4 and 6.6), where portions of the proposed project alignment and associated access roads are located adjacent to the Puente Hills Landfill in an area where known slope stability issues and landslides are present, SCE shall coordinate with the County Sanitation Districts of Los Angeles County (LACSD) regarding known landslides and landslide repairs along the southwestern boundary of the landfill and shall submit the geological survey and slope stability reports, including recommended support and protection measures for Segment 8 to the LACSD for review at least 30 days prior to final project design.

Rationale for Finding. The Project will result in significant impacts if unidentified unstable slopes or areas of potentially unstable slopes were disturbed or undercut by construction activities resulting in slope failures. Slope failures could cause damage to the environment, to Project or other nearby structures, and could cause injury or death to workers and/or the public, a significant impact. However, prior to final design of substation facilities and transmission line tower foundations, SCE will perform geotechnical studies to identify site-specific geologic conditions (APM GEO-2). This measure does not identify items to be completed as part of the geotechnical study to identify areas of unstable slopes. However, implementation of Mitigation Measure G-3 (Conduct geological surveys for landslides and protect against slope instability) adds specific requirements to the planned geotechnical investigations to be completed prior to final Project design, ensuring that slope instability impacts will be reduced to less than significant.

Reference. Final EIR Section 3.7; Table ES-3

Impact G-4: Project structures could be damaged by surface fault rupture at crossings of active faults exposing people or structures to hazards.

Project facilities will be subject to hazards of surface fault rupture at crossings of the active San Andreas (Segment 5), San Gabriel, (Segments 6 and 11), Clamshell-Sawpit (Segment 6), Sierra Madre (Segments 7 and Segment 11 north of S11 MP 19), East Montebello Hills (Segments 7 and 8A), Whittier (Segment 8A), Chino (Segment 8A), and Central Ave (Segment 8A) faults.

APM GEO-1 (Seismic Design) and GEO-2 (Perform Geotechnical Studies), which are included as part of the Project, will reduce impacts associated with overhead active fault crossings. In addition, Mitigation Measure G-4 (Avoid placement of Project structures within active fault zones) will also reduce this impact of the Project.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant cumulative effects on the environment from Impact G-4. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact G-4 to a less-than-significant level.

- **MM G-4 Avoid placement of Project structures within active fault zones.** Prior to final Project design SCE shall perform a fault evaluation study to confirm the location of mapped traces of active and potentially active faults crossed by the Project route or other Project structures. For crossings of active faults, the Project design shall be planned so as not to locate towers or other Project structures on the traces of active faults; and in addition, Project components shall be placed as far as feasible outside the areas of mapped fault traces. Compliance with this measure shall be documented to the CPUC and FS in a report submitted for review at least 60 days prior to the start of construction.

Rationale for Finding. Fault crossings, where multiple feet of displacement are expected along active faults, are best crossed as overhead lines with towers placed well outside the fault zone to allow for the flex in the conductor lines to absorb offset. Damage to Project structures could result in power outages, damage to nearby roads or structures, and injury or death to people, a significant impact. SCE has committed to designing Project elements according to appropriate industry standards and in accordance with good engineering practices (APM GEO-1); prior to final design of substation facilities and transmission line tower foundations SCE will perform geotechnical studies to identify site-specific geologic conditions (APM GEO-2). However, APM GEO-1 and APM GEO-2 do not specify that fault studies will be performed to prevent placement of towers on active fault traces, nor do they address issues related to potential fault rupture damage to transmission line facilities where it is not feasible to locate towers outside of active fault zones. Mitigation Measure G-4 (Avoid placement of Project structures within active fault zones) reduces

impacts associated with overhead active fault crossings to less-than-significant levels. Proper placement of towers relative to active faults will allow the conductor to distribute fault displacements over a comparatively long span and towers will be less likely to result in structural failure in the event of an earthquake if not placed directly on an active fault trace.

Reference. Final EIR Section 3.7; Table ES-3

Impact G-5: Project structures could be damaged by seismically induced groundshaking and/or ground failure exposing people or structures to hazards.

It is likely that the Project facilities will be subjected to at least one moderate or larger earthquake occurring close enough to produce local strong to severe groundshaking along portions of Segments 4, 5, 6, 7, 9, and 11. Local strong to severe groundshaking with vertical and horizontal ground accelerations that could exceed standard design stresses could result in damage to Project structures. Structural damage could result in power outages, damage to nearby roads or structures, and injury or death to nearby people.

Severe to strong groundshaking could result in liquefaction-related phenomena along sections of the Project segments (portions of Segments 5, 7, 11, 8A, 8B, and 8C) that cross young alluvial deposits in the Leona Valley, San Gabriel Valley, eastern Chino Basin, and in active river washes and streams where lenses and pockets of loose seasonally saturated sand may be present. This could result in damage to Project structures should a large earthquake occur during the periods when these soils are saturated, a significant impact. Seismically induced slope failures such as landslides could occur in the event of a large earthquake along portions of the Project. Portions of Segments 5, 6, 11, and 8A are located along hillsides or ridgelines in geologic units of moderate to steep slopes, which are particularly susceptible to this type of ground failure. Some of these areas, which include the Pelona Schist, weathered gneissic bedrock, and Puente Formation, have a high possibility of seismic-induced ground failure in the form of landsliding or ground-cracking resulting in damage to Project structures.

APMs GEO-1 (Seismic Design) and GEO-2 (Perform Geotechnical Studies), which are included as part of the Project, will help to reduce this impact of the Project. In addition, Mitigation Measures G-3 (Conduct geological surveys for landslides and protect against slope instability), G-5a (Reduce effects of groundshaking), and G-5b (Conduct geotechnical investigations for liquefaction) will reduce the potential of impacts related to groundshaking and seismically-related ground failure along the Project route.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant cumulative effects on the environment from Impact G-5. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact G-5 to a less-than-significant level.

- **MM G-3 Conduct geological surveys for landslides and protect against slope instability.** *(See above for full text).*
- **MM G-5a Reduce effects of groundshaking.** The design-level geotechnical investigations performed by SCE shall include site-specific seismic analyses to evaluate ground accelerations for design of Project components. Based on these findings, Project structure designs shall be modified/strengthened, as deemed appropriate by the Project engineer, if the anticipated seismic forces are found to be greater than standard design load stresses on Project structures. Study results and proposed design modifications shall be provided to the CPUC and FS for review at least 60 days before final Project design.
- **MM G-5b Conduct geotechnical investigations for liquefaction.** Because seismically induced liquefaction-related ground failure has the potential to damage or destroy Project

components, the design-level geotechnical investigations to be performed by SCE shall include investigations designed to assess the potential for liquefaction to affect the approved Project and all associated facilities, specifically at tower locations in areas with potential liquefaction-related impacts (portions of Segments 5, 7, 11, 8A, 8B, and 8C underlain by alluvium with the potential for shallow groundwater). Where these hazards are found to exist, appropriate engineering design and construction measures shall be incorporated into the Project designs as deemed appropriate by the Project engineer. Design measures that would mitigate liquefaction-related impacts could include construction of pile foundations, ground improvement of liquefiable zones, installation of flexible bus connections, and incorporation of slack in cables to allow ground deformations without damage to structures. Study results and proposed solutions to mitigate liquefaction shall be provided to the CPUC and FS for review at least 60 days before final Project design.

Rationale for Finding. Prior to final design of substation facilities and transmission line tower foundations, SCE will perform geotechnical studies to identify site-specific geologic conditions (APM GEO-2). In addition, as part of the Project SCE will design new substations in accordance with seismic design requirements based on the IEEE 693 “Recommended Practices for Seismic Design of Substation” and design other Project elements according to appropriate industry standards and in accordance with good engineering practices (APM GEO-1). However, these measures do not identify specific items to be completed as part of the geotechnical study to identify areas of severe groundshaking, potential seismically induced landslides, or potential liquefaction. Implementation of Mitigation Measures G-3 (Conduct geological surveys for landslides and protect against slope instability), G-5a (Reduce effects of groundshaking), and G-5b (Conduct geotechnical investigations for liquefaction) include these specific requirements to the planned geotechnical investigations to be completed prior to final Project design. These specific requirements will ensure that potentially significant impacts for seismically induced groundshaking and potential of seismically-related ground failure along the Project route are reduced to less-than-significant levels.

Reference. Final EIR Section 3.7; Table ES-3

Impact G-6: Project structures could be damaged by problematic soils exposing people or structures to hazards.

Soils along the Project Segments have a potential to corrode steel and concrete ranging from low to high. In areas where corrosive subsurface exist along the proposed route, the corrosive soils could have a detrimental effect on concrete and metals. Depending on the degree of corrosivity of subsurface soils, concrete and reinforcing steel in concrete structures and bare-metal structures exposed to these soils could deteriorate, eventually leading to structural failures. Expansion potential for the soils along the Project alignment ranges from low to high. Expansive soils can also cause problems to structures. Soils that exhibit shrink-swell behavior are clay-rich and react to changes in moisture content by expanding or contracting. Some of the natural soil types identified along the Project have moderate to high clay contents and many have moderate to high shrink-swell potential. Expansive soils may cause differential and cyclical foundation movements that can cause damage and/or distress to structures and equipment. In addition, potential impacts associated with loose sands or other compressible soils include excessive settlement, low foundation-bearing capacity, and limitation of year-round access to Project facilities.

APM GEO-2 (Perform Geotechnical Studies), which is included as part of the Project, will help to reduce this impact of the Project. In addition, Mitigation Measure G-6 (Conduct geotechnical studies to assess soil characteristics and aid in appropriate foundation design) will reduce the potential of impacts related to problematic soils.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant cumulative effects on the environment from Impact G-6. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact G-6 to a less-than-significant level.

- **MM G-6 Conduct geotechnical studies to assess soil characteristics and aid in appropriate foundation design.** The design-level geotechnical studies to be performed by SCE shall identify the presence, if any, of potentially detrimental soil chemicals, such as chlorides and sulfates. Appropriate design measures for protection of reinforcement, concrete, and metal-structural components against corrosion shall be utilized, such as use of corrosion-resistant materials and coatings, increased thickness of Project components exposed to potentially corrosive conditions, and use of passive and/or active cathodic protection systems. The geotechnical studies shall also identify areas with potentially expansive or collapsible soils and include appropriate design features, including excavation of potentially expansive or collapsible soils during construction and replacement with engineered backfill, ground-treatment processes, and redirection of surface water and drainage away from expansive foundation soils. Studies shall conform to industry standards of care and American Society for Testing and Materials (ASTM) standards for field and laboratory testing. Study results and proposed solutions shall be provided to the CPUC and FS, as appropriate, for review at least 60 days before final Project design.

Rationale for Finding. APM GEO-2 (Perform Geotechnical Studies) will reduce the adverse effects of problematic soils by conducting a geotechnical study for the Project. However, this APM is lacking in detail and is inadequate to ensure that unsuitable soils will be properly identified and mitigated. Unidentified expansive and corrosive soils could damage Project structures and facilities, which could result in power outages, damage to nearby roads or structures, and injury or death to nearby people. Accordingly, implementation of Mitigation Measure G-6 (Conduct geotechnical studies to assess soil characteristics and aid in appropriate foundation design) will be implemented. The design-level geotechnical studies to be performed by SCE shall identify the presence, if any, of potentially detrimental soil chemicals, such as chlorides and sulfates. Appropriate design measures for protection of reinforcement, concrete, and metal-structural components against corrosion shall be utilized, such as use of corrosion-resistant materials and coatings, increased thickness of Project components exposed to potentially corrosive conditions, and use of passive and/or active cathodic protection systems. The geotechnical studies shall also identify areas with potentially expansive or collapsible soils and include appropriate design features, including excavation of potentially expansive or collapsible soils during construction and replacement with engineered backfill, ground-treatment processes, and redirection of surface water and drainage away from expansive foundation soils. Studies shall conform to industry standards of care and American Society for Testing and Materials (ASTM) standards for field and laboratory testing. Ensuring that impacts will be reduced to less than significant levels.

Reference. Final EIR Section 3.7; Table ES-3

Impact G-7: Transmission line structures could be damaged by landslides, earth flows, or debris slides, during operation.

The southern part of Segment 5, Segment 6, the north end of Segment 7, Segment 8A, and the north half of Segment 11, are located in hill and mountain areas with steep slopes, mapped landslides, or geologic materials prone to landslide. Locating transmission line structures within landslides or on unstable slopes could result in damage to Project structures. Slope failures could cause damage to Project structures resulting in power outages, damage to nearby roads or structures, and injury or death to nearby people.

APM GEO-2 (Perform Geotechnical Studies), included as part of the Project, will help to reduce this impact of the Project. In addition, Mitigation Measure G-3 (Conduct geological surveys for landslides and protect against slope instability) will reduce the potential of impacts related to damage by landslides, earth flows, or debris slides.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant cumulative effects on the environment from Impact G-7. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact G-7 to a less-than-significant level.

- **MM G-3 Conduct geological surveys for landslides and protect against slope instability.**
(See above for full text).

Rationale for Finding. APM GEO-2 (Perform Geotechnical Studies) will reduce impacts related to landslide hazards during operations of the Project. However this measure does not specify that surveys for unstable slope will be conducted as part of the planned geotechnical studies. Unidentified unstable slopes or areas of potentially unstable slopes along or nearby and upslope of Project components could fail during the lifetime of the Project resulting in damage to these facilities. To ensure that landslide impacts to Project structures during operation will be reduced to less-than-significant levels, implementation of Mitigation Measure G-3 (Conduct geological surveys for landslides and protect against slope instability) is required prior to construction for the hill and mountain areas. This will aid in proper identification of areas of potential slope instability allowing for avoidance or stabilization of these areas, reducing potential for damage to structures during Project operation.

Reference. Final EIR Section 3.7; Table ES-3

III.3.7 Hydrology and Water Quality

Impact H-1: Construction activities would degrade surface water quality through erosion and accelerated sedimentation.

Construction and/or demolition of overhead transmission line towers and construction and/or upgrades of substations will include soil-disturbing activities that could subsequently cause localized, short-term water quality degradation. Excavation and/or grading will be required at all tower sites where new pads or footings are required, at all tower demolition sites, and at all new and/or expanded substations. Additional clearing of vegetation and/or grading will be required for crane pads, pulling/stringing stations, staging areas, marshalling yards, concrete batch plants, helicopter staging areas, helicopter landing pads, tower wreck-out staging areas, and access and spur roads.

Disturbance of soil during construction and/or demolition could result in soil erosion and temporarily lowered water quality through increased turbidity and accelerated sediment deposition into local streams. In particular, road construction for both temporary and permanent roadways has the potential to cause soil instability resulting in accelerated erosion and sedimentation, which could temporarily degrade surrounding water quality. Road construction will produce large amounts of loose and disturbed soil, which, without proper management, could enter nearby streams. The water quality impact of road construction and improvement is of particular concern when that road crosses a stream channel, closely parallels a stream channel, or traverses a steep slope. In steep terrain, existing unpaved roads within the Project area show extensive evidence of overland flow, such as rills and gullies that run across and parallel to the roadways. Soil disturbance on these steep, unpaved roads will create a high potential for accelerated erosion.

Land disturbance associated with road construction and improvements will include the following activities: removal of vegetation, blade grading, soil compaction, installation of drainage structures and stream crossings, installation of footings and foundations, and installation of slope-strengthening structures as needed. These activities involve soil disturbance and stockpiling of earth, which, without proper management, could wash into surrounding waterways. Additionally, construction of any type of stream crossing through an actively flowing stream channel will cause some amount of unavoidable, temporary, localized sedimentation. This impact will apply to all stream crossings along the transmission line route, as well as streams crossed by access and spur roads required by the Project.

APM HYD-1 (Construction SWPPP) and APM HYD-2 (Environmental Training Program) will reduce the likelihood of construction-related water quality degradation through erosion and sedimentation. Short-term degradation of surface water quality through erosion and sedimentation, especially within the ANF, will also be reduced through implementation of Mitigation Measures H-1a (Implement an Erosion Control Plan and demonstrate compliance with water quality permits) and H-1b (Dry weather construction), in addition to Mitigation Measure B-2 (Implement RCA Treatment Plan) as described in Section 3.4 (Biological Resources) of the Final EIR.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact H-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact H-1 to a less-than-significant level.

- **MM H-1a** **Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*
- **MM H-1b** **Dry weather construction.** *(See above for full text)*
- **MM B-2** **Implement RCA Treatment Plan.** *(See above for full text)*

Rationale for Finding. APM HYD-1 requires implementation of a Construction SWPPP, which will include several BMPs to reduce erosion and sedimentation, such as straw wattles, water bars, covered stockpiles, silt fences, silting basins, and mulching or seeding to protect exposed areas as well as monitoring to ensure that the BMPs are implemented. APM HYD-2 requires establishment of an environmental training program to communicate environmental concerns and appropriate work practices, including spill prevention and response measures, and SWPPP measures, to all field personnel. Additionally, Mitigation Measure H-1a will require that an Erosion Control Plan be submitted to the CPUC and the USDA Forest Service prior to commencement of any soil-disturbing activities. This plan will include a logbook that records major precipitation events and evaluates the effectiveness of existing BMPs. Iterative review of the logbook by the CPUC and the USDA Forest Service will provide the opportunity to employ adaptive management practices through review and modification, if necessary, of existing BMPs and their effectiveness. Evaluation of the effectiveness of the BMPs can be narrative, and need not include water quality testing unless otherwise required by the RWQCBs, CPUC, USDA Forest Service, or any other jurisdictional agency.

Within the ANF, the applicant will adhere to the Best Management Practice Evaluation Process set forth in the *Water Quality Management for Forest System Lands in California, Best Management Practices* (USDA, 2000). Examples of typical BMPs can be found in the California Department of Transportation's (Caltrans') *Stormwater Quality Handbooks, Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual* (Caltrans, 2007). Some of the more commonly employed BMPs include: preservation of existing vegetation, mulching, hydroseeding, soil binders, geotextiles, silt fences, sediment/desilting basins, check dams, fiber rolls, straw bale barriers, and stockpile management.

Mitigation Measure H-1b (Dry weather construction) will minimize soil-disturbing activities during wet weather in the ANF and will prohibit soil-disturbing activities on those lands during major storm events, unless otherwise authorized by the USDA Forest Service. On steeply sloped topography subject to intense precipitation, limiting construction to dry weather substantially lowers the potential to cause erosion and water quality degradation. Mitigation Measure B-2 (Implement RCA Treatment Plan) will require the applicant to receive ANF approval before constructing or modifying any structure, culvert, or bridge or modifying any habitat on NFS lands in Riparian Conservation Areas.

Reference. Final EIR Section 3.8; Table ES-3

Impact H-2: Construction activities would degrade water quality through the accidental release of potentially harmful or hazardous materials.

Surface water and groundwater quality could be degraded through the accidental release of hazardous materials into a dry or flowing stream channel during Project-related construction activities. Such materials include: lead-based paint flakes, diesel fuel, gasoline, lubricant oils, hydraulic fluid, antifreeze, transmission fluid, lubricant grease, cement slurry, and other fluids required for the operation of construction vehicles and equipment. The transportation of concrete and the use of motorized equipment are examples of construction activities that will involve the use of potentially harmful materials. Motorized equipment could leak hazardous materials such as motor oil, transmission fluid, or antifreeze due to inadequate or improper maintenance, unnoticed or unrepaired damage, improper refueling, or operator error. The release of one or more hazardous materials into a stream channel could occur at any stream crossing within the Project area, or at any of the Project staging areas, such as marshalling yards and helicopter staging areas, that are crossed by or directly adjacent to a stream channel.

Surface water could be contaminated through either direct or indirect contact with potentially harmful or hazardous materials. Direct contact with these materials will result from a spill or leak that occurs directly above or within the bed and banks of a flowing stream or waterbody. An accidental release of a potentially harmful or hazardous material into a dry stream bed or wash will not directly impact water quality. Similarly, an accidental spill or release of hazardous materials outside of a stream channel will not directly impact water quality. However, accidental spills or releases of hazardous materials into a dry stream bed or wash, or outside of a stream channel, could indirectly impact water quality through runoff during a subsequent storm event, when the spilled material could come in contact with or be washed into a flowing stream or waterbody.

Groundwater could be contaminated through indirect contact with potentially harmful or hazardous materials. Because depth to groundwater throughout the Project Regions is approximately 75 feet or more below ground surface (bgs), and the maximum construction-related excavation depth is approximately 40 feet bgs, no direct contact with groundwater will occur during construction of the Project. However, accidental spills or releases of hazardous materials into a dry or flowing stream channel could indirectly impact groundwater through leaching. Stream channels often facilitate infiltration into the underlying groundwater and therefore an accidental release of hazardous materials within a stream channel will have a greater potential to indirectly impact groundwater resources than an accidental release of hazardous materials outside the bed and banks of a stream channel. Hazardous material spills that are left on the ground surface within a dry stream channel and are followed quickly by a storm event could leach through the soil and into the groundwater, thereby resulting in the degradation of groundwater quality.

The following APMs, which are included as part of the Project, will reduce the likelihood that an accidental spill or release of hazardous materials will directly or indirectly impact water quality: HYD-1 (Construction

SWPPP), HYD-2 (Environmental Training Program), HYD-3 (Accidental Spill Control), HYD-4 (Non-storm Water and Waste Management Pollution Controls), and HAZ-2 (Hazardous Materials and Waste Handling Management).

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact H-2. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact H-2 to a less-than-significant level.

- **MM H-1b Dry weather construction.** *(See above for full text).*

Rationale for Finding. APM HYD-1 requires implementation of a Construction SWPPP, which will define the following: where hazardous materials will be stored; where trash will be placed; where motorized equipment will be parked, fueled, and serviced; and where construction materials will be stored. APM HYD-2 requires establishment of an environmental training program to communicate environmental concerns and appropriate work practices, including spill prevention and response measures, and SWPPP measures, to all field personnel. APM HYD-3 requires that the Construction SWPPP include an emergency response program to ensure quick and safe cleanup of accidental spills. APM HYD-4 requires that excess concrete and concrete slurry that is produced during tower and substation construction will be retained on-site within a bermed area and then transported to an approved landfill for disposal. APM HAZ-2 requires development of a Project-specific hazardous materials management and hazardous waste management program, which will outline proper hazardous materials use, storage and disposal requirements as well as hazardous waste management procedures. All Project personnel will be provided with Project-specific training.

Although the APMs APM HYD-1 through APM HYD-4 and APM HAZ-2 will reduce the potential for water quality degradation through the accidental release of potentially harmful or hazardous materials, these adverse effects could still occur. In order to further reduce the potential for degradation of water quality through accidental release of potentially harmful or hazardous materials, implementation of Mitigation Measure H-1b will minimize the potential for such materials to directly contact surface water or leach into the groundwater, and will therefore reduce Impact H-2 to a less-than-significant level.

Reference. Final EIR Section 3.8; Table ES-3

Impact H-4: Project structures would cause erosion, sedimentation, or other flood-related damage by impeding flood flows.

Encroachment of a Project structure into a stream channel or floodplain could result in flooding of or erosion damage to the encroaching structure, diversion of flows and increased flood risk for adjacent property, or increased erosion on adjacent property. The Project will traverse several Flood Hazard Areas designated by the Federal Emergency Management Agency (FEMA), including those associated with the following waterways: Whittier Narrows Flood Control Basin (which includes the San Gabriel River and the Rio Hondo), Santa Fe Flood Control Basin, Little Chino Creek, Carbon Canyon, Chino Creek, Cypress Channel and Cucamonga Creek.

During construction, operation, and maintenance of the Project, all applicable floodplain management ordinances will be fully complied with in accordance with FEMA's regulations on development in Flood Hazard Areas. In addition, APM HYD-7 (Flood and Erosion Structure Damage Protection) and Mitigation Measure H-1a (Implement an Erosion Control Plan and demonstrate compliance with water quality permits) will ensure that Impact H-4 remains less than significant.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact H-4. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact H-4 to a less-than-significant level.

- **MM H-1a Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. APM HYD-7 (Flood and Erosion Structure Damage Protection) will ensure that aboveground Project features such as transmission line towers and substation facilities are designed and engineered to withstand potential flooding and erosion hazards. Measures will include specially designed footings to withstand flooding due either to a 100-year flood event or failure of a nearby upstream dam or reservoir. Additionally, Mitigation Measure H-1a (Implement an Erosion Control Plan and demonstrate compliance with water quality permits) will ensure that appropriate BMPs are employed to reduce the potential for erosion during construction activities, and require demonstrated compliance with all required water quality permits, including compliance with any applicable floodplain management ordinances, as required by FEMA. Together these measures will reduce Project impacts associated with flood-related damage to a less-than-significant level.

Reference. Final EIR Section 3.8; Table ES-3

Impact H-5: Project structures would be inundated by mudflow.

Mudflows are a type of mass wasting or landslide, where earth and surface materials are rapidly transported downhill under the force of gravity. Mudflow events are caused by a combination of factors, including soil type, precipitation, and slope. Mudflow may be triggered by heavy rainfall that the soil is not able to sufficiently drain or absorb. As a result of this super-saturation, soil and rock materials become unstable and eventually slide away from their existing location. The majority of the Southern Region is characterized by generally flat terrain that will not be conducive to a mudflow event. However, the steeper portions of the Puente and Chino Hills do contain soils that could form a mudflow under heavy precipitation.

The potential for inundation of Project structures by mudflow is reduced by the implementation of APM HYD-1 (Construction SWPPP) and APM HYD-7 (Flood and Erosion Structure Damage Protection), as well as Mitigation Measure G-3 (Conduct geological surveys for landslides and protect against slope instability).

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact H-5. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact H-5 to a less-than-significant level.

- **MM G-3 Conduct geological surveys for landslides and protect against slope instability.** *(See above for full text)*

Rationale for Finding. APM HYD-1 requires implementation of a Construction SWPPP, which will include several BMPs to reduce erosion and soil movement, such as straw wattles, water bars, covered stockpiles, silt fences, silting basins, and mulching or seeding to protect exposed areas as well as monitoring to ensure that the BMPs are implemented. APM HYD-7 will require that aboveground Project features such as transmission line towers and substation facilities be designed and engineered to withstand potential flooding and erosion hazards. Measures will include specially designed footings to withstand flooding due either to a 100-year flood event or failure of a nearby upstream dam or reservoir. These design features will also help Project structures withstand inundation by mudflow. Additionally, Mitigation Measure G-3

(Conduct geological surveys for landslides and protect against slope instability) will substantially reduce the potential for inundation by mudflow during the construction phase of the Project. By avoiding areas prone to landslide, and by installing appropriate protection where those areas cannot be avoided, Project structures will not be placed in locations that are prone to landslide and/or mudslide without proper protection. Because this measure will minimize the potential for damage due to inundation by mudflow, Impact H-5 will be reduced to a less-than-significant level.

Reference. Final EIR Section 3.8; Table ES-3

Impact H-6: Discharge of contaminated groundwater during dewatering operations would degrade surface water quality.

This impact will only occur in association with the underground components of Alternative 7 in the South Region. The San Gabriel Valley Groundwater Basin, which underlies the underground portions of the Project, exceeds Maximum Contaminant Levels (MCLs) for Total Dissolved Solids (TDS), nitrate, Volatile Organic Compounds (VOCs), perchlorate, and nitrosodimethylamine (NDMA). Construction of the undergrounded sections of subtransmission line for the Project will require excavation below Avocado Creek, a tributary of the San Gabriel River, which will likely require dewatering activities. Improper design and/or implementation of a dewatering plan could result in discharge of contaminated groundwater to a surface waterbody, which will subsequently lead to degradation of surface water quality. A proper dewatering plan will include testing of the groundwater to be dewatered, and subsequent treatment of that groundwater prior to discharge if contamination is discovered. Discharge of the dewatered effluent will be regulated under the National Pollutant Discharge Elimination System (NPDES) permit required by the appropriate Regional Water Quality Control Board. Compliance with the conditions of the NPDES permit will ensure that contaminated groundwater is properly tested and treated, if necessary, prior to discharge to any surface water. In addition, Mitigation Measure H-1a (Implement an Erosion Control Plan and demonstrate compliance with water quality permits) will be required to mitigate Impact H-6 to a less-than-significant level.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact H-6. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact H-6 to a less-than-significant level.

- **MM H-1a Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. Mitigation Measure H-1a will ensure proper design and implementation of any dewatering activities through demonstrated compliance with NPDES requirements, and will substantially reduce the likelihood that surface water will be contaminated. This measure will reduce Impact H-6 of the Project to a less-than-significant level.

Reference. Final EIR Section 3.8; Table ES-3

III.3.8 Land Use

Impact L-1: Construction of the Project would temporarily disrupt, displace, or preclude existing residential land uses.

Construction-related impacts will typically cause direct effects on land uses within approximately 1,000 feet of either side of a given ROW, or within approximately 1,000 feet of staging areas, wire setup sites,

substation sites, and new and improved access and spur roads due to the presence of construction crews, the operation of heavy equipment, and associated crew, equipment, and material access (import and export) from these sites. Residents within 1,000 feet of construction could perceive activities as an intrusion of their privacy, and may adjust, limit, or cease some of their daily routines and activities in response to construction. Along Segments 6 and 11 implementation of the Project will also involve helicopter construction within the ANF, which will result in temporary land disturbances due to the need for helicopter staging and support areas. Depending on the specific construction activity, work crews at any given location could range between two and 80 persons. Construction activities at or along any given element of the Project will periodically occur between an estimated eight (Segment 10 construction) to 45 months (Vincent and Antelope Substation expansions).

Under the Alternative 2 portions of the Project, many residential properties are located less than 250 feet away and, in some instances, less than an estimated 150 feet away from areas which will be subject to construction-related activity. Construction-related impacts associated with the rural homes situated along the east and west sides of 100th Street between Avenues I and J (Segment 4) will be substantially reduced with incorporation of the Alternative 3 portion of the Project, and will shift the majority of transmission line construction to the west of these residences by a distance of approximately one-half mile.

Two of the helicopter staging areas (Sites #1 and 2) for the Alternative 6 portion of the Project are located within one-half mile of existing residential land uses. Several rural residential homes within a private in-holding of the ANF are located northwest of Site #1, which is adjacent to MP 3.0 of Segment 6; the closest of these homes to the western boundary of the staging area is approximately 0.3 mile away. Several rural residential homes are also located west and southeast of Site #2; these homes are also located within a private in-holding of the ANF. The closest homes are located an estimated 800 to 950 feet from the western boundary of the site; rural residential homes located southeast of the site are an estimated 0.3 mile away or more.

Under the Alternative 7 portion of the Project along the Duck Farm 66-kV Underground Re-Route, residential homes are located less than 1,000 feet from the proposed underground ROW. Along the Whittier Narrows 66-kV Underground Re-Route residential land uses fall within 1,000 feet of the ROW along Farmer Avenue (located northwest of Durfee Avenue), and within one-half mile of the ROW within a neighborhood that is bound by Lexington Gallitan Road, Farmer Avenue, Fawcett Avenue, and Andrews Street; this neighborhood is also located northwest of Durfee Avenue. Existing residential land uses within one-half mile of the northern-most point of the Whittier Narrows 66-kV Overhead Re-Route Options 1 and 2 are located along Hazel Avenue and Darlington Street, which are north-northwest of Segment 7 MP 13.8 and Segment 8 MP 2.2; existing residential land uses are also located within one-quarter to one-half mile of Option 1 in a neighborhood flanked by Highway 19 to the west, the San Gabriel River Parkway to the east and Kruse Road to the north. Construction of both options of the Whittier Narrows 66-kV Overhead Re-Route will also result in new temporary impacts to those land uses located along, and adjacent to, San Gabriel Boulevard/Durfee Avenue, and Option 1 will additionally result in temporary impacts to land uses along Siphon Road and the San Gabriel River crossing. Option 2 will require an expanded ROW width of 20 feet along Segment 8A between MPs 3.2 and 3.8. Option 1 will require approximately 1,600 linear feet of new ROW for the San Gabriel River crossing. However, assuming that SCE is able to secure the land needed for the new ROW, construction related disturbances along these re-route options will be anticipated to be the same as for Alternative 2.

Mitigation Measures L-1a (Construction liaison – Property owners), L-1b (Advance notification of construction - Property owners), and L-1c (Quarterly construction updates - Property owners) will reduce this impact of the Project.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact L-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact L-1 to a less than significant level.

- **MM L-1a Construction liaison – Property owners.** SCE shall provide a toll-free general phone number, and the name and contact information for a local public liaison (or liaisons) to all affected property owners within 300 feet of construction-related activities. The toll-free access number and the identified local public liaison(s) shall act as points of contact and interface between residents and construction crews for that area. The toll-free number and local public liaison(s) shall be available both in person and by phone, as necessary, for at least 14 days prior to the start of any construction-related activities and for up to six months following construction. The local public liaison(s) shall respond to all construction-related questions and concerns within a 72-hour period during construction when contact information is provided. Post-construction, replies shall be made within a two-week period.

SCE shall provide summary documentation of all complaints, comments, and concerns communicated to the liaison every two months for the duration of construction and for one year following the completion of construction. The compliance documentation shall include the name and address of the person contacting the local public liaison(s), the date of contact, and what actions were taken by the local public liaison(s) to rectify and/or address the complaints, comments or concerns expressed. The compliance documentation shall be submitted to the CPUC throughout the duration of construction and for one year following construction.

- **MM L-1b Advance notification of construction - Property owners.** SCE shall give at least 14 days advance notice of the start of any construction-related activities to potentially affected property owners. The notification shall include the toll-free general phone number, contact information for the local public liaison(s) (Mitigation Measure L-1a, Construction liaison – Property owners), including a phone number (or phone numbers), as well as an internet website address where additional information related to construction can be found. Notification shall be provided by: (1) mailing notices to all property owners within 300 feet of all approved ROW segments, construction-related work areas, and substation sites; and, (2) placing notices in local newspapers.
- **MM L-1c Quarterly construction updates - Property owners.** Following publication/transmittal of the advance notification of construction (Mitigation Measure L-1b, Advance notification of construction – Property owners), SCE shall provide all affected property owners with updates and changes to all of the information provided in the pre-construction notification as related to their Segment-specific location. The updates shall be provided every quarter for the duration of all construction-related activities. Post-construction noticing for restoration activities shall be provided annually. The updates shall continue to provide the toll-free number and the name and phone number of the local public liaison(s) to respond to all construction-related questions and concerns. The local public liaison(s) shall continue to respond to all questions and complaints within a 72-hour period during construction and within two weeks post-construction (Mitigation Measure L-1a, Construction liaison – Property owners).

The updates shall be: (1) mailed to all property owners within 300 feet of all approved ROW segments, construction-related work areas, and substation sites; (2) placed in local newspapers; and, (3) posted on the Project’s Internet website (Mitigation Measure L-1b).

Rationale for Finding. Some construction-related activities will require the temporary use of lands for purposes other than their existing use. For example, lands that are currently undeveloped or vacant will be used for staging areas, access roads, and pulling, tensioning, and splicing sites. The use of these areas could temporarily restrict access to, or the use of, lands that surround them as well. Construction will additionally cause temporary disturbances due to site-specific access limitations and parking restrictions, increased traffic and congestion along construction routes and detour routes, increased dust generation and noise, and changes in the overall visual character of an area due to the presence of construction-related equipment, personnel, and associated activities. However, with implementation of Mitigation Measures L-1a through L-1c, listed above, Impact L-1 of the Project would be adverse but less than significant.

Reference. Final EIR Section 3.9; Table ES-3

Impact L-2: Construction of the Project would temporarily disrupt, displace, or preclude existing non-residential land uses.

In the North Region, mining operations and existing energy generation facilities, including access roads, are located within one-half mile of Segment 10. South of the proposed Whirlwind Substation, properties within one-half mile of the proposed ROW include transportation, communications and utility facilities, industrial facilities, electrical power facilities, commercial and services uses, and mixed uses; some of these uses are directly traversed by the proposed ROW. The North Region additionally includes several airports and air fields (public and military); although these airports and airfields are not located within one-half mile of the proposed ROW, some are located in close proximity to it.

Within the Central Region the Project traverses multiple zones and Places within the ANF. Within the ANF, Segments 6 and 11 additionally fall within one-half mile of several public/special use and mixed use properties, including the: Mill Creek Summit Forest Station (Segment 6, MP 7.3); Shortcut Forest Station (Segment 6, MP 16.5); Angeles Crest Forest Station (Segment 11, MP 17.3); Los Angeles County and USDA Forest Service fire stations and maintenance yards; educational campgrounds and facilities; communication facilities; and other public and private utilities.

Within the South Region, development both within and adjacent to the proposed ROW increases substantially. Along Segment 11 (South of MP 24.5), lands directly affected by construction pre-dominantly include commercial and service uses, and industrial and mixed uses. Along Segment 7, large tracts of mixed and industrial uses are located within or immediately adjacent to the proposed ROW, and smaller areas of commercial and services and public/special use and educational facilities occur as well. West of MP 7.0, non-residential uses affected by construction of Segment 8A include industrial and mixed uses and public/special use and educational facilities. East of MP 7.0, predominant non-residential (or agricultural) land uses associated with Segments 8A, 8B, and 8C include mixed uses, commercial and service uses, and industrial uses.

Within the ROW itself, construction-related activities associated with tower erection and removal sites, staging areas, and pulling, tensioning and splicing sites will displace or disrupt non-residential land uses. Access to these uses may be blocked or detoured, thus affecting the delivery and/or shipment of goods and services, as well as customer and employee ingress and egress. Additionally, site-specific operations will be impaired or prohibited at some locations due to the need to clear areas for construction equipment and materials. Following the completion of construction, site-specific uses may be compromised if affected areas are not restored to their pre-construction condition. Although these types of effects will occur in all three Regions, activities in the South Region will affect the greatest number of non-residential uses. In this region, particularly along Segments 7 and 11, the western-most portion of Segment 8A, and that portion of

Segment 8A that traverses the City of Chino (approximately MP 25.5 through MP 29.0), there are numerous commercial and industrial uses, such as wholesale and retail nurseries, commercial and industrial parking lots, and material and truck storage and loading areas, that occur within the ROW.

Construction within an approximate 1,000 feet of either side of (e.g., outside of) the ROW will also result in the same types of effects as described above due to site-specific tower removal, erection, and pulling, tensioning and splicing activities, the need for temporary access roads, road detours and closures, and primary and secondary staging areas. Although the degree of these indirect effects outside of the ROW will not be expected to be as pronounced as within the ROW itself, impacts to non-residential uses in close proximity to construction zones could still be adverse at a site-specific level. Similar to activities within the ROW itself, these impacts will occur in all three regions, although the greatest number of properties affected will occur in the South Region along Segments 7 and 11 and portions of Segment 8A (approximately MP 0.0 through MP 7.0 and MP 25.5 through MP 29.0).

Proposed upgrades to the Mesa, Gould, and Mira Substations will occur within the confines of the substations' boundaries. However, mixed uses occur within one-half mile of the Gould Substation, while industrial, public/special use facilities, mixed uses, and commercial and services uses occur within 1,000 feet of both the Mesa and Chino Substations. Due to the proximity of proposed expansion and upgrade activities at these sites, the same types of secondary impacts to non-residential uses as described above for the Project's ROW will occur and may be adverse at a site-specific scale. The construction of 33 towers within the ANF could temporarily affect aircraft movement within the Central Region, as well as those land uses (both non-residential and residential) that are in close proximity to the proposed helicopter staging areas and subject tower sites; these effects may also be adverse at a site-specific scale.

Mitigation Measures L-1a (Construction liaison – Property owners), L-1b (Advance notification of construction - Property owners), L-1c (Quarterly construction updates - Property owners), L-2a (Construction plan provisions – Non-residential property owners), and L-2b (Aircraft flight path and safety provisions and consultations) will reduce this impact of the Project.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact L-2. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact L-2 to a less than significant level.

- **MM L-1a** **Construction liaison – Property owners.** *(See above for full text)*
- **MM L-1b** **Advance notification of construction - Property owners.** *(See above for full text)*
- **MM L-1c** **Quarterly construction updates - Property owners.** *(See above for full text)*
- **MM L-2a** **Construction plan provisions – Non-residential property owners.** SCE shall incorporate provisions into its construction plans and schedules to minimize the length of time that construction-related activities occur in areas actively used for non-residential purposes, such as commercial and service uses, industrial uses, public/special uses, and educational facilities. SCE shall ensure that all affected non-residential property owners within 300 feet of the ROW are always provided with at least one point of vehicular (passenger car and truck) and pedestrian access to their respective properties throughout all phases of construction.

Immediately following the completion of construction, SCE shall ensure that all affected non-residential properties and uses affected by construction outside of the ROW are fully restored to their pre-construction conditions.

- **MML-2b Aircraft flight path and safety provisions and consultations.** Prior to construction, SCE shall consult with the Federal Aviation Administration (FAA) and ensure the filing of all forms and associated specifications per the requirements of Federal Aviation Regulations (FAR) Title 14, Part 77. In addition, prior to the start of construction, SCE shall consult with all affected Airport Land Use Commissions (or their alternative process) and the FS to ensure that construction, operation, and maintenance of the Project does not conflict with local aircraft operations or associated safety provisions.

Rationale for Finding. Construction of portions of the Project will require the use of lands for purposes other than their existing uses to accommodate tower placement and removal areas, staging areas, access roads, and pulling, tensioning and splicing sites. Construction-related activities will also temporarily restrict or preclude access to, and potentially the use of, lands adjacent to construction-related work areas. Lands used for construction could additionally be damaged or otherwise impaired to a degree that their existing (e.g., pre-construction) uses are impaired. The intrusion of construction equipment, materials, and personnel typically constitutes an adverse but less than significant impact because it occurs for a limited period of time and does not result in permanent disturbances. However, there are instances where construction-related activities can disrupt or preclude land uses to a significant level even though these disturbances are temporary. Mitigation measures L-1a, L-1b, L-1c, L-2a and L-2b will reduce these impacts to less than significant by coordinating and communicating with affected property owners, minimizing the length of time required for construction-related activities, restoring non-residential properties to their pre-construction conditions, and consulting with the FAA, Airport Land Use Commissions, and the FS to ensure there are no conflicts with local aircraft operations. Construction-related impacts to will be adverse but mitigable to a level of less than significant.

Reference. Final EIR Section 3.9; Table ES-3

Impact L-4: Operation and maintenance of the Project would cause long-term disruption of existing and planned non-residential land uses.

Segment 10 of the Project includes lands used for electrical power generation, mining and utilities (primarily the Los Angeles Aqueduct, which is operated by the Los Angeles Department of Water and Power [LADWP]), and additionally falls within one-half mile of lands managed by the CSLC. The majority of Segments 10 and 4 within Kern County are designated for resource management, residential, and agricultural uses, although some lands traversed by and within one-half mile of Segment 4 near the Skyotee Ranch landing strip are designated Light Industrial. The centerline of Segment 4's ROW also falls within an estimated two miles of the Skyotee Ranch landing strip, and two comparatively small tracts of land used for transportation-communication-utilities (near MP 7) and industrial purposes (near MP 10) also occur within one-half mile of Segment 4. Along Segment 4 the proposed ROW directly traverses a relatively large tract of land designated for mixed urban uses, as well as comparatively smaller tracts of land designated for industrial uses within western Palmdale; it additionally falls within one-half mile of the Antelope Valley California Poppy Reserve near MP 13, which is managed by the State Department of Parks and Recreation. Portions on Segment 5 additionally fall within one-half mile of lands under the jurisdiction of the BLM. Along its crossing of State Highway 14, Segment 5 falls within close proximity to a variety of land uses, including commercial and transportation, communication and utility uses.

The South Region contains the greatest number of non-residential land uses directly within and adjacent to the Project's existing, new, relocated, and expanded ROWs, including non-residential uses surrounding its existing substations. As outlined in Table 3.9-19, within the South Region new, expanded or relocated ROW will only occur along Segment 8A within lands designated Other Institutions, Open Not Developable and

Residential. In addition, the Project falls within an estimated four miles of several airports and helipads, and also traverses through lands under the ownership of the U.S. Department of Defense along Segment 8A, at approximately MP 15.2.

Construction of the proposed Whirlwind Substation and expansion of the Antelope and Vincent Substations will permanently preclude existing and future planned residential uses. However, no impacts to non-residential land uses will occur due to the location of these substations either immediately adjacent to existing substation sites, or existing utility infrastructure. Upgrades to the existing Gould, Mesa and Mira Loma Substations will remain within the existing boundaries of these sites and will not permanently affect non-residential land uses.

Mitigation Measures L-2a (Construction plan provisions – Non-residential property owners) and L-4 (Consult with federal, State, and local agencies) will reduce this impact of the Project.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact L-4. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact L-4 to a less than significant level.

- **MM L-2a** **Construction plan provisions – Non-residential property owners.** (*See above for full text*).
- **MM L-4** **Consult with federal, State, and local agencies.** Prior to construction, SCE shall consult with all federal, State, and local agencies, including local agency consortiums, having jurisdiction over lands within one-half mile of the Project's ROW and ancillary facilities to ensure that no permanent restrictions or preclusions of their land management practices occur. The SCE shall additionally ensure that a liaison to these agencies is available for the operational life of the Project to address and reconcile any future potential conflicts with land management practices. SCE will provide affected agencies with the name and contact information of the liaison and update that contact information as necessary.

Rationale for Finding. The Project will directly traverse, or fall within one-half mile of lands used for a variety of purposes other than residential, agricultural, or recreational development. Additionally, the Project falls within one-half mile of properties under the ownership or management of State and federal agencies, as well as multiple proposed and existing SEAs. Impacts from L-4 will be less than significant with the implementation of Mitigation Measures L-2a and L-4 because they require consultation to ensure no permanent restrictions or preclusions of land management practices occur and ensure properties will be restored to pre-construction conditions. With implementation of Mitigation Measure L-2a and L-4, long-term operational and maintenance impacts of the Project will be adverse but less than significant.

Reference. Final EIR Section 3.9; Table ES-3

Impact L-5: Construction, operation or maintenance of the Project would conflict with relevant federal, State, or local land use plans, goals, or policies.

As part of the Project's approval, and prior to construction, the USDA Forest Service will issue a Special Use Easement, which will involve amending the 2005 ANF Land Management Plan, as necessary, to insure consistency with the USDA Forest Service's management direction for affected areas within the ANF. It is currently anticipated that two Project-specific amendments will be required for the Project to allow for its inconsistencies with the Land Management Plan's Standards S9 and S10, and Riparian Conservation Area (RCA) Standards for those RCAs adversely impacted by the Project. The USDA Forest Service will also

issue temporary Special Use Permits, as needed, for construction-related activities which will be located outside of the proposed ROW widths to ensure compliance with USDA Forest Service plans and policies.

Implementation of the Project will require both new and expanded ROWs and substation sites, however, these features will not conflict with either the land use plans and policies outlined in Table 3.9-20 of the Final EIR, or the other land use and management plans and policies presented in the Policy Screening Report. Additionally, as required by the CPUC's General Order No. 131-D, Section XIV B, the CPUC has consulted with all affected agencies regarding land use matters, and implementation of Mitigation Measures L-2b (Aircraft flight path and safety provisions and consultations) and L-4 (Consult with federal, State, and local agencies) will require SCE to further coordinate with applicable agencies to ensure that no conflicts with their respective land use plans and policies occur.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact L-5. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact L-5 to a less than significant level.

- **MM L-2b** **Aircraft flight path and safety provisions and consultations.** *(See above for full text).*
- **MM L-4** **Consult with federal, State, and local agencies.** *(See above for full text).*

Rationale for Finding. As part of the Project's approval, and prior to construction, the USDA Forest Service will issue a Special Use Easement, which will involve amending the 2005 ANF Land Management Plan as necessary to insure consistency with the USDA Forest Service's management direction for affected areas within the ANF. As such, the Project will be consistent with the USDA Forest Service land use policies. In addition, implementation of Mitigation Measures L-2b (Aircraft flight path and safety provisions and consultations) and L-4 (Consult with federal, State, and local agencies) will require SCE to further coordinate with applicable agencies to ensure that no conflicts with their respective land use plans and policies occur.

Reference. Final EIR Section 3.9; Table ES-3

Cumulative Impact L-4: Operation and maintenance of the Project would cause long-term disruption of existing and planned non-residential land uses.

Impact L-4 would create an incremental effect that is cumulative in nature. Non-residential land uses within one-half mile of the Project include mining, utilities, resource management, transportation, and light industrial uses. In addition, other energy projects have been proposed within one-half mile of the Project. The PdV/Manzana Wind Energy Project and the Alta Wind Energy Center may conflict with existing or proposed non-residential land uses in Kern County. The impacts of these projects in combination with the Project will result in a potentially significant cumulative effect on non-residential land uses. However, Mitigation Measure L-4 will reduce the incremental effect of the Project. With implementation of Mitigation Measure L-4 the Project's cumulative impact would be less than significant.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant cumulative effects on the environment from Impact L-4. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant cumulative effects from Impact L-4 to a less than significant level.

- **MM L-4** **Consult with federal, State, and local agencies.**

Rationale for Finding. The Project will directly traverse, or fall within one-half mile of lands used for a variety of purposes other than residential, agricultural, or recreational development. Additionally, the Project falls within one-half mile of properties under the ownership or management of State and federal agencies, as well as multiple proposed and existing SEAs. Project-level impacts from Impact L-4 will be less than significant with the implementation of Mitigation Measure L-4 because it requires consultation to ensure no permanent restrictions or preclusions of land management practices occur and ensure properties will be restored to pre-construction conditions. With implementation of Mitigation Measure L-4, long-term operational and maintenance impacts of the Project will be less than significant and will not contribute to a significant cumulative impact.

Reference. Final EIR Section 3.9; Table ES-3

III.3.9 Public Services and Utilities

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

Fire protection or other emergency response services will be necessary if a construction accident or other emergency incident occurs at a Project construction site. A potential hazard could be the accidental ignition of a fire within the dry vegetation along the construction zone, particularly in the ANF where chaparral vegetation is prevalent and there is a considerable history of wildfires.

APM AQ-7 (Implement feasible fugitive dust control measures as provided in Kern County Air Pollution Control District's Rule 402 and Antelope Valley Air Quality Management District and South Coast Air Quality Management District Rule 403), which is included as part of the Project, will help to reduce this impact of the Project. In addition, the following mitigation measures will reduce Project impacts to emergency services: PSU-1a (Revise SCE's Fire Management Plan), PSU-1b (Review of construction methods by county fire departments), PSU-1c (Practice safe welding procedures), PSU-1d (Fire preventive construction equipment requirements), and F-1 (Prepare wildland traffic control plans).

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact PSU-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact PSU-1 to a less than significant level.

- **MM PSU-1a Revise SCE's Fire Management Plan.** Appendix D of the Proponent's Environmental Assessment (PEA) includes the Transmission Line Project Fire Plan to reduce the risk of igniting a fire during construction and operation as well as controlling the spread of a fire should one occur. The Plan shall be revised with the following provisions and submitted to the CPUC and FS no less than 60 days prior to construction:
 - The Smoking and Fire Rules require the Constructor to designate smoking areas "...in a barren area or in an area cleared to mineral soil at least three feet in diameter." SCE shall revise the Plan to mandate that these smoking areas are located at a radius of at least 50 feet from all hazardous material, gas and oil storage areas, and equipment service areas.
 - In Section 1.6 of the Fire Plan, Precautions in Areas of Fire Hazards, SCE shall designate Critical Protection Sites. In particular, these sites will be areas associated with dry habitats, chaparral vegetation, inhabited property, and a considerable history of wildfires. Designations of these sites inform construction crews of the need for the precautions noted in Section 1.6, which include the following: prohibit smoking on the jobsite; require the use of spark arrestors on equipment exhaust; designation of a Fire Patrolperson whose responsibility shall be solely to monitor the Constructor's fire prevention activities; require

portable firefighting equipment, shovels, axes, and other necessary firefighting equipment; and observe all other precautionary measures that may be ordered by the FS, Division of Forestry of the State, and County Fire Departments.

- **MM PSU-1b Review of construction methods by county fire departments.** SCE shall coordinate with the Kern, Los Angeles, and San Bernardino County Fire Departments to review the specific construction methods and equipment, and identify any additional requirements that will minimize the potential for wildfires. Prior to construction, SCE shall include documentation of this coordination in the Transmission Line Project Fire Plan, and submit the Plan to the CPUC, FS (for NFS lands), and the county fire departments no less than 60 days prior to the start of construction, such as the following:
 - Any motor, engine, welding equipment, cutting torch, grinding device or equipment from which a spark, fire, or flame may originate shall not be used without first: (a) clearing away all flammable material for a distance of 10 feet, and (b) having on hand a round-point shovel with an overall length of not less than 46 inches and a fire extinguisher or water-filled backpack pump fully equipped and ready to use. This does not apply to power saws and other portable tools powered by a gasoline-fueled internal combustion engine (see next bullet).

Any portable gasoline-powered tool (chainsaws, etc.) shall not be used within 25 feet of any flammable materials without providing one round-point shovel with an overall length of not less than 46 inches or a fire extinguisher having a minimum rating of 2-BC. The fire tools must be unobstructed and within 25 feet of the tool operation at all times. Motor vehicles shall not be parked or operated outside of cleared work areas except for the specific purpose of clearing vegetation.
- **MM PSU-1c Practice safe welding procedures.** SCE shall select a welding site that is free of native combustible material and/or clear the site of such material to minimize the fire hazard. All welding on supporting structures shall be performed during fabrication of the structures at the fabricator's yard, to the extent practicable.
- **MM PSU-1d Fire preventive construction equipment requirements.** SCE shall meet the following requirements for gasoline, diesel, or other hydrocarbon fuel-powered equipment prior to construction:
 - The exhausts of all equipment powered by gasoline, diesel, or other hydrocarbon fuel shall be equipped with effective spark arrestors.
 - The spark arrestor shall be designed to prevent the escape from the exhaust of carbon or other flammable particles over 0.0232 inches. Motor trucks, truck tractors, buses, and passenger vehicles (except motorcycles) shall not be subject to this provision if their exhaust systems are equipped with mufflers.
 - All welding rigs shall be equipped with a minimum of one 20-pound or two 10-pound fire extinguishers, and a minimum of five gallons of water in a fire-fighting apparatus.
- **MM F-1 Prepare wildland traffic control plans.** SCE shall develop wildland traffic control plans as part of the Traffic Control Plans required by Mitigation Measure T-1a (Prepare Traffic Control Plans) in consultation with the FS (ANF) and Puente Hills Landfill Native Habitat Preservation Authority (PHLNHPA), as appropriate. The wildland traffic control plans shall stipulate mechanisms through which narrow roads shall be kept passable for emergency service providers in a wildfire-related or other emergency situation. SCE shall appoint a Road Master, who shall administer the wildland traffic control plans and facilitate emergency vehicle access in the event of a wildfire-related or other emergency. The wildland traffic control plans shall identify strategic locations for adequate construction and maintenance vehicle parking, as necessary, in consultation with the land management agency, and alternate routes for large

equipment and vehicle evacuation shall be identified to the extent possible. Wildland traffic control plans shall be prepared in consultation with the land management agencies for both construction and maintenance activities and shall be submitted to the FS and PHLNHPA at least 30 days prior to construction in areas managed by these agencies.

Rationale for Finding. APM AQ-7 (Implement feasible fugitive dust control measures as provided in KCAPCD's Rule 402 and AVAQMD and SCAQMD Rule 403), which is included as part of the Project, requires implementation of control measures provided by Rule 402 of the KCAPCD, and Rule 403 of the AVAQMD and the SCAQMD. These rules require watering as a fugitive dust control measure, which will also reduce the potential for accidental ignition in hazardous areas. Fire hazards presented by the Project will not pose significant impacts with implementation of Mitigation Measures PSU-1a (Revise SCE's Fire Management Plan), PSU-1b (Review of construction methods by county fire departments), PSU-1c (Practice safe welding procedures), PSU-1d (Fire preventive construction equipment requirements), and F-1 (Prepare wildland traffic control plans), which require preparation of control plans based on consultations with the ANF and the Puente Hills Landfill Natural Habitat Authority, will help to minimize this impact. According to Mitigation Measure F-1, wildland traffic control plans shall include mechanisms through which narrow roads are kept passable by emergency service providers, and shall provide for adequate construction and maintenance vehicle parking. Provision of alternate routes in lieu of maintaining passable roadways shall be minimized, and shall be subject to agency approval. Wildland traffic control plans will be prepared for both construction and maintenance activities. The fire risks associated with Project construction activities will be reduced with the implementation of SCE's Fire Management Plan, which is intended to prevent, control and extinguish fire during the construction period.

Reference. Final EIR Section 3.11; Table ES-3

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

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

Implementation of mitigation measure MM T-1a will reduce the Project's impact on emergency response vehicles.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact PSU-2. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact PSU-2 to a less than significant level.

- **MM T-1a Prepare Traffic Control Plans.** *(See above for full text).*

Rationale for Finding. In order to minimize adverse impacts, Mitigation Measure T-1a (Prepare Traffic Control Plans) requires SCE to inform emergency service agencies of road closures, detours, and delays. This measure also includes provisions to accommodate emergency vehicles, such as immediately stopping work for emergency vehicle passage, short detours, and alternate routes developed in conjunction with local agencies.

Reference. Final EIR Section 3.11; Table ES-3

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

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

SCE is required by State law to contact Underground Service Alert and manually probe for existing buried utilities in the Project corridor prior to any powered-equipment drilling or excavation. This will substantially reduce the risk of accidental upset of existing utility lines. In addition, Project construction plans may require the temporary disruption of buried utility lines located in the construction zone. Therefore, some temporary service interruptions may be unavoidable. While any disruption in service will be temporary in nature, it will inevitably disrupt activities in the surrounding area that are dependent on those utilities. The implementation of mitigation measure MM PSU-4 will reduce this impact.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact PSU-4. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact PSU-4 to a less than significant level.

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

Rationale for Finding. Disruptions in the flow of water and/or gas utility services are likely during the construction period. Mitigation Measure PSU-4 requires that SCE notify neighborhoods that are to be affected. Any utility disruption will be temporary and the public will be provided with sufficient notice to prepare for such an outage.

Reference. Final EIR Section 3.11; Table ES-3

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

The following Public Works yards are located within the ROW: RD557A Road Maintenance Yard located in the ANF (Segment 11); Eaton Yard Flood Maintenance Yard located in the City of Pasadena (Segment 11); and the MD1 Road Maintenance Yard located in Baldwin Park (Segment 7). Construction of the

Project could temporarily interrupt access to these maintenance yards unless arrangements are made to provide temporary alternative means of access. The implementation of mitigation measure PSU-5 will reduce this impact.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact PSU-5. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact PSU-5 to a less than significant level.

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

Rationale for Finding. Mitigation Measure PSU-5 requires that SCE inform the Los Angeles County Public Works Department when disruptions will occur in order to prepare for restricted access. Impacts to maintenance yards will be temporary and advance notice will be provided to Public Works.

Reference. Final EIR Section 3.11; Table ES-3

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

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

SCE estimates that the average daily solid waste disposal will be 528 tons. This amount spread out over the 59-month construction schedule is not expected to exceed the available capacity of the landfills noted in Table 3.11-9 of the Final EIR, and recyclable material will be taken to recycling facilities. In addition, Project operation and maintenance will not generate solid waste in excess of SCE's current operations in the area, and will not affect existing landfill capacities. The implementation of mitigation measure PSU-9 will reduce this impact.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact PSU-9. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact PSU-9 to a less than significant level.

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

Rationale for Finding. Recycling efforts required by Mitigation Measure PSU-9, will ensure the Project's compliance with the Integrated Waste Management Act of 1989 and Assembly Bill 939 by incorporating the maximum recycling efforts during Project construction.

Reference. Final EIR Section 3.11; Table ES-3

III.3.10 Traffic and Transportation

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

Construction of the Project could result in roadway closures at locations where the construction activities, especially transmission line stringing, will be located within ROWs of public streets and highways. Although temporary closures of this nature will 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 may also require temporary closures.

The Northern Region will require transmission line stringing over SR14, Elizabeth Lake Road, and Sierra Highway, as well as various other Kern County and Los Angeles County roads. Transmission line stringing activities in the Central Region will 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. Transmission line stringing activities in the Southern Region will 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.

Under Alternative 6 components of the Project, Helicopter staging area #6 will be located directly adjacent to Upper Big Tujunga Canyon Road, and helicopter flights to and from this site may require temporary closures of this roadway during construction. Under Alternative 7 components of the Project, trenching required for construction of the underground portions of Segment 7 within Valley Boulevard and adjacent to Durfee Avenue will require temporary closure of Valley Boulevard and potential closure of Peck Road and Durfee Avenue. Additionally, the rerouted portion of Segment 8 included under Alternative 7 components of the Project will result in crossings and commensurate temporary closure of San Gabriel Boulevard.

APMs TRA-1 (Minimize Street Use), TRA-2 (Obtain Permits), TRA-3 (Incorporate Protective Measures), and TRA-4 (Prepare Traffic Management Plans), which are included as part of the Project, will help to minimize this potential impact.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact T-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact T-1 to a less than significant level.

- **MM 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 Standard Specifications for Public Works Construction, the U.S. Department of Transportation's Manual on Uniform Traffic Control Devices (MUTCD), 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.

- **MM 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.

Rationale for Finding. 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 will require local streets to be used for more than normal traffic purposes; and 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 will also require continuous traffic breaks operated by the CHP on state highways, if necessary be planned and provided. APM TRA-4 will require preparation of a traffic control plan where necessary to minimize Project impacts on local streets. Additionally, implementation of Mitigation Measures T-1a (Prepare Traffic Control Plans) and T-1b (Restrict lane closures) will reduce the potential for substantial congestion as a result of construction-related roadway closures, by requiring the minimizing use of streets, obtaining relevant permits, preparation of traffic control plans and use of guard structures, netting, and traffic breaks to protect traffic.

Reference. Final EIR Section 3.13; Table ES-3

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

Construction of the Project will 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 will increase existing traffic volumes in the Project area.

Approximately 300 workers in separate construction crews, each comprised of between two and 100 workers, will work on the various aspects of the Project over a 55-month period. Construction will require a peak of approximately 540 daily truck trips and average of approximately 190 daily truck trips. An average of approximately 155 workers will commute to various locations along the proposed route ROW each workday. Transmission line workers will be dispersed in groups throughout the Project area and will not typically be working at the same place at any one time. Construction activities will occur concurrently at several locations along the ROW within the counties of Kern, Los Angeles, and San Bernardino. Assuming

that each worker will travel in a personal vehicle this will represent a peak of 300 worker commute trips per day in addition to 540 truck trips per day. Worker and truck trips are assumed to be evenly dispersed along the entire 173-mile long transmission line route in the project regions discussed below. Therefore, during peak construction approximately 100 worker trips and 180 truck trips will be added to the regional roadway system of each project region. Haul truck traffic will include trucks carrying equipment and materials, spoils for disposal, and new and old tower support pieces. Trips will 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.

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. Construction vehicles will 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. In the South Region, construction vehicles will be added to several roadways 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.

Delivery of equipment and workers required for helicopter construction associated with Alternative 6 portions of the Project will 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 is not likely to result in substantial congestion. In addition, the additional duration of lane closures required for construction of the underground and rerouted portions of the transmission line associated with Alternative 7 portions of the Project will incrementally increase the potential for this impact to occur.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact T-2. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact T-2 to a less than significant level.

- **MM 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.

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

Reference. Final EIR Section 3.13; Table ES-3

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 will be most impacted will 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 will be needed at a location where access is temporarily blocked by the construction zone.

Under Alternative 6 portions of the Project, two helicopter staging areas will be located directly adjacent to or in close proximity to Upper Big Tujunga Canyon Road and Angeles Forest Highway, and temporary closures of each of these roadways that will not be required during construction of any other alternative may be required. Such closures will result in an incremental increase in the potential for construction to result in delays to emergency vehicles. Under Alternative 7 portions of the Project, the additional duration of lane closures required for construction of the underground and rerouted portions of the proposed transmission line will incrementally increase the potential for this impact to occur.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact T-3. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact T-3 to a less than significant level.

- **MM T-1a** **Prepare Traffic Control Plans.** *(See above for full text).*
- **MM T-1b** **Restrict lane closures.** *(See above for full text).*

Rationale for Finding. 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) will reduce the potential for roadway congestion to occur, which will also reduce the potential for interference with emergency services. Implementation of Mitigation Measures T-1a and T-1b will reduce Impact T-3 to a less-than-significant level.

Reference. Final EIR Section 3.13; Table ES-3

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

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

The proposed transmission line route will not cross any Antelope Valley Transit Authority (AVTA) local transit routes. 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 will 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). Segment 5 will cross the Union Pacific Railroad (UPRR)/Metrolink line near the Vincent Grade/Acton Metrolink Station at approximately MP 16.7.

The transmission line routes of Segment 7 and Segment 11 of the Project will 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. Segment 11 will 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 will cross the Metrolink rail line at approximately MP 8.9.

The transmission line route of Segment 8 of the Project will cross several transit routes operated by the Los Angeles Metropolitan Transit Authority, Foothill Transit, Montebello Municipal Bus Lines, Norwalk Transit District, and Omnitrans. The underground portions of this route will cross Valley Boulevard and will 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 will be of longer duration than closures required for the Project and will incrementally increase the potential for this impact to occur.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact T-4. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact T-4 to a less than significant level.

- **MM 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.

Rationale for Finding. 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 will reduce Impact T-4 to a less-than-significant level.

Reference. Final EIR Section 3.13; Table ES-3

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 will be necessary to halt through-rail traffic during stringing operations over railroads. In addition, delivery of large equipment and materials via truck will 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.

Segment 10 of the proposed transmission line route will cross a spur of the UPRR line at approximately MP 1.0 and Segment 5 will pass immediately to the west of the Vincent Grade/Acton Metrolink Station parking lot and across the railroad tracks at approximately MP 16.7. Segment 11 will 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 will cross the Metrolink rail line at approximately MP 8.9. Segment 8 will cross a UPRR / Metrolink rail line at approximately MP 4.8.

APM TRA-3 (Incorporate Protective Measures), which is included as part of the Project, will help to minimize this impact.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact T-5. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact T-5 to a less than significant level.

- **MM 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.

Rationale for Finding. APM TRA-3 requires that construction activity requiring the crossing of a rail line will incorporate the use of guard poles, netting, or similar means to protect moving traffic and structures from the activity. 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 will reduce Impact T-5 to a less-than-significant level.

Reference. Final EIR Section 3.13; Table ES-3

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.

Designated bicycle lanes do not exist along the Northern Region portion of the Project route; however this will not necessarily preclude use of roads in this area by bicyclists or pedestrians. Segment 6 of the TRTP route is located within the ANF and will 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 will cross or run parallel to several roadways with separated sidewalks. Segment 7 will 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 will 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 will 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.

Segment 8 will 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.

The underground portion of the Alternative 7 section of the Project will 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 will be temporarily disrupted and possibly blocked, which will increase the potential for this impact to occur.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact T-6. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact T-6 to a less than significant level.

- **MM 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 feasible. Where construction activity will result in bike route or bike path closures, appropriate detours shall be established, where feasible, and detour signs shall be posted. Detours and closures required for safe pedestrian and bicycle access through or around the construction area shall be identified in a circulation plan included in the TCP's required under Mitigation Measure T-1. All detours and related signage shall be consistent with the standard guidelines outlined in the U.S. Department of Transportation's Manual on Uniform Traffic Control Devices (MUTCD).

Rationale for Finding. Mitigation Measure T-6 (Ensure pedestrian and bicycle circulation and safety) includes measures, such as providing pedestrian and bicycle access and detours, to avoid disruption to the use of pedestrian/bicycle paths. Implementation of this measure will reduce Impact T-6 to a less-than-significant level.

Reference. Final EIR Section 3.13; Table ES-3

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

The Project includes an approximately 173-mile long linear transmission line route. As such, construction at any one location along the ROW will 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 will be utilized throughout construction) will range from a few minutes to a few days. However, construction along the Project ROW will require workers to drive construction vehicles to sites under active construction. Construction workers will 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.

The Northern Region of the Project is mostly rural and open space with little urban or residential development. The Project route in this region will not traverse areas of dense urban or residential development. Most of the roadways crossed by the Project route in this region are rural and private roads with no designated parking spaces. Construction workers will 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 will not be expected to displace parking opportunities for the public.

Segment 6 of the Project is located within the ANF and will not cross any areas of urban or residential development or areas with designated parking spaces. Although construction workers will park along roadsides along this segment, such activities will 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 Project will be located in areas of dense residential development. These segments will be constructed within existing ROW, which will 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 will park will not be expected to experience high rates of public utilization for parking.

Most of Segment 8 will 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, because this route will be located within existing ROW, construction workers will 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) will 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.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact T-7. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact T-7 to a less than significant level.

- **MM T-2 Prepare Construction Transportation Plan.** *(See above for full text).*

Rationale for Finding. Implementation of Mitigation Measure T-2 (Prepare Construction Transportation Plan) will reduce the number of construction-related vehicles traveling to areas of active construction along the ROW and will 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 will reduce Impact T-7 to a less-than-significant level.

Reference. Final EIR Section 3.13; Table ES-3

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

Because final design of the Project has not been completed the precise location of transmission towers within the proposed ROW is currently unknown. The Project could conflict with future transportation projects if it will place structures within transportation ROWs that will be developed with new transportation infrastructure.

The transmission route will 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. 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 Project will conflict with the new travel lane if SCE were to place structures within the existing or planned SR14 ROW.

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

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact T-8. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact T-8 to a less than significant level.

- **MM T-8 Avoid conflicts with planned transportation improvements.** Prior to final Project design SCE shall coordinate Project design with the California Department of Transportation (District 6, District 7 and District 8), the Los Angeles County Metropolitan Transit Authority, and the traffic departments or public works departments of the counties of Kern, Los Angeles, and San Bernardino and the individual cities through which the proposed transmission

route traverses, and to ensure that Project structures are appropriately placed to avoid conflict with any planned transportation projects.

Rationale for Finding. Mitigation Measure T-8 (Avoid conflicts with planned improvements to SR14) will require coordination with Caltrans and the Los Angeles County Metropolitan Transit Authority to ensure that Project structures will not be placed such that they will conflict with the future travel lane. Implementation of this measure will reduce Impact T-8 to a less-than-significant level.

Reference. Final EIR Section 3.13; Table ES-3

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 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.

Three airports are located within three nautical miles of Segment 4 and 5 of the 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 will 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 (200 feet) to structures for protection of military operations. As stated above, transmission towers associated with Segment 4 will be less than 200 feet tall and will 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 will be located beneath a low level military flight path. California Government Codes 65352, 65940, and 65944 require local agencies to refer Projects that will be located beneath low level military flight paths to the appropriate branches of the US Armed Forces for review to ensure that project structures will not create land use conflicts between local communities and military installations and training activities. However, the Project will not require approval by a local agency; therefore Mitigation Measure T-10 is recommended to ensure the Project is reviewed by an appropriate branch of the US Armed Forces.

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 will range from 75 feet to 220 feet. Since the Project will result in construction of structures greater than 200 feet in height, pursuant to FAA guidelines, SCE will 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 will have to comply with FAA guidelines. No portions of the Project within the Central Region will be located in an area that will require review by the US Armed Forces.

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 will be 147 feet to 255 feet. Since the Project will result in construction of structures greater than 200 feet in height, pursuant to FAA guidelines, SCE will 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 transmission route will have to comply with FAA guidelines. No portions of the Project within the Southern Region will be located in an area that will require review by the US Armed Forces.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact T-10. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact T-10 to a less than significant level.

- **MM T-10 Notify US Military.** SCE shall provide a complete copy of the Project application, including the general location of the entire project alignment and the heights of towers to be located within each segment of the Project to the Range Sustainability Officer of the Naval Air Systems Command.

Rationale for Finding. Mitigation Measure T-10 (Notify US Air Force) will ensure that the Project is reviewed by the US Air Force, which will ensure that the Project will not conflict with military training flights. Implementation of this measure will reduce Impact T-10 to a less-than-significant level.

Reference. Final EIR Section 3.13; Table ES-3

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

The underground section of the Alternative 7 portion of the Project will 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 will be temporarily disrupted and possibly blocked. This could potentially disrupt businesses during the construction period.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact T-11. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact T-11 to a less than significant level.

- **MM 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.

Rationale for Finding. Mitigation Measure T-11 (Provide Continuous Access to Properties) will reduce temporary traffic impacts associated with underground construction activities by requiring coordination with local businesses. This impact will be less than significant with implementation of Mitigation Measure T-11.

Reference. Final EIR Section 3.13; Table ES-3

III.3.11 Visual Resources

From thousands of potential viewpoints, and in consultation with CPUC and USDA Forest Service personnel, 53 locations were selected as “key observation points” (KOPs) for detailed analysis of the Project. KOPs were established at important viewpoints, regardless of whether they were located on private or public lands. At each KOP, photographs were taken with a digital camera, and from these computerized visual simulations were produced to depict the visual effects of the Project. In the impact analysis for Visual Resources, future visual effects of the Project were predicted for each KOP using these computerized visual simulations.

For the North and South Areas (non-NFS lands), an assessment was made at each KOP of existing visual conditions, visual contrast, and Project dominance, using the Visual Sensitivity/Visual Change methodology. Subsequently, a conclusion was reached regarding the extent of overall visual change. Taken together with the existing landscape’s visual sensitivity, the level of probable visual impact significance was determined.

For the Center Area (NFS lands), the key factors considered in determining the degree of visual impact were compliance and consistency with the adopted Desired Condition and Scenic Integrity Objectives. As in the North and South Areas, a computerized visual simulation was prepared for each KOP in the Center Area, with which to further evaluate the preliminary impact determination. A conclusion on initial impact significance was then reached, using the standard limits of deviations determined by SIO definitions. At each of these KOPs, field analysis included assessment of existing scenic integrity and Scenic Integrity Objectives using the Scenery Management System methodology.

Impact V-5: New metal surfaces associated with transmission infrastructure would potentially reflect sunlight and produce glint and glare in certain lighting conditions.

Visual Resources APMs AES-1 (Transmission Lines - Reduce Light Reflection off Towers/Poles), AES-3 (Transmission Lines - Nonreflective/Nonrefractive Insulators), AES-4 (Transmission Lines - Nonreflective/Nonrefractive Conductors), AES-15 (Marshalling Yards and Laydown Areas - Cover Chain-Link Fencing with Fabric), AES-18 (Substations - Reflectivity Finish), AES-19 (Substations - Nonreflective/Nonrefractive Insulators), and AES-22 (Substations - Chain-Link Dulled Finish), which are included as part of the Project, address the visual effects of new metal surfaces and materials associated with new transmission infrastructure that could reflect sunlight and produce glare in certain lighting conditions. APMs AES-16 (Marshalling Yards and Laydown Areas - Reduce Glare and Light Spill) and AES-21 (Substations - Reduce Glare and Light Spill), also included as part of the Project, address the visual effects of new lighting sources that could produce light spill or glare. These Aesthetic APMs were considered in the analysis of the Project.

The new Whirlwind Substation will introduce lighting sources in a portion of this rural landscape where no nighttime lighting currently exists. Implementation of APM AES-21 (Substations - Reduce Glare and Light Spill) will reduce visual impacts of new light sources.

Conductors seen by sensitive receptors from below do not reflect sunlight or cause glare. In fact, conductors appear dark gray or black when seen from below.

New metals required for the Project’s LSTs, TSPs, light weight steel poles, and conductors will reflect more sunlight than old, rusted metals. However, with implementation of APM AES-1 (Transmission Lines - Reduce Light Reflection off Towers/Poles) and Mitigation Measure V-2b (Treat surfaces with appropriate

colors, textures, and finishes), it is not anticipated that there will be any substantial daytime glare produced by the new structures.

When viewed from higher vantage points, such as a mountain road, a high mountain highway, or a ridgeline or crest trail, sunlight reflecting off or glinting off conductors and towers will draw attention to the new high-voltage transmission lines and will create color and texture contrasts, thereby adversely affecting desired condition and scenic integrity of NFS lands. This reflectivity and sunlight glint or glare seems to be a visual phenomenon mostly occurring in the Center Area, where observers are located above looking down on the transmission lines. This phenomenon does not occur in the North or South Areas, where conductors appear mostly black against the sky when viewed from below or in a nearly horizontal fashion. The galvanizing treatments recommended in APM AES-1 and Mitigation Measure V-2b will reduce glint and glare to a less-than-significant level.

There will be no indirect effects associated with Impact V-5.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact V-5. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact V-5 to a less-than-significant level.

- **MM V-2b Treat surfaces with appropriate colors, textures, and finishes.** For all structures that are visible from sensitive viewing locations outside NFS lands, and for all NFS lands, SCE shall treat surfaces with appropriate galvanizing treatments, per APM AES-1, to most effectively blend the structures with the visible backdrop landscape, as determined by the CPUC (for non-NFS lands) and the FS (for NFS lands). For structures that are visible from more than one sensitive viewing location, if backdrops are substantially different when viewed from different vantage points, the darker color shall be selected, because dark colors tend to blend into landscape backdrops more effectively than lighter colors, which may contrast and reflect light, producing glare. At locations where a lattice steel tower or a tubular steel pole would be silhouetted against the skyline, non-reflective, light gray colors shall be selected to blend with the sky. The transmission line conductors shall be non-specular and non-reflective, per APM AES-4, and the insulators shall be non-reflective and non-refractive, per APM AES-3. SCE shall consult with the CPUC and the FS to ensure that the objectives of this measure are achieved. SCE shall submit a Structure Type and Treatment Plan for the lattice steel towers, tubular steel poles, conductors, insulators, substation structures, fences/walls, retaining walls, and any other visible structures, to the CPUC and FS, as appropriate, after Project approval, demonstrating compliance with this measure.

Rationale for Finding. While incorporation of APMs AES-18 through AES-22 into the Project at the Whirlwind, Antelope, Vincent, Gould, Mesa, and Mira Loma Substation sites will lead to an improved visual environment, as compared to the Project without measures, the resulting nighttime environment will be adversely affected. However, visual impacts will be reduced to a level that is less than significant with Mitigation Measure V-2b (Treat surfaces with appropriate colors, textures, and finishes), which requires the surfaces of various Project components to be treated with special finishes, colored, and/or textured to reduce glint and glare and requires the use of non-specular and non-reflective transmission line conductors.

Reference. Final EIR Section 3.14; Table ES-3

Impact V-6: The Project would contribute to the long-term loss or degradation of a scenic highway viewshed or scenic trail viewshed.

The Project will traverse the Pacific Crest National Scenic Trail (PCT) in the following three locations: Segment 4 MP 2.7 (North Area); Segment 11 MP 7.6 (Center Area); and, Segment 6 MP 7.3 (Center Area).

The Project will cross over the Angeles Crest Scenic Byway (SR 2) in four different locations (at approximately S11 MP 16.0, 17.7, and 18.4 for Segment 11 and at S6 MP 16.8 for Segment 6). The Project will cross over the Silver Moccasin Trailhead at Shortcut Saddle at S6 MP 16.7. Portions of Segment 6 will be visible from West Fork San Gabriel River National Scenic Bikeway. The State has designated portions of the Orange Freeway (State Highway 57) as “Eligible” to become a State Scenic Highway where it traverses largely undeveloped hills between Brea and Diamond Bar, and the Project will cross State Highway 57 in this vicinity. Colima Road, Hacienda Road, and Harbor Boulevard are proposed as scenic corridors in the most recent update to the County of Los Angeles General Plan and the Project will be visible from these highways. Los Angeles County has designated several other roads in the Project area as Priority Two Scenic Highways, indicating a high sensitivity for scenic integrity of landscapes. Portions of Interstate 210 (I-210) and State Highways 39 and 57 are either designated as, or eligible for, State Scenic Highway status and portions of the Project will also be visible from these roadways.

Under Alternative 2 (but not under Alternative 6), SCE will use the West Fork National Scenic Bikeway and FS Road 2N25.2 to access Segment 6 from the San Gabriel Canyon Road (State Highway 39). With the combination of Alternatives 2 and 6 under the Project, the ultimate decision on whether SCE will be allowed to use this route during Project construction will be made by the USDA Forest Service in their Record of Decision (ROD). For the purposes of this Findings of Fact, it is assumed that this route will be used to some extent. By using the Scenic Bikeway and FS Road 2N25.2 for construction of Segment 6, SCE equipment and personnel will alter the visual environment of the West Fork San Gabriel River during construction. It is very likely that this recreation trail (single lane paved road used for bicycling, hiking, and fishing access) will be degraded by heavy construction equipment, and it is likely that recreationists will be restricted or prohibited from using this area during construction of Segment 6 for safety reasons. Use of these roadways for construction will alter the availability of scenic resources for human enjoyment during construction, thereby degrading the visual environment.

Under Alternative 6 portions of the Project, the visual effects associated with Impact V-6 will be similar to, but less than, Alternative 2 for Criterion VIS3 because fewer access and spur roads will be visible from the Angeles Crest Scenic Byway and some towers will be given medium or dark galvanizing treatments so that they blend in better with backdrop landscapes. As stated above, the combination of Alternatives 2 and 6 that will be implemented on the ANF will be determined by the USDA Forest Service in their ROD.

No indirect impacts associated with Impact V-6 are anticipated to occur.

There are no APMs for Aesthetics that address the long-term loss or degradation of a scenic highway viewshed or a scenic trail viewshed. Impact V-6 will require implementation of Mitigation Measure V-3b (On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality. With implementation of this mitigation measure, the effects of Impact V-6 will be reduced to a level of less than significant.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact V-6. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact V-6 to a less-than-significant level.

- **MM V-3b On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality.** All reasonable efforts shall be made to meet the Scenic Integrity Objectives (SIOs) shown on the SIO Map in the ANF Land Management Plan. SIO adjustments that exceed a drop of more than one SIO level would require a Project-specific amendment to Forest Plan (Part 3) Standards S9 and S10. In order to compensate for the Project’s long-term visual

impacts to the landscape character and visual quality, including but not limited to impacts to landscape character and visual quality of scenic highway and scenic trail viewsheds, SCE and the Forest Supervisor shall reach a consensus on what is a commensurate amount of restoration, monetary compensation, or landscape character/visual quality improvement.

Rationale for Finding. The introduction of new 500-kV transmission lines crossing over scenic highways and trails, and visible within viewsheds of scenic highways and trails, will create a significant impact. Implementation of Mitigation Measure V-3b (On NFS lands, provide restoration/ compensation for impacts to landscape character and visual quality) will minimize and compensate for the adverse visual effects of these new transmission lines and structures through restoration, compensation, and/or landscape character/visual quality improvements within the ANF, resulting in adverse but less-than-significant visual impacts.

Reference. Final EIR Section 3.14; Table ES-3

III.3.12 Wilderness and Recreation

Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.

This impact will occur for all Developed Recreation resources that are subject to a “direct crossing” by the transmission line. Recreational resources that will experience a direct crossing will not necessarily be physically impacted by the presence of the overhead transmission line because in most cases the transmission line will span over the resource or area without any ground impact. However, such resources and areas will be restricted from use during Project construction in order to protect the safety of public recreationists and to accommodate transport and use of the necessary equipment and activities required to install the new transmission line. During Project construction, ground work will be required at each tower pad location as well as along select roadways between the locations, as materials to build the towers will be transported by truck to the tower sites (with the exception of extremely rugged areas that require helicopter construction). Due to temporary construction-related access restrictions and closures, activities within resources with direct crossings will be temporarily disrupted. Recreational areas located in the near vicinity of the transmission line route may also experience temporary use disruptions due to factors such as construction noise and the potential need to stage construction vehicles, equipment, or infrastructure. In addition, access to recreational areas will be restricted if roads or trails to such areas are used by construction equipment and vehicles during the construction period. Such impacts will be temporary and of short duration, lasting only as long as required to complete construction activities in a given location.

APMs REC-1 (Temporary closures) and REC-2 (Closure notices), which are included as part of the Project, will help to reduce impacts to recreational resources and opportunities. A complete description of APMs applicable to Wilderness and Recreation is located in Final EIR Table 3.15-27. These APMs include coordination with recreation officers and agencies, as well as notification of closures and access restrictions. However, even with implementation of the APMs, this impact of the Project will be significant according to Significance Criterion REC1 (Directly or indirectly disrupt or preclude activities in established federal, State, or local recreation areas or wilderness areas). In addition to implementing the APMs, Mitigation Measures R-1a, R-1b, R-1c, R-1d, and R-1e will be required to mitigate Impact R-1 to a less-than-significant level.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact R-1. Specifically, the following

mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact R-1 to a less-than-significant level.

- **MM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas.** SCE shall develop the Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of all recreational areas affected by Project construction. SCE shall also coordinate maintenance activities beyond the periodic visual inspections which are required by current SCE Transmission Operations and Maintenance Policies and Procedures (TOM) with these parties, including but not limited to the following: FS (ANF); California Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Los Angeles County Department of Parks and Recreation; San Bernardino County Regional Parks; Puente Hills Landfill Native Habitat Preservation Authority (Habitat Authority); Watershed Conservation Authority (WCA); and San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy (RMC).

Through coordination efforts with the agencies listed above as well as any additional agencies that manage recreational resources which would be affected by the Project, SCE shall ensure the following occurs unless otherwise approved by the affected agencies:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays) to the maximum extent feasible, with the understanding that such efforts may not always be feasible;
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with least possible effect on recreational activities and opportunities; and
- Timetables for the required period of usage of each staging area are developed and adhered to in coordination with all affected resource agencies.

SCE shall document its coordination and provide this documentation to the CPUC and the FS no less than 30 days prior to construction and maintenance activities (beyond periodic visual inspections).

- **MM R-1b Identify and provide noticing of alternative recreation areas.** SCE shall coordinate with the authorized recreation officer(s) or the agencies of all recreational areas affected by Project construction and maintenance activities (beyond periodic visual inspections), including but not limited to those listed under Mitigation Measure R-1a (Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas), the purpose of which is to accomplish the following:
 - Identify recreational areas (i.e., trails, parks, day-use areas) that would be closed during Project construction or maintenance activities;
 - To the extent feasible, identify alternative recreational areas for each resource that would be made unavailable to the public due to Project construction or maintenance activities; and
 - Post a public notice which identifies alternative recreational areas at FS Ranger Stations within the ANF and at all recreational areas to be closed due to Project construction or maintenance activities.

SCE shall document these coordination efforts to identify and provide noticing of alternative recreational areas and submit this documentation to the CPUC and the FS no less than 30 days prior to construction and maintenance activities (beyond periodic visual inspections) that would occur within one-half mile of wilderness or recreation areas that would be affected by such activities.

- **MM R-1c Notification of temporary closure of OHV routes.** SCE shall coordinate with the FS (ANF) to identify all Operational Maintenance Level (OML) 2 roads and other designated off-

highway vehicle (OHV) routes which would be closed or otherwise made unavailable for use as a result of Project construction and/or maintenance activities. Included in this coordination effort, SCE shall prepare a public notice which identifies all OML 2 roads and OHV routes to be closed as a result of Project construction and/or maintenance activities and shall comply with the following:

- Distribute the public notice to relevant FS Ranger Stations within the ANF;
- Publish the public notice in local newspapers which service communities bordering the ANF;
- Publish updated notices in local newspapers if any significant changes in scheduling occur; and
- Maintain public notices and postings throughout the OML 2 road / OHV route closure period.

SCE shall document these coordination efforts related to OML 2 road / OHV route closures and submit this documentation to the CPUC and FS no less than 30 days prior to construction and/or maintenance activities that would affect OHV routes.

- **MM R-1d Notification of temporary closure and reroute of the Pacific Crest National Scenic Trail (PCT).** SCE shall coordinate with the FS and with the Pacific Crest Trail Association (PCTA) regarding temporary closure of the PCT that would occur during Project construction and maintenance activities. The following shall be included in this coordination effort:
 - SCE and the PCTA shall identify trail diversions to be applied at each point where the PCT would be temporarily closed to through-traffic as a result of Project construction and maintenance activities; and
 - SCE shall post public notices of temporary closures/diversions of the PCT at FS Ranger Stations within the ANF and at additional locations determined to be appropriate by the PCTA. The public notice shall provide information on temporary trail reroutes that would be implemented during construction and maintenance activities as well as the time period for implementation of such reroutes.

SCE shall document these coordination efforts, including the location of all posted notices, and submit this documentation to the CPUC and the FS for approval no less than 30 days prior to construction and maintenance activities that would occur within one-half mile of the PCT.

- **MM R-1e SCE shall compensate ANF for lost income from Adventure Pass sales due to recreation area closures associated with the Project.** Prior to the onset of Project construction in the ANF, SCE shall coordinate with the FS (ANF) to identify recreational resources on NFS lands in the ANF that would be temporarily closed as a direct result of Project construction. A resource is only considered to be closed directly as a result of Project construction if the resource is made entirely inaccessible to the public as a sole result of Project activities; in other words, no other factors contribute to the resource's inaccessibility. SCE shall coordinate with the FS in reviewing financial records of the Adventure Pass program as well as recreational use data for the ANF, in order to determine a compensation amount comparable to the direct impacts of the Project.

Rationale for Finding. Mitigation Measure R-1a will help to minimize Impact R-1 for both Developed and Dispersed Recreation (including as related to recreational hunting in Zone D-11) by requiring coordination among all relevant agencies. Similarly, Mitigation Measures R-1b through R-1e will help to minimize Impact R-1 through public awareness and outreach. Mitigation Measure R-1c is similar to APMs REC-1 (Temporary Closures) and REC-2 (Closure Notices), and will reinforce these APMs by requiring specific procedures such as maintaining public notices and submitting coordination documentation to the CPUC and the Forest Service. Implementation of Mitigation Measures R-1a through R-1e, as described above, will reduce Impact R-1 to a less-than-significant level.

Reference. Final EIR Section 3.15; Table ES-3

Impact R-2: Operational and maintenance activities would restrict access to or disrupt activities within established recreational areas.

During Project operation and maintenance activities, it is expected that ground work will be limited to transmission tower locations and other ground-based Project infrastructure located along the transmission line route. Recreational resources that are adjacent to areas where ground work is necessary will be temporarily restricted from use during such activities, thus restricting access to or resulting in the disruption of normal recreational activities within such areas. In addition, Impact R-2 will affect recreational resources which are considered to be particularly sensitive and are located in close proximity to (versus being adjacent to) operation and maintenance activities; for instance, operation and maintenance activities which occur within close proximity to the Pacific Crest National Scenic Trail (PCT) will disrupt recreationists who utilize the PCT for its designated purposes of solitude and/or an undisturbed backcountry experience. Impact R-2 will also occur if operation and maintenance activities require that certain roads and/or trails be closed for access to Project infrastructure and such closures remove access to existing recreational resources or opportunities. Such closures will be temporary and of short duration, lasting only as long as required to complete necessary operation and maintenance of Project infrastructure.

APMs REC-1 (Temporary Closures) and REC-2 (Closure Notices), which are included as part of the Project, will help to reduce this impact.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact R-2. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact R-2 to a less-than-significant level.

- **MM R-1a** **Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas.** *(See above for full text).*
- **MM R-1b** **Identify and provide noticing of alternative recreation areas.** *(See above for full text).*
- **MM R-1c** **Notification of temporary closure of OHV routes.** *(See above for full text).*
- **MM R-1d** **Notification of temporary closure and reroute of the Pacific Crest National Scenic Trail (PCT).** *(See above for full text).*

Rationale for Finding. Mitigation Measures R-1a and R-1b will help to minimize Impact R-2 by requiring coordination among all relevant agencies. Mitigation Measure R-1c is similar to Applicant-Proposed Measures (APMs) REC-1 (Temporary Closures) and REC-2 (Closure Notices) and will reinforce these APMs by requiring specific procedures such as maintaining public notices and submitting coordination documentation to the CPUC and the Forest Service. The implementation of these mitigation measures will reduce Impact R-2 to a less-than-significant level.

Reference. Final EIR Section 3.15; Table ES-3

Impact R-3: Project activities (construction or operation and maintenance) would cause or contribute to the degradation of one or more of the four primary characteristics of a designated Wilderness Area, as defined by the Wilderness Act.

In accordance with the federal Wilderness Act, Public Law 88-577 (16 U.S.C. 1131-1136), a designated Wilderness Area is defined as having four primary characteristics, including the following: (1) a natural and

undisturbed landscape; (2) extensive opportunities for solitude and unconfined recreation; (3) at least 5,000 contiguous acres; and (4) feature(s) of scientific, educational, scenic, and/or historic value. The Project will contribute to the temporary and/or sporadic degradation of the San Gabriel Wilderness Area's characteristics of solitude and unconfined recreation due to the close proximity of Project construction, operation, and maintenance activities to this Wilderness Area (WA).

The Project is located adjacent to the west of the San Gabriel WA along Segment 6 for approximately 0.8 mile, from MP 18.0 – 18.8. Access to this portion of the WA is minimal, provided by several non-motorized trails that require a high degree of physical aptitude for access by foot. Under Alternative 2 (included under the Project), the West Fork Bike Path (Forest Road 2N25.1), which is located adjacent to the south of the San Gabriel WA, will be used for access to the Segment 6 alignment; however, due to the incorporation of Alternative 6 into the Project, the West Fork Bike Path will be avoided and the southern portion of the San Gabriel WA will not be affected by Impact R-3. Also as a result of the helicopter components of Alternative 6, Project construction activities will particularly contribute to the degradation of the San Gabriel WA's characteristic of solitude and unconfined recreation. Helicopter construction activities will have a substantial contribution to the degradation of solitude and unconfined recreation in the San Gabriel WA. As mentioned, the southwestern portion of the San Gabriel WA (the area that will be affected by Impact R-3) is characterized by extremely rugged terrain and is not highly used by public recreationists. However, for the recreationists that do visit this portion of the WA, the experience of solitude and unconfined recreation is of a higher quality than in other portions of the WA that are more highly used by the public.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact R-3. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact R-3 to a less-than-significant level.

- **MM L-2b Aircraft flight path and safety provisions and consultations.** *(See above for full text).*

Rationale for Finding. All helicopter activities associated with the Project will be conducted in coordination with the USDA Forest Service and all other applicable agencies/parties, including but not limited to the following: the Federal Aviation Administration (FAA), the National Oceanic and Atmospheric Administration (NOAA), military authorities, and local pilots. In addition, all helicopter activities will occur in compliance with the ANF's Wilderness Management Manual. Furthermore, Mitigation Measure L-2b (Aircraft flight path and safety provisions and consultations) will ensure that all appropriate agencies are consulted with prior to the onset of helicopter operations. Therefore, this impact will be reduced to a less-than-significant level

Reference. Final EIR Section 3.15; Table ES-3

Impact R-4: The Project would cause or contribute to degradation of the Pacific Crest National Scenic Trail (PCT).

The PCT is a 2,650-mile-long hiking and equestrian trail which extends from Mexico to Canada, through the states of California, Oregon, and Washington. Recreational opportunities along the PCT are particularly valued for the solitude and natural setting of the trail, which characterizes the majority of its length. The Project will traverse the PCT in three locations: once in the North Region and twice in the Central Region. At all three locations, the new transmission lines will create a constant buzzing or crackling noise (corona noise) from the conductors. Existing transmission lines currently span each of the three PCT crossings, however, the Project will replace existing lines with larger, 500-kV lines, which generate a higher level of corona noise, thereby intensifying the existing noise disturbance to the recreational experience. Construction

of the Project will not result in a permanent reroute of the PCT or any permanent physical modification to the PCT, and the Project will not change the existing types of land uses and recreational opportunities along or adjacent to the PCT. However, due to temporary construction-related impacts of the Project, implementation of Mitigation Measures R-1a, R-1d, and R-1e are required to reduce Impact R-4 to a less-than-significant level

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact R-4. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact R-4 to a less-than-significant level.

- **MM R-1a** **Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas.** *(See above for full text).*
- **MM R-1d** **Notification of temporary closure and reroute of the Pacific Crest National Scenic Trail (PCT).** *(See above for full text).*
- **MM R-1e** **SCE shall compensate ANF for lost income from Adventure Pass sales due to recreation area closures associated with the Project.** *(See above for full text).*

Rationale for Finding. Although the Project will elevate existing corona noise levels and introduce larger transmission towers than currently exist in the three locations where the Project will traverse the PCT, these effects will not result in a significant impact compared to existing conditions. Additionally, any Project activities that alter the ability of recreationists to access and utilize the PCT will be temporary and of short duration. The mitigation measures listed above will minimize impacts to the PCT through coordination of construction schedules in the vicinity of the PCT, notification of trail disturbance and possible re-route, and compensation to the USDA Forest Service for any lost Adventure Pass revenue which will facilitate the future repair and maintenance of the PCT, as well as other resources in the ANF. Together these measures will reduce Project impacts to the PCT to a less-than-significant level.

Reference. Final EIR Section 3.15; Table ES-3

Impact R-5: The Project would contribute to degradation of Off-Highway Vehicle (OHV) trails or Open Riding Areas, or would result in a loss of recreational opportunity for OHV users.

Construction or operation and maintenance activities associated with the Project could result in the long-term loss or degradation of OHV routes if such activities require that OHV routes or trails be repeatedly and/or frequently closed due to maintenance activities, or if OHV routes are permanently closed or altered as a result of the Project. Due to a lack of developed OHV trails and opportunities in the North and South Regions, this impact will not affect portions of the Project Area that are located outside the Central Region, which encompasses the ANF. Within the ANF, roads are maintained by the USDA Forest Service in accordance with designated Operation Maintenance Levels (OMLs). OHV use is restricted to OML 2 roads and designated Open Riding Areas where OHV recreation is permitted off-trail. OML 2 roads are maintained for high-clearance vehicles, with generally no maintenance work required. OHV use is not permitted on more well-maintained roads (OML 3 – 5) due to safety hazards associated with the presence of passenger cars and larger vehicles.

During construction of the Project, clearing and grading of existing access and spur roads within the ANF will be required, and will result in the temporary improvement of some roads that are currently maintained to OML 2 standards. As a result, these roads will be unavailable to OHV use until the road condition is returned to OML 2 standards. Any road upgrades that are applied during the construction period will be strictly temporary; no permanent upgrades to existing OML standards will occur as a result of the Project.

Therefore, any loss of recreational opportunity to OHV users will be temporary in nature. Implementation of Mitigation Measure R-5 will ensure that permanent upgrades to ANF roads do not occur and impacts to OHV resources and opportunities remain less than significant.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact R-5. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact R-5 to a less-than-significant level.

- **MM R-5 Avoid permanent upgrades to Forest System roads.** SCE shall avoid the permanent upgrade of Forest System roads as a result of Project construction or operation and maintenance activities unless otherwise approved by the FS. Any road upgrades that are required to accommodate construction of the Project shall be temporary in nature. Following construction of the Project, existing OML standards designated for any temporarily improved roads shall be adhered to, thereby returning improved roads to existing maintenance practices, unless otherwise authorized by the FS. As determined to be necessary through coordination between SCE and the FS and at the discretion of the FS, SCE shall develop a plan for returning improved Forest System roads to existing conditions. SCE shall implement the restrictions for road improvements and maintenance set forth in the Special Use or Road Use Authorization to be issued by the FS for the Project.

Rationale for Finding. Implementation of Mitigation Measure R-5 will ensure coordination between SCE and the Forest Service in developing and implementing necessary road improvements in a way that is consistent with existing OML designations. Due to the availability of OHV opportunities throughout the ANF and the temporary nature of Impact R-5 to OHV opportunities along the Project route, the provision of compensatory recreation opportunities is not considered a necessary mitigation for this impact. Impacts to OHV resources and opportunities will be less than significant.

Reference. Final EIR Section 3.15; Table ES-3

Impact R-6: The Project would facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities.

Long-term loss or degradation of recreational resources or opportunities could occur through unmanaged or unauthorized use of such resources. Unmanaged recreation could occur if the Project facilitates access to areas that are not intended or suitable for certain recreational uses, particularly through the creation or improvement of roadways in the ANF. Two types of roads are associated with construction and operation of the Project: access roads and spur roads. Access roads are through-ways that serve as the main transportation route along the Project ROW, whereas spur roads are smaller roads that connect access roads directly to tower sites and are not considered part of the Forest System roads. Unmanaged recreation activities (particularly OHV-related) currently occur throughout the ANF via existing spur roads and utility corridors.

During construction and operation of the Project, existing roadways will be utilized wherever possible to accommodate necessary traffic of vehicles and equipment. However, installation of new roads and improvement of existing roads will also be required in order to provide access to the proposed route during construction and operation of the Project. In some areas, improvement of existing roads and installation of new roads may provide access to areas that are not currently accessible by roads. As a result, these new and improved roads could be used by recreationists to gain unauthorized access to areas that are not designated or intended for certain recreational purposes.

In addition, some recreational resources will be temporarily precluded from use during construction and/or operation and maintenance of the Project, as described above with regards to Impact R-1 (Construction activities will restrict access to or disrupt activities within established recreational areas) and Impact R-2 (Operational and maintenance activities will restrict access to or disrupt activities within established recreational areas). This could potentially result in unmanaged recreational uses, as recreationists seek alternative or comparable recreational resources to those which are made unavailable by Project activities. To reduce impacts of the Project from facilitating unmanaged recreation, SCE will implement Mitigation Measure R-5.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact R-6. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact R-6 to a less-than-significant level.

- **MM R-5** **Avoid permanent upgrades to Forest System roads.** *(See above for full text).*

Rationale for Finding. Implementation of Mitigation Measure R-5 will ensure that access to managed recreational resources is not permanently altered, and will minimize the potential for unmanaged recreation to occur as a result of the Project. This measure will reduce Project impacts related unmanaged recreation to a less-than-significant level.

Reference. Final EIR Section 3.15; Table ES-3

III.3.13 Wildfire Prevention and Suppression

Impact F-1: Construction and/or maintenance activities would reduce the effectiveness of firefighting.

Project construction and maintenance activities have the potential to interfere with fire engine access to wildfires in remote, wildland areas, which will reduce the effectiveness of firefighting. The Project will be accessed by several narrow, unpaved roads in the ANF and Puente Hills Landfill Native Habitat Preservation Authority (PHLNHPA) lands, and construction activities could limit emergency vehicle access.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact F-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact F-1 to a less-than-significant level.

- **MM F-1 Prepare wildland traffic control plans.** *(See above for full text).*

Rationale for Finding. Mitigation Measure F-1 (Prepare wildland traffic control plans) will ensure that emergency vehicles will have adequate access to wildland areas during Project construction and maintenance activities on NFS and PHLNHPA lands. Therefore, implementation of Mitigation Measure F-1 will ensure the Project does not interfere with fire engine access or reduce firefighting effectiveness. Impact F-1 will be less than significant.

Reference. Final EIR Section 3.16; Table ES-3

Impact F-3: Construction and/or maintenance activities would increase the risk of wildfire.

An ignition that escapes containment at the top of the fireshed could spread to the limits of the fireshed under extreme weather conditions. Project-related ignitions within the Project corridor in the Tehachapi Fireshed have the potential to escape initial attack containment and become catastrophic fires. The areas with heaviest fuel loads, steep topography, and exposure to Santa Ana winds will have a higher burn probability and a higher potential for an ignition to escape. Construction- and maintenance-related ignitions that occur during extreme weather conditions will be at high risk to escape containment and burn large areas throughout the Tehachapi Fireshed, potentially spreading south and west through Acton, La Cañada Flintridge, Santa Clarita, and other communities at the wildland-urban interface, including private inholdings within the ANF. Ignition of a large fire as a result of Project construction or maintenance will threaten firefighter safety above the existing level of hazard that exists for area firefighters.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact F-3. To reduce the significance of these potential impacts, the following mitigation measures have been identified:

- **MM F-3a Revise SCE's Fire Management Plan for maintenance activities.** SCE's Fire Management Plan shall be revised to be applicable to Project maintenance activities located off NFS lands. All provisions of the Plan that are applicable to construction crews and activities shall be made applicable to maintenance crews and activities. The revised Plan shall be submitted to the CPUC for review at least 60 days prior to construction.
- **MM F-3b Cease work during Red Flag Warning events.** During Red Flag Warning events, as issued daily by the National Weather Service in State Responsibility Areas (SRA) and Local Responsibility Areas (LRA), all non-emergency construction and maintenance activities shall cease in affected areas. An exception shall be made for transmission line testing where a transmission line may be tested, one time only, if the loss of another transmission facility could lead to system instability or cascading outages.
- **MM F-3c Ensure open communication pathways.** All construction crews and inspectors shall be provided with radio and cellular telephone access that is operational along the entire length of the approved route to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction activities at each construction site. All fires shall be reported to the fire agencies with jurisdiction in the Project area immediately upon ignition.

Each crew member shall carry at all times a laminated card listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on contact cards shall be updated and redistributed to all construction crewmembers, as needed, prior to the initiation of construction activities and on the day the information change goes into effect. Outdated cards shall be destroyed.

- **MM F-3d Remove hazards from the work area.** SCE shall clear dead and decaying vegetation from the work area prior to starting construction and/or maintenance work. The work area includes only those areas where personnel are active or where equipment is in use or stored, and may include portions of the transmission ROW, construction laydown areas, pull sites, access roads, parking pads, and any other sites adjacent to the ROW where personnel are active or where equipment is in use or stored. Cleared dead and decaying vegetation shall either be removed or chipped and spread onsite in piles no higher than six (6) inches.
- **MM F-3e Comply with non-smoking policy on PHLNHPA lands.** SCE and contractor personnel shall comply with the non-smoking policy on Puente Hills Landfill Native Habitat Preservation Authority (PHLNHPA) lands during construction and maintenance activities, and this commitment shall be written into SCE's Fire Management Plan for construction and maintenance (see Mitigation Measure F-3a, Revise SCE's Fire Management Plan for maintenance activities).
- **MM F-3f Share costs for ANF fuelbreak maintenance.** SCE shall enter into a cost-sharing agreement with the FS for maintenance of the existing system of fuelbreaks. Cost-sharing for fuelbreak maintenance shall be required for backbone fuelbreaks in close proximity to the Project or that transect the path of the Project. A backbone fuelbreak is an identified key ridge or other linear geographical feature that has a high level of effectiveness in slowing or containing a wildfire. Backbone fuelbreaks in the vicinity of the Project include: Santa Clara Divide, Mill Creek, Flintridge, Clear Creek, Millard, Brown Mountain, Clamshell, Santa Anita Dam, Chantry and Monrovia (a.k.a. Redbox/Rincon). SCE's responsibility under the cost-sharing agreement would be proportional to the Project's potential impacts on wildfire prevention and suppression.
- **MM F-3g Provide transmission line safety training to ANF staff.** SCE shall provide transmission line safety training to FS (ANF) staff prior to the start of the official fire season on an annual basis.

Rationale for Finding. Mitigation Measure F-3a will require the incorporation of fire safe practices during Project maintenance in addition to Project construction. Mitigation Measure F-3b will reduce the potential impact to communities, firefighters, and natural resources by prohibiting Project construction and maintenance activities during Red Flag Warning events, which will eliminate work during extreme fire weather and have the effect of substantially reducing the potential acres burned, the number of communities at risk, and the hazard to firefighting crews. This measure will be applicable to non-Forest Service lands (similar provisions for ANF lands are contained in HAZ-4). This measure will reduce the risk of homes sustaining damage in a Project construction- or maintenance-related fire.

Mitigation Measure F-3c will reduce firefighting response time in the event of an ignition, which will have the effect of reducing the potential impact to communities and natural resources. Mitigation Measure F-3d (Remove hazards from the work area) will reduce the severity of construction- and maintenance-related ignitions that escape initial containment efforts by minimizing volatile fuel loads within the corridor. Mitigation Measure F-3e will ensure compliance with PHLNHPA's non-smoking policy. The implementation of these mitigation measures will reduce Impact F-3 to a less-than-significant level.

Reference. Final EIR Section 3.16; Table ES-3

Impact F-4: Construction and/or maintenance activities would increase the risk of personnel injury or death in the event of fire.

Portions of the Tehachapi Fireshed area within ANF and on PHLNHPA lands are accessible by narrow, unpaved roadways through wildland areas that are highly susceptible to wildfires. Critical to personnel safety in the event of fire are the availability of safe evacuation routes and personnel awareness of these routes. Air-lifting of personnel in the event of fire is unlikely to be feasible due to flight restriction orders that are issued during wildfire events. Segment 11 through ANF is the most access-restricted of all Project segments. Under existing conditions, the bridge along Fall Creek Road (along Segment 11) that will provide for the crossing of Tujunga Creek is out of service, providing only a single point of ingress and egress for personnel and firefighting crews in the event of a wildfire. Under Alternative 2 this bridge will be repaired to ensure an adequate number of emergency evacuation routes in the event of an uncontrolled fire in the vicinity of Segment 11.

APM HAZ-4 (Fire Management Plan, Specification E-2005-104; February 21, 2006) requires SCE to follow its Fire Management Plan during construction of the Project. The Plan is discussed in detail in Section 3.16.3.4. Among other commitments, the Plan commits to restricting project activities in compliance with ANF Project Activity Levels, as issued daily by ANF, for example, during periods of extreme fire hazard due to critical weather conditions. Because Project construction activities will be restricted relative to the severity of weather conditions, the presence of construction workers in ANF will be limited during extreme fire weather thereby reducing the risk of personnel injury and death as a result of a Santa-Ana driven wildfire event.

The Plan covers fire safety provisions, equipment, communication, and reporting during construction, however it does not detail SCE's commitments on non-Forest Service lands, it does not ensure emergency evacuation of personnel from wildland areas in the event of fire, and it does not address the emergency evacuation constraint of the out-of-service Tujunga Creek Bridge. As a result, personnel engaged in Project construction or maintenance activities on non-Forest Service lands will be at risk of being engaged in work activities during extreme weather conditions. In addition, personnel working in wildland areas will be at risk of not being evacuated in the event of fire during normal weather conditions due to a lack of evacuation planning effort despite implementation of APM HAZ-4. Finally, personnel working on ANF lands in the vicinity of Tujunga Creek will be at risk in the event of a fire during normal weather conditions despite implementation of APM HAZ-4 due to the emergency access constraint of the area.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact F-4. The following mitigation measures have been identified to reduce this impact to a less-than-significant level:

- **MM F-3b** **Cease work during Red Flag Warning events.**
- **MM F-4** **Prepare and implement Emergency Evacuation Plan.** SCE shall prepare an Emergency Evacuation Plan to ensure the safe and expedient ground-based evacuation of personnel in the event of an uncontrolled fire in the Project area, including addressing the Tujunga Creek bridge area. The Plan shall make explicit the following elements: a schedule of the locations of all personnel during the fire season, conditions under which to evacuate, chain of command, communications with ANF Emergency Operations Center, and identification of evacuation routes. An emergency evacuation officer shall be appointed to educate personnel about emergency evacuation routes prior to each day's construction activities, to carry out the Plan in the event that an evacuation order is issued or that a nearby uncontrolled fire threatens personnel safety, and to update the plan should access conditions change. The Emergency Evacuation Plan shall be

submitted to FS and PHLNHPA, as appropriate, for review and comment at least 30 days prior to Project construction.

Rationale for Finding. Mitigation Measure F-3b will reduce the risk to construction and maintenance personnel by prohibiting Project construction and maintenance activities during Red Flag Warning events, which will eliminate work during extreme fire weather. This measure will be applicable to non-Forest Service lands (similar provisions for ANF lands are contained in HAZ-4). This measure will reduce the risk of personnel injury and death as a result of a Santa Ana driven wildfire by restricting the presence of personnel in wildland areas during the most extreme fire weather.

Mitigation Measure F-4 will ensure identification of emergency access routes prior to Project construction activities, require education of personnel about these access routes prior to each day's construction or maintenance activities, and require appointment of an Emergency Evacuation Plan officer to administer the plan in the event of fire. The implementation of these mitigation measures will reduce Impact F-4 to a less-than-significant level.

Reference. Final EIR Section 3.16; Table ES-3

Impact F-6: Project activities would introduce non-native plants, which would contribute to an increased ignition potential and rate of fire spread.

Project construction and maintenance activities create the potential for the introduction and spread of non-native, invasive plants. Non-native plants are often spread by human and vehicle vectors in areas of large-scale soil disturbance and importation. Construction and maintenance of the Project will contribute to the introduction and proliferation of non-native, invasive plants. Certain invasive plants, like cheatgrass, medusa head and Saharan mustard, can contribute to changes in wildfire frequency, timing and spread (Cal-IPC, 2007). Cheatgrass and medusa head, for example, dry out earlier in the season than native grasses, extending the length of the fire season and creating fine fuels that are easily ignited. These fine fuels increase the likelihood that the background sources of ignition in the environment will result in a wildfire ignition, resulting in wildfire ignitions earlier in the year and an increased level of fire recurrence. While the introduction of non-native plants will not increase the background rate of ignition sources, it will increase the ignition potential, or the likelihood that an ignition source will result in an actual wildfire ignition. In addition, non-native grasslands have a "spotting" effect during a wildfire, where embers from these grasslands are blown ahead of the fire line, contributing to an increased rate of fire spread. Invasive annual grasses also influence fire spread by creating a fine fuel continuum between patchy, perennial shrubs allowing wildfires to expand further into otherwise sparsely vegetated wildlands (Wiedinmyer and Neff, 2007). The introduction and spread of specific invasive plants within the Project ROW will adversely influence fire behavior by increasing the fuel load, fire frequency and fire spread

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact F-6. The following mitigation measure has been identified to reduce this impact to a less-than-significant level:

- **MM B-3a Prepare and implement a Weed Control Plan.** (See above for full text)

Rationale for Finding. Implementation of the Weed Control Plan will prevent or substantially reduce ignition potential and increased fire spread as a result of non-native, invasive plants being introduced during to the Project area during construction or maintenance activities by providing a plan and mechanism for implementing measures to reduce the spread of weed during Project construction and maintenance. Implementation of this mitigation measure will reduce Impact F-6 to a less-than-significant level.

Reference. Final EIR Section 3.16; Table ES-3

Cumulative Impact F-3: Construction and/or maintenance activities would increase the risk of wildfire.

An ignition that escapes containment at the top of the fireshed could spread to the limits of the fireshed under extreme weather conditions. Project-related ignitions within the Project corridor in the Tehachapi Fireshed have the potential to escape initial attack containment and become catastrophic fires. The areas with heaviest fuel loads, steep topography, and exposure to Santa Ana winds will have a higher burn probability and a higher potential for an ignition to escape. Construction- and maintenance-related ignitions that occur during extreme weather conditions will be at high risk to escape containment and burn large areas throughout the Tehachapi Fireshed, potentially spreading south and west through Acton, La Cañada Flintridge, Santa Clarita, and other communities at the wildland-urban interface, including private inholdings within the ANF. Ignition of a large fire as a result of Project construction or maintenance will threaten firefighter safety above the existing level of hazard that exists for area firefighters. Finally, ignition of a large fire as a result of Project construction or maintenance could adversely affect natural resources including biological resources and air and water quality.

Transmission line maintenance activities will include the periodic use of vehicles and presence of personnel for line inspections and could also include the use of heavy equipment for conductor repairs or replacement. These activities will be far less intensive than construction activities; however, they will recur periodically over the life of the Project, resulting in a recurring source of ignitions for 50 years or more. Therefore, construction and maintenance activities will create a significant risk of a fire with potentially damaging impacts to communities, firefighter health and safety, and natural resources in the highly volatile Tehachapi Fireshed.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Cumulative Impact F-3. Implementation of the following mitigation measures will reduce the Project's incremental contribution to the cumulative impact to less-than-significant:

- **F-3a (Revise SCE's Fire Management Plan for maintenance activities),**
- **F-3b (Cease work during Red Flag Warning events),**
- **F-3c (Ensure open communication pathways),**
- **F-3d (Remove hazards from the work area), and**
- **F-3e (Comply with non-smoking policy on PHLNHPA lands)**

Rationale for Finding. Mitigation Measure F-3a will require the incorporation of fire safe practices during Project maintenance in addition to Project construction. Mitigation Measure F-3b will reduce the potential impact to communities, firefighters, and natural resources by prohibiting Project construction and maintenance activities during Red Flag Warning events, which will eliminate work during extreme fire weather and have the effect of substantially reducing the potential acres burned, the number of communities at risk, and the hazard to firefighting crews. This measure will be applicable to non-Forest Service lands (similar provisions for ANF lands are contained in HAZ-4). This measure will reduce the risk of homes sustaining damage in a Project construction- or maintenance-related fire.

Mitigation Measure F-3c will reduce firefighting response time in the event of an ignition, which will have the effect of reducing the potential impact to communities and natural resources. Mitigation Measure F-3d

(Remove hazards from the work area) will reduce the severity of construction- and maintenance-related ignitions that escape initial containment efforts by minimizing volatile fuel loads within the corridor. Mitigation Measure F-3e will ensure compliance with PHLNHPA's non-smoking policy. The implementation of these mitigation measures will reduce the Project's incremental contribution to cumulative Impact F-3 to a less-than-significant level.

Reference. Final EIR Section 3.16; Table ES-3

III.3.14 Electrical Interference and Hazards

Impact EIH-1: The Project would cause radio, television, communications, or electronic equipment interference.

Electric and magnetic fields from power lines occur at a frequency level that is substantially below the frequency range of communications systems and do not typically pose interference problems for communication equipment. Corona or gap discharges related to high frequency radio and television interference impacts are dependent upon several factors, including the strength of broadcast signals and are anticipated to be very localized if it occurs. Magnetic field interference with electronic equipment such as computer monitors can also occur as a result of transmission lines.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact EIH-1. Specifically, the following mitigation measures are feasible and are hereby adopted to mitigate significant effects from Impact EIH-1 to a less-than-significant level.

- **MM EIH-1a Limit the conductor surface electric gradient.** As part of the design and construction process for the Project, SCE shall limit the conductor surface electric gradient in accordance with the Institute of Electrical and Electronic Engineers Radio Noise Design Guide.
- **MM EIH-1b Document and resolve electronic interference complaints.** After energizing the transmission line, SCE shall respond to, document, and resolve radio/television/electronic equipment interference complaints received. These records shall be made available to the CPUC for review upon request. All unresolved disputes shall be referred by SCE to the CPUC for resolution.

Rationale for Finding. Mitigation Measures EIH-1a and EIH-1b will limit the conductor surface gradient so the electric field intensity on the conductor does not exceed the breakdown strength of air, which will avoid generation of corona noise at levels that cause electronic interference, and will resolve and document all interference complaints. As such impacts related to radio, television, communications, and electronic equipment interference will be less than significant.

Reference. Final EIR Section 3.17; Table ES-3

Impact EIH-2: The Project would cause induced currents and shock hazards in joint use corridors.

Induced currents and voltages on conducting objects near the Project's transmission lines represent a potential significant impact. These impacts do not pose a threat in the environment if the conducting objects are properly grounded.

Finding. The CPUC finds that changes or alterations have been incorporated into the Project which avoid or substantially lessen the significant effects on the environment from Impact EIH-2. Specifically, the following mitigation measure is feasible and is hereby adopted to mitigate significant effects from Impact EIH-2 to a less-than-significant level.

- **MM EIH-2 Implement grounding measures.** As part of the siting and construction process for the Project, SCE shall identify objects (such as fences, metal buildings, and pipelines) within and near the ROW that have the potential for induced voltages and shall implement electrical grounding of metallic objects in accordance with SCE's standards. The identification of objects shall document the threshold electric field strength and metallic object size at which grounding becomes necessary. SCE shall install all necessary grounding measures prior to energizing the transmission lines. Thirty days prior to energizing the lines, SCE shall notify in writing, subject to the review and approval of the CPUC, all property owners within and adjacent to the Project ROW of the date the line is to be energized. The written notice shall provide a contact person and telephone number for answering questions regarding the line and guidelines on what activities should be limited or restricted within the ROW. SCE shall respond to and document complaints received and the responsive action taken. These records shall be made available to the CPUC for review upon request. All unresolved disputes shall be deferred by SCE to the CPUC for resolution.

The written notice shall describe the nature and operation of the lines, and SCE's responsibilities with respect to grounding all conducting objects. In addition, the notice shall describe the property owner's responsibilities with respect to notification for any new objects, which may require grounding and guidelines for maintaining the safety of the ROW.

Rationale for Finding. Mitigation Measure EIH-2 will ensure that objects with the potential for induced voltages, such as fences, metal buildings, and pipelines, near the Project's ROW will be properly grounded and property owners will be properly notified. As such, impacts related to induced currents and shock hazards will be reduced to a less-than-significant level.

Reference. Final EIR Section 3.17; Table ES-3

III.4 Significant Environmental Impacts that Cannot Be Avoided or Reduced to a Less than Significant Level

The CPUC hereby finds that the following environmental impacts will be significant and unavoidable, despite the incorporation of all feasible mitigation measures. These findings are based on the discussion of impacts in the detailed issue area analyses in Chapter 3 (Affected Environment and Environmental Consequences) of the Final EIR. For each significant and unavoidable impact identified below, the CPUC has made a finding(s) pursuant to Public Resources Code §21081. An explanation of the rationale for each finding is also presented below.

III.4.1 Agricultural Resources

Cumulative Impact AG-1: Construction activities would temporarily preclude the agricultural use of some Farmland.

The Project will result in the temporary conversion of 54.75 acres of Farmland due to construction activities across Segments 4 and 8. In these areas, construction of residential and urban development projects, such as the Christine Bower property and the Frazier Park Estate in Kern County and the Western Hills by Meritage Homes, Vellano, Woodview Terrace, and PD 9-163 projects in San Bernardino County will result in substantial areas of Farmland converted to non-agricultural uses. The effects of the construction of these other planned projects will be cumulatively significant.

Mitigation Measure AG-1 (Coordinate construction activities with agricultural landowners) will be implemented and will help reduce the Project's incremental contribution to the cumulative significance of Impact AG-1. However, despite implementation of this mitigation measure for the Project, Impact AG-1

will have the potential to combine with other, similar impacts of other projects and as such, Impact AG-1 will be cumulatively significant and unavoidable.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant cumulative effects on the environment from Impact AG-1. Specifically, Mitigation Measure AG-1, as set forth in Section 3.2 (Agricultural Resources) of the Final EIR, is feasible and is hereby adopted to mitigate significant cumulative effects from Impact AG-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact AG-1 to a less-than-significant level.
 - **MM AG-1: Coordinate construction activities with agricultural landowners.** (*See above for full text*)

Rationale for Finding. Construction of residential and urban development projects will result in substantial areas of Farmland converted to non-agricultural uses. A review of past development in the Project area as well as the reasonably foreseeable projects identified in Final EIR Table 2.9-12 shows that when combined with the effects of other projects, the Project will contribute to a significant impact. There are no other feasible mitigation measures or alternatives available to reduce the significant cumulative impact to a level that will be less than significant. This impact is cumulatively significant and unavoidable.

Reference. Final EIR Section 3.2; Table ES-3

Cumulative Impact AG-2: Operation would permanently convert Farmland to non-agricultural use.

The area of land that will be permanently converted for the use as a result of the Project, following site restoration and Project completion, will be under the ten acre minimum mapping unit (5.83 acres of Farmland and 1.83 acres of land under Williamson Act contract) resulting in a less than significant impact for the Project. However, this conversion will have the potential to combine with similar impacts of other projects identified in Final EIR Table 2.9-12 and therefore will be cumulatively significant.

Finding.

- (1) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Cumulative Impact AG-2 to a less-than-significant level.

Rationale for Finding. When combined with similar impacts of past, present, and reasonably foreseeable projects, the effect of Cumulative Impact AG-2 will be significant and unavoidable because the area of land that will be permanently converted for the Project will potentially combine with similar impacts of other projects and, therefore, is cumulatively significant and unavoidable.

Reference. Final EIR Section 3.2; Table ES-3

Cumulative Impact AG-3: Construction activities would interfere with agricultural operations.

The Project will traverse 75.55 miles of agricultural land across Segments 4, 5, 6, and 8 and construction activities across these lands will interfere with agricultural operations in these areas. Construction of residential and urban projects like the Christine Bower property, Frazier Park Estate, Western Hills by Meritage Homes, Vellano, Woodview Terrace, and PD 9-163 projects and infrastructure projects such as the

Antelope Transmission Project Segments 1-3, Antelope Valley Water Bank Project, California High Speed Rail, and Orangeline High Speed Maglev Project will disrupt agricultural operations both through the disruption of agricultural land as well as through construction activities on and adjacent to agricultural lands. The effects of the construction of these other planned projects on agricultural operations will be cumulatively significant.

Mitigation Measure AG-1 (Coordinate construction activities with agricultural landowners) will be implemented and will help reduce the Project's incremental contribution to the cumulative significance of Impact AG-3. However, despite implementation of this mitigation measure for the Project, Impact AG-3 will have the potential to combine with other, similar impacts of other projects and as such, Impact AG-3 will be cumulatively significant and unavoidable.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact AG-3. Specifically, Mitigation Measure AG-1, as set forth in Section 3.2 (Agricultural Resources) of the Final EIR, is feasible and is hereby adopted to mitigate significant effects from Impact AG-3. However, even with implementation of this measure, significant unavoidable cumulative impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact AG-3 to a less-than-significant level.
 - **MM AG-1: Coordinate construction activities with agricultural landowners.** (*See above for full text*)

Rationale for Finding. Construction of residential and urban development projects will disrupt agricultural operations both through the disruption of agricultural land as well as through construction activities on and adjacent to agricultural lands. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less-than-significant. This impact is cumulatively significant and unavoidable.

Reference. Final EIR Section 3.2; Table ES-3

Cumulative Impact AG-4: Operation would interfere with agricultural operations.

Operations associated with the Project, which crosses 75.55 miles of agricultural land, will interfere with agricultural operations by dividing farm properties, creating irregularly shaped fields, disrupting drainage and irrigation systems, affecting the efficacy of windbreaks, fragmenting farms, and allowing for the introduction of invasive weeds within and around disturbed areas. The residential, urban, and infrastructure projects listed in Final EIR Table 2.9-12 will also result in similar impacts, although on a larger scale, and cumulatively interfere with a substantial number of agricultural operations. The effects of the operation of these other planned projects on agricultural operations will be cumulatively significant.

Mitigation Measure AG-1 (Coordinate construction activities with agricultural landowners) will be implemented and will help reduce the Project's incremental contribution to the cumulative significance of Impact AG-4. However, despite implementation of this mitigation measure for the Project, Impact AG-4 will have the potential to combine with other, similar impacts of other projects and as such, Impact AG-4 will be cumulatively significant and unavoidable.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact AG-4. Specifically, Mitigation Measure AG-1, as set forth in Section 3.2 (Agricultural Resources) of the Final EIR, is feasible and is hereby adopted to mitigate significant effects from Impact AG-4. However, even with implementation of this measure, significant unavoidable cumulative impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact AG-4 to a less-than-significant level.
 - **MM AG-1: Coordinate construction activities with agricultural landowners.** (*See above for full text*)

Rationale for Finding. The operation of the Project across agricultural land will interfere with agricultural operations. This impact combined with the effects of the operation of other planned projects on agricultural operations is cumulatively significant. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant. This impact is cumulatively significant and unavoidable.

Reference. Final EIR Section 3.2; Table ES-3

III.4.2 Air Quality

Impact AQ-1: Construction emissions would exceed the SCAQMD, AVAQMD, and/or KCAPCD regional emission thresholds.

Construction of the Project will result in short-term impacts to ambient air quality. Temporary construction emissions will result from on-site activities, such as surface clearing, excavation, tower foundation construction, tower steel construction, power cable stringing, substation upgrades, etc.; and from off-site activities such as construction related haul trips, construction worker commuting, and helicopters used for tower construction. Daily construction emissions associated with the Project will exceed the Air District Regional planning thresholds for significance for NO_x, VOC, CO, PM₁₀, and PM_{2.5} in the South Coast Air Basin and AVAQMD, and in 2010, prior to equipment mitigation, will exceed the annual NO_x and PM₁₀ KCAPCD significance criteria.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact AQ-1. Specifically, Mitigation Measures AQ-1a through AQ-1j, as set forth in Section 3.3 (Air Quality) of the Final EIR, are feasible and are hereby adopted to mitigate significant effects from Impact AQ-1. However, even with the implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact AQ-1 to a less-than-significant level.
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** (*See above for full text*)
 - **MM AQ-1b: Off-road Diesel-fueled Equipment Standards.** (*See above for full text*)
 - **MM AQ-1c: Limit Vehicle Traffic and Equipment Use.** (*See above for full text*)

- **MM AQ-1d: Heavy Duty Diesel Haul Vehicle On-road Equipment Standards.** *(See above for full text)*
- **MM AQ-1e: On-road Vehicles Standards.** *(See above for full text)*
- **MM AQ-1f: Properly Maintain Mechanical Equipment.** *(See above for full text)*
- **MM AQ-1g: Restrict Engine Idling to 5 Minutes.** *(See above for full text)*
- **MM AQ-1h: Schedule Deliveries Outside of Peak Traffic Hours.** *(See above for full text)*
- **MM AQ-1i: Off-road Gasoline-fueled Equipment Standards.** *(See above for full text)*
- **MM AQ-1j: Reduction of Helicopter Emissions.** *(See above for full text)*

Rationale for Finding. The Project's NO_x, CO, VOC, PM₁₀ and PM_{2.5} emissions, even after implementation of all feasible mitigation measures listed above, will remain above the SCAQMD and AVAQMD daily significance thresholds and the Project's PM₁₀ emissions will remain above the KCAPCD annual significance threshold values. Therefore, the daily regional and annual emissions from the Project will cause significant and unavoidable impacts in these three jurisdictions.

Reference. Final EIR Section 3.3; Table ES-3

Impact AQ-3: Construction of the Project would expose sensitive receptors to substantial pollutant concentrations.

Most of the Project route located within the Mojave Desert Air Basin and south through the South Coast Air Basin to the ANF southern border is in fairly remote areas that will not affect substantial numbers of sensitive receptors. However, the construction route and substation construction for the Project within the SCAQMD traverses many areas that will be located near residences, schools, or other sensitive receptors. Site-specific construction emissions of PM₁₀ and PM_{2.5} emissions have been estimated and compared to the SCAQMD Localized Significance Thresholds (LSTs) and will have the potential to exceed the localized significance criteria during tower construction activities when those towers are located 25 meters, but less than 50 meters, from a receptor.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact AQ-3. Specifically, Mitigation Measures AQ-1a through AQ-1j, as set forth in Section III.3.2, are feasible and are hereby adopted to mitigate significant effects from Impact AQ-3. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact AQ-3 to a less-than-significant level.
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
 - **MM AQ-1b: Off-road Diesel-fueled Equipment Standards.** *(See above for full text)*
 - **MM AQ-1c: Limit Vehicle Traffic and Equipment Use.** *(See above for full text)*
 - **MM AQ-1d: Heavy Duty Diesel Haul Vehicle On-road Equipment Standards.** *(See above for full text)*
 - **MM AQ-1e: On-road Vehicles Standards.** *(See above for full text)*

- **MM AQ-1f: Properly Maintain Mechanical Equipment.** *(See above for full text)*
- **MM AQ-1g: Restrict Engine Idling to 5 Minutes.** *(See above for full text)*
- **MM AQ-1h: Schedule Deliveries Outside of Peak Traffic Hours.** *(See above for full text)*
- **MM AQ-1i: Off-road Gasoline-fueled Equipment Standards.** *(See above for full text)*
- **MM AQ-1j: Reduction of Helicopter Emissions.** *(See above for full text)*

Rationale for Finding. Due to the lack of sensitive receptors, their distance from each construction site, the mitigation measures to be implemented under Impact AQ-1, the relatively low amount of emissions that will occur at each tower construction site at any given time, and the lower background concentrations (i.e. better air quality than South Coast Air Basin), the impacts to sensitive receptors located in the Mojave Desert Air Basin are determined to be less than significant. Construction of the Project, however, will cause localized emissions above the SCAQMD LST thresholds within the South Coast Air Basin even after mitigating to the maximum feasible extent; therefore, the Project construction will have a significant and unavoidable impact to local sensitive receptors that are located within 50 meters of a new tower construction site.

Reference. Final EIR Section 3.3; Table ES-3

Cumulative Impact AQ-1: Construction emissions would exceed the SCAQMD, AVAQMD, and/or KCAPCD regional emission thresholds.

Construction activities associated with the Project will result in air emissions that exceed the SCAQMD, AVAQMD, and KCAPCD regional emission thresholds for selected pollutants. For cumulative assessment purposes the potential existence of nearby concurrent cumulative projects will only add to these significant emission totals. The cumulative project list in Final EIR Table 2.9-12 shows four projects within one mile of the Project route in KCAPCD jurisdiction, shows five projects within one mile of the Project route in AVAQMD jurisdiction, and shows eighteen projects within one mile of the Project route in SCAQMD jurisdiction. Given the assumption that any of these projects will be constructed concurrently with TRTP in the SCAQMD, AVAQMD, and KCAPCD jurisdictions then the Project will have cumulatively significant impacts in those jurisdictions.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact AQ-1. Specifically, Mitigation Measures AQ-1a through AQ-1j, as set forth in Section 3.3 (Air Quality) of the Final EIR, are feasible and are hereby adopted to mitigate significant effects from Cumulative Impact AQ-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact AQ-1 to a less-than-significant level.
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
 - **MM AQ-1b: Off-road Diesel-fueled Equipment Standards.** *(See above for full text)*
 - **MM AQ-1c: Limit Vehicle Traffic and Equipment Use.** *(See above for full text)*
 - **MM AQ-1d: Heavy Duty Diesel Haul Vehicle On-road Equipment Standards.** *(See above for full text)*

- **MM AQ-1e: On-road Vehicles Standards.** *(See above for full text)*
- **MM AQ-1f: Properly Maintain Mechanical Equipment.** *(See above for full text)*
- **MM AQ-1g: Restrict Engine Idling to 5 Minutes.** *(See above for full text)*
- **MM AQ-1h: Schedule Deliveries Outside of Peak Traffic Hours.** *(See above for full text)*
- **MM AQ-1i: Off-road Gasoline-fueled Equipment Standards.** *(See above for full text)*
- **MM AQ-1j: Reduction of Helicopter Emissions.** *(See above for full text)*

Rationale for Finding. Emissions from reasonable foreseeable projects occurring concurrently with TRTP in the SCAQMD, KCAPCD, and AVAQMD jurisdictions will have cumulatively significant impacts in those jurisdictions. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant. This impact is cumulatively significant and unavoidable.

Reference. Final EIR Section 3.3; Table ES-3

Cumulative Impact AQ-3: Construction of the Project would expose sensitive receptors to substantial pollutant concentrations.

Construction activities associated with the Project will expose sensitive receptors in the populated areas along the construction route. The SCAQMD Localized Significance Threshold (LST) lookup tables used to determine Project significance do not apply to cumulative project evaluation; however, the significance criteria is based on downwind pollutant concentrations causing a new exceedance (NO_x and CO) of an air quality standard, substantially increasing current exceedances (PM₁₀ and PM_{2.5}) of an air quality standard, and these general criteria are applicable standards for localized impact cumulative project analysis. For the emissions of any two projects to have the potential for significant cumulative downwind concentrations, they must both be in close proximity to limit the downwind dispersion from one site to the other and generally one of the projects must be able to cause an air quality standard exceedance on its own (conservation of mass principles dictate that two exhaust plumes of stable criteria pollutants do not add concentration, they mix concentration with the plume of highest concentration being diluted by the plume with the lower concentration). Therefore, it can be assumed that the potential for cumulative impacts to sensitive receptors is the same as the Project impacts to sensitive receptors, so the Project will have cumulative significant impacts to sensitive receptors after mitigation.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact AQ-3. Specifically, Mitigation Measures AQ-1a through AQ-1j, as set forth in Section 3.3 (Air Quality) of the Final EIR, are feasible and are hereby adopted to mitigate significant effects from Cumulative Impact AQ-3. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact AQ-3 to a less-than-significant level.
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
 - **MM AQ-1b: Off-road Diesel-fueled Equipment Standards.** *(See above for full text)*
 - **MM AQ-1c: Limit Vehicle Traffic and Equipment Use.** *(See above for full text)*

- **MM AQ-1d: Heavy Duty Diesel Haul Vehicle On-road Equipment Standards.** *(See above for full text)*
- **MM AQ-1e: On-road Vehicles Standards.** *(See above for full text)*
- **MM AQ-1f: Properly Maintain Mechanical Equipment.** *(See above for full text)*
- **MM AQ-1g: Restrict Engine Idling to 5 Minutes.** *(See above for full text)*
- **MM AQ-1h: Schedule Deliveries Outside of Peak Traffic Hours.** *(See above for full text)*
- **MM AQ-1i: Off-road Gasoline-fueled Equipment Standards.** *(See above for full text)*
- **MM AQ-1j: Reduction of Helicopter Emissions.** *(See above for full text)*

Rationale for Finding. Because the potential for cumulative impacts to sensitive receptors is the same as the Project's impacts to sensitive receptors, and the Project will have significant impacts to sensitive receptors, then the Project will result in cumulative significant impacts. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant. This impact is cumulatively significant and unavoidable.

Reference. Final EIR Section 3.3; Table ES-3

III.4.3 Biological Resources

Cumulative Impact B-1: Construction activities would result in temporary and permanent losses of native vegetation.

Despite measures to protect and remediate losses, construction of the Project will cause both temporary (during construction from vegetation clearing) and permanent (replacement of vegetation with project features such as towers or permanent access roads) significant impacts to vegetation communities as described in Section 3.4 of the Final EIR. Many cumulative projects will result in temporary and permanent losses of native vegetation through grading and clearing activities to construct roads, utility infrastructure, and commercial and residential developments.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-1. Specifically, Mitigation Measures B-1a through B-1c, H-1a, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are feasible and are hereby adopted to mitigate significant effects from Cumulative Impact B-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-1 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-1c: Treat cut tree stumps with Sporax.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

- **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. The Project will result in the temporary and permanent loss of native vegetation in the Northern, Central, and Southern Regions. Past and foreseeable future actions in these areas will also result in considerable loss of native vegetation. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because the combined impact will substantially reduce the acreage of several native vegetation types that are limited in distribution within southern California. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-2: The Project would result in the loss of desert wash or riparian habitat.

The Project will result in the temporary disturbance to, and permanent loss of, desert wash and riparian habitat in the Northern, Central, and Southern regions of the Project. Past and foreseeable future actions in these areas will also result in considerable loss of, or degradation of, desert wash and riparian habitat.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-2. Specifically, Mitigation Measures B-1a, B-1b, B-2, H-1a, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-2. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-2 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-2: Implement RCA Treatment Plan.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
 - **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. Riparian habitat will be impacted from the expansion of the existing access roads and creation of spur roads to structures. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because the combined impact will reduce and/or degrade desert wash and riparian habitat types that are limited in distribution within southern California. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-3: The Project would result in the establishment and spread of noxious weeds.

Noxious weeds often establish following disturbance and/or water or nutrient addition. In addition, once established, populations of weeds are extremely difficult to eradicate. The spread and establishment of weeds can have direct effects on special-status species as habitat is lost. The spread of existing weeds or the introduction of new weed populations is a significant Project impact and will also contribute to the cumulative spread of weeds when combined with weed population establishment and spread occurring from other past and reasonably foreseeable projects.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-3. Specifically, Mitigation Measures B-1a, B-2, and B-3a through B-3c, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-3. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-3 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-2: Implement RCA Treatment Plan.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-3b: Remove weed seed sources from construction access routes.** *(See above for full text)*
 - **MM B-3c: Remove weed seed sources from assembly yards, staging areas, tower pads, pull sites, landing zones, and spur roads.** *(See above for full text)*

Rationale for Finding. The habitat degradation resulting from the spread of weeds is significant and any cumulative effects of weed invasion will be significant. Other projects that promote new, or worsen existing, weed invasions are likely to occur concurrent with and in the vicinity of the Project. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because it will contribute to the cumulative spread of weeds that are difficult to eradicate. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-4: Construction activities, including the use of access roads and helicopter construction, would result in disturbance to wildlife and may result in wildlife mortality.

The Project will likely result in disturbance to wildlife and wildlife mortality, including special-status species, during construction activities. Past and foreseeable future actions in the North, Central, and Southern Regions will also result in considerable disturbance to wildlife, especially common species. Foreseeable future actions include various infrastructure and residential development projects proposed for the Antelope Valley (Table 3.4-25 of the Final EIR) and Chino and Puente Hills (Table 3.4-26 of the Final EIR), and 8,500 acres of fuel management and restoration projects within the ANF.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-4. Specifically, Mitigation Measures B-1a, B-1b, B-2, B-3a, H-1a, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-4. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-4 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-2: Implement RCA Treatment Plan.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
 - **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be potentially adverse and cumulatively significant because of the large amount of construction that is ongoing in the Project region. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-5: Construction activities conducted during the breeding season would result in the loss of nesting birds or raptors.

The Project could result in loss of nesting birds, including special-status species, if construction activities are conducted during the breeding season. Past and foreseeable future actions in the Project region could also result in considerable loss of nesting birds if construction activities were spatially or temporally combined. Foreseeable future actions include numerous infrastructure and residential development projects proposed for the Antelope Valley (Table 3.4-25 of the Final EIR) and Chino and Puente Hills (Table 3.4-26 of the Final EIR), and 8,500 acres of fuel management and restoration projects within the ANF.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-5. Specifically, Mitigation Measures B-1a, B-1b, B-3a, B-5, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-5. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-5 to a less-than-significant level.

- **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-5: Conduct pre-construction surveys and monitoring for breeding birds.** *(See above for full text)*
- **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, is significant because the combined impact will substantially reduce the acreage of several habitat types that are important for nesting birds and limited in distribution in southern California, such as riparian habitats. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-6: The Project would cause the loss of foraging habitat for wildlife.

The Project will result in the loss of foraging habitat for wildlife, including special-status species. Past and foreseeable future actions in the Project region will also result in considerable loss of foraging habitat. Foreseeable future actions include numerous infrastructure and residential development projects proposed for the Antelope Valley (Table 3.4-25 of the Final EIR) and Chino and Puente Hills (Table 3.4-26 of the Final EIR), and 8,500 acres of fuel management and restoration projects within the ANF.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-6. Specifically, Mitigation Measures B-1a, B-1b, B-2, B-3a, H-1a, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-6. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-6 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-2: Implement RCA Treatment Plan.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
 - **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant because the combined impact will substantially reduce the acreage of several habitat types that are important for wildlife and limited in distribution in southern California. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-7: The Project could disturb endangered, threatened, or proposed plant species or their habitat.

Project construction activities could disturb, degrade, or cause permanent loss of habitat for endangered, threatened, or proposed plant species and could also cause loss of endangered, threatened, or proposed plant individuals or populations, if present. Proposed construction locations were surveyed in 2007, 2008, and 2009, and most areas comprised unsuitable habitat for listed plant species. However, some listed plants may occur within the alignment, particularly within the ANF, and thus, Project implementation may result in permanent loss of suitable habitat for these species due to the construction of permanent structures and/or roads and temporary loss of habitat from construction activities. Past actions and natural events (e.g., development, urbanization, recreation, introduced species, fire, drought) have resulted in considerable incremental adverse impacts to State and federally listed plants and their habitats. Foreseeable future actions in this area will also result in considerable adverse impacts to these plants and their habitats. Foreseeable future actions include numerous infrastructure and residential development projects proposed for the Antelope Valley (Table 3.4-25 of the Final EIR) and Chino and Puente Hills (Table 3.4-26 of the Final EIR) and fuel treatment and infrastructure projects within the ANF.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-7. Specifically, Mitigation Measures B-1a, B-1b, B-3a, B-7, H-1a, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-7. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-7 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-7: Conduct preconstruction surveys for State and federally Threatened, Endangered, Proposed, Petitioned, and Candidate plants and avoid any located occurrences of listed plants.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
 - **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because the combined impact may substantially reduce the acreage of suitable habitat for multiple listed plants in the region. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-8: The Project could result in the loss of California red-legged frogs and mountain yellow-legged frogs.

Construction activities within suitable habitat in the Project area may result in “take” of California red-legged frogs and mountain yellow-legged frogs. Take may occur through direct mortality, harassment, entrapment, and/or the loss of habitat due to permanent structures and/or roads. California red-legged frogs may occur within the Amargosa Creek watershed in the vicinity of the Amargosa Creek alignment crossing in the Northern Region. California red-legged frogs and mountain yellow-legged frogs are presumed absent from the Southern Region and may occur within the Central Region, where suitable habitat is present at Lynx Gulch, Alder Creek, Big Tujunga Creek (Segment 6), and West Fork San Gabriel River. Past actions and natural events in the Northern and Central regions (e.g., road construction, development, recreational activities, fire, drought) have resulted in considerable adverse effects to California red-legged frogs and mountain yellow-legged frogs. Foreseeable future actions in the Central Region are limited and are expected to have minimal effects on red-legged and yellow-legged frogs; however, foreseeable future actions that could adversely affect these species in the Northern Region include the Amargosa Creek Improvements Project, which includes road and flood control improvements.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-8. Specifically, Mitigation Measures B-1a, B-1b, B-2, B-3a, B-8a, B-8b, H-1a, H-1b, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-8. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-8 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-2: Implement RCA Treatment Plan.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-8a: Conduct protocol surveys for California red-legged frogs and implement avoidance measures.** *(See above for full text)*
 - **MM B-8b: Conduct biological monitoring.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

- **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*
- **MM H-1b: Dry weather construction.** *(See above for full text)*

Rationale for Finding. Project impacts, should they occur, will contribute substantially to the incremental take of and loss of habitat for these species when combined with the effects of take and loss of habitat caused by other past and reasonably foreseeable projects. These impacts will be cumulatively significant because the aforementioned past actions and natural events have so severely impacted California red-legged frog and mountain yellow-legged frog populations that both species are now at the brink of extirpation in southern California. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-9: The Project would result in the loss of arroyo toads.

Construction activities within suitable habitat in the Project area may result in “take” of arroyo toads. Take may occur through direct mortality, harassment, entrapment, and/or the loss of habitat due to the construction of permanent structures and/or roads. Arroyo toads occur in the Central Region of the Project. Past actions and natural events in the Central Region (e.g., road construction, development, recreational activities, fire, drought) have resulted in considerable adverse effects to arroyo toads.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-9. Specifically, Mitigation Measures B-1a, B-1b, B-2, B-3a, B-8b, B-9, H-1a, H-1b, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-9. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-9 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-2: Implement RCA Treatment Plan.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-8b: Conduct biological monitoring.** *(See above for full text)*
 - **MM B-9: Conduct protocol surveys for arroyo toads and implement avoidance measures in occupied areas.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
 - **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*
 - **MM H-1b: Dry weather construction.** *(See above for full text)*

Rationale for Finding. Project impacts will contribute substantially to the incremental take of, and loss of habitat for, the arroyo toad when combined with the effects of take and loss of habitat caused by other past and reasonably foreseeable projects, and therefore, will be cumulatively significant. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-10: The Project could result in the loss of desert tortoises.

Construction and operations/maintenance activities within suitable habitat in the Project area may result in “take” of desert tortoise. Take may occur through direct mortality, harassment, entrapment, and/or the loss of habitat due to the construction of permanent structures and/or roads. Desert tortoises are known to occur in the northernmost portions of the Northern Region. Past actions and natural events within the Northern Region (e.g., development, urbanization, drought) have resulted in considerable adverse effects to desert tortoises. Foreseeable future actions that could adversely affect desert tortoises in the Northern Region include projects such as the PdV, Alta, and Pine Tree wind farms; El Paso Line 1903 Pipeline Conversion Project; Route 58 Mojave Alignment Project; Hyundai Corporation Test Track Facility and Habitat Conservation Plan; California High-Speed Train System; and at least 12 separate small- and large-scale residential and planned community developments in southern and central Kern County. These projects will result in considerable incremental adverse effects to desert tortoises.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-10. Specifically, Mitigation Measures B-1a, B-1b, B-3a, B-10, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-10. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-10 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-10: Conduct presence or absence surveys for desert tortoise, preserve habitat, and implement avoidance measures.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. Project impacts will contribute substantially to the incremental take of, and loss of habitat for, desert tortoises when combined with the effects of take and loss of habitat caused by other past and reasonably foreseeable projects, and therefore, will be cumulatively significant. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-12: The Project could result in the loss of special-status fish.

The Santa Ana sucker, arroyo chub, and Santa Ana speckled dace are known to occur in Big Tujunga Creek and the San Gabriel River. Santa Ana suckers occur downstream of the Big Tujunga and Cogswell reservoirs. Project effects to the Big Tujunga population are not expected; however, the Santa Ana sucker is present along the West Fork Cogswell Road which could be used as an access route during Project construction. While sediment analysis studies indicate there will be no regional effect on water quality from erosion, small localized effects could result in adverse effects to these species. In addition, fuel treatments proposed by the USDA Forest Service for both Mill Creek Summit and Upper Big Tujunga Canyon will directly overlap with Segment 6. These fuel treatments will remove upland vegetation bordering Big Tujunga Creek and could increase stream sedimentation through the deposition of erosional silt adjacent to the creek.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-12. Specifically, Mitigation Measures B-1a, B-1b, B-2, B-3a, B-8b, B-12, H-1a, and H-1b, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-12. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-12 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-2: Implement RCA Treatment Plan.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-8b: Conduct biological monitoring.** *(See above for full text)*
 - **MM B-12: Implement avoidance and minimization measures for Santa Ana sucker and other aquatic organisms.** *(See above for full text)*
 - **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*
 - **MM H-1b: Dry weather construction.** *(See above for full text)*

Rationale for Finding. Project impacts could contribute substantially to the incremental take of, and loss of habitat for, special-status fish when combined with the effects of take and loss of habitat caused by other past and reasonably foreseeable projects, and therefore, will be cumulatively significant. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-14: The Project could result in the loss of California condors.

Project-related construction activities could result in impacts to California condors, if present. The most likely scenario for harm to condors due to Project implementation is the ingestion of microtrash left behind in work areas. In addition, helicopter construction on the ANF could result in disturbance to any condors foraging in the area. Condors may also collide with transmission lines. Past and foreseeable future actions in the Project region could also result in impacts to California condors if present. Foreseeable future actions include numerous infrastructure and residential development projects proposed for the Antelope Valley (Table 3.4-25 of the Final EIR) and Chino and Puente Hills (Table 3.4-26 of the Final EIR), and 8,500 acres of fuel management and restoration projects within the ANF. While restoration projects on the ANF may increase potential foraging habitat for this species, on a regional scale, loss of habitat continues to occur.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-14. Specifically, Mitigation Measures B-1a, B-1b, B-2, B-3a, B-8b, and B-14, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-14. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-14 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-2: Implement RCA Treatment Plan.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-8b: Conduct biological monitoring.** *(See above for full text)*
 - **MM B-14: Monitor construction in condor habitat and remove trash and micro-trash from the work area daily.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because construction activities and operation of the Project have the potential to impact and result in the loss of California condors. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-15: The Project would disturb nesting southwestern willow flycatchers, least Bell's vireos, yellow-billed cuckoos, or their habitat.

Impacts to least Bell's vireos are cumulatively significant within the Whittier Narrows and Rio Hondo portions of the Project. A storage facility expansion project is planned for the city of Irwindale, adjacent to the Project near the Rio Hondo. The combined effect of this commercial project, other past projects, and the TRTP will be significant, because their impacts increase the level of disturbance to least Bell's vireos within

the Rio Hondo and Whittier Narrows. Disturbance to southwestern willow flycatchers and yellow-billed cuckoos, if present, will also occur in riparian areas of the Project.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-15. Specifically, Mitigation Measures B-1a, B-1b, B-2, B-3a, B-5, B-15, H-1a, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-15. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-15 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-2: Implement RCA Treatment Plan.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-5: Conduct pre-construction surveys and monitoring for breeding birds.** *(See above for full text)*
 - **MM B-15: Conduct protocol or focused surveys for listed riparian birds and avoid occupied habitat.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
 - **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because construction activities and operation of the Project have the potential to impact and result in the loss of southwestern willow flycatchers, least Bell's vireos, yellow-billed cuckoos, or their habitat. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-16: The Project would result in the loss of coastal California gnatcatchers.

Impacts to coastal California gnatcatchers are cumulatively significant within the Montebello, Puente, and Chino Hills portions of the Project. There are six residential development projects proposed or in progress within the Chino and Puente Hills, between 0 and 2.6 miles from the Project (Table 3.4-26 of the Final EIR). These projects include large community developments in areas that are currently undeveloped, including 4,902 acres of grasslands, coastal scrub, and woodlands. These collective projects will result in the loss of suitable coastal sage scrub habitat for the coastal California gnatcatcher. Continued loss and fragmentation of suitable coastal sage scrub habitat in the Montebello, Chino, and Puente Hills from ongoing development will contribute to the regional decline of this species.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-16. Specifically, Mitigation Measures B-1b, B-16, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-16. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-16 to a less-than-significant level.
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-16: Conduct protocol or focused surveys for coastal California gnatcatcher and implement avoidance measures.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because the combined impacts substantially reduce the acreage of suitable habitat in the region. Further, disturbance to coastal California gnatcatchers due to construction activities for this and other cumulative projects will be significant. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-17: The Project would result in the loss of critical and/or occupied habitat of the coastal California gnatcatcher.

The FWS designated two areas along Segment 7 (Montebello Hills and Whittier Narrows Recreation Area) and several portions along Segment 8A in the Montebello, Puente, and Chino Hills as critical habitat for the coastal California gnatcatcher (all within Critical Habitat Unit 9). Construction activities, including the installation of permanent structures and/or roads, will result in the loss of an estimated 2.4 acres of critical habitat on Segment 7 and 44.8 acres on Segment 8. As mentioned above, there are six residential development projects proposed or in progress within the Montebello, Puente, and Chino Hills, between 0 and 2.6 miles from the Project (Table 3.4-26 of the Final EIR). Some of these areas may be adjacent to or within designated critical habitat and/or occupied habitat for the coastal California gnatcatcher.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-17. Specifically, Mitigation Measures B-1a, B-3a, B-16, B-17, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-17. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-17 to a less-than-significant level.

- **MM B-1a:** Provide restoration/compensation for impacts to native vegetation communities. *(See above for full text)*
- **MM B-3a:** Prepare and implement a Weed Control Plan. *(See above for full text)*
- **MM B-16:** Conduct protocol or focused surveys for coastal California gnatcatcher and implement avoidance measures. *(See above for full text)*
- **MM B-17:** Preserve off-site habitat and/or habitat restoration for the coastal California gnatcatcher. *(See above for full text)*
- **MM AQ-1a:** Implement Construction Fugitive Dust Control Plan. *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because the combined impact will considerably reduce the acreage of critical and/or occupied habitat in the region. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-18: The Project could disturb nesting Swainson’s hawks.

Impacts to nesting Swainson’s hawks are cumulatively significant within the Northern Region of the Project. The Antelope Valley is anticipated to grow substantially in the coming decades, and the cities of Lancaster and Palmdale are expected to increase by more than 308,000 people in the next 25 years. Included in these projects are three large-scale planned community developments, totaling 2,303 acres, located within 1.5 miles from the Project at the existing Antelope Substation. Another sizeable project with potential to disturb nesting Swainson’s hawks is the Antelope Valley Water Bank Project, a 640-acre facility to store and distribute surface water located adjacent to the proposed Whirlwind Substation. Construction and operations activities associated with the cumulative projects in the region are likely to disturb nesting Swainson’s hawks.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-18. Specifically, Mitigation Measures B-1b, B-18a, B-18b, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-18. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-18 to a less-than-significant level.
 - **MM B-1b:** Implement a Worker Environmental Awareness Program. *(See above for full text)*
 - **MM B-18a:** Conduct pre-construction surveys for Swainson’s hawks. *(See above for full text)*
 - **MM B-18b:** Removal of nest trees for Swainson’s hawks. *(See above for full text)*
 - **MM AQ-1a:** Implement Construction Fugitive Dust Control Plan. *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects of other past and reasonably foreseeable projects, will be significant because the combined impact will increase the potential for disturbance to nesting Swainson's hawks. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-19: The Project would result in the loss of foraging habitat for Swainson's hawks.

Impacts to foraging habitat for Swainson's hawks are cumulatively significant within the Northern Region of the Project. Three large-scale planned community developments, totaling 2,303 acres, will be located within 1.5 miles from the Project at the existing Antelope Substation. Another sizeable project with potential to remove foraging habitat for Swainson's hawks is the Antelope Valley Water Bank Project, a 640-acre facility to store and distribute surface water located adjacent to the proposed Whirlwind Substation.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-19. Specifically, Mitigation Measures B-1a, B-3a, B-18a, B-19, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-19. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-19 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-18a: Conduct pre-construction surveys for Swainson's hawks.** *(See above for full text)*
 - **MM B-19: Compensate for loss of foraging habitat for Swainson's hawks.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects of other past and reasonably foreseeable projects, will be significant because the combined impact will substantially reduce the acreage of suitable foraging habitat in the region. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-21: The Project could result in collision with overhead wires by State and/or federally protected birds.

Impacts to State and federally protected birds as a result of transmission line strikes are potentially cumulatively significant within the Northern Region, where approximately 17 miles of transmission lines proposed in the Antelope Transmission Project Segment 2 will come within close proximity (>0.5 miles) to

Segments 10 and 5 of the Project. Passerines and waterfowl are known to collide with wires particularly during nocturnal migrations or poor weather conditions. However, passerines and waterfowl have a lower potential for collisions than larger birds, such as raptors. Some behavioral factors contribute to a lower collision mortality rate for these birds. Passerines and waterfowl tend to fly under power lines, as opposed to larger species, which generally fly over the lines and risk colliding with the higher static lines, and many smaller birds tend to reduce their flight activity during poor weather conditions. Collision mortality will also be higher where the movements of susceptible species are the greatest such as along waterways or over riparian areas. Collision rates generally increase in low light conditions, during inclement weather, such as rain or snow, during strong winds, and during panic flushes when birds are startled by a disturbance or are fleeing from danger. Collisions are more probable near wetlands, valleys that are bisected by power lines, and within narrow passes where power lines run perpendicular to flight paths.

Finding.

- (1) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-21 to a less-than-significant level.

Rationale for Finding. Collision impacts from the Project are not expected to result in significant impacts to birds in the Project area due to the implementation of APM BIO-9 as part of the Project in accordance with the guidance on raptor protection found in Suggested Practices for Raptor Protection on Power Lines (APLIC, 2006), and the incorporation of raptor safety protection into the project design on NFS lands. However, as the flight paths become more constrictive and larger numbers of transmission lines, towers, structures, and vehicles occur in the region the numbers of birds subject to collision will continue to rise. When combined with impacts from past, present, or reasonable future projects, these impacts will be considered cumulatively significant and unavoidable. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-22: The Project could result in disturbance to Mohave ground squirrels.

Impacts to Mohave ground squirrels are cumulatively significant within the Antelope Valley portion of the Project. The Antelope Valley is anticipated to grow substantially in the coming decades, and the cities of Lancaster and Palmdale are expected to increase by more than 308,000 people in the next 25 years. There are at least 16 projects comprising wind energy, electrical transmission, power plant, transportation, water, and residential housing that are proposed, planned, or in progress within the Antelope Valley (Table 3.4-25 of the Final EIR). Included in these projects are two wind energy developments located within 0.1 to 3 miles from the Project in Kern County with a combined impact of 38,435 acres. Another sizeable project is the Antelope Valley Water Bank Project, a 640-acre facility to store and distribute surface water located near the county line separating Los Angeles and Kern counties. Several residential construction projects are proposed or in progress near Lancaster (Table 3.4-25 of the Final EIR). Collectively, these projects will result in the loss of more than 98,808 acres in the Antelope Valley and a significant cumulative loss of more than 65,858 acres of suitable habitat for Mohave ground squirrel.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-22. Specifically, Mitigation Measures B-1a, B-1b, B-3a, B-22a through B-22c, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate

significant effects from Cumulative Impact B-22. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-22 to a less-than-significant level.

- **MM B-1a:** Provide restoration/compensation for impacts to native vegetation communities. *(See above for full text)*
- **MM B-1b:** Implement a Worker Environmental Awareness Program. *(See above for full text)*
- **MM B-3a:** Prepare and implement a Weed Control Plan. *(See above for full text)*
- **MM B-22a:** Conduct protocol surveys for Mohave ground squirrels. *(See above for full text)*
- **MM B-22b:** Implement construction monitoring for Mohave ground squirrels. *(See above for full text)*
- **MM B-22c:** Preserve off-site habitat for the Mohave ground squirrel. *(See above for full text)*
- **MM AQ-1a:** Implement Construction Fugitive Dust Control Plan. *(See above for full text)*

Rationale for Finding. Continued loss and fragmentation of suitable habitat in the Antelope Valley will continue to contribute to the decline of this species within the region. The incremental effect of the Project on Mohave ground squirrels (if present), when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because the combined impact substantially reduces the acreage of suitable habitat in the region. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-23: The Project would result in the loss of candidate, Forest Service Sensitive, or special-status plant species.

Construction activities will most likely disturb, degrade, or cause permanent loss of habitat for candidate, USDA Forest Service Sensitive, or special-status plant species in the Project area, and could also cause loss of rare individuals or populations. Several species of special-status plants are known to occur within the alignment, particularly within the ANF, and Project implementation will thus result in permanent loss of suitable habitat for these species due to installation of permanent structures and/or roads and temporary loss of habitat from construction activities. Past actions and natural events (e.g., development, urbanization, recreation, fire, drought) have resulted in considerable incremental adverse impacts to special-status plants and their habitats. Foreseeable future actions in this area will also result in considerable adverse impacts to special-status plants and their habitats. Foreseeable future actions include numerous infrastructure and residential development projects proposed for the Antelope Valley (Table 3.4-25 of the Final EIR) and Chino and Puente Hills (Table 3.4-26 of the Final EIR), and fuel treatment and infrastructure projects within the ANF.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-23. Specifically, Mitigation Measures B-1a, B-1b, B-3a, B-7, B-23, H-1a, and AQ-1a, as set forth in Section 3.4 (Biological

Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-23. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-23 to a less-than-significant level.
- **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-7: Conduct preconstruction surveys for State and federally Threatened, Endangered, Proposed, Petitioned, and Candidate plants and avoid any located occurrences of listed plants.** *(See above for full text)*
 - **MM B-23: Preserve off-site habitat/management of existing populations of special-status plants.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
 - **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. The incremental effects of the Project, when combined with the effects created by other past and reasonably foreseeable projects, are significant because the combined impact substantially reduces the acreage of suitable habitat for candidate, USDA Forest Service Sensitive, and special-status plant in the region. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-24: The Project could result in mortality or injury of, and loss of nesting habitat for, southwestern pond turtles.

Construction activities may result in mortality or injury of individual southwestern pond turtles within suitable habitat at the following locations: Amargosa Creek, Lynx Gulch, San Gabriel River (Segment 6 and 7), Big Tujunga Creek, Rio Hondo, Brea Canyon, and Tonner Creek. Furthermore, Project implementation may result in permanent loss of nesting habitat in limited areas due to construction of permanent structures and/or roads and temporary loss of habitat from construction activities. Past actions and natural events (e.g., development, urbanization, recreation, fire, drought) have resulted in considerable incremental adverse impacts to southwestern pond turtles and their nesting habitat. Foreseeable future actions in this area will also result in considerable adverse impacts to southwestern pond turtles and their nesting habitat. Foreseeable future actions include projects such as the Amargosa Creek Improvements Project; Corridor Management Plan - Angeles Crest Scenic Byway, CA State Route 2 Enhancement; and California High Speed Train System and Maglev. Numerous small- and large-scale residential and planned community developments are also planned within the geographic extent of the cumulative analysis.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-24. Specifically, Mitigation

Measures B-1a, B-1b, B-3a, B-12, B-24, H-1a, H-1b, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-24. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-24 to a less-than-significant level.

- **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-12: Implement avoidance and minimization measures for Santa Ana sucker and other aquatic organisms.** *(See above for full text)*
- **MM B-24: Conduct focused presence/absence surveys for southwestern pond turtle and implement monitoring, avoidance, and minimization measures.** *(See above for full text)*
- **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*
- **MM H-1b: Dry weather construction.** *(See above for full text)*
- **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. Project impacts will contribute substantially to the incremental mortality, injury, and loss of nesting habitat for southwestern pond turtles when combined with these effects resulting from other past and reasonably foreseeable projects, and therefore, will be cumulatively significant. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-25: The Project could result in injury or mortality of, and loss of habitat for, two-striped garter snakes and south coast garter snakes.

Construction activities may result in mortality or injury of individual two-striped garter snakes and south coast garter snakes within suitable habitat in the Project area. Furthermore, Project implementation may result in loss of habitat due to the construction of permanent structures and/or roads and temporary loss of habitat from construction activities. Past actions and natural events (e.g., development, urbanization, recreation, fire, drought) within the geographic extent have resulted in considerable incremental injury or mortality of, and loss of habitat for, these species. Foreseeable future actions in this area will also result in considerable impacts of this kind to these species. Foreseeable future actions include projects such as the Amargosa Creek Improvements Project; Corridor Management Plan - Angeles Crest Scenic Byway, CA State Route 2 Enhancement; and California High Speed Train System and Maglev. Numerous small- and large-scale residential and planned community developments are also planned within the geographic extent of the cumulative analysis.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-25. Specifically, Mitigation Measures B-1a, B-1b, B-3a, B-12, B-25, H-1a, H-1b, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-25. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-25 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-12: Implement avoidance and minimization measures for Santa Ana sucker and other aquatic organisms.** *(See above for full text)*
 - **MM B-25: Conduct focused surveys for two-striped garter snakes and south coast garter snakes and implement monitoring, avoidance, and minimization measures.** *(See above for full text)*
 - **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*
 - **MM H-1b: Dry weather construction.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. Project impacts will contribute substantially to the incremental injury or mortality of, and loss of habitat for, two-striped garter snakes and south coast garter snakes when combined with these effects resulting from other past and reasonably foreseeable projects, and therefore, will be cumulatively significant. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-26: The Project could result in injury or mortality of, and loss of habitat for, Coast Range newts.

Construction activities occurring within or near suitable habitat or vehicular crossings at wet fords across occupied drainages have the potential to result in mortality or injury to Coast Range newts. Furthermore, Project implementation may result in permanent loss of habitat due to the construction of permanent structures and/or roads and temporary loss of habitat due to disturbance from construction activities. Past actions and natural events (e.g., development, urbanization, recreation, fire, drought) have resulted in considerable incremental adverse effects to Coast Range newts, particularly in the San Gabriel Valley, where effects of development and urbanization have been most intense. However, foreseeable future actions in this region are limited and are expected to have minimal effects on this species.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-26. Specifically, Mitigation

Measures B-1a, B-1b, B-3a, B-26, H-1a, H-1b, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-26. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.

(2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-26 to a less-than-significant level.

- **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
- **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-26: Conduct focused surveys for coast range newts and implement monitoring, avoidance, and minimization measures.** *(See above for full text)*
- **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*
- **MM H-1b: Dry weather construction.** *(See above for full text)*
- **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. Primarily as a result of considerable past effects, Project impacts will contribute substantially to the incremental injury or mortality of, and loss of habitat for, Coast Range newts when combined with these effects resulting from other past and reasonably foreseeable projects, and therefore, will be cumulatively significant. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-27: The Project could result in injury or mortality of, and loss of habitat for, terrestrial California Species of Special Concern and Forest Service Sensitive amphibian and reptile species.

Project-related construction activities could result in injury or mortality of 11 terrestrial California Species of Special Concern and USDA Forest Service Sensitive amphibian and reptile species (the special-status terrestrial herpetofauna). Furthermore, Project implementation may result in permanent loss of habitat due to the construction of permanent structures and/or roads and temporary loss of habitat from construction activities such as preparation and use of staging areas. Individuals of one or more of the special-status terrestrial herpetofauna could be injured or killed during ground-disturbing Project activities in undeveloped upland habitats and in some developed areas throughout the Project. Past actions and natural events (e.g., development, urbanization, recreation, fire, drought) within the geographic extent have resulted in considerable incremental injury or mortality of, and loss of habitat for, these species. Foreseeable future actions throughout the region will also result in considerable impacts of this kind to these species. Foreseeable future actions include projects such as the PdV, Alta, and Pine Tree wind farms; El Paso Line 1903 Pipeline Conversion Project; Route 58 Mojave Alignment Project; Hyundai Corporation Test Track Facility and Habitat Conservation Plan; California High-Speed Train System; Amargosa Creek Improvements Project; Corridor Management Plan - Angeles Crest Scenic Byway, CA State Route 2 Enhancement; 465 residence recreation permit issuances on 18 tracts within the ANF, California High

Speed Train System and Maglev; and numerous small- and large-scale residential and planned community developments.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-27. Specifically, Mitigation Measures B-1a, B-1b, B-3a, B-27, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-27. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-27 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-27: Monitoring, avoidance, and minimization measures for special-status terrestrial herpetofauna.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. Project impacts will contribute substantially to the incremental injury or mortality of, and loss of habitat for, the special-status terrestrial herpetofauna when combined with these effects resulting from other past and reasonably foreseeable projects, and therefore, will be cumulatively significant. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-28: The Project could disturb wintering mountain plovers.

Impacts to wintering mountain plovers are cumulatively significant within the Northern Region of the Project. Three large-scale planned community developments, totaling 2,303 acres, are planned within 1.5 miles from the Project at the existing Antelope Substation. Another sizeable project with potential to disturb wintering mountain plovers is the Antelope Valley Water Bank Project, a 640-acre facility to store and distribute surface water located adjacent to the proposed Whirlwind Substation.

Finding.

- (1) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-28 to a less-than-significant level.

Rationale for Finding. The incremental effect of the Project, when combined with the effects of other past and reasonably foreseeable projects, will be significant, because the combined impact substantially reduces the total amount of suitable wintering habitat in the region. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-29: The Project would result in the loss of occupied burrowing owl habitat.

Impacts to occupied burrowing owl habitat are cumulatively significant within the Northern Region of the Project. Three large-scale planned community developments, totaling 2,303 acres, are planned for a location near the existing Antelope Substation, within 1.5 miles from the Project. Two other sizeable projects with the potential to reduce occupied burrowing owl habitat in the Northern Region are the 6,400-acre PdV Wind Energy facility planned for a location just east of Segment 10 and the 640-acre Antelope Valley Water Bank facility to be located adjacent to the proposed Whirlwind Substation. Impacts to occupied burrowing owl habitat are also cumulatively significant within the Southern Region of the Project, where 6,454 acres will be developed in the Chino and Puente Hills near Segment 8.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-29. Specifically, Mitigation Measures B-1a, B-1b, B-3a, B-29, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-29. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-29 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-29: Implement CDFG protocol for burrowing owls.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because construction activities will result in loss of suitable and possibly occupied burrowing owl habitat in the Northern and Southern regions of the Project. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-30: The Project would result in the loss of occupied California spotted owl habitat.

Impacts to occupied California spotted owl habitat are cumulatively significant in Upper Big Tujunga Creek and Mill Creek. Fuel treatments are proposed by the USDA Forest Service for both Mill Creek Summit and Upper Big Tujunga Canyon, and both of these areas directly overlap with Segment 6. Fuel treatments at these sites will substantially reduce the amount of tree cover around USDA Forest Service Administrative Sites within the ANF. These include the treatment of forest habitats at Mill Creek Station (Mill Creek Summit along Angeles Crest Highway) and at Shortcut Station in Upper Big Tujunga Canyon (0.6 miles east-northeast of the intersection of Angeles Crest Highway and Upper Big Tujunga Canyon Road).

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-30. Specifically, Mitigation Measures B-1a, B-3a, B-30, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-30. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-30 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-30: Conduct pre- and during construction nest surveys for spotted owls.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because construction activities will result in loss of suitable and possibly occupied California spotted owl habitat in the Central Region of the Project. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-32: The Project could disturb nesting avian “species of special concern.”

The Project will result in the loss of nesting avian Species of Special Concern if construction activities are conducted during the breeding season in suitable habitat. Past and foreseeable future actions in these areas will also result in considerable loss of nesting birds if construction activities were spatially or temporally combined. Foreseeable future actions include numerous infrastructure and residential development projects proposed for the Antelope Valley (Table 3.4-25 of the Final EIR) and Chino and Puente Hills (Table 3.4-26 of the Final EIR), and 8,500 acres of fuel management and restoration projects within the ANF.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-32. Specifically, Mitigation Measures B-1a, B-1b, B-2, B-3a, B-5, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-32. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-32 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*

- **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
- **MM B-2: Implement RCA Treatment Plan.** *(See above for full text)*
- **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-5: Conduct pre-construction surveys and monitoring for breeding birds.** *(See above for full text)*
- **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because construction activities will take place within or adjacent to habitats that are important for nesting avian Species of Special Concern in southern California. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-33: The Project could result in mortality of, and loss of habitat for, special-status bat species.

Impacts to pallid bat, western red bat, hoary bat, spotted bat, western mastiff bat, and pocketed free-tailed bat are cumulatively significant within the ANF and the Puente and Chino Hills portions of the Project. There are six residential development projects proposed or in progress within the Chino and Puente Hills, between 0 and 2.6 miles from the Project (Table 3.4-26 of the Final EIR). These projects include large community developments, including 4,902 acres of habitat for these special-status species. These collective projects will result in the loss of suitable roosting habitat for pallid bat, western red bat, hoary bat, spotted bat, and western mastiff bat. Continued loss and fragmentation of suitable habitat in the Chino and Puente Hills from ongoing development will contribute to the regional decline of these species.

Impacts to pallid bat, western red bat, and hoary bat are cumulatively significant in Upper Big Tujunga Canyon on the ANF. Fuel treatments proposed by the USDA Forest Service for Upper Big Tujunga Canyon overlaps with Segment 6 of the Project, approximately 0.6 miles east-northeast of the intersection of Angeles Crest Highway and Upper Big Tujunga Canyon Road. At this site, the USDA Forest Service will remove shrubs and understory fuels from 50.4 acres of Coulter pine forest and mixed chaparral.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-33. Specifically, Mitigation Measures B-1a, B-1b, B-2, B-3a, B-33a through B-33c, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-33. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
 - (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-33 to a less-than-significant level.
- **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*

- **MM B-2:** **Implement RCA Treatment Plan.** *(See above for full text)*
- **MM B-3a:** **Prepare and implement a Weed Control Plan.** *(See above for full text)*
- **MM B-33a:** **Maternity colony or hibernaculum surveys for roosting bats.** *(See above for full text)*
- **MM B-33b:** **Provision of substitute roosting bat habitat.** *(See above for full text)*
- **MM B-33c:** **Exclude bats prior to demolition of roosts.** *(See above for full text)*
- **MM AQ-1a:** **Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because the combined impact substantially reduces the acreage of suitable roosting habitat in the region. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-35: The Project could result in mortality of, and loss of habitat for, special-status mammals.

Impacts to the Los Angeles pocket mouse, Tehachapi pocket mouse, San Joaquin pocket mouse, Northwestern San Diego pocket mouse, Southern grasshopper mouse, Tulare grasshopper mouse, and San Diego black-tailed jackrabbit are cumulatively significant. The cumulative projects identified in the Final EIR will combine within the regions of occurrence for these species. The Project will not eliminate suitable habitat for Los Angeles pocket mouse, San Joaquin pocket mouse, Tulare grasshopper mouse, and Tehachapi pocket mouse. However, the Project will result in the loss of habitat for northwestern San Diego pocket mouse, southern grasshopper mouse, and San Diego black-tailed jackrabbit.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-35. Specifically, Mitigation Measures B-1a, B-1b, B-2, B-3a, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-35. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-35 to a less-than-significant level.
 - **MM B-1a:** **Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b:** **Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-2:** **Implement RCA Treatment Plan.** *(See above for full text)*
 - **MM B-3a:** **Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM AQ-1a:** **Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because the combined impact substantially reduces the acreage of suitable habitat for these species in the region. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-36: The Project could result in mortality of San Diego desert woodrats.

Impacts to San Diego desert woodrat are cumulatively significant within the Puente and Chino Hills portion of the Project. There are six residential development projects proposed or in progress within the Chino and Puente Hills, between 0 and 2.6 miles from the Project (Table 3.4-26 of the Final EIR). These projects include large community developments, including 4,902 acres of grassland, shrub, or woodland habitat that will be impacted. These collective projects will result in the loss of suitable habitat for the San Diego desert woodrat. Continued loss and fragmentation of suitable habitat in the Chino and Puente Hills from ongoing development will contribute to the regional decline of this species.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-36. Specifically, Mitigation Measures B-1a, B-1b, B-3a, B-36, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-36. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-36 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-36: Conduct focused surveys for San Diego desert woodrats and passively relocate.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because the combined impact substantially reduces the acreage of suitable habitat in the region. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-37: The Project could result in mortality of, and loss of habitat for the ringtail.

Impacts to the ringtail are cumulatively significant within Amargosa Creek, Upper Big Tujunga Creek, Mill Creek, San Gabriel River, Fall Creek, and Tonner Canyon. The Amargosa Creek Improvements Project

includes road improvements to Elizabeth Lake Road and flood control improvements to approximately 5 miles of Amargosa Creek in the Leona Valley. This infrastructure improvement project intersects the Project at Amargosa Creek and Elizabeth Lake Road.

Fuel treatments are proposed by the USDA Forest Service for both Mill Creek Summit and Upper Big Tujunga Canyon, and both of these areas directly overlap with Segment 6. Ongoing vehicle and recreation access on the West Fork of the San Gabriel River to access Cogswell Reservoir could also cumulatively contribute to the decline of this species. Fuel treatments at these sites will substantially reduce the amount of shrub and tree cover around USDA Forest Service Administrative Sites within the ANF. These include the treatment of 6.13 acres of Coulter pine forest at Mill Creek Station (Mill Creek Summit along Angeles Crest Highway) and 50.4 acres of Coulter pine forest and mixed chaparral at Shortcut Station in Upper Big Tujunga Canyon (0.6 miles east-northeast of the intersection of Angeles Crest Highway and Upper Big Tujunga Canyon Road). However, the amount of these habitats that will be cumulatively impacted by these USDA Forest Service projects and the TRTP within the ANF will be small relative to the home range requirement of a ringtail and the availability of habitat in the ANF of the San Gabriel Mountains.

There is a total of 1,752 acres of grassland, shrub, and woodland habitat that will be lost due to residential development projects within one mile of Tonner Canyon within the Chino and Puente Hills (Table 3.4-26 of the Final EIR). However, the Project will impact a small amount of suitable ringtail habitat within Tonner Canyon, and the Tonner Canyon to Carbon Canyon region of the Chino Hills contains more than 2,047 acres of suitable woodland habitat.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-37. Specifically, Mitigation Measures B-1a, B-1b, B-2, B-3a, B-37, H-1a, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-37. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-37 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-2: Implement RCA Treatment Plan.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-37: Conduct focused surveys for ringtail and passively relocate during the non-breeding season.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
 - **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because the combined impact

substantially reduces the acreage of suitable ringtail habitat in the region. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-38: The Project could result in mortality of American badgers.

Impacts to the American badger are cumulatively significant within the Northern and Southern Regions of the Project. In the Northern Region, three large-scale planned community developments, totaling 2,303 acres, are planned for a location near the existing Antelope Substation, within 1.5 miles from the Project. Two other sizeable projects with potential to reduce suitable American badger habitat in the Northern Region are the 6,400-acre PdV Wind Energy facility planned for a location just east of Segment 10 and the 640-acre Antelope Valley Water Bank facility to be located adjacent to the proposed Whirlwind Substation. Impacts to American badger are also cumulatively significant within the Puente and Chino Hills portion of the Project. There are six residential development projects proposed or in progress within the Chino and Puente Hills, between 0 and 2.6 miles from the Project (Table 3.4-26 of the Final EIR). These projects include large community developments on currently undeveloped land, including 4,902 acres of grassland, shrub, or woodland habitat. Continued loss and fragmentation of suitable grassland and open shrub habitat in the Antelope Valley and Chino and Puente Hills from ongoing development will contribute to the regional decline of this species.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-38. Specifically, Mitigation Measures B-1a, B-1b, B-3a, B-36, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-38. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-38 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-38: Conduct focused surveys for American badgers and passively relocate during the non-breeding season.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because the combined impact substantially reduces the acreage of suitable habitat in these two regions. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-39: The Project could result in the loss of wetland habitats.

Wetland habitats contain vegetation growing near permanent water sources or under conditions of prolonged saturation. There are approximately 1,116 acres of riparian habitats in the Project area, of these approximately 12 acres are anticipated to be affected by construction of the Project. Throughout California, wetland habitats have been degraded and lost at an alarming rate due to the placement of fill for development.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-39. Specifically, Mitigation Measures B-1a, B-1b, B-2, B-3a, H-1a, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-39. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-39 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-2: Implement RCA Treatment Plan.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*
 - **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because the combined impact substantially reduces the acreage of wetland habitats in the region. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

Cumulative Impact B-42: The Project would result in effects to Management Indicator Species.

The Project will result in effects to Management Indicator Species (MIS). The ANF LRMP (USDA, 2005) requires forest-scale monitoring of habitat status and trend for select MIS on the ANF. MIS are likely to be subject to various levels of disturbance from implementation of the Project on NFS lands. The total area impacted by the Project is relatively small and includes up to approximately 268 acres of ground disturbance on the ANF. This represents less than one percent of the total Forest area. However, projects such as fuels treatments and special use permitted activities are proposed on the ANF. These cumulative projects will result in unknown acreages of habitat loss for MIS.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact B-42. Specifically, Mitigation Measures B-1a through B-1c, B-2, B-3a through B-3c, B-5, B-8b, B-9, B-30, H-1a, H-1b, and AQ-1a, as set forth in Section 3.4 (Biological Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact B-42. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact B-42 to a less-than-significant level.
 - **MM B-1a: Provide restoration/compensation for impacts to native vegetation communities.** *(See above for full text)*
 - **MM B-1b: Implement a Worker Environmental Awareness Program.** *(See above for full text)*
 - **MM B-1c: Treat cut tree stumps with Sporax.** *(See above for full text)*
 - **MM B-2: Implement RCA Treatment Plan.** *(See above for full text)*
 - **MM B-3a: Prepare and implement a Weed Control Plan.** *(See above for full text)*
 - **MM B-3b: Remove weed seed sources from construction access routes.** *(See above for full text)*
 - **MM B-3c: Remove weed seed sources from assembly yards, staging areas, tower pads, pull sites, landing zones, and spur roads.** *(See above for full text)*
 - **MM B-5: Conduct pre-construction surveys and monitoring for breeding birds.** *(See above for full text)*
 - **MM B-8b: Conduct biological monitoring.** *(See above for full text)*
 - **MM B-9: Conduct protocol surveys for arroyo toads and implement avoidance measures in occupied areas.** *(See above for full text)*
 - **MM B-30: Conduct pre- and during construction nest surveys for spotted owls.** *(See above for full text)*
 - **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*
 - **MM H-1b: Dry weather construction.** *(See above for full text)*
 - **MM AQ-1a: Implement Construction Fugitive Dust Control Plan.** *(See above for full text)*

Rationale for Finding. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant, because the combined impact substantially reduces the acreage of habitats for MIS in ANF. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.4; Table ES-3

III.4.4 Cultural Resources

Cumulative Impact C-1: Construction may diminish the integrity of properties eligible for inclusion in the National Register of Historic Places.

If the Project cannot be redesigned so that cultural sites are avoided, and the affected sites prove after evaluation to be historic properties eligible for the NRHP, if the impacts are extensive, and/or if the types of sites impacted by the Project are unique, unusual, or uncommon in the region, then the combination of those impacts with similar impacts of other projects would be cumulatively significant.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact C-1. Specifically, Mitigation Measures C-1a through C-1i, as set forth in Section III.3.4, are feasible and are hereby adopted to mitigate significant effects from Cumulative Impact C-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact C-1 to a less-than-significant level.
 - **MM C-1a: Development and Execution of a Programmatic Agreement (PA).** *(See above for full text)*
 - **MM C-1b: Inventory cultural resources in the APE.** *(See above for full text)*
 - **MM C-1c: Avoid and protect resources.** *(See above for full text)*
 - **MM C-1d: Evaluate the significance of cultural resources that cannot be avoided.** *(See above for full text)*
 - **MM C-1e: Develop and implement Historic Properties/Historical Resources Treatment Plan.** *(See above for full text)*
 - **MM C-1f: Conduct data recovery excavation or other actions to reduce adverse effects.** *(See above for full text)*
 - **MM C-1g: Conduct cultural resources monitoring.** *(See above for full text)*
 - **MM C-1h: Workers Environmental Awareness Program.** *(See above for full text)*
 - **MM C-1i: Protect and monitor NRHP-eligible properties.** *(See above for full text)*

Rationale for Finding. The overall loss of cultural resources and cumulative degradation of the regional resource base would not be mitigated to less than significant by application of the Project APMs and other mitigation measures. While development of Programmatic Agreements, cultural resources inventories, avoidance and protection measures, treatment plans, data recovery excavation, and monitoring would help to protect cultural resources, if a project cannot be redesigned so that cultural sites are avoided, and the affected sites prove after evaluation to be historic properties eligible for the NRHP, if the impacts are extensive, and/or if the types of sites impacted by the project are unique, unusual, or uncommon in the region, then the combination of those impacts with similar impacts of other projects would be cumulatively significant. As a result, cumulative impacts would be significant and unavoidable.

Reference. Final EIR Section 3.5; Table ES-3

III.4.5 Hydrology and Water Quality

Cumulative Impact H-1: Construction activities would degrade surface water quality through erosion and sedimentation.

Construction of the overhead transmission line towers and substations will require several types of soil disturbance. Excavation and/or grading would be required at all tower sites where new pads or footings will be required and at all new and/or expanded substations. Additional clearing of vegetation and/or grading will be required for crane pads, pulling/stringing stations, staging areas, marshalling yards, concrete batch plants, helicopter staging areas, tower wreck-out staging areas, and access and spur roads. Without implementation of proper soil management practices, disturbance of soil during construction could result in soil erosion and short-term impacts to water quality through increased turbidity and sediment deposition into local streams. It is reasonable to assume that construction activities for other projects in the cumulative scenario would also result in erosion and sedimentation of surface waters in the Project Area, and that such impacts occur at the same time as they would for the Project's construction activities, thus resulting in cumulatively significant and unavoidable impacts to water quality.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact H-1. Specifically, Mitigation Measures H-1a, H-1b, and B-2 as set forth in Section 3.8 (Hydrology and Water Quality) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact H-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact H-1 to a less-than-significant level.
 - **MM H-1a: Implement an Erosion Control Plan and demonstrate compliance with water quality permits.** *(See above for full text)*
 - **MM H-1b: Dry weather construction.** *(See above for full text)*
 - **MM B-2: Implement RCA Treatment Plan.** *(See above for full text)*

Rationale for Finding. Although mitigation measures will be implemented for the Project that will reduce this impact to a less-than-significant level for the Project itself, several residential development projects with construction activities substantial enough to contribute to erosion and sedimentation within the cumulative effects area, such as the Aera Master Planned Community near the City of Diamond Bar and the New Model Colony near the City of Ontario, which are currently scheduled to occur at the same time and in the same vicinity as the Project. These residential projects will likely implement best management practices that will reduce erosion and sedimentation impacts to less-than-significant levels. However, the effectiveness of best management practice implementation for these residential projects is unknown. Therefore, it is possible that this impact of the Project will combine with similar impacts of other projects to result in a cumulatively significant and unavoidable impact. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.8; Table ES-3

Cumulative Impact H-2: Construction activities would degrade water quality through the accidental release of potentially harmful or hazardous materials.

Surface water and groundwater quality could be degraded through the accidental release of hazardous materials during Project-related construction activities. Such materials include: lead-based paint flakes, diesel fuel, gasoline, lubricant oils, hydraulic fluid, antifreeze, transmission fluid, lubricant grease, cement slurry, and other fluids. The release of one or more hazardous materials could occur at tower installation locations, tower wreck-out staging areas, substation construction locations, staging areas, pulling/stringing stations, refueling stations, helicopter staging areas, concrete batch plants, stream crossings, and other locations where construction activities would occur. If construction activities for other projects in the area also result in the accidental release of potentially harmful or hazardous materials, and such impacts occur at the same time as they would for the Project's construction activities, the resulting impacts will be cumulatively significant.

Finding.

- (1) The CPUC finds that mitigation identified in the Final EIR would be feasible and would mitigate significant effects on the environment from Cumulative Impact H-2. Specifically, Mitigation Measure H-1b, as set forth in Section 3.8 (Hydrology and Water Quality) of the Final EIR and as listed below, is hereby adopted to mitigate significant effects from Cumulative Impact H-2. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact H-2 to a less-than-significant level.
 - **MM H-1b: Dry weather construction.** (*See above for full text*)

Rationale for Finding. Mitigation for the Project will reduce this impact to a less-than-significant level for the Project itself; however, several large residential development projects, such as the Aera Master Planned Community near the City of Diamond Bar and the New Model Colony near the City of Ontario, will occur at the same time and in the same vicinity as the Project. It is not possible to predict the accidental release of a hazardous material during construction of these residential development projects, nor is it possible to ensure proper implementation of best management practices for these projects. Therefore, this impact of the Project could combine with similar impacts of other projects to result in a cumulatively significant and unavoidable impact. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.8; Table ES-3

III.4.6 Noise

Data was extensively used from the TRTP Noise Technical Report, completed by CH2MHill in December 2007, which is provided in Appendix K of the Final EIR. Ambient noise surveys were conducted at 14 representative locations to assess the existing ambient noise levels of the representative locations from July 31, 2007, through August 3, 2007; and from August 13, 2007, through August 15, 2007. Continuous unattended long-term monitoring stations were established at 12 locations between Palmdale (North Region) and Chino Hills (South Region). Because long-term monitoring locations were unavailable in the northern rural area of the Project, short-term attended measurements were collected at two locations in the northern Antelope Valley. The study area for the noise environment is defined as the area extending 2,000 feet from each side of the centerline of the proposed alignment or 2,000 feet from the perimeter of each substation.

Impact N-1: Construction noise would substantially disturb sensitive receptors.

Construction of the Project will involve the use of heavy equipment, including helicopters, to transport material and install transmission line towers, conductors, and substation facilities for electrical tie-ins. Cranes and other heavy equipment will be used in the erection of towers and installation of conductors. Grading will be required for staging areas, transmission line tower foundation pads, conductor pull areas, and in creating spur roads and/or improving access along some roads. In addition, grading will be required at proposed new (Whirlwind) and expanded substations (Vincent). Due to these construction activities, construction will result in temporary yet substantial increases in ambient noise levels in the vicinity of the Project route, substation locations, marshalling yards, staging locations, and along all access routes.

Mobile construction noise will be generated by vehicle and helicopter use. All materials associated with construction efforts will be delivered by truck or helicopter to established marshalling yards. Delivery activities requiring major street use will be scheduled to occur during off-peak traffic hours. In the event that there are no existing access roads to tower locations, approximately one or two small helicopters will be used to transport equipment to tower sites for conductor and associated hardware removal. These mobile noise sources, and particularly the helicopters, will generate substantial noise that will affect nearby sensitive receptors.

A large, heavy lift helicopter will be used for removal of the existing 220-kV towers. It is estimated that the small helicopter will generally operate from Monday through Friday for up to 8 hours per day, while the large helicopter will operate approximately 6 to 8 hours per day. Helicopter staging areas will include SCE-identified staging areas (such as Fox Field or Rio Hondo Substation), material and equipment yards, and positions along the utility corridors that have previously been used for this purpose and that SCE has determined are safe locations for landing, including those identified in Table 2.6-1 (Candidate Helicopter Staging Areas in the ANF) of the Final EIR. In addition, it is anticipated that a helicopter may be used for installation of new 500-kV LSTs or TSPs. The location of staging areas will likely change as work progresses to minimize the length of required helicopter trips. The number of towers to be constructed by helicopter and the time required for the construction will depend upon final engineering, the determination of the appropriate construction methods to be used by SCE's contractor, and the construction schedule ultimately prepared by SCE's contractor. Sensitive noise receptors located in the vicinity of helicopter staging areas and along helicopter flight paths will be affected by substantial temporary noise increases generated by the helicopters.

All helicopter construction activities included under the Project will be conducted in compliance with regulations and restrictions applicable to aircraft, including as set forth by the Federal Aviation Administration (FAA), the USDA Forest Service, and all other applicable agencies. As such, helicopters used for Project construction will not land within the boundaries of designated Wilderness Areas (WAs), including the San Gabriel WA, which is adjacent to the east of a portion of Segment 6. Temporary construction noise from helicopters used in the construction of select transmission towers for the Project will potentially disturb recreationists and wildlife along the length of Segments 6 and 11 in the ANF.

Two portions of the 66-kV subtransmission line sections along Segment 7 will be constructed underground (due to the incorporation of Alternative 7 as part of the Project). This additional construction required for underground placement of the 66-kV subtransmission line will result in an increase to both stationary and mobile construction equipment noise used along these routes. Sensitive receptors along the re-routed and underground portions of this alternative include residences, a high school, and parks within the Whittier Narrows Recreation Area. In addition, trenching required for installation of the underground portions of this

alternative will result in increased truck trips to haul excavated material from the alignment. These truck trips could generate noise levels that could impact receptors along truck routes.

Ground-borne vibration generated by construction vehicles, equipment, and related activities may also affect sensitive noise receptors. Some construction activities such as blasting, pile-driving, and operating heavy earth-moving equipment can cause ground borne vibration that results in perceptible movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. However, there is relatively little of this type of construction activity associated with the Project.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact N-1. Specifically, Mitigation Measures N-1a and N-1b, as set forth below, are feasible and are hereby adopted to mitigate significant effects from Impact N-1. However, even with implementation of these measures, as well as APMs NOI-1 (Limit Hours and Days for Construction), NOI-3 (Advance Notification), and NOI-4 (Establish Toll Free Number), significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact N-1 to a less than significant level.

- **MM N-1a Implement Best Management Practices for construction noise.** SCE shall implement the following noise-suppression techniques, at a minimum, to avoid possible violations of local rules, standards, and ordinances during construction:

On construction equipment, use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

Install temporary sound walls or acoustic blankets around stationary noise sources (e.g., generators, pumps) to shield adjacent sensitive receptors. Where feasible, these sound walls or acoustic blankets shall have a height of no less than 8 feet, a Sound Transmission Class (STC) of 27 or greater, and a surface with a solid face from top to bottom without any openings or cutouts.

Minimize unnecessary construction vehicle idling time (see also Mitigation Measure AQ-1g, Restrict diesel engine idling to 5 minutes). The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. A “common sense” approach to vehicle use shall be applied; if a vehicle is not required for use immediately or continuously for construction activities, its engine shall be shut off. (Note: Certain equipment, such as large diesel powered vehicles, require extended idling for warm-up and repetitive construction tasks and would therefore not be subject to being shut off when not in use.)

- **MM N-1b Avoid sensitive receptors during mobile construction equipment use.** SCE shall route all construction traffic and helicopter flight away from residences, schools, and recreational facilities to the maximum extent feasible.

Rationale for Finding. Maximum construction noise levels associated with the Project will substantially exceed ambient noise conditions along the Project route, and will affect sensitive noise receptors throughout the Project area. Sensitive noise receptors are not located along every Project segment and therefore this impact will either not occur or will occur to a lesser magnitude for some Project segments (such as Segments 6 and 11 in the ANF). However, the CEQA impact significance determination for this impact is representative of the Project’s overall affect. Although construction noise will be temporary and will be reduced by implementation of APMs NOI-1, NOI-3, and NOI-4, and Mitigation Measures N-1a (Implement Best Management Practices for construction noise) and N-1b (Avoid sensitive receptors during mobile

construction equipment use), the level of construction noise will be substantially higher than ambient noise and will disturb sensitive receptors. Impacts will be significant and avoidable.

Reference. Final EIR Section 3.10; Table ES-3

Impact N-2: Construction noise levels would violate local standards.

A thorough review of all applicable ANF, county and city General Plans and Noise Control Ordinances was completed for all jurisdictions traversed by the Project. Construction noise that will occur within residential areas and within close distance to sensitive receptors will violate the ordinances of Los Angeles County, the City of Baldwin Park, the City of Duarte, the City of La Habra Heights, the City of Montebello, the City of Pasadena, and the City of South El Monte.

APMs NOI-1 (Limit Hours and Days for Construction), NOI-3 (Advance Notification), and NOI-4 (Establish Toll Free Number), which are included as part of the Project, will help to reduce construction noise levels. However, construction noise will still result in a substantial increase (greater than five dBA) in ambient noise levels along the Project route and will not be compliant with several local standards, as discussed above and in Table 3.10-9 (Noise Policy Compliance Table – Construction) of the Final EIR.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact N-2. Specifically, Mitigation Measures N-1a (Implement Best Management Practices for construction noise), N-1b (Avoid sensitive receptors during mobile construction equipment use), and L-2b (Aircraft flight path and safety provisions and consultations), as set forth below, are feasible and are hereby adopted to mitigate significant effects from Impact N-2. However, even with implementation of these measures and APMs NOI-1, NOI-3 and NOI-4, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact N-2 to a less than significant level.
 - **MM N-1a: Implement Best Management Practices for construction noise.** (*See above for full text*)
 - **MM N-1b: Avoid sensitive receptors during mobile construction equipment use.** (*See above for full text*)
 - **MM L-2b: Aircraft flight path and safety provisions and consultations.** (*See above for full text*)

Rationale for Finding. To ensure construction equipment noise impacts to sensitive receptors will be reduced to the maximum extent feasible, the following APMs, which are included as part of the Project, will be implemented to reduce construction noise levels: NOI-1 (Limit Hours and Days for Construction), NOI-3 (Advance Notification), and NOI-4 (Establish Toll Free Number). In addition, Mitigation Measures N-1a (Implement Best Management Practices for construction noise), N-1b (Avoid sensitive receptors during mobile construction equipment use), and L-2b (Aircraft flight path and safety provisions and consultations), which is introduced and described in the Land Use analysis (Section 3.9) of the Final EIR, will also be required in order to ensure that all appropriate agencies, including the FAA, are consulted with prior to the onset of helicopter operations, thereby ensuring that policies and regulations applicable to helicopter use for Project construction are fully observed. This impact would not occur along Segments 6 and 11 in the ANF because the 2005 Forest Plan does not address noise levels in the Forest; however, the CEQA impact significance determinations are based on the Project as a whole, and not for individual segments of the

project. Despite implementation of the Project APMs and mitigation measures listed above, the level of construction noise will violate several local noise ordinances and standards. Because local plan violations will occur regardless of mitigation measure implementation, this impact will be significant and unavoidable.

Reference. Final EIR Section 3.10; Table ES-3

Impact N-3: Permanent noise levels along the ROW would increase due to corona noise from operation of the transmission lines and substations.

Noise from operation of the Project will come from two primary sources: electrical and related equipment (e.g., transformers and fans) at the substations, and corona discharge associated with the 500-kV and 220-kV transmission lines. Noise will also be generated by vehicles and equipment during routine inspection and maintenance of the transmission line, which will be accomplished primarily by truck, but may also require helicopter access in some locations. Routine maintenance and inspection will occur on average once a year.

Finding.

- (1) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact N-3 to a less than significant level.

Rationale for Finding. Corona noise generated by operation of the Project along Segments 4, 5, 6, 7, 8, 10, and 11 will result in permanent and substantial increases to existing ambient noise levels along these segments, with the accepted standard of five dBA representing a substantial increase. Of these segments, a minimal number of sensitive noise receptors will be affected along most of Segments 6 and 11 in the ANF, with the exception of scattered residences south of Vincent Substation (not in the ANF) and several scattered residential units within the ANF on private land inholdings. However, in accordance with CEQA, impact significance determinations must be provided for the project as a whole, and not for individual segments of the project. There is no feasible mitigation available to reduce or eliminate the permanent operational corona noise that will be generated by the Project. Therefore, Impact N-3 will be significant and unavoidable.

Reference. Final EIR Section 3.10; Table ES-3

Impact N-4: Operational noise levels would violate local standards.

A thorough review of all applicable ANF, county, and city General Plans and Noise Control Ordinances was completed for all jurisdictions traversed by the Project.

Segments 4, 5, 6, 7, 8, 9 (substations), and 11 will be located within Los Angeles County. Under future wet-weather conditions, corona noise at the edge of the ROW within these Project segments will not be in full compliance with the Los Angeles County ordinance.

Segment 8 will be located within the City of Chino. Under future wet-weather conditions, the range of corona noise along Segment 8 will not be in compliance with the City of Chino ordinance based on potential 30-minute exposure thresholds. The increase in operational corona noise generated by the Project could substantially increase existing ambient noise conditions by more than 5 dBA for a cumulative period of more than fifteen minutes in any hour. Additionally, Segment 8 will be located within the City of Chino Hills. Under future wet-weather conditions, the range of future corona noise along Segment 8 will not be in compliance with the City of Chino Hills ordinance based on potential cumulative 5-minute exposure thresholds. Segment 8 will also be located within the City of Whittier. Under future wet-weather conditions, the range of future corona noise along Segment 8 will not be in full compliance with the City of Whittier ordinance for single-family residences from 10pm to 7am.

Segment 7 will be located within the City of Rosemead. Under future wet-weather conditions, the range of corona noise along Segment 7 could violate evening noise standards and not be in compliance with the City of Rosemead ordinance. Segment 7 is also located within the City of South El Monte. Under future wet-weather conditions, the range of corona noise at the Segment 7 ROW edge with implementation of the Project could substantially increase existing ambient noise conditions by more than 5 dBA for a cumulative period of more than fifteen minutes in any hour. The Project will not be in full compliance with the City of South El Monte ordinance.

Finding.

- (1) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact N-4 to a less than significant level.

Rationale for Finding. Corona noise generated by the Project will not be in compliance with noise standards of Los Angeles County, or the Cities of Chino, Chino Hills, Rosemead, South El Monte, and Whittier. This impact will not occur along Segments 6 and 11 in the ANF because the governing 2005 Forest Land Management Plan does not address noise levels in the Forest; however, as previously described and in accordance with CEQA, impact significance determinations must be provided for the project as a whole, and not for individual segments of the project. No feasible mitigation is available to reduce or eliminate the corona noise that will be generated by the Project. Therefore, because Project operation will result in local plan violations regardless of mitigation measure implementation, this impact will be significant and unavoidable.

Reference. Final EIR Section 3.10; Table ES-3

Cumulative Impact N-1: Construction noise would substantially disturb sensitive receptors.

Project construction will temporarily substantially increase ambient noise levels in the vicinity of the ROW and will disturb sensitive receptors. Similarly, construction activities associated with other projects in close proximity to the Project could occur at the same time as the Project and also disturb nearby sensitive receptors. Sensitive receptors located directly adjacent to multiple construction sites will experience temporary noise impacts from construction activities. When construction activities of the Project and other nearby projects occur concurrently, the combined effect of construction noise will be cumulatively significant.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact N-1. Specifically, Mitigation Measures N-1a (Implement Best Management Practices for construction noise), N-1b (Avoid sensitive receptors during mobile construction equipment use), and L-2b (Aircraft flight path and safety provisions and consultations), as set forth below, are feasible and are hereby adopted to mitigate significant effects from Impact N-1. However, even with implementation of these measures, and APMs NOI-1 (Limit Hours and Days for Construction), NOI-3 (Advance Notification), and NOI-4 (Establish Toll Free Number), included as part of the Project, significant unavoidable cumulative impacts will occur as described above.
 - (2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact N-1 to a less than significant level.
- **MM N-1a: Implement Best Management Practices for construction noise.** (See above for full text)

- **MM N-1b: Avoid sensitive receptors during mobile construction equipment use.** (*See above for full text*)
- **MM L-2b: Aircraft flight path and safety provisions and consultations.** (*See above for full text*)

Rationale for Finding. APMs NOI-1 (Limit Hours and Days for Construction), NOI-3 (Advance Notification), and NOI-4 (Establish Toll Free Number), as well as Mitigation Measures N-1a (Implement Best Management Practices for construction noise), N-1b (Avoid sensitive receptors during mobile construction equipment use), and L-2b (Aircraft flight path and safety provisions and consultations), will reduce the Project's contribution to cumulative impacts, but not to a less-than-significant level. Therefore, this impact will combine with impacts of other past, present and reasonably foreseeable projects to result in a significant and unavoidable cumulative impact.

Reference. Final EIR Section 3.10; Table ES-3

Cumulative Impact N-2: Construction noise levels would violate local standards.

Project construction will temporarily substantially increase ambient noise levels in the vicinity of the ROW and will violate local noise standards. Similarly, construction activities associated with other projects in close proximity to the Project could occur at the same time as the Project also violating local standards and increasing construction noise to nearby sensitive receptors. When construction activities of the Project and other nearby projects occur concurrently, the combined effect of construction noise will be cumulatively significant.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact N-2. Specifically, Mitigation Measures N-1a (Implement Best Management Practices for construction noise), N-1b (Avoid sensitive receptors during mobile construction equipment use), and as set forth below, are feasible and are hereby adopted to mitigate significant effects from Impact N-2. However, even with implementation of these measures, mitigation measure L-2b, and APMs NOI-1, NOI-3 and NOI-4, significant unavoidable cumulative impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact N-2 to a less than significant level.
 - **MM N-1a: Implement Best Management Practices for construction noise.** (*See above for full text*)
 - **MM N-1b: Avoid sensitive receptors during mobile construction equipment use.** (*See above for full text*)
 - **MM L-2b: Aircraft flight path and safety provisions and consultations.** (*See above for full text*)

Rationale for Finding. APMs NOI-1 (Limit Hours and Days for Construction), NOI-3 (Advance Notification), and NOI-4 (Establish Toll Free Number) as well as Mitigation Measures N-1a (Implement Best Management Practices for construction noise), N-1b (Avoid sensitive receptors during mobile construction equipment use), and L-2b (Aircraft flight path and safety provisions and consultations) will reduce the Project's contribution to cumulative impacts, but not to a less-than-significant level. Therefore, this impact will combine with impacts of other past, present and reasonably foreseeable projects to result in a significant cumulative impact.

Reference. Final EIR Section 3.10; Table ES-3

Cumulative Impact N-3: Permanent noise levels along the ROW would increase due to corona noise from operation of the transmission lines and substations.

Sensitive receptors located directly adjacent to the Project will be disturbed by operational noise generated by the Project. Past residential, commercial and industrial projects (including the existing transmission lines in the proposed ROW) have resulted in the development of residences, businesses, roadways, and other noise-generating uses along the Project route. These past projects have introduced people, automobile and truck traffic, and industrial land uses that have resulted in increased noise within the developed portions of the proposed ROW. Similarly, several of the future projects identified to be constructed within 0.25 mile of the Project, such as the Aera Master Planned Community near the City of Diamond Bar and the New Model Colony near the City of Ontario will also be expected to result in noise-generating uses and vehicle traffic that will disturb sensitive receptors. Corona noise from the Project will combine with noise from past, present, and reasonably foreseeable projects within 0.25 mile to result in a cumulative significant impact to sensitive receptors.

Finding.

- (1) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact N-3 to a less than significant level.

Rationale for Finding. Corona noise from the Project will combine with noise from past, present, and reasonably foreseeable projects within 0.25 mile to result in a cumulative significant impact to sensitive receptors. No feasible mitigation is available to reduce this impact. Impact N-3 will be cumulatively significant and unavoidable.

Reference. Final EIR Section 3.10; Table ES-3

Cumulative Impact N-4: Operational noise levels would violate local standards.

Permanent noise levels along the ROW will increase due to corona noise from operation of the transmission lines. Residential receptors located directly adjacent to the Project will be impacted by operational noise from the transmission ROW. Because the operational noise generated by the Project alone will result in an increase to the ambient noise levels at sensitive receptor locations along the lines, additional further development and vehicle-related traffic within proximity of these receptors will combine with this impact to further increase ambient noise levels. There is not sufficient information to assess the degree to which the numerous present and foreseeable residential development projects, such as the Aera Master Planned Community near the City of Diamond Bar and the New Model Colony near the City of Ontario, will generate traffic noise impacting ambient conditions. However, the combined effect of operational corona noise combined with other noise sources located within close proximity to the proposed transmission line and substation facilities to noise sensitive receptors will be cumulatively significant and likely further impact sensitive receptors and further escalate ambient noise conditions in excess of identified local policies and ordinance standards.

Finding.

- (1) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact N-4 to a less than significant level.

Rationale for Finding. The impact of the Project will likely combine with similar impacts of other projects to result in a cumulative operational noise impact. While the Project will not generate substantial corona noise along each of the Project segments, the Project's cumulative contribution to an elevation in ambient noise levels is considered to be significant and unavoidable.

Reference. Final EIR Section 3.10; Table ES-3

III.4.7 Visual Resources

Impact V-1: Temporary visibility of construction activities and equipment involved with the Project would alter the landscape character and visual quality of landscape views.

Construction impacts on visual resources will result from the presence of equipment, materials, and work force at the substation sites, staging areas, pulling locations, tensioner locations, splicing locations, and along the access/ spur roads and overhead transmission line route. Construction impacts on visual resources will also result from the temporary alteration of landforms and vegetation along the utility corridor. Vehicles, heavy equipment, helicopters, materials, and workers will be visible during site clearing, grading, substation expansion and construction, structure erection, conductor stringing, cable placement, and site/ROW clean-up and restoration. Construction equipment and activities will be seen by various viewers in close proximity to the sites and utility corridor including adjacent and nearby residents and recreationists on roads and trails (including the PCT). View durations will vary from brief to extended periods. Construction of the transmission line, construction of the new Whirlwind Substation, expansion and improvements at existing Antelope, Vincent, Gould, Mesa, and Mira Loma Substations, and use of construction staging areas will result in the visual intrusion of construction vehicles, helicopters, equipment, storage materials, and workers.

There are no APMs for Aesthetics that address the temporary visibility of construction equipment or personnel at staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and/or structure locations. Impact V-1 will require implementation of Mitigation Measure V-1 (Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis). With implementation of this mitigation measure, the effects of Impact V-1 will be reduced somewhat. However, temporary visibility of construction activities and equipment will remain a significant and unavoidable adverse visual impact.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-1. Specifically, Mitigation Measure V-1 (Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis), as set forth in Section 3.44 (Visual Resources) of the Final EIR and as listed below, is hereby adopted to mitigate significant effects from Impact V-1. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.
 - (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-1 to a less-than-significant level.
- **MM V-1 Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis.** SCE shall keep construction-related operations areas clean and tidy by storing building materials and equipment within the proposed construction staging areas and/or generally away from public view when feasible. SCE shall remove construction debris promptly at regular intervals.

For areas of non-NFS lands where cleared vegetation would be visible from sensitive viewing locations, SCE shall dispose of cleared vegetation and woody material in a manner that is not visually evident and does not create visual contrasts. For NFS lands, in areas where cleared vegetation would be visible from sensitive viewing locations, SCE shall dispose of cleared

vegetation and woody material off-site (not necessarily off-NFS lands), or the cleared vegetation shall be chipped and stored for restoration work, as approved by the FS, and in a manner that is not visually evident and does not create visual contrasts.

Rationale for Finding. Due to construction of the Project, short-term visual impacts on landscape character and visual quality of landscape views as seen from various vantage points will be significant and unavoidable. There are no mitigation measures available to make vehicles, heavy equipment, helicopters, and other related components less visible during construction. To reduce the consequence of these potential visual impacts, the following mitigation measure has been identified: Mitigation Measure V-1 (Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis).

Mitigation Measure V-1 will help to minimize the adverse visual effects of construction activities and equipment as seen from sensitive receptor locations by minimizing and containing the visual clutter associated with construction. Mitigation Measure V-1 is similar to APM AES-15 and APM AES-17, and will augment these APMs by requiring specific procedures such as establishing a regular periodic interval for cleanup, not to exceed one week in duration. Mitigation Measure V-1 will create natural-appearing vegetation clearing shapes and patterns, instead of un-natural square or rectangular openings in vegetation. Implementation of Mitigation Measure V-1, as described above, will reduce Impact V-1 somewhat, but temporary visibility of construction activities and equipment will remain a significant and unavoidable adverse visual impact. There are no other feasible mitigation measures or alternatives available to reduce this significant impact to a level that will be less than significant.

Reference. Final EIR Section 3.14; Table ES-3

Impact V-2: For a landscape that currently has no transmission lines, introduction of a new transmission line in a new ROW would adversely affect landscape character and visual quality.

Landscape character is determined by its unique combination of physical, biological, and cultural attributes. Landscape character is an overall visual impression of landscape attributes; it is the physical appearance of a landscape that gives it an identity and sense of place. Visual quality of a landscape is a measure of the degree to which a landscape is visually perceived to be complete. The highest visual quality ratings are given to those landscapes that have little or no deviation from the landscape character valued by constituents for its aesthetic quality.

All of Segment 10 and portions of Segments 4 and 8A will be constructed in new ROWs where there is no existing transmission line; therefore, the existing natural-appearing landscape character will be modified to an industrial character by the presence of the Project.

An indirect visual effect of the Project in existing natural-appearing landscapes is the potential new visual impact of OHV use in undeveloped landscapes, especially those new OHV trails that will emanate from new access and spur roads along Segment 10 and Segment 4 from MP 14.9 to S4 MP 19.6.

There are no Aesthetic APMs that specifically address the introduction of a new transmission line into a landscape that currently has no transmission lines. Aesthetic APMs could apply to this situation, except those that specifically relate to existing structures, existing ROWs, existing roads, or existing substations (i.e., APMs AES-5, AES-9, AES-11, and AES-13 through AES-23). Impact V-2 will require implementation of the following mitigation measures in the North and South Areas: V-2a (Use tubular steel poles instead of lattice steel towers in designated areas); V-2b (Treat surfaces with appropriate colors, textures, and finishes); V-2c (Establish permanent screen); and V-2d (At road crossings, structures should be offset so that they are equidistant on each side of the road where feasible). In addition, impacts will be

further reduced with implementation of the following mitigation measure: V-1 (Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis). With implementation of these mitigation measures, the effects of Impact V-2 will be reduced somewhat; however, in the North and South Areas (areas outside of the ANF), the presence of new transmission line structures, conductors, access and spur roads, and new ROWs in landscapes that currently have no transmission line facilities will remain a significant and unavoidable adverse visual impact.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-2. Specifically, Mitigation Measures V-1 (Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis), V-2a (Use tubular steel poles instead of lattice steel towers in designated areas), V-2b (Treat surfaces with appropriate colors, textures, and finishes), V-2c (Establish permanent screen), and V-2d (At road crossings, structures should be offset so that they are equidistant on each side of the road where feasible), as set forth in Section 3.44 (Visual Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Impact V-2. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
 - (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-2 to a less-than-significant level.
- **MM V-1** **Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis.** *(See above for full text)*
 - **MM V-2a** **Use tubular steel poles instead of lattice steel towers in designated areas.** When feasible, SCE shall use tubular steel poles, rather than lattice steel towers, in locations designated by the CPUC to reduce visual impacts as seen from sensitive receptor locations and/or to match existing and/or future wind turbine generator monopoles and/or to accomplish community desires. SCE shall submit a Structure Type and Treatment Plan to the CPUC as soon as possible after Project approval, demonstrating compliance with this.
 - **MM V-2b** **Treat surfaces with appropriate colors, textures, and finishes.** For all structures that are visible from sensitive viewing locations outside NFS lands, and for all NFS lands, SCE shall treat surfaces with appropriate galvanizing treatments, per APM AES-1, to most effectively blend the structures with the visible backdrop landscape, as determined by the CPUC (for non-NFS lands) and the FS (for NFS lands). For structures that are visible from more than one sensitive viewing location, if backdrops are substantially different when viewed from different vantage points, the darker color shall be selected, because dark colors tend to blend into landscape backdrops more effectively than lighter colors, which may contrast and reflect light, producing glare. At locations where a lattice steel tower or a tubular steel pole would be silhouetted against the skyline, non-reflective, light gray colors shall be selected to blend with the sky. The transmission line conductors shall be non-specular and non-reflective, per APM AES-4, and the insulators shall be non-reflective and non-refractive, per APM AES-3. SCE shall consult with the CPUC and the FS to ensure that the objectives of this measure are achieved. SCE shall submit a Structure Type and Treatment Plan for the lattice steel towers, tubular steel poles, conductors, insulators, substation structures, fences/walls, retaining walls, and any other visible structures, to the CPUC and FS, as appropriate, after Project approval, demonstrating compliance with this measure.
 - **MM V-2c** **Establish permanent screen.** At Antelope and Vincent Substations, SCE shall establish a permanent screen of sufficient height for immediate visual screening around the new

expansion areas of the Antelope and Vincent Substations. Plant materials selected for screening shall be locally appropriate, wind-resistant, non-invasive, and acclimated to the particular environment and micro-climate. Other screening materials shall blend in with the local landscape. SCE shall consult with the CPUC to ensure that the objectives of this measure are achieved. SCE shall submit landscaping plans for Antelope and Vincent Substations that demonstrate compliance with this measure to the CPUC for review and approval at least 60 days prior to the start of construction at these substations.

- **MM V-2d** At road crossings, structures should be offset so that they are equidistant on each side of the road where feasible. To the extent practical, in locations designated by the CPUC and the FS (for NFS lands), SCE shall relocate new transmission line structures at road crossings and trail crossings so that conductors are approximately mid-span at the road or trail and structures are kept away from the roadway or trail as far as possible. V-2d is compatible and complementary to APM AES-6 (Transmission Structures Set Back from Major Roadways).

Rationale for Finding. The goal of Mitigation Measures V-2a through V-2d is to select appropriate structure types and colors, and add vegetative screening through thoughtful planning and design, such that the new structures (substations, lattice steel towers “LSTs”, or tubular steel poles “TSPs”) will blend into the landscape to the greatest extent possible, with the least impact to landscape character and visual quality.

In Segment 10 at the northern end of the North Area, implementation of Mitigation Measure V-2a will allow the new structures to set an architectural tone for the existing and soon-to-be enlarged wind resource area. In the future, development of new wind turbine generators with sleek monopoles are expected to add to the architectural tone of the area and will help make the 500-kV monopole structures seem to be a congruent visual part of the enlarged TWRA; and conversely, use of lattice structures for TRTP will appear incongruent.

The introduction of new transmission lines (Segment 10) and the new Whirlwind Substation into existing natural-appearing landscapes with no existing transmission lines or substations will create adverse but not significant visual impacts in the North Area. There is no mitigation available to make new transmission lines or a new substation disappear or become inconspicuous. Implementation of Mitigation Measures V-2a and V-2c will help to minimize the adverse visual effects of new transmission line alignments and structures as seen from sensitive receptor locations by minimizing visual impacts through careful planning and design.

Implementation of Mitigation Measure V-2c around the existing and expanded Antelope and Vincent Substations will lead to an overall improved visual environment at both substation sites. APM AES-23 (Landscape Plan) has been incorporated into the Project, but it specifically mentions only the expansion area at Vincent Substation; therefore, Mitigation Measure V-2c is required to address visual impacts at both the Antelope and Vincent Substations. Measure V-2c will augment APMs AES-18 through AES-22 at Antelope and Vincent Substations, and visual impacts in the areas of the expansions will remain adverse but not significant.

A portion of Segment 4 (S4 MP 14.9 to 19.6) will be constructed in a new ROW where there is no existing transmission line (Alternative 3), leading to significant and unavoidable adverse impacts. Implementation of Mitigation Measures V-2a (Use tubular steel poles instead of lattice steel towers in designated areas), V-2b (Treat surfaces with appropriate colors, textures, and finishes), and V-2d (At road crossings, structures should be offset so that they are equidistant on each side of the road where feasible) will reduce visual impacts somewhat, but the presence of new transmission line structures, conductors, access and spur roads, and new ROWs in landscapes that currently have no transmission line facilities will remain a significant and unavoidable adverse visual impact.

In the Rose Hills Memorial Park, Segment 8A will relocate the transmission line from an existing ROW that is midslope onto a skyline ridge, and will be very visible from sensitive receptor locations to the south (inside Rose Hills) and to the north (various residential areas and the Pomona Freeway [Highway 60]). Implementation of Mitigation Measures V-1 (Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis), V-2a (Use tubular steel poles instead of lattice steel towers in designated areas), and V-2b (Treat surfaces with appropriate colors, textures, and finishes) will reduce Impact V-2 in the Rose Hills Memorial Park. Use of TSPs instead of LSTs on a skyline ridge will result in a significant adverse visual impact that can be reduced to less than significant through application of feasible mitigation measures. Additionally, under the Alternative 7 section of the Project, a portion of Segment 8A (S8A MP 2.2 to 3.8) will be constructed in a new ROW where there is no existing transmission line, along San Gabriel Boulevard and Durfee Avenue. Therefore, the existing natural-appearing landscape character will be slightly modified by the introduction of light weight steel poles along a portion of the Alternative 7 re-routes.

While the use of TSPs (Mitigation Measure V-2a) may reduce certain adverse impacts in Segments 4, 8, and 10, installation of TSPs will not be feasible in all locations. There are various technical constraints that limit the ability to utilize TSPs in some locations, including the additional ice loading that can occur at elevations above 3,000 feet in elevation. Most of Segment 10 and portions of Segment 4 are above 3,000 feet in elevation. Also, structural design standards dictate that LSTs, rather than TSPs, will be required for 500-kV angle structures and dead-end structures. In addition, TSPs are comprised of much larger individual components than LSTs, which introduces many more constraints related to their construction. Therefore, the feasibility of constructing TSPs must be determined on a site-by-site basis based on detailed engineering design as well as construction planning. In order to implement Mitigation Measure V-2a, the Lead Agencies will need to determine appropriate and feasible locations for the use of TSPs instead of LSTs.

Similar to Mitigation Measure V-2a, implementation of Mitigation Measure V-2b (Treat surfaces with appropriate colors, textures, and finishes) requires the Lead Agencies to identify appropriate locations for the use of colored galvanizing treatments, ranging from light to dark, on transmission structures (LSTs and TSPs). In order to reduce the visibility of transmission structures in the landscape, colored galvanizing treatments will need to be selected that enable the transmission structures to blend with backgrounds (typically landforms and sky) as seen from sensitive viewing locations. Unless the Lead Agencies approve colored galvanizing treatments for individual structures or specific groups of structures, SCE's standard galvanizing treatment, which is light gray in color, will be used by default. Appropriate colored galvanizing treatments will be determined through the development and review of the Structure Type and Treatment Plan called for in Mitigation Measure V-2b.

In addition to the measures described above, implementation of the following mitigation measure is recommended for the entire route of the Project to minimize the effects of Impact V-2: V-1 (Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis).

While the mitigation measures described above will reduce the effects of Impact V-2, the presence of new transmission line structures, conductors, access and spur roads, and new ROWs in landscapes that currently have no transmission line facilities will remain a significant and unavoidable adverse visual impact. There are no other feasible mitigation measures or alternatives available to reduce this significant impact to a level that will be less than significant.

Reference. Final EIR Section 3.14; Table ES-3

Impact V-3: For a landscape with an existing transmission line, increased structure size and new materials would result in adverse visual effects.

For a landscape with one or more existing transmission lines, removal of smaller existing transmission line structures (e.g., 220 kV) and replacement with structures of increased size (e.g., 500 kV) made of new materials will result in adverse visual effects. Increased visual contrasts could be created by increased structure prominence, new or additional structure skylining, new or additional ridgeline obstruction, new or additional skyline intrusion, and/or view blockage to desirable landscape features. New, taller transmission line structures could also increase the predominance of industrial landscape character by introduction of larger structures with more pronounced geometric forms, unnatural straight lines, increased visual complexity, and increased visual clutter. New metal surfaces tend to stand out more than older, more weathered surfaces, thereby making the new, taller structures even more visually prominent.

Impact V-3 will occur throughout the entire Study Area because of increased structure heights and widths, as compared to existing structures and facilities. However, the removal of existing overhead subtransmission lines associated with the Alternative 7 component of the Project will improve the visual environment and viewsheds of the Duck Farm and Whittier Narrows and will create a beneficial effect in these areas.

Certain Aesthetic APMs specifically address the visual effects of introducing new structures with increased sizes and new materials into a landscape with an existing transmission line. APMs AES-1 through AES-8 specifically apply to this situation and were considered in the analysis of the Project. However, these APMs are general in nature and, except for the substation APMs, are not location-specific. To further reduce the impacts, Mitigation Measures V-2a (Use tubular steel poles instead of lattice steel towers in designated areas), V-2b (Treat surfaces with appropriate colors, textures, and finishes), V-3a (Match spans of existing transmission structures), and V-3b (On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality) will be required. However, impacts will remain significant and adverse.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-3. Specifically, Mitigation Measures V-2a (Use tubular steel poles instead of lattice steel towers in designated areas), V-2b (Treat surfaces with appropriate colors, textures, and finishes), V-3a (Match spans of existing transmission structures), and V-3b (On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality), as set forth in Section 3.44 (Visual Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Impact V-3. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-3 to a less-than-significant level.
 - **MM V-2a** **Use tubular steel poles instead of lattice steel towers in designated areas.** (See above for full text)
 - **MM V-2b** **Treat surfaces with appropriate colors, textures, and finishes.** (See above for full text)
 - **MM V-3a** **Match spans of existing transmission structures.** If the new Project components are adjacent to an existing transmission line, SCE shall, where feasible, match existing structure spacing and spans as closely as possible in order to reduce visual complexity as seen from sensitive

receptor locations. All new structures should also match the heights of existing transmission line structures to the extent possible as dictated by variation in terrain and kV-capacity of lines.

- **MM V-3b On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality.** All reasonable efforts shall be made to meet the Scenic Integrity Objectives (SIOs) shown on the SIO Map in the ANF Land Management Plan. SIO adjustments that exceed a drop of more than one SIO level would require a Project-specific amendment to Forest Plan (Part 3) Standards S9 and S10. In order to compensate for the Project's long-term visual impacts to the landscape character and visual quality, including but not limited to impacts to landscape character and visual quality of scenic highway and scenic trail viewsheds, SCE and the Forest Supervisor shall reach a consensus on what is a commensurate amount of restoration, monetary compensation, or landscape character/visual quality improvement.

Rationale for Finding. Implementation of Mitigation Measure V-2a (Use tubular steel poles instead of lattice steel towers in designated areas) will help make the two new 220-kV lines leading from Cottonwind Substation into the new Whirlwind Substation more visually congruent with planned wind turbines in this area. This will set an architectural style for the future enlarged TWRA and will allow the new Segment 4 structures to blend in with monopoles of existing and future wind turbine generators. Implementation of Mitigation Measures V-2a and V-3a (Match spans of existing transmission structures) in this area will reduce visual impacts and improve the overall visual environment, and will result in visual effects in the area of the Cottonwind and Whirlwind Substations that are adverse but less than significant.

For Segment 4 from the Whirlwind Substation to S4 MP 15.8 and for all of Segment 5, use of LSTs and implementation of Mitigation Measures V-1 (Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis); V-2b (Treat surfaces with appropriate colors, textures, and finishes); V-3a (Match spans of existing transmission structures); V-4b (Slope-round and re-contour in areas as prescribed) [on Portal Ridge and Sierra Pelona Ridge]; and V-4d (Dispose of excavated materials as prescribed) will reduce visual impacts to an adverse but less-than-significant level.

For expansion of the Vincent Substation as part of Segment 9, APM AES-23 will provide for an appropriate landscape plan for the area on the west side of the Vincent Substation expansion to screen the equipment from view and blend the substation into the surroundings. To augment this APM, implementation of Mitigation Measure V-2c (Establish permanent screen) around the Antelope and Vincent Substations will help to improve the overall visual environment of these substations and will reduce visual contrasts. Because of the size and scale of the existing Vincent Substation facilities, and its existing industrial character in this rural environment, the substation expansion and newer, taller LSTs leading into and out of the substation will largely go unnoticed, resulting in an adverse, but less-than-significant visual effect. Introduction of the Whirlwind Substation into the North Area will create adverse but not significant visual impacts.

In the Center Area, removal of older existing 220-kV LSTs and conductors, and construction of new, taller, wider 500-kV LSTs with new, dull galvanized steel, will be very noticeable. In general, the existing 220-kV and 500-kV LSTs and conductors create strong contrasts of form, line, color, texture, and scale, and do not meet the High scenic integrity objective or the natural-appearing desired condition that has been adopted in the new Forest Plan. Scenic integrity levels that will be met by under the Project will be moderate, low, very low, and unacceptably low SIOs, and future landscape character will be industrial instead of natural-appearing. This represents scenic integrity levels that are one, two, three, and four levels below the High SIO and desired conditions of the Forest Plan. Although Project-specific amendments for Forest Plan (Part 3) Standards 9 and 10 will still be required, it will not reduce the physical impacts to landscape character or

visual quality; therefore, implementation of Mitigation Measure V-3b (On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality) will still be required.

In the South Area, the Project will appear to dominate the existing landscape character(s) adjacent to the utility corridor, and the new increased height of structures will cause the industrial character to visually extend further into neighboring lands. The new and increased structure skylining and additional obstruction of the foreground landscapes and, in some cases, views to middleground and background landscapes, will result in a high degree of visual contrast, view blockage, and/or skyline impairment. Additional structure height also will cause additional structure skylining (towers and conductors extending above the horizon line), particularly for towers where, from some vantage points, the existing 220-kV structures remain below the skyline or only slightly extend above the horizon line. New 500-kV structures that protrude above the skyline will block more of the horizon and impair scenic views. Increased tower height will also raise the conductors such that more of the background landscapes in the South Area (San Gabriel Mountain Range, Hacienda Hills, and Chino Hills) will be visually obstructed, depending on view direction.

The goals of Mitigation Measures V-2a and V-2b are to reduce visual impacts in the immediate foreground of 110th Street West in the North Area, select appropriate structure types and heights near residential and recreation areas, and identify exact structure placement in the North, Center, and South Areas through planning and design so that new structures (LSTs or TSPs) will blend into the landscape to the greatest extent possible and with the least impact to landscape character and visual quality. Implementation of all these mitigation measures will reduce Impact V-3 somewhat in the Study Area, but the presence of newer, taller, wider transmission line structures and conductors (in some cases, very tall double circuit structures) will remain a significant adverse visual impact.

As discussed under Impact V-2 above, installation of TSPs is not feasible in all locations. There are various technical constraints that limit the ability to utilize TSPs in some locations. Therefore, the feasibility of constructing TSPs must be determined on a site-by-site basis based on detailed engineering design as well as construction planning. In order to implement Mitigation Measure V-2a, the Lead Agencies will need to determine appropriate and feasible locations for the use of TSPs instead of LSTs. While no final determinations have been made regarding the use of TSPs as visual mitigation, Appendix J describes candidate locations for the installation of TSPs on non-NFS lands (no additional TSPs are recommended for NFS lands). These candidate locations were identified based on consideration of the recommendations made in the *Visual Resources Specialist Report* and various engineering limitations and construction constraints that must be considered to determine the feasibility of installing TSPs at specific locations and under specific circumstances (e.g., angle structures, dead-end structures, ice loading). The CPUC, which has approval authority over the Project on non-federal lands, has developed a set of draft guidelines intended to help identify appropriate and feasible locations for the use of TSPs as visual mitigation. These draft guidelines are also provided in Appendix J. Unless the CPUC approves specific locations for the use of TSPs as mitigation, no additional TSPs will be installed as part of the Project.

As also discussed for Impact V-2 above, implementation of Mitigation Measure V-2b (Treat surfaces with appropriate colors, textures, and finishes) will require the Lead Agencies to identify appropriate locations for the use of colored galvanizing treatments, ranging from light to dark, on transmission structures (LSTs and TSPs). Colored galvanizing treatments will need to be selected that enable the transmission structures to blend with backgrounds (typically landforms and sky) as seen from sensitive viewing locations. Unless the Lead Agencies approve colored galvanizing treatments for individual structures or specific groups of structures, SCE's standard galvanizing treatment, which is light gray in color, will be used by default. Appropriate colored galvanizing treatments will be determined through the development and review of the

Structure Type and Treatment Plan called for in Mitigation Measure V-2b. The *Visual Resources Specialist Report* primarily recommends the use of colored galvanizing treatments on NFS lands.

While the mitigation measures described above will reduce the effects of Impact V-3 along portions of the Project route, visual impacts to 110th Street West, a Priority 2 Los Angeles County Scenic Highway and the Angeles Crest Scenic Byway (SR2 – a State scenic highway), as well as the impacts from increased tower heights in the South Area, will remain significant and unavoidable.

The effects of Impact V-3 for the Alternative 3 portion of the Project will require implementation of the following mitigation measures, which are fully described in Section 3.14.6.1: V-2a (Use tubular steel poles instead of lattice steel towers in designated areas); V-2b (Treat surfaces with appropriate colors, textures, and finishes); V-3a (Match spans of existing transmission structures); and V-3b (On NFS lands, provide restoration/ compensation for impacts to landscape and visual quality). In addition, the effects of Impact V-3 of Alternative 3 will be somewhat reduced with implementation of Mitigation Measures V-1, V-2c, and V-2d, V-4b, and V-4d. However, the presence of newer, taller, wider transmission line structures, new conductors, newly constructed or re-opened access and spur roads, and enlarged substations will remain a significant adverse visual impact.

The presence of newer, taller, wider transmission line structures, new conductors, newly constructed or re-opened access and spur roads, and enlarged substations will remain a significant adverse visual impact. There are no other feasible mitigation measures or alternatives available to reduce this significant impact to a level that will be less than significant.

Reference. Final EIR Section 3.14; Table ES-3

Impact V-4: Vegetative clearing and/or earthwork associated with road improvements and pulling/splicing locations would adversely affect landscape character and visual quality.

This impact deals with all vegetative clearing and all earthwork that might be expected to occur with implementation of the Project, including the following locations: access roads, spur roads, access trails, spur trails, pulling/splicing locations, marshalling yards, helicopter staging areas (large, medium, and small), LST and TSP structure locations, substations, and ancillary facilities. This impact also deals with vegetative clearing and/or vegetative management along the ROW.

General Order-95 (“GO-95” – Rules for Overhead Electric Line Construction) specifies requirements for all overhead electric transmission lines in California (CPUC, 2009). Rule 35 specifies minimum clearances between energized conductors and vegetation. Final EIR Section 2.2.13, Operations and Maintenance, describes the typical vegetation management practices that SCE will implement. Vegetation management includes pruning and removal of trees, where only those trees that require trimming before the next planned trim cycle will be pruned. Pruning shall achieve clearance requirements plus one year’s growth at time of trimming. Tree removal is the preferred method of vegetation management; however, consideration is given with respect to growth rates, species, environmental and regulatory constraints, property owner approval, and budgetary allowances. Vegetation clearances shall comply with regulations included in GO-95 Rule 35 and related appendices and the required clearances specified in the California Public Resources Code, Section 4292. Within the ANF it is assumed an approximately 20-foot radius from each tower footprint will be kept clear of vegetation. Herbicides nationally approved by the Forest Service will be used within the ANF for control of invasive species, subject to all applicable laws and regulations.

For Segment 10, vegetative clearing and earthwork to construct new access and spur roads and structure pads in the uniform brushfields of the Mojave Desert will adversely affect the existing natural-appearing and rural landscape character. New access and spur roads tend to follow the linear nature of the transmission

line, not necessarily the natural contours of the landscape, and the combination of vegetative clearing, earthwork cuts and fills, and transmission line structures and conductors creates unnatural linear patterns in the landscape.

All of Segments 4 and 5 (except S4 MP 15.8 to S4 17.9) will be constructed in existing corridors or alongside existing transmission lines which have existing access and spur roads. Therefore, vegetative clearing and earthwork grading will be minimal for these two Segments of TRTP, and there will be no substantial changes in existing landscape character and visual quality.

Potential visual impacts resulting from vegetative clearing and earthwork modification to allow access for large equipment will be substantial in the Center Area. The existing corridors that contain Segments 6 and 11 in the Center Area have strong visual contrasts of unnatural forms, geometric lines, contrasting colors, and textures that stand out against the natural landscape, and do not meet the High SIO or the natural-appearing Desired Condition designated in the Forest Plan. New vegetative clearing and earthwork will reverse the natural revegetation that has already occurred, will increase road cut scars by creating soil color contrasts and vegetation/bare earth texture contrasts and thereby further decrease scenic integrity and visual quality. Re-opening access roads and spur roads, in general, will not achieve the Desired Condition of natural-appearing landscapes in the ANF and will not meet the High scenic integrity objectives described in the Forest Plan. Increased Off Highway Vehicle (OHV) use is likely to occur on re-opened/widened access roads and re-opened/re-constructed spur roads. Increased OHV use in the ANF will thereby increase the potential for increased illegal OHV use, soil erosion, wildlife harassment, and additional visual scars in the landscape.

There are existing access roads and spur roads in the South Area that service Segments 7, 8, and 11, and provide access for maintenance of existing transmission structures. However, for the one occurrence of a new ROW in the South Area at Rose Hills Memorial Park, there are no existing SCE access or spur roads on the skyline ridge, rather existing ridgetop roads are in conjunction with the Puente Hills Landfill, administered by the Puente Hills Landfill Native Habitat Preservation Authority. In this location, construction of new access and spur roads to the two relocated transmission lines might entail additional vegetative clearing and earthwork modifications. Because the landforms are relatively gentle in this location, and because vegetation is generally grasses and low growing shrubs, very little visual contrast will be created. Existing landscape character and visual quality will, however, be greatly affected by the presence of the new and relocated transmission lines on this skyline, with these new access and spur roads, creating an overall industrial character in the landscape, and because of the skyline location, transmission lines will affect two viewsheds, seen from both the north and south.

APMs AES-8 (Transmission Lines - Regrade/Revegetate Construction Sites), AES-9 (Access Roads - Use Existing Access Roads), AES-10 (Access Roads - Helicopter Construction), AES-11 (Access Roads - Minimize Road Modifications), AES-12 (Access Roads - Dust Suppression), AES-13 (Access Roads - Cut and Fill Slope Revegetation), and AES-14 (Marshalling Yards and Laydown Areas - Reuse Previously Disturbed/Low Visibility, Low Sensitivity Areas for Marshalling Yards), which are included as part of the Project, address the visual effects of vegetative clearing and/or earthwork associated with road improvements, pulling/splicing locations, marshalling yards, and laydown areas. These Aesthetic APMs were considered in the analysis of the Project. However, the Aesthetic APMs are general in nature and are not location-specific. Impact V-4 for the Alternative 3 portion of the Project will require implementation of the following mitigation measures, which are fully described in Section 3.14.6.1: V-4a (Construct, operate, and maintain the Project with existing access and spur roads where feasible); V-4b (Slope-round and re-contour in areas as prescribed); and V-4c (Avoid locating new roads in bedrock on NFS lands); and V-4d

(Dispose of excavated materials as prescribed). However, the visual impacts associated with Alternative 3 will remain significant and adverse.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-4. Specifically, Mitigation Measures V-4a through V-4d, as set forth in Section 3.44 (Visual Resources) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Impact V-4. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-4 to a less-than-significant level.

- **MM V-4a Construct, operate, and maintain the Project using existing access and spur roads where feasible.** For non-NFS lands and in locations designated by the CPUC, to protect landscape character and promote visual quality, SCE shall remove existing transmission line towers and conductors using existing and already maintained access roads and spur roads, and shall construct the new transmission line using the existing and already maintained network of access roads and spur roads to the greatest practical extent. SCE shall submit plans for any new access roads and spur roads, and any maintenance plans for un-maintained access and spur roads, demonstrating compliance with this measure, to the CPUC for review and approval at least 60 days prior to the start of construction.

For NFS lands, to protect landscape character and promote visual quality, SCE shall use only those access roads and spur roads designated by the FS for that purpose.

For the new LST at Mill Creek Summit, SCE shall maintain vegetative screening as seen from the PCT, trailhead, and PCT feeder trail to the extent feasible and practical and as GO-95 allows. In an effort to protect the scenic integrity along the PCT, SCE and the FS have agreed that for the new LST at Mill Creek Summit, the existing vegetation around this tower and along the PCT, for the most part, shall not be cleared and will be preserved to the greatest degree possible without violating GO-95 Rule 35. The only sections that should be cleared of vegetation for operation and maintenance at this specific tower site is the area directly underneath the base of the new tower and the immediate space adjacent to FS Road 3N17 and the new tower (STR 34 M7-T2).

- **MM V-4b Slope-round and re-contour in areas as prescribed.** For areas of non-NFS lands where natural terrain includes rounded landforms, where soil types are conducive, and where cuts-and-fills and excavated materials would be visible from sensitive viewing locations, SCE shall employ slope-rounding techniques to blend earthwork with natural contours where feasible. Greater land area would be disturbed by this measure, possibly increasing exposure to soil erosion and possibly causing more vegetation disturbance, but the goal of this measure is a permanent landform that is natural-appearing in the long-term and may be more conducive to wildlife movement. During and following re-contouring, applicable mitigation measures of the other issue area sections shall be applied, including biological resources, cultural resources, geology and soils, hydrology and water resources, wilderness and recreation, land use, and possibly agricultural resources. SCE shall submit plans for proposed new, upgraded, or newly maintained access roads and spur roads or structure pads to the CPUC for approval at least 60 days prior to construction.
- **MM V-4c Avoid locating new roads in bedrock on NFS lands.** Where feasible, re-opened and/or new access road and spur road locations on NFS lands shall be designed to avoid bedrock cuts, and shall be located in soil material to protect landscape character, ensure revegetation opportunities, and promote visual quality. SCE shall submit road construction plans to the CPUC and FS for review and approval at least 60 days prior to the start of construction.

- **MM V-4d Dispose of excavated materials as prescribed.** For non-NFS lands, SCE shall dispose of excavated materials (soil, rocks, and concrete, and reinforcing steel) in a manner that is not visually evident and does not create visual contrasts. For NFS lands, SCE shall dispose of excavated materials (excess soil and rocks) in disposal areas (either on-NFS lands or off-NFS lands) as designated by the FS. For NFS lands, the FS will designate whether any footings from existing transmission structures need to be removed. Any designated footings designated for removal (concrete, reinforcing steel, angle steel, anchor bolts, etc.) shall be disposed off-NFS lands in disposal areas that do not create visual contrasts. These sites shall be pre-approved by the CPUC and FS.

Rationale for Finding. Because analysis of visual impacts associated with the Project indicate that APMs presented in Table 3.14-6 will not fully mitigate visual impacts associated with construction and operation of the Project, additional measures were developed to augment the APMs and more fully mitigate visual impacts. Implementation of Mitigation Measures V-4a (Construct, operate, and maintain the Project with existing access and spur roads where feasible); V-4b (Slope-round and re-contour in areas as prescribed); V-4c (Avoid locating new roads in bedrock on NFS lands); and V-4d (Dispose of excavated materials as prescribed) will decrease the amount of visual disturbance and will improve the visual environment as compared to the Project without mitigation. The combination of all these measures will lessen the adverse visual impacts of the Project and will improve the visual attributes of the affected area. However, the visual impacts associated with access and spur roads and splicing and pulling locations throughout Segments 6, 10, and 11 will remain significant and adverse. There are no other feasible mitigation measures or alternatives available to reduce this significant impact to a level that will be less than significant.

Reference. Final EIR Section 3.14; Table ES-3

Impact V-7: The Project would conflict with established visual resource management plans or landscape conservation plans.

The Project will be inconsistent with Standards S9 and S10 of the governing 2005 Forest Land Management Plan, and thus will require Project-specific amendments. The Project will also conflict with Goal Visual-1 and Objective Visual-1.2 of the Puente Hills Landfill Native Habitat Preservation Authority Resource Management Plan. As such, Impact V-7 will be significant and unavoidable.

There are no APMs for Aesthetics that address the potential conflict of the Project with established visual resource management plans or landscape conservation plans.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-7. Specifically, Mitigation Measure V-3b (On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality), as set forth in Section 3.44 (Visual Resources) of the Final EIR and as listed below, is hereby adopted to mitigate significant effects from Impact V-7. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.
 - (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Impact V-7 to a less-than-significant level.
- **MM V-3b On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality.** (*See above for full text*)

Rationale for Finding. The Project will require Project-specific amendments for Forest Plan (Part 3) Standards 9 and 10. The Project will also conflict with Goal Visual-1 and Objective Visual-1.2 of the Puente

Hills Landfill Native Habitat Preservation Authority Resource Management Plan. As such, Impact V-7 will be significant and unavoidable, even after implementation of Mitigation Measure V-3b (On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality). There are no other feasible mitigation measures or alternatives available to reduce this significant impact to a level that will be less than significant.

Reference. Final EIR Section 3.14; Table ES-3

Cumulative Impact V-1: Temporary visibility of construction activities and equipment involved with the Project would alter the landscape character and visual quality of landscape views.

Construction activities associated with the Project will be visible and will attract attention temporarily. Ongoing development throughout the cumulative effects area for visual resources is dominated by residential developments, clustered in and around community developments on non-NFS lands, and also includes additional development of wind resources in the TWRA. All of these construction activities will be readily visible throughout the Project area, and will be cumulatively adverse and significant.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-1. Specifically, Mitigation Measure V-1, as set forth below, is feasible and is hereby adopted to mitigate significant effects from Impact V-1. However, even with implementation of this measure, significant unavoidable cumulative impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact V-1 to a less than significant level.
 - **MM V-1: Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis.** (*See above for full text*)

Rationale for Finding. There are no mitigation measures available to reduce the visibility of vehicles, heavy equipment, helicopters, and other related components during construction. MM V-1 will reduce the Project's contribution to cumulative impacts, but not to a less-than-significant level. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant. Therefore, this impact will combine with impacts of other present and reasonably foreseeable projects to result in a significant cumulative impact.

Reference. Final EIR Section 3.14; Table ES-3

Cumulative Impact V-2: For a landscape that currently has no transmission lines, introduction of a new transmission line in a new ROW would adversely affect landscape character and visual quality.

Construction and operation of new transmission lines and a new substation in areas that currently do not have such industrial facilities will adversely affect natural-appearing landscape character and visual quality, and, when combined with existing and future wind developments in the TWRA, will be cumulatively adverse and significant. Future residential developments in West Lancaster and West Palmdale could encroach on undeveloped, natural-appearing landscapes in the Project area, further reducing natural-appearing landscape character and visual quality, which will also create cumulatively adverse and significant visual impacts.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-2. Specifically, Mitigation Measures V-1, and V-2a through V-2d, as set forth below, are feasible and are hereby adopted to mitigate significant effects from Impact V-2. However, even with implementation of these measures, significant unavoidable cumulative impacts will occur as described above.
 - (2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact V-2 to a less than significant level.
- **MM V-1: Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis.** *(See above for full text)*
 - **MM V-2a: Use tubular steel poles instead of lattice steel towers in designated areas.** *(See above for full text)*
 - **MM V-2b: Treat surfaces with appropriate colors, textures, and finishes.** *(See above for full text)*
 - **MM V-2c: Establish permanent screen.** *(See above for full text)*
 - **V-2d At road crossings, structures should be offset so that they are equidistant on each side of the road where feasible.** *(See above for full text)*

Rationale for Finding. There is no mitigation available to make new transmission lines or a new substation disappear or become inconspicuous. Mitigation Measures V-1, V-2a through V-2c will reduce the Project's contribution to cumulative impacts, but not to a less-than-significant level. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant. Therefore, this impact will combine with impacts of other present and reasonably foreseeable projects to result in a significant cumulative impact.

Reference. Final EIR Section 3.14; Table ES-3

Cumulative Impact V-3: For a landscape with an existing transmission line, increased structure size and new materials would result in adverse visual effects.

Increased visual contrasts could be created by increased structure prominence, new or additional structure skylining, new or additional ridgeline obstruction, new or additional skyline intrusion, and/or view blockage to desirable landscape features. Construction and operation of new transmission lines with increased structure size and new materials will detract from existing landscape character and visual quality, and combined with existing transmission lines in the same vicinity, and future transmission lines that may be proposed in the same viewsheds, will lead to cumulatively adverse and significant visual impacts.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-3. Specifically, Mitigation Measures V-2a, V-2b, V-2c, V-3a, V-3b, V-4b and V-4d, as set forth below, are feasible and are hereby adopted to mitigate significant effects from Impact V-3. However, even with implementation of these measures, significant unavoidable cumulative impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact V-3 to a less than significant level.

- **MM V-2a: Use tubular steel poles instead of lattice steel towers in designated areas.** *(See above for full text)*
- **MM V-2b: Treat surfaces with appropriate colors, textures, and finishes.** *(See above for full text)*
- **MM V-2c: Establish permanent screen.** *(See above for full text)*
- **MM V-3a: Match spans of existing transmission structures.** *(See above for full text)*
- **MM V-3b: On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality.** *(See above for full text)*
- **MM V-4b: Slope-round and re-contour in areas as prescribed.** *(See above for full text)*
- **MM V-4d: Dispose of excavated materials as prescribed.** *(See above for full text)*

Rationale for Finding. Mitigation Measures V-2a through V-2c, V-3a, V-3b, V-4b and V-4d, will reduce the Project's contribution to cumulative impacts, but not to a less-than-significant level. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant. Therefore, this impact will combine with impacts of other present and reasonably foreseeable projects to result in a significant cumulative impact.

Reference. Final EIR Section 3.14; Table ES-3

Cumulative Impact V-4: Vegetative clearing and/or earthwork associated with road improvements and pulling/splicing locations would adversely affect landscape character and visual quality.

This impact deals with all vegetative clearing and all earthwork that might be expected to occur with implementation of the Project, including the following locations: access roads, spur roads, access trails, spur trails, pulling/splicing locations, marshalling yards, helicopter staging areas (large, medium, and small), LST and TSP structure locations, substations, and ancillary facilities. This impact also deals with vegetative clearing and/or vegetative management along the ROW.

Construction, operation, and maintenance of existing and Project transmission lines in the Project corridors will create permanent visual scars that will be visible and will attract attention. Combined with future transmission lines that may be proposed in the same viewsheds, but in same or different ROWs, the Project will lead to cumulatively adverse and significant visual impacts.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-4. Specifically, Mitigation Measures V-4a through V-4d, as set forth below, are feasible and are hereby adopted to mitigate significant effects from Impact V-4. However, even with implementation of these measures, significant unavoidable cumulative impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact V-4 to a less than significant level.
 - **MM V-4a: Construct, operate, and maintain the Project using existing access and spur roads where feasible.** *(See above for full text)*
 - **MM V-4b: Slope-round and re-contour in areas as prescribed.** *(See above for full text)*
 - **MM V-4c: Avoid locating new roads in bedrock on NFS lands.** *(See above for full text)*
 - **MM V-4d: Dispose of excavated materials as prescribed.** *(See above for full text)*

Rationale for Finding. Mitigation Measures V-4a through V-4d will reduce the Project's contribution to cumulative impacts, but not to a less-than-significant level. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant. Therefore, this impact will combine with impacts of other present and reasonably foreseeable projects to result in a significant cumulative impact.

Reference. Final EIR Section 3.14; Table ES-3

Cumulative Impact V-5: New metal surfaces associated with transmission infrastructure would potentially reflect sunlight and produce glare in certain lighting conditions.

New materials used in construction of existing and future projects within the Project area viewshed have created and have the potential to produce, respectively, daytime glint and glare and new sources of nighttime light and glare. Combined with the Project, these existing and future projects will lead to cumulatively adverse and significant visual impacts.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-5. Specifically, Mitigation Measure V-2b, as set forth below, is feasible and is hereby adopted to mitigate significant effects from Impact V-5. However, even with implementation of this measure, significant unavoidable cumulative impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact V-5 to a less than significant level.
 - **MM V-2b: Treat surfaces with appropriate colors, textures, and finishes.** (*See above for full text*)

Rationale for Finding. Mitigation Measure V-2b will reduce the Project's contribution to cumulative impacts, but not to a less-than-significant level. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant. Therefore, this impact will combine with impacts of other present and reasonably foreseeable projects to result in a significant cumulative impact.

Reference. Final EIR Section 3.14; Table ES-3

Cumulative Impact V-6: The Project would contribute to the long-term loss or degradation of a scenic highway viewshed or scenic trail viewshed.

As urban and suburban build-out continues in the North and South Areas, it is reasonably foreseeable that remaining open space areas will either be occupied by development-related infrastructure, including new residential developments, electric infrastructures, or commercial and industrial developments. This pressure may result in increased demands for specific protections of open space qualities by conservation groups and resource agencies such as the USDA Forest Service, State Scenic Highways, the Puente Hills Landfill Native Habitat Authority, or other agencies. In the Center Area, no projects in the ANF threaten the viewsheds of the Angeles Crest Scenic Byway, the PCT, Silver Moccasin National Recreation Trail, or West Fork National Scenic Bikeway, except for the Project. This impact will be cumulatively adverse and significant.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-6. Specifically, Mitigation Measure V-3b, as set forth below, is feasible and is hereby adopted to mitigate significant effects from Impact V-6. However, even with implementation of this measure, significant unavoidable cumulative impacts will occur as described above.
 - (2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact V-6 to a less than significant level.
- **MM V-3b: On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality.** (*See above for full text*)

Rationale for Finding. Mitigation Measure V-3b will reduce the Project's contribution to cumulative impacts, but not to a less-than-significant level. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant. Therefore, this impact will combine with impacts of other present and reasonably foreseeable projects to result in a significant cumulative impact.

Reference. Final EIR Section 3.14; Table ES-3

Cumulative Impact V-7: The Project would conflict with established visual resource management plans or landscape conservation plans.

In the North Area, there are no established Visual Resource Management Plans or Visual Resource Conservation Plans; therefore, existing and future projects will not add cumulative visual effects for Impact V-7. In the Center Area, the majority of Segments 6 and 11 are situated within areas of natural-appearing landscapes designated with a High Scenic Integrity Objective (SIO) by the Forest Plan. Existing access and spur roads currently do not meet the Natural-Appearing Desired Condition or High SIO, and re-opening or reconstructing them to higher road maintenance standards will adversely impact visual resources, further degrade existing conditions, and continue to not meet the Desired Condition or established High Scenic Integrity Objectives. Therefore, Project-specific amendments to the 2005 Forest Plan, as described in Sections 3.14.2 and 3.14.6.1, will be required. Future projects that will upgrade the size of transmission lines or maintain/improve access and spur roads will add to adverse cumulative visual effects. In the South Area, the Project and future projects will cross lands administered by the Puente Hills Landfill Habitat Preservation Authority (PHLHPA). The Project will conflict with Goal Visual-1 and Objective Visual-1.2 of the PHLHPA) Resource Management Plan. PHLNHPA Resource Management Plan Goal Visual-1 states: Protect and enhance views and distinctive landscape features that contribute to the setting, character and visitor experience of the Preserve. Objective Visual-1.2 states: Protect views from within the Preserve to outlying properties. Evaluate proposed projects surrounding the Preserve with a priority to retain the visual quality of the Preserve's undeveloped landscape. Impact V-7 will be cumulatively adverse and significant.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Impact V-7. Specifically, Mitigation Measure V-3b, as set forth below, is feasible and is hereby adopted to mitigate significant effects from Impact V-7. However, even with implementation of this measure, significant unavoidable cumulative impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, and other considerations make it infeasible to reduce Impact V-7 to a less than significant level.

- **MM V-3b: On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality.** *(See above for full text)*

Rationale for Finding. Mitigation Measure V-3b will reduce the Project's contribution to cumulative impacts, but not to a less-than-significant level. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant. Therefore, this impact will combine with impacts of other present and reasonably foreseeable projects to result in a significant cumulative impact.

Reference. Final EIR Section 3.14; Table ES-3

III.4.8 Wilderness and Recreation

Cumulative Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.

Construction activities associated with the Project would result in temporary access restrictions and/or disruption of existing activities associated with established recreational areas. If construction activities for other projects in the Project Study Area result in similar impacts to established recreational resources or opportunities and such impacts would occur at the same time as they would for those associated with the Project's construction activities, the resulting impacts will be cumulatively significant. Due to the rapid growth that is current and ongoing in the North Region, in addition to the history of USDA Forest Service maintenance activities and other projects in the Central Region that are expected to continue into the future, it is reasonably foreseeable that Impact R-1 will be significant and unavoidable.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact R-1. Specifically, Mitigation Measures R-1a through R-1e, as set forth in Section 3.15 (Wilderness and Recreation) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact R-1. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact R-1 to a less-than-significant level.
 - **MM R-1a: Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas.** *(See above for full text)*
 - **MM R-1b: Identify and provide noticing of alternative recreation areas.** *(See above for full text)*
 - **MM R-1c: Notification of temporary closure of OHV routes.** *(See above for full text)*
 - **MM R-1d: Notification of temporary closure and reroute of the Pacific Crest National Scenic Trail (PCT).** *(See above for full text)*
 - **MM R-1e: SCE shall compensate ANF for lost income from Adventure Pass sales due to recreation area closures associated with the Project.** *(See above for full text)*

Rationale for Finding. The Project will result in the temporary (construction-related) and periodic (operation-related) restriction of access to and disruption of activities within established recreational resources and areas within the North, Central, and South Regions. Past and reasonably foreseeable future

actions and projects in these areas will also result in this impact. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant because the combined impact will temporarily yet substantially reduce recreational opportunities during Project construction. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.15; Table ES-3

Cumulative Impact R-4: The Project would cause or contribute to degradation of the Pacific Crest National Scenic Trail.

The Project route traverses the PCT in three locations: once in the North Region and twice in the Central Region. If other projects in the cumulative scenario introduce new infrastructure along the PCT or introduce construction impacts similar to the Project along the PCT and at the same time as those of the Project, it is possible that such impacts will combine with impacts of the Project and result in significant cumulative impacts. It is unlikely that the construction of other projects will occur at the same time as the Project and near the same locations where the Project will cross the PCT. However, long-term loss or degradation of the PCT could occur through effects to the unique recreational experience available to hikers along the PCT, as well as physical loss of trail access. Such effects to the recreational experience of the PCT could include the following: installation of infrastructure which would contrast substantially with natural aesthetics currently existing along the PCT; introduction of noise levels that would be substantially greater or have substantially different characteristics than that which currently exists along the PCT; any other Project-related activity that would substantially contrast with the existing backcountry experience of the PCT. As such, any past or reasonably foreseeable project that could affect the recreational experience for PCT users and could combine with this impact of the Project is considered cumulatively significant. Given the fact that urbanization is rapidly expanding throughout the Project Area, projects related to such urban expansion may affect the PCT and lead to the long-term loss or degradation of the trail. Although mitigation for the Project will help to reduce the Project's incremental contribution to the cumulative significance of Impact R-4, this impact will still have the potential to combine with other, similar impacts of projects in the cumulative scenario.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact R-4. Specifically, Mitigation Measures R-1a (Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas), R-1d (Notification of temporary closure and reroute of the Pacific Crest National Scenic Trail (PCT)), and R-1e (SCE shall compensate ANF for lost income from Adventure Pass sales due to recreation area closures associated with the Project), as set forth in Section 3.15 (Wilderness and Recreation) of the Final EIR and as listed below, are hereby adopted to mitigate significant effects from Cumulative Impact R-4. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact R-4 to a less-than-significant level.
 - **MM R-1a: Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas.** (*See above for full text*)
 - **MM R-1d: Notification of temporary closure and reroute of the Pacific Crest National Scenic Trail (PCT).** (*See above for full text*)

- **MM R-1e: SCE shall compensate ANF for lost income from Adventure Pass sales due to recreation area closures associated with the Project.** (See above for full text)

Rationale for Finding. The PCT is considered to be particularly valuable and unique recreational resource, and any combination of similar impacts that would affect the PCT in the Project Study Area would result in a significant cumulative impact. The Project will result in the temporary, construction-related disturbances to the PCT in three separate locations, as well as permanent disturbances associated with increased noise and visual effects. Past and reasonably foreseeable future actions in the vicinity of the PCT will also result in disturbances. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant and unavoidable. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.15; Table ES-3

Cumulative Impact R-6: The Project would facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities.

Roadways that are improved or installed to facilitate Project construction or operation and maintenance activities could potentially be used by recreationists to gain unauthorized access to areas that are not designated or intended for certain recreational purposes, such as OHV use in a designated Wilderness Area. From a cumulative perspective, past projects throughout the Project Area and particularly in the Central Region have included the installation of roadways that facilitate unmanaged recreational uses. In light of aggressively expanding residential developments in the North Region, new roadways are expected to be installed throughout the region and such roads could be used for unauthorized recreational purposes in the future.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact R-6. Specifically, Mitigation Measure R-5 (Avoid permanent upgrades to Forest System roads), as set forth in Section 3.15 (Wilderness and Recreation) of the Final EIR and as listed below, is hereby adopted to mitigate significant effects from Cumulative Impact R-6. However, even with implementation of these measures, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact R-6 to a less-than-significant level.

- **MM R-5 Avoid permanent upgrades to Forest System roads.** (See above for full text)

Rationale for Finding. The Project will result in temporary road improvements that could facilitate unmanaged recreational uses, which could lead to the long-term loss or degradation of recreational opportunities, particularly on ANF lands in the Central Region. Past and reasonably foreseeable future actions in the Project Area will require road improvements similar to the Project. The incremental effect of the Project, when combined with the effects created by other past and reasonably foreseeable projects, will be significant and unavoidable. There are no other feasible mitigation measures or alternatives available to reduce this significant cumulative impact to a level that will be less than significant.

Reference. Final EIR Section 3.15; Table ES-3

III.4.9 Wildfire Prevention and Suppression

Cumulative Impact F-6: Project activities would introduce non-native plants, which would contribute to an increased ignition potential and rate of fire spread.

Project construction and maintenance activities create the potential for the introduction and spread of non-native, invasive plants. Non-native plants are often spread by human and vehicle vectors in areas of large-scale soil disturbance and importation. Construction and maintenance of the Project will contribute to the introduction and proliferation of non-native, invasive plants. Certain invasive plants, like cheatgrass, medusa head and Saharan mustard, can contribute to changes in wildfire frequency, timing and spread (Cal-IPC, 2007). Cheatgrass and medusa head, for example, dry out earlier in the season than native grasses, extending the length of the fire season and creating fine fuels that are easily ignited. These fine fuels increase the likelihood that the background sources of ignition in the environment will result in a wildfire ignition, resulting in wildfire ignitions earlier in the year and an increased level of fire recurrence. While the introduction of non-native plants will not increase the background rate of ignition sources, it will increase the ignition potential, or the likelihood that an ignition source will result in an actual wildfire ignition. In addition, non-native grasslands have a “spotting” effect during a wildfire, where embers from these grasslands are blown ahead of the fire line, contributing to an increased rate of fire spread. Invasive annual grasses also influence fire spread by creating a fine fuel continuum between patchy, perennial shrubs allowing wildfires to expand further into otherwise sparsely vegetated wildlands (Wiedinmyer and Neff, 2007). The introduction and spread of specific invasive plants within the Project ROW will adversely influence fire behavior by increasing the fuel load, fire frequency and fire spread.

Finding.

- (1) The CPUC finds that changes or alterations have been incorporated into the Project which mitigate significant effects on the environment from Cumulative Impact F-6. Specifically, implementation of Mitigation Measure B-3a (Prepare and implement a Weed Control Plan) is hereby adopted to mitigate Project-specific significant effects from Cumulative Impact F-6. However, even with implementation of this measure, significant unavoidable impacts will occur as described above.
- (2) The CPUC finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce Cumulative Impact F-6 to a less-than-significant level.
 - **MM B-3a Prepare and implement a Weed Control Plan** (*see above for full text*)

Rationale for Finding. Implementation of the Weed Control Plan will prevent or substantially reduce the potential for ignition potential or increased fire spread as a result of non-native, invasive plants introduced during to the Project area during construction or maintenance activities. Implementation of this mitigation measure will reduce Project-level Impact F-6 to a less-than-significant level. Similar mitigation measures would be expected to be implemented for many of the reasonably foreseeable housing development and fuel reduction projects in the Tehachapi Fireshed that have the potential to introduce and spread non-native species, reducing the cumulative impact of invasive plant cover on wildfire behavior to a less than significant level. However, because invasive plant introductions to wildland areas will occur despite best efforts at mitigation, and because Mitigation Measure B-3a (Prepare and implement a Weed Control Plan) will not completely eliminate the risk of non-native species introduction, the incremental effects of the Project on non-native species introduction will make a cumulatively considerable contribution to a cumulatively significant impact.

Reference. Final EIR Section 3.16; Table ES-3

IV. Findings Regarding the Station Fire

In late August 2009, a major wildfire broke out in the Angeles National Forest (ANF). This fire, named the Station Fire, was the largest wildfire in the recorded history of the ANF and burned most of the area traversed by Segments 6 and 11 of the Project in the ANF. Therefore, the CPUC undertook an evaluation to determine whether any changed conditions caused by the Station Fire would result in new significant project-related environmental effects or call for new or revised mitigation measures, in compliance with CEQA.

Findings.

- (1) The CPUC hereby finds that changed conditions caused by the Station Fire would not result in any new significant project-related environmental effects with implementation of the mitigation measures identified in the Final EIR.
- (2) The CPUC hereby finds that minor modifications to Mitigation Measures B-8a and B-9 have been required in the project on all non-ANF lands and these modifications will avoid or substantially lessen the significant environmental effects identified in the Final EIR. These revised mitigation measures are equivalent or more effective than the original measures and have been made conditions of project approval on all non-ANF land.
- (3) The CPUC hereby finds that, on ANF lands, such modifications are within the responsibility and jurisdiction of the Forest Service and not the CPUC. The revised mitigation measures can and should be adopted by the Forest Service.
- (4) The CPUC hereby Station Fire evaluation and the minor modifications to Mitigation Measures B-8a and B-9 merely clarify and amplify the analysis presented in the Final EIR and do not trigger the need to recirculate, per CEQA Guidelines §15088.5.

Rationale. The CPUC conducted a site visit of the ANF, under the supervision of the Forest Service, on October 20, 2009 to review the change in environmental conditions resulting from the Station Fire. This site visit, along with the Station Fire Burned Area Emergency Response (BAER) reports prepared by the Forest Service, provided the basis for an evaluation, included in Appendix L of the Final EIR, which examined each environmental resource area potentially affected by the fire. This evaluation demonstrated that, with implementation of the mitigation measures identified and recommended in the Final EIR, the changed conditions resulting from the Station Fire would not substantially alter the nature or magnitude of project-related impacts. This is, in part, because construction would not be permitted on affected ANF lands until repairs (e.g., of roads) are completed and because conditions damaged by the fire will improve over time. Additionally, in all but two instances, the mitigation identified in the EIR is sufficient to address project-related impacts, even in light of the changed conditions. In two cases, the CPUC's Station Fire evaluation demonstrated the need for minor modifications to mitigation measures. Specifically, Mitigation Measure B-8a has been revised to require approved protocol surveys for California red-legged frogs if suitable habitat is present near the proposed construction sites at Aliso Canyon (Segment 11), and Mitigation Measure B-9 has been revised to require a qualified biologist with demonstrated expertise with arroyo toads to monitor all construction activities full time in occupied arroyo toad habitat and to inspect the roadway, all Arizona crossings, and work sites throughout the day and log the time and weather conditions in the area. These revised mitigation measures are equivalent or more effective than the original measures and have been made conditions of project approval on all affected non-ANF land. On ANF land, approval of the project and all relevant mitigation measures are within the responsibility and jurisdiction of the Forest Service and not the CPUC.

V. Findings Regarding Other CEQA Considerations

V.1 Socioeconomics

According to CEQA, “Economic and social changes resulting from a project shall not be treated as significant effects on the environment” (CEQA Guidelines Sec. 15064[e]); therefore economic and social effects of a project may not be treated as significant environmental effects (per CEQA). As described in Section 3.12 of the Final EIR, socioeconomic impacts were instead assessed with regard to five Issues of Concern where the Project could potentially introduce socioeconomic impacts. These Issues of Concern include the following:

- Population and Housing
- Quality of Life
- Employment
- Private Property Value
- Local Business Revenue
- Public Revenue

Population and Housing. Both locally and regionally, the Project area is experiencing substantial population growth, which is reflected in the large number of future residential development projects that are currently proposed and planned in the Project area. As discussed in Section 3.12.2.1 (Regional Setting) of the Final EIR, population and housing are expected to increase concurrently and dramatically throughout the Project area, and particularly in the North and South Regions. This growth is expected to occur with or without implementation of the Project.

The Project ROW does not contain any habitable housing structures and will not require the removal of any housing units. While residential developments do occur along the route, all such developments are located outside of the Project ROW and will not require removal or relocation. It is not expected that any existing residents or housing units will be displaced as a result of the Project and the Project will not necessitate replacement housing.

The Project will traverse areas where multiple residential developments are planned to occur. Segment 10 will be situated in an entirely new ROW through a portion of southern Kern County and the ROW utilized by Segment 4 will be widened by about 180 feet through northern Los Angeles County and a small portion of the City of Lancaster. However, the transmission line and associated ROW areas will not preclude proposed or approved residential development. Implementation of the Project is not expected to permanently convert planned residential areas to non-residential uses in any of the three Project Regions. As such, none of the current or future planned residential developments will be altered or precluded by implementation of the Project.

Quality of Life. Quality of Life is a multi-faceted and intangible concept which individuals develop through a combination of many different factors, in addition to the environmental issue area factors described here. A variety of temporary impacts associated with construction of the Project could have an adverse effect on Quality of Life. For instance, construction of transmission towers will require the use of heavy machinery, equipment, and vehicles that will be expected to introduce temporary impacts to aesthetics, noise, air quality, and traffic. These factors may have an adverse effect on Quality of Life for individuals who choose to live in quiet or undeveloped locations within the Project area due to the lack of noise, traffic, and industrial aesthetics associated with more developed areas. In addition, construction activities and construction-related traffic may result in temporary access restrictions to recreational areas, which may have an adverse effect on Quality of Life for individuals who value the availability of such resources in their

community, or for individuals who have chosen to reside in the Project area due to the accessibility and availability of such resources.

Operation and maintenance of the Project will also introduce permanent Project features and the potential for impacts that may have an adverse effect on Quality of Life. For instance, there is a great deal of public interest and concern regarding the potential health and safety effects of Electric and Magnetic Fields (EMF) that will be introduced or intensified through implementation of the Project. EMF could have an indirect adverse effect on Quality of Life by resulting in an alteration of the perception of safety and/or security that members of the public have of their communities, regardless of the fact that, as described in Section 5.3.1 (Other Required NEPA and CEQA Considerations) of the Final EIR, there remains a lack of consensus in the scientific community regarding public health impacts of EMF at the levels expected from electric power facilities.

Under the Quality of Life Issue of Concern, it is expected that some features of Project construction (such as noise associated with the use of helicopters, particularly in or near the ANF) will have the potential to temporarily effect factors which an individual will consider to contribute to quality of life, but that such Project effect(s) will be temporary in nature and will not result in a socioeconomic impact.

Employment. With regards to the Employment Issue of Concern, it was determined in the Final EIS/EIR that sufficient workforce is available in the Project Area to accommodate construction needs and that the Project will not result in a socioeconomic impact to employment.

Construction employment for the Project will include skilled or semi-skilled positions such as line workers, welders, heavy equipment operators, surveyors, engineers, utility equipment workers, truck drivers, warehouse workers, clerical workers, and laborers. As described in Section 3.12.2.1 (Regional Setting) of the Final EIR, there is a substantial construction workforce available throughout the Project area, particularly within the North and South Regions. The Project construction schedule is estimated to extend for approximately 59 months and will require an average daily workforce of approximately 75 persons (actual workforce will range between 10 and 300 workers, as needed). As described in Section 3.12.2.2 (Affected Environment: Alternative 2) of the Final EIR, total construction workforce available in the Counties of Kern, Los Angeles, and San Bernardino are respectively as follows: 13,300, 134,500, and 90,900. As such, total construction workforce available in the Project area is approximately 238,700 personnel. The maximum required construction workforce of 300 personnel for the Project will comprise approximately 0.12 percent of the total construction workforce available in the Project area. No workers will be required to relocate into the Project area for construction of the Project and no new workers are required for operation of the Project.

Private Property Value. The issue category of Private Property Value addresses concerns related to the potential effect of transmission lines on the value of private property in proximity to the transmission infrastructure. The Project will introduce an impact to private property value if any aspect of Project construction or operation will be reasonably expected to cause a substantial change in existing property values.

Impact S-1: Operation and maintenance activities would affect property values along the Project alignment.

Relevant studies and documentation discussed in the Final EIR (see Section 3.12) demonstrate that the effects of transmission lines on private property value are generally smaller than anticipated, with property value being more largely determined by property-specific factors such as neighborhood features, square footage, size of lot, and irrigation potential. While it is possible that property owners near the Project route may have the

perception that their homes will diminish in value because of Project implementation, potential property value issues associated with the Project can only be tested through real data from actual home sales. Factors that have the potential to affect property value are numerous and varied; as a result, it is not possible to identify exactly how the Project will potentially affect private property values. Under the Project, it is possible that the placement and configuration of Project infrastructure could have an indirect effect on private property value; however, due to the multiple factors listed above, it is not possible to directly connect Project features with changes in private property value.

Local Business Revenue. The Project will cross through agricultural areas in the North Region of the Project Area, and will therefore have the potential to affect local business revenue for agricultural landowners, particularly during the construction period.

Impact S-2: Construction activities would cause a temporary decrease in revenues for agricultural landowners.

Segments of the Project that could potentially affect agricultural business revenue include Segment 10, which will require approximately 17 miles of new 330-foot ROW and Segment 4, which will require approximately 20 miles of new 200-foot ROW. Although these segments of the Project will not be routed entirely through agricultural lands, portions of the segments will cross through some areas used for agricultural purposes. Section 3.2 (Agricultural Resources) of the Final EIR provides detailed baseline conditions and analysis of all agricultural areas in the North Region, including specific areas that could be affected by the Project. If the construction of Segments 10 or 4 of the Project will occur during the growing season, this could temporarily restrict crop production or potentially damage crops, thereby introducing the potential to decrease local business revenues for the agricultural landowners whose crops will be affected. No new permanent roads will be constructed over agricultural lands in the Project area. Although new utility ROWs will be established for Segments 10 and 4, as described above, agricultural use of lands within the ROW will continue to be permitted. Mitigation Measure AG-1 (Coordinate construction activities with agricultural landowners), as described in Section 3.2 (Agricultural Resources) of the Final EIR, will minimize and/or avoid impacts to agricultural revenues by minimizing losses to crop production, thereby also minimizing any lost crop revenues associated with the Project.

Public Revenue. Completion of the Project will provide for the transfer of wind-generated electricity in the Tehachapi Wind Resource Area to SCE customers throughout southern California. The Project will not preclude or necessitate the supply or transfer of electricity between SCE and its customers. Additionally, the Project will also benefit the local economy through payment of property taxes.

Impact S-3: Project activities would affect public agency revenue.

Construction and operation of the Project will have the potential to result in short-term negative effects as well as long-term positive effects to public agency revenue. In the short-term, Project construction activities will have the potential to negatively affect Forest Service revenue through decreased sales of National Forest Adventure Passes as a result of temporary closures of Forest recreational areas during the construction period. Mitigation Measure R-1e (SCE shall compensate ANF for lost income from Adventure Pass sales due to recreation area closures associated with the Project), as described in Section 3.15 (Wilderness and Recreation) of the Final EIR, will help to compensate for this temporary revenue loss by requiring that SCE coordinate with the Forest Service to agree upon an acceptable level of compensation relevant to loss of Adventure Pass revenue. As mentioned, the Project will also have the potential to result in long-term positive effects to public agency revenue. The positive effect will occur in the form of property taxes paid to local agencies, as SCE's property taxes are expected to increase as a result of the Project. Local property tax revenues are a function of tax rates charged within the affected jurisdictions, with infrastructure

facilities assessed annually by the State of California Board of Equalization (BOE). Property tax revenue is collected by the appropriate County Tax Collector and dispersed to local agencies. Any increase in property tax revenue, such as expected to occur under the Project, will be a benefit to the local government agencies that receive a share of the property tax revenue. The Forest Service will not directly receive property tax revenue as a result of the Project being constructed on NFS lands.

V.2 Growth Inducing Impacts

Section 15126.2(d) of the CEQA Guidelines requires that an EIR discuss the ways in which a Project may foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. The growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population above what is assumed in local and regional land use plans, or in projections made by regional planning authorities. Significant growth impacts could also occur if a project provides infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies.

Finding/Rationale: As outlined in Section I.2 (Project Objectives / Purpose and Need), the primary purposes of the Project is to provide the electrical facilities necessary to interconnect and integrate up to approximately 4,500 MW of new wind generation in the Tehachapi Wind Resources Area (TWRA) currently being planned or expected in the future, thereby enabling SCE and other California utilities to comply with the California Renewables Portfolio Standard in an expedited manner; to address the reliability needs of the CAISO-controlled grid due to projected load growth in the Antelope Valley; and to address the South of Lugo transmission constraints, an ongoing source of concern for the Los Angeles Basin. The TWRA is considered to be one of the world's leading wind energy centers and SCE, pursuant to several State and federal goals and policies related to renewable energy sources, is obligated to accommodate future wind-generated electricity in southern California. Between the years 2000 and 2030, the population of Kern County is anticipated to increase by 68 percent, while the Los Angeles and San Bernardino County region will experience a population growth rate anywhere between 2.5 and 186.5 percent (see Section 2.2 of the Final EIR). Both locally and regionally, the Project area is experiencing substantial population growth, which is reflected in the large number of proposed and planned future residential development projects listed in Table 2.9-4 of the Final EIR. This growth is expected to occur with or without implementation of the Project.

Any growth that occurs with the availability of the additional power provided by the Project will need to conform to the local planning documents and policies. An assessment of the potential significant cumulative impacts of the Project and alternatives is provided for each of the issue areas discussed in Chapter 3 of the Final EIR. Although the Project will not directly result in growth in the Project area, its implementation will remove future obstacles to population growth by facilitating the transmission of future power generation in the TWRA (as described in Chapter 6 of the Final EIR).

V.3 Significant Irreversible Changes and Irretrievable Commitments of Resources

Pursuant to Section 15126.2(c) of the CEQA Guidelines, an EIR must address significant irreversible and irretrievable environmental changes that will be caused by a Project. These changes include uses of nonrenewable resources during construction and operation, long-term or permanent access to previously inaccessible areas, and irreversible damages that may result from project-related accidents.

Implementation of the Project will result in the consumption of energy as it relates to the fuel needed for construction-related activities. Total fossil fuels used for construction vehicles and equipment associated

with the Project will include approximately 623,964 gallons of gasoline; 2,029,333 gallons of diesel fuel; and 709,571 gallons of Jet A fuel. Alternative 6 portions of the Project are expected to use substantially more fuel during construction than the comparable portions of other alternatives (see Section 3.3 of the Final EIR) as a result of helicopter activities. Additionally, construction of the Project will require the manufacture of new materials, some of which will not be recyclable at the end of the Project's lifetime, and the energy required for the production of these materials, which will also result in an irretrievable commitment of natural resources. The anticipated equipment, vehicles, and materials required for construction of the TRTP are detailed in Section 2.2.12 (Project Construction) of the Final EIR. Maintenance and inspection of the Project will not change appreciably from SCE's existing activities in the Project area, and thus will not cause a substantial increase in the consumption or use of nonrenewable resources.

As described in Section 3.5 (Cultural Resources) of the Final EIR, impacts to cultural resources are site-specific, and properties that are eligible or potentially eligible for the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR) occur within and near the APE of several Project tower sites. Other eligible or potentially eligible cultural resource sites are located within or adjacent to the general transmission corridor. Direct impacts to cultural resources will result from ground-disturbing activities such as tower pad preparation and construction, grading of new access or spur roads, reconductoring, tower removal, transportation, storage, and maintenance of construction equipment and supplies, staging area and material yard preparation and use, and use or improvement of existing access roads. Indirect impacts to cultural resources from erosion may also occur within and in the vicinity of the Project area during operation and long-term presence of the Project.

The Project will adversely affect visual resources, and substantially degrade the desired visual character of the ANF (see Section 3.14 of the Final EIR). The southern portion of Segment 4 (S4 MP 14.9 to 17.9) will be in an entirely new 200-foot ROW immediately adjacent to 110th Street West, a County-designated Second Priority Scenic Highway. This new 500-kV transmission line will create adverse visual impacts to the existing rural landscape character and intact visual quality of West 110th Street. In the Center and South areas of the Project, existing towers will be replaced by new towers that are of a greater height and width, which will cause an increase in structural prominence, and create a visible increase in industrial character. As a result, future visual quality will be further reduced by contrasting, unnatural geometric forms and straight lines, and the resulting visual contrast will be very high. The Project will appear to dominate the existing natural-appearing landscape character adjacent to the utility corridor. The new and increased structure height will create additional obstruction of the foreground, middleground, and background landscapes and will result in a high degree of view blockage of high quality landscapes as seen from the KOPs that are described in Section 3.14 of the Final EIR. Additional structure height also will cause additional structure skylining (towers and conductors extending above the horizon line), particularly for towers where, from some vantage points, the existing shorter structures remain below the skyline or only slightly extend above the horizon line. New taller, wider structures that will protrude above the skyline or ridgeline will block more of the natural-appearing horizon and impair scenic views in the ANF.

During the Project's operational phase, the transport of electrical power generated from nonrenewable resources (e.g., natural gas, large hydroelectric, coal) will continue. The Project will facilitate the distribution of renewable wind energy from the TWRA and will accommodate the area's potential for renewable power generation in order to achieve the goals of the California Renewables Portfolio Standard, as well as address projected load growth in the Antelope Valley and transmission constraints in the greater Los Angeles Basin.

Finding/Rationale. The Project will result in the consumption of energy as it relates to the fuel needed for construction-related activities. New material required by the Project construction, some of which will not be recyclable at the end of the Project lifetime, will also be made using energy. Additional irretrievable commitment of natural resources will occur as a result of land disturbance, visual effects, potential cultural resources effects, and potential hazardous materials effects of the Project, as described above.

The CPUC finds that the consumption of these resources is justified for the reasons described in the Statement of Overriding Considerations set forth in Section 7.4 of the CPUC's adopted Decision on this Project.

VI. Findings on Rejected Mitigation Measures and Alternatives Suggested in Comments on the Draft EIR/EIS

VI.1 Air Quality

Proposed Modifications to Mitigation Measures AQ-1c, AQ-1g, AQ-1h, and AQ-6. The Watershed Conservation Authority (the Authority) suggested in their comment letter (see Appendix H, Comment Set A.17) that Impact AQ-3 (Construction of the Proposed Project would expose sensitive receptors to substantial pollutant concentrations) applies to all park and recreational areas such as the San Gabriel River and LARIO Bike trails both of which are in close proximity to Segments 7 and 11 of the Project. The Authority also requested that mitigation measures include scheduling construction during off-peak times of park use, to avoid the effects of air pollutants on park and trail users. The following specific changes were requested in the Authority's comment letter (see Appendix H, Comment Set A.17): (a) AQ-1c: Construction worker carpooling will be "incentivized" [rather than "encouraged"]...; (b) AQ-1g: Restrict idling for all vehicles [rather than diesel engines only] to five minutes; (c) AQ-1h: Add the provision that the applicant would obtain from the Angeles National Forest, Los Angeles County Parks information on peak recreational use and/or conduct a survey to fix specific, as appropriate, off peak hours for deliveries to either 6:00 to 9:30 am or 3:30 to 6:30 pm to reduce impacts to sensitive receptors; and (d) AQ-6: If emission reduction credits are obtained for this project the Authority recommended that one of credits should be a specific study of the impacts of air pollution on sensitive species of the Project area.

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make these changes to the mitigation measures infeasible.

Rationale. Although SCAQMD's recommended application of localized significance thresholds includes parks as receptors, they do not consider park users to be any more sensitive to air quality impacts than other sensitive receptors, such as patients in a hospital, and in comparison to other sensitive receptors would have a more limited exposure time and would have the ability to avoid impacts by simply moving away from the active emissions sources. For example, a cyclist on a bike path would pass through the construction equipment downwind exhaust plume within a few seconds. Unlike more fixed locations such as schools, hospitals, or even residences, exposures in recreational areas can often be avoided by moving to another area of the park. As such, no additional air quality mitigation measures, for recreational areas, beyond that recommended to mitigate sensitive receptor impacts from the Project as a whole are considered feasible or would improve the effectiveness of the measures already recommended in the Final EIR. Specifically: (a) For AQ-1c (Limit Vehicle Traffic and Equipment Use), using the word "incentivized" rather than "encouraged" would not improve the effectiveness of the measure; (b) For AQ-1g (Restrict Engine Idling to 5 Minutes), it is infeasible to restrict vehicle idling for vehicles not directly under the control of the project (i.e., personal vehicles), gasoline engine idling would be less frequent since the majority of construction

vehicles would be diesel and gasoline engines have much lower health impacts than diesel engines as the emissions do not include diesel particulate matter and have greater emissions controls, and therefore the recommended changes to this measure would not have any substantial mitigating effect in practice; (c) For AQ-1h (Schedule Deliveries Outside of Peak Traffic Hours), the measure already restricts trips so that they would not occur during peak traffic times (6:00 to 9:30 a.m. and 3:30 to 6:30 p.m.), and limiting deliveries to these times or allowing them to occur during one of these periods as suggested by the Authority would have an overall negative impact to air quality as trucks would likely idle for greater periods due to stop-and-go traffic conditions that generally occur most during peak traffic times; (d) For AQ-6, the offset mitigation is in the form of banked emission credits as necessary to meet federal General Conformity requirements, which would reduce these impacts to less than significant (Class II). Other mitigation does not apply to meeting this federal statutory requirement and would not have any substantial mitigating effect in practice.

VI.2 Biological Resources

Proposed Modifications to Mitigation Measure B-1a. In addition to the Puente Hills Landfill Native Habitat Preservation Authority's (PHLNHPA's) July 24, 2009 proposal for additional mitigation and compensation (addressed in Section VI.2 of these CEQA Findings) the PHLNHPA suggested numerous mitigation measures related to biological resources in its April 2, 2009 comment letter on the Draft EIR/EIS including requesting authority to review and approve the restoration plan; use of only native, locally collected seed for restoration on Habitat Authority lands (same as on NFS lands); and increasing mitigation ratios for large oaks and sensitive vegetation communities.

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make these changes to the mitigation measure infeasible.

Rationale. With respect to the request for approval authority over restoration plans adopted as part of the Project, no local government agencies have approval authority over the Project and there is no legal requirement to grant local government agencies approval authority over restoration plans. With respect to the request to use only native, locally collected seed for restoration on Habitat Authority lands, Mitigation Measure B-1a requires the Forest Service to prepare a Habitat Restoration and Revegetation Plan for NFS lands and for SCE to prepare a Habitat Restoration and Revegetation Plan for non-Federal lands. Both plans must include seed cutting and collecting guidelines. Mitigation Measure B-1a also specifies that the seed mix for each plan must be approved by the agencies with control over the lands. The seed mix for both plans must consist of native, locally occurring species collected for local seed sources. Mitigation ratios and restoration guidelines have also been specified for public and private lands within the context of Mitigation Measure B-1a. These ratios reflect a number of factors including direction from the Federal Lead Agency for mitigating effects to National Forest System lands and complying with land management guidelines identified by the Forest Plan. The measure does provide some flexibility in adjusting mitigation ratios to reflect actual site conditions consistent with CEQA requirements that mitigation be proportional to the impact. Therefore, the requested changes are not warranted. Furthermore, with implementation of the mitigation measures recommended in the Final EIR, impacts would be less than significant and no additional mitigation is required.

Proposed Modifications to Mitigation Measures B-3a and B-3b. The United State Environmental Protection Agency requested that Mitigation Measures B-3a (Prepare and Implement a Weed Control Plan) and B-3b (Remove weed seed sources from construction access routes) be revised to include ongoing control of noxious weeds and pre-construction noxious weed seed control in all areas of the Project ROW.

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make infeasible the mitigation measure or project alternative identified.

Rationale. Revising the mitigation measures as requested would result in measures that are out of proportion to the Project's impacts. Such measures are required on NFS lands because control of weeds is a National Strategic Priority (USDA, 2005), and is reflected as an overall management goal and desired condition in the 2005 ANF Land Management Plan. However, requiring the same level of long term and pre-construction weed control off NFS lands is beyond the scope of Project impacts to such lands. Furthermore, requirements for controlling weeds during construction, such as washing of vehicles and equipment, are the same on and off NFS lands. The Final EIR concludes that implementation of Mitigation Measure B-1a (Provide restoration/ compensation for impacts to native vegetation communities), Mitigation Measure B-2 (Implement RCA Treatment Plan), and Mitigation Measures B-3a through B-3c (Prepare and implement a Weed Control Plan; Remove weed seed sources from construction routes; and Remove weed seed sources from assembly yards, staging areas, tower pads, pull sites, landing zones, and spur roads) will reduce impacts from the establishment and spread of noxious weeds to less-than-significant levels (Class II). (See Final EIR, Section 3.4.) As such, no additional mitigation is required, and the proposed modifications to Mitigation Measures B-3a and B-3b are rejected as infeasible.

Annual Mitigation Assessment. The California Department of Fish and Game (CDFG) requested that an annual mitigation assessment be implemented based on the miles of transmission line constructed for the estimated life of the TRTP. The annual assessment would be used to fund projects within the general environs for adaptive management and monitoring of impacts from the transmission lines, habitat restoration, and conservation land acquisition. This proposal would also include developing a mitigation assessment fee for the 232,198 acre Tehachapi Wind Resources Area to help insure future management and monitoring of impacts associated with wind energy generation.

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make infeasible the mitigation measure or project alternative identified.

Rationale. The Final EIR identifies mitigation measures to address the long-term impacts of the Project. There is no evidence that an annual mitigation assessment as proposed by CDFG would have any mitigating effect in practice. Generally, contribution of funds towards unspecified future programs, improvements or actions is not appropriate mitigation under CEQA, and assessment of fees is only appropriate if it is linked to a specific mitigation program (See *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173; *Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 141). CDFG does not identify a specific mitigation program and there is no evidence that mitigation would actually result from the applicant's contribution of fees as described by CDFG. Requiring a project applicant to pay an unspecified amount of money at an unspecified time to fund an unspecified plan is inadequate mitigation under CEQA (See *San Franciscans for Reasonable Growth v. City & County of San Francisco* (1984) 151 Cal.App.3d 61, 79). The proposed annual mitigation assessment is therefore rejected.

Habitat Restoration within Puente Hills Landfill Native Habitat Preservation Authority Preserve. The PHLNHPA requested further mitigation to off-set the impacts to the Preserve, which include its 25 miles of trails, including habitat restoration to be implemented through the Habitat Authority's in-lieu fee program (described on-line at <http://www.habitatauthority.org/devdedmit.shtml>).

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make infeasible the mitigation measure identified.

Rationale. In order for fee-based programs to be adequate mitigation, there must be evidence that mitigation will actually result and there is a connection between the mitigation and the project (*Anderson First Coalition v. City of Anderson* (2005) 130 Cal. App. 4th 1173). The request for additional mitigation does not provide any evidence that the Habitat Authority's in-lieu fee program will mitigate significant visual impacts created by the Project. Requiring a project applicant to pay an unspecified amount of money at an unspecified time to fund an unspecified plan is inadequate mitigation under CEQA (See *San Franciscans for Reasonable Growth v. City & County of San Francisco* (1984) 151 Cal.App.3d 61, 79). Further, the nexus and proportionality between the proposed mitigation and the impacts of the Project is unclear. Therefore, the proposed in-lieu fee program is rejected.

VI.3 Land Use

Proposed Modifications to Mitigation Measures L-1a, L-1b, and L-2a. The Watershed Conservation Authority (Authority) requested that establishment of the construction liaison for property owners (MM L-1a), noticing of construction to property owners (MM L-1b), and coordination with non-residential property owners for construction plan provisions (MM L-2) for the Project be completed one year prior to the start of any construction-related activities, rather than 14 days as set forth in these mitigation measures.

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make these modifications to the mitigation measures infeasible.

Rationale. The Final EIR concludes the impacts that Mitigation Measures L-1a, L-1b and L-2a are designed to address will be less than significant after implementation of the mitigation (Class II). This conclusion is based on the nature of pre-construction and construction-phase activities. Specifically, construction at any single location along a Project segment would not occur every day for the entire construction period. Transmission lines are both dismantled and constructed sequentially, as outlined in Final EIR Sections 2.2.12.4 (Removal of Existing Wire, Structures, and Footings) and 2.2.12.5 (Tower & Pole Construction). Additionally, there are typically periods of no activity at any single location between the completion of one construction phase (or sequence) and the start of the next. As such, residents adjacent to the Project ROW would not be subject to construction-related impacts continuously, nor would the intensity (e.g., work force and equipment requirements) of construction-related activities always be the same. Mitigation Measure L-1a will provide affected residents with a means of communicating construction-related concerns directly to SCE and a response would be required within a 72-hour period of the contact. The purpose of the mitigation is to provide a rapid mechanism for resolving property-specific disturbances related to construction that are considered to be unacceptable by the subject property owner; it is considered to be the most expeditious way of addressing property-specific impacts. Mitigation Measures L-1b will provide affected residents with advance notification of construction-related activities; the purpose of this mitigation measure is to provide residents with the time that may be needed to prepare for construction-related inconveniences and disturbances to minimize exposure to increased noise levels and construction-related equipment emissions. Mitigation Measure L-2a will provide provisions to minimize the length of time that construction-related activities occur in areas actively used for non-residential purposes, such as commercial and service uses, industrial uses, public/special uses, and educational facilities. These mitigation measures are adequate, practicable and can be successfully implemented to reduce temporary construction-related impacts residential and non-residential land uses to a level of less than significant. Therefore, no additional mitigation is required, and requiring completion of these measures one year prior to the start of any construction-related activities would be excessive and infeasible.

VI.4 Noise

Operational Corona Noise. The City of Chino Hills requested that a mitigation be added to the Project requiring the Lead Agencies to obtain noise variances from local agencies before construction work starts anywhere along the Project route. In addition, the City recommends implementing an alternative or additional mitigation detailing what actions the Project will undertake to comply with local noise standards should the affected local agencies decide not to grant the requested variances.

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make infeasible the mitigation measure or project alternative identified.

Rationale. There is no evidence that requiring noise variances from local agencies would effectively reduce noise levels. The Applicant Proposed Measures and noise mitigation measures detailed in the Final EIR (see Section 3.10) will reduce noise impacts to the maximum extent feasible. Moreover, the CPUC has preemptive authority over local jurisdictions with regard to the regulation of electrical power lines and electric facilities constructed by public utilities. (See CPUC General Order 131-D.) Therefore, the Project and other projects subject to the CPUC's jurisdiction are not required to obtain approvals from local agencies, including variances from local noise ordinances.

VI.5 Wilderness and Recreation

Use of Trails During Construction. The PHLNHPA requested the use of flagmen and signage to ensure the safe use of Preserve trails during construction activities. In addition, the PHLNHPA requested that any signage on Preserve trails be approved by the Habitat Authority and installed through a coordinated effort with their rangers as least two weeks prior to any construction activities that will impact recreational use of the trail(s).

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make infeasible the mitigation measure or project alternative identified.

Rationale. Section 3.15 (Wilderness and Recreation) of the Final EIR provides analysis and discussion of Project impacts that would affect recreational resources, including trails in the Puente Hills Landfill Native Habitat Preservation Area (PHLNHPA). As described in the impact analysis presented in Section 3.15, passive recreation and outdoor enjoyment opportunities in the PHLNHPA, including as related to use of trails along tower access roads and near towers, would be temporarily disrupted during construction activities (Impact R-1), as well as during site-specific maintenance activities (Impact R-2). Due to public safety concerns, it is not possible to entirely avoid the need to temporarily close portions of trails during the construction period and therefore, mitigation to avoid trail closures would be infeasible. However, as part of mitigation measure R-1a (Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas), SCE will develop and adhere to construction timetables developed in coordination with all affected resource agencies, including the PHLNHPA. Mitigation Measures R-1a, R-1b, R-1c, and R-1d will reduce impacts to recreation during construction to a less-than-significant level. In the event that a recreational area falls within one-half mile of a construction staging area and must be temporarily closed during construction, SCE will identify alternative recreational areas and post public notices informing recreationists of closures and alternatives. This documentation will be submitted to the CPUC and/or Forest Service at least 30 days prior to the start construction activities in that area to ensure the public receives sufficient notice. As such, Project-related disruptions of recreational resources and opportunities would be mitigated to a level of less than significant through implementation of Mitigation Measures R-1a through R-1d, which are presented in Section 3.15 of the Final EIR. These mitigation

measures have been edited in the Final EIR to clarify that implementation is required during operation and maintenance activities as well as during construction activities. Accordingly, as required by Mitigation Measure R-1a, SCE would coordinate with the Habitat Authority on matters such as use of signage on Preserve trails, and would coordinate efforts in installing such signage within an acceptable time period. Therefore, no additional mitigation is required.

VII. Findings on Proposed Mitigation Plans

VII.1 Chino Hills 21st Century Green Partnership Proposal

In August 2008, an organization called the 21st Century Green Partnership (21st Century) presented a proposal in support of Alternative 4 (Chino Hills Alternatives): the 21st Century “mitigation and recovery plan” (the Plan). The Plan was designed for implementation in conjunction with the Alternative 4 routes. The Plan has four components – Bio-Corridor Expansion, View Shed Enhancements, Habitat Enhancements, and Operational Enhancements. These elements are described below.

Bio-Corridor Expansion

CHSP Land Acquisition. 21st Century proposes the acquisition of undeveloped land adjacent to the boundaries of CHSP in order to expand the CHSP and provide connectivity to natural habitat areas in nearby Prado Basin. The City of Chino Hills has identified certain undeveloped parcels of land east of CHSP and within Carbon Canyon totaling approximately 2,500 acres that would be acquired for CHSP expansion under 21st Century’s proposal. The City of Chino Hills has offered to provide assistance to the CHSP with the acquisition of these properties.

View-Shed Enhancements

Removal of Existing Transmission Lines in CHSP. 21st Century proposes the removal of certain existing transmission lines that currently traverse CHSP. 21st Century has indicated that there are currently 4.6 miles of de-energized 115-kV line (CEP “O” line - eastern portion, 2.4 miles; western portion, 2.2 miles) and 2.4 miles of de-energized single-circuit 220-kV line within CHSP that could be considered for removal. SCE is already committed to removing these de-energized existing transmission lines within CHSP irrespective of the 21st Century proposal as part of an unrelated agreement between Hills for Everyone and SCE (see additional discussion below).

21st Century has also proposed that the transmission lines that remain in CHSP be relocated away from ridgelines and other prominent areas to improve views within CHSP. 21st Century proposes that the removal and relocation plan be reviewed and approved by the Department of Parks and Recreation and made a part of the CPUC’s approval of the TRTP. Alternatives 4C and 4C Modified include the relocation of certain existing 220-kV and 500-kV transmission lines within CHSP, including the relocation of a portion of an existing 220-kV line to an alignment outside the CHSP boundary.

Habitat Enhancements

Habitat Restoration in CHSP. 21st Century has proposed a habitat restoration program that is intended to target and rank areas within CHSP for restoration based on several criteria, including:

- Location relative to core habitat;

- Location relative to bio-corridors;
- Existing condition of habitat;
- Presence of target species indicating viability of the site; and
- Potential to support special-status species.

Areas within the three bio-corridors that meet the criteria would be buffered 300 feet to delineate approximate restoration areas. According to 21st Century, the 300-foot buffer is based upon functional assessment standards that consider an aquatic feature with a 300-foot buffer of native habitat as high functioning.

21st Century has identified three potential habitat restoration areas with CHSP:

- Water Canyon - totaling approximately 14 acres, including 4 acres of riparian habitat and 10 acres of sage scrub habitat;
- Brush Canyon - totaling approximately 7 acres, including 1 acre of riparian habitat and 6 acres of sage scrub habitat; and
- Lower Aliso Canyon - totaling approximately 39 acres, including 8 acres of riparian habitat and 31 acres of sage scrub habitat.

The restoration proposed by 21st Century would include eradication of invasive plant species, such as mustard, thistle and tamarisk, and the supplemental planting of riparian oak woodland and cottonwood willow riparian species within and adjacent to the canyon bottoms. 21st Century also proposes supplemental planting of scrub species and native grass species in adjacent upland areas that currently support non-native grassland. In addition, the 21st Century proposal includes funding for monitoring and maintenance of the restoration areas for a period of ten years. The City of Chino Hills has indicated that it would seek to establish a partnership with California Polytechnic State University, Pomona, to help monitor the success of the restoration areas and provide oversight of maintenance and management activities. The intent of this partnership is to provide a long-term educational and research opportunity that would also serve to reduce initial and ongoing maintenance costs for the restoration project.

Operational Enhancements

Fund for New Personnel. 21st Century also proposes creating a fund for ongoing operational expenses to establish an endowment to hire one environmental scientist and one ranger. These staff positions would monitor the impacts of SCE TRTP construction activities, create and monitor the proposed restoration mitigation, and manage new lands to be acquired through the bio-corridor expansion program.

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make the 21st Century Green Partnership proposal infeasible. Furthermore, the City of Chino Hills 21st Century Green Partnership proposal only applies to Alternative 4, which is not a part of the Project, as presented in Section VI.4.

Rationale. Two elements of the Plan – Bio-Corridor Expansion and Habitat Enhancements – address biological resources. These elements of the Plan are not appropriate mitigation for the impacts of Alternative 4 because they do not reduce any impacts of either the proposed Project (Alternative 2) or Alternative 4 as defined under the applicable thresholds of significance. All of Alternative 4’s significant impacts to biological resources, including impacts from habitat disturbance to annual grasslands and limited riparian

areas, runoff and erosion from access and spur roads, and disturbance to sensitive wildlife during construction (e.g., least Bell's vireo) would be mitigated to below the level of significance with implementation of the mitigation measures proposed in Chapter 3.4 of the Final EIR, with the exception of cumulative impacts. The following mitigation measures will be implemented to reduce biological resource impacts to a less-than-significant level:

- AQ-1a (Implement Construction Fugitive Dust Control Plan),
- B-1a (Provide restoration/compensation for impacts to native vegetation communities),
- B-1b (Implement a Worker Environmental Awareness Program),
- B-1c (Treat cut tree stumps with Sporax)
- B-2 (Implement RCA Treatment Plan),
- B-3a (Prepare and implement a Weed Control Plan),
- B-3b (Remove weed seed sources from construction access routes),
- B-3c (Remove weed seed sources from assembly yards, staging areas, tower pads, pull sites, landing zones, and spur roads),
- B-5 (Conduct protocol or focused surveys for listed riparian birds and avoid occupied habitat),
- B-7 (Conduct preconstruction surveys for State and federally Threatened, Endangered, Proposed, Petitioned, and Candidate plants and avoid any located occurrences of listed plants),
- B-8a (Conduct protocol surveys for California red-legged frogs and implement avoidance measures),
- B-8b (Conduct biological monitoring),
- B-9 (Conduct protocol surveys for arroyo toads and implement avoidance measures in occupied areas),
- B-10 (Conduct presence or absence surveys for desert tortoise and implement avoidance measures),
- B-12 (Implement avoidance and minimization measures for Santa Ana sucker and other aquatic organisms),
- B-14 (Monitor construction in condor habitat and remove trash and micro-trash from the work area daily),
- B-15 (Conduct protocol surveys for listed riparian birds and avoid occupied habitat),
- B-16 (Conduct protocol or focused surveys for coastal California gnatcatchers and implement avoidance measures),
- B-17 (Preserve off-site habitat and/or habitat restoration for the coastal California gnatcatcher),
- B-18a (Conduct pre-construction surveys for Swainson's hawks),
- B-18b (Removal of nest trees for Swainson's hawks),

- B-19 (Compensate for loss of foraging habitat for Swainson's hawks),
- B-22a (Conduct protocol surveys for Mohave ground squirrels),
- B-22b (Implement construction monitoring for Mohave ground squirrels),
- B-22c (Preserve off-site habitat for the Mohave ground squirrel),
- B-23 (Preserve offsite habitat/management of existing populations of special-status plants),
- B-24 (Conduct focused presence/absence surveys for southwestern pond turtle and implement monitoring, avoidance, and minimization measures),
- B-25 (Conduct focused surveys for the two-striped garter snake and south coast garter snake and implement monitoring, avoidance, and minimization measures),
- B-26 (Conduct focused surveys for coast range newt and implement monitoring, avoidance, and minimization measures),
- B-27 (Monitoring, avoidance and minimization measures for special-status terrestrial herpetofauna)
- B-29 (Implement CDFG protocol for burrowing owls),
- B-30 (Conduct pre- and during construction nest surveys for spotted owl),
- B-33a (Maternity colony or hibernaculum surveys for roosting bats),
- B-33b (Provision of substitute roosting bat habitat),
- B-33c (Exclude bats prior to demolition of roosts),
- B-36 (Conduct focused surveys for San Diego desert woodrats and passively relocate),
- B-37 (Conduct focused surveys for ringtail and passively relocate during the non-breeding season),
- B-38 (Conduct focused surveys for American badger and passively relocate during the non-breeding season),
- H-1a (Implement an Erosion Control Plan and demonstrate compliance with water quality permits), and
- H-1b (Dry weather construction).

Additional measures introduced by the 21st Century Plan are not required to mitigate Project effects to biological resources, as these impacts have been adequately reduced to a level of less than significant. Impacts associated with the re-routed portion of Alternative 4 would remain cumulatively significant and unavoidable. However, the 21st Century Plan would not reduce Alternative 4's contribution to cumulative biological impacts..Therefore, the Bio-Corridor Expansion and Habitat Enhancement measures proposed in the 21st Century Plan are rejected because they would not provide meaningful additional mitigation beyond the measures already adopted. Moreover, the 21st Century Plan is not applicable because Alternative 4 will not be implemented as part of the Project.

The remaining measures proposed by 21st Century, View-Shed Enhancement and Operational Enhancements, are similarly rejected because they do not meet CEQA requirements for mitigation. The View-Shed Enhancement involves the removal of existing de-energized transmission lines within CHSP. However, SCE is already committed to removing these de-energized existing transmission lines within CHSP as part of an unrelated agreement. SCE originally committed to removing these lines in 1982 as part of an agreement between Hills for Everyone and SCE described in a letter dated April 7, 1982, from William Elston (Attorney for SCE) to Claire Schlotterbeck (Hills for Everyone) in response to CPUC Decision D.82-07-9319. SCE confirmed this in a letter from Leslie Starck to Ruth Coleman, dated January 27, 2009, (see Final EIR Appendix H, Comment Letter A.23, Exhibit A) and clarified the scope and timing of this commitment in a letter from Susan Nelson (SCE) to John Boccio (CPUC), dated September 4, 2009 (see Final EIR Appendix H, Comment Letter A.23, Exhibit B). Since the removal of these existing de-energized lines will take place irrespective of the 21st Century proposal, the question of whether this element of the proposal would constitute a proper mitigation for any of the impacts identified under Alternative 4 is moot and need not be considered further. It is rejected as ineffective because it will not provide meaningful additional mitigation beyond that already in place.

The Operational Enhancements measure includes an endowment to hire an environmental scientist and a ranger. A contribution of funds to unspecified future programs, improvements, or actions is not appropriate mitigation under CEQA (See *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173; *Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 141). Assessment of fees is only appropriate if it is linked to a specific mitigation program. (*Id.*) A commitment to pay fees is not considered mitigation under CEQA unless there is evidence that mitigation will actually result. (See *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727.) It is not clear from the 21st Century Plan that the payment of fees will translate into actual mitigation and no mitigation program is defined for the fees. CEQA does not accept as mitigation a plan to create and implement a future program. (See *San Franciscans for Reasonable Growth v. City & County of San Francisco* (1984) 151 Cal.App.3d 61, 79 [requirement that applicant pay an unspecified amount at an unspecified time, in compliance with an unspecified transit funding mechanism, was inadequate mitigation because it was not possible to evaluate its effectiveness].) This measure is therefore rejected as infeasible.

Finally, the 21st Century Plan calls for compensatory benefits. Compensatory benefits unrelated to project benefits are outside the scope of CEQA. CEQA simply does not require project proponents to provide or pay for compensation unrelated to project impacts (See *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173; *Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 141). The introduction to the Plan states that the Plan provides “benefits from an environmental as well as user perspective” and “focuses on areas we believe to be important to the State”. However, the Plan does not indicate what significant impacts would be mitigated by the Plan. The Plan also states that the funding source for the Plan is the CPUC’s low cost/no cost policy for reduction of electric and magnetic fields (EMF), which provides that up to four percent of a transmission project’s cost can be used to incorporate measures into the design of the project to reduce EMF levels. The fact that the proposed funding for the Plan would be generated from the CPUC’s low cost/no cost EMF reduction policy, suggests that the Plan is intended to reduce EMF levels. However, none of the four components of the Plan would affect EMF generation. Further, the CPUC’s low cost/no cost EMF reduction policy is not intended to generate funds for mitigation, but rather is a directive to the electrical utility to incorporate design measures into the project to reduce the amount of EMF that is generated. Some of these design measures can be incorporated at no additional cost, hence the “no cost” aspect of the CPUC’s policy.

Because the Final EIR already includes mitigation measures that will mitigate Project impacts through off-site restoration or improvements, there is no requirement to consider additional means of mitigation. Furthermore, mitigation, as defined by CEQA, is intended to avoid, minimize, rectify, reduce, or compensate for the adverse effects of a project. In accordance with Supreme Court rulings (*Nollan v. California Coastal Commission* (1987) 483 U.S. 825) and the State CEQA Guidelines (14 Cal Code Regs. §15126.4(a)(4)(A)), there must be an essential nexus between an impact and the measures proposed to mitigate the impact and the mitigation requirements must be roughly proportional to the magnitude of the impact (14 Cal. Code Regs., § 15126.4(a)(4)(B); *Dolan v. City of Tigard* (1994) 512 U.S. 374; *Ehrlich v. City of Culver City* (1996) 12 Cal.4th 854). As indicated above, the Plan does not mitigate any of the significant adverse impacts of the Project identified in the Final EIR that are not already reduced by mitigation identified in the Final EIR. The Plan fails to establish a nexus between Project impacts and the funding-based mitigation outlined in the Plan. There is also no indication that the Plan's proposed \$50 million in mitigation funds is an appropriate amount that is "roughly proportional" to the impacts of the Project. By contrast, the Mitigation Measures listed above set forth practical and feasible means to reduce identified impacts and are proportional to the magnitude of the Project's impact. Moreover, the 21st Century Plan is not applicable because Alternative 4 will not be implemented as part of the Project. For these reasons, the CPUC rejects the 21st Century proposal as infeasible.

VII.2 Puente Hills Landfill Native Habitat Preservation Authority

On July 24, 2009, more than three months following the close of the comment period on the Draft EIR/EIS (April 6, 2009), Johnson & Hanson LLP, on behalf of the Puente Hills Landfill Native Habitat Preservation Authority (PHLNHPA), submitted a comment letter which included a matrix of proposed mitigation and compensation for adverse impacts to the PHLNHPA lands as a result of the proposed TRTP. The mitigation and compensation plan includes mitigation for six impacts identified by PHLNHPA, as described below.

Permanent Degradation of Visual Resources. The PHLNHPA proposes habitat restoration in addition to that required by the Final EIR for temporary and permanent impact areas within priority restoration areas identified in their Resource Management Plan (RMP) that are within 500 feet of the proposed T/Ls and within 50 feet of a trail. The PHLNHPA claims that this is needed to compensate for impacts to visual resources valued by the Preserve visitors by increasing the extent of native habitats in an effort to improve the overall aesthetic value. The PHLNHPA also proposes habitat restoration within priority restoration areas identified in the RMP that are within 1,000 feet of the Powder Canyon Trailhead and Horse Ring. The PHLNHPA claims this is necessary to compensate for the devaluation of the visual resources of the Powder Canyon property and to compensate for monies already invested in habitat, aesthetic and recreation improvements completed to date in this area, including the trailhead parking area and horse ring. The PHLNHPA claims that the installation of a third set of towers along the ridgeline on the northern edge of the property, as well as the installation of a new line bisecting Fullerton Road near the Powder Canyon entrance will degrade and devalue the inherent visual value and invested improvements of this parcel.

Temporary and Permanent Degradation of Recreational Values. The PHLNHPA proposes education personnel to compensate for the recreational values lost during trail closures during Project construction and permanent aesthetic impacts along most trails during Project operation. In addition, it proposes habitat restoration in the manner described above to further compensate for the degradation of the recreational value provided by the Preserve's trails.

Increased Wildfire Potential. The PHLNHPA proposes increasing fire fighting capacity through the purchase of a compressed air foam unit, truck, and associated equipment to compensate for the increased

risk of wildfires resulting from accidental ignitions during construction and maintenance of the proposed T/Ls. In addition, it proposes habitat restoration in the manner described above to further compensate for increased wildfire potential.

Permanent Narrowing of Wildlife Movement Corridor and Habitat Fragmentation and Disturbance.

The PHLNHPA proposes the acquisition and preservation of undeveloped land in the narrowest portions of the existing Puente-Chino Hills Wildlife Corridor to compensate for the perceived permanent narrowing of the corridor resulting from the loss of and disturbance to permanently protected native habitat during construction and operation of the Project. PHLNHPA also proposes a Telemetry/Movement Study of effects to medium and large mammals to gain a better understanding of the magnitude and extent of impacts to mammals that require a larger movement and dispersal as a result of permanent narrowing of the wildlife corridor, habitat fragmentation, and edge effect disturbances associated with construction and operation of the Project. In addition, it proposes habitat restoration in the manner described above and ecological personnel to supervise and monitor the habitat restoration and impacts to wildlife and plants.

Impacts to Avifauna. The PHLNHPA proposes avifauna monitoring to study effects on birds and bat migration and breeding success to gain a better understanding of the magnitude and extent of impacts to birds and bats from installation of more and taller T/Ls.

Increased Public Hazards. The PHLNHPA proposes hiring a ranger to mitigate for a potential increase in public hazards during Project construction due to increased equipment and vehicles on trails, the potential reduction in response capabilities to emergencies due to access issues posed by construction activities, and a potential increase in illegal activities resulting from attractive nuisances posed by the project (i.e., additional access roads, lighting, etc.).

Finding. The CPUC finds that specific economic, legal, social, technological, or other considerations make the PHLNHPA proposal infeasible.

Rationale. An EIR is only required to include feasible mitigation measures that will effectively reduce a significant adverse impact of the project. (14 Cal. Code Regs. § 15126.4; *San Franciscans for Reasonable Growth v. City & County of San Francisco* (1984) 209 Cal.App.3d 1502, 1519). PHLNHPA proposes mitigation measures for impacts on visual resources, recreation, wildfires, wildlife movement corridors and habitat, avifauna, and public hazards. Each of these impacts, with the exception of the Project's visual impact on the existing landscape character and visual site quality, is less than significant as a result of mitigation measures identified in the Final EIR. The Final EIR concludes that the effects of the Project on recreation would be less than significant with implementation of Mitigation Measures R-1a through R-1e. The Final EIR also concludes that impacts of the Project on biological resources, including loss of native vegetation and disturbance to wildlife in and around the Puente Hills Habitat Area, would be less than significant with the implementation of mitigation measures. The mitigation would include a series of measures to restore vegetation, control dust and noise, and avoid or minimize effects to wildlife (See the full list of biological resource mitigation measures listed above in section VI.1). Furthermore, the Final EIR concludes that the risk of wildfire as a result of Project construction and operation would be less than significant with implementation of Mitigation Measures F-3a through F-3g, F-4, and B-3a. Implementation of the mitigation measures identified in the Final EIR will mitigate the above listed effects of the Project to less than significant, as is explained further below.

Visual impacts resulting from the Project's construction and operation in the South Area (which includes the preserve) would be experienced by thousands of people from a multitude of vantage points, including freeways, highways, collector streets, local streets, county roads, parks, trails, greenways, schools, hospitals, memorial parks, shopping centers, commercial areas, manufacturing areas, and numerous residential

neighborhoods. Existing high-voltage T/L structures are some of the tallest structures in the area of the PHLNHPA Preserve, and many times these structures are visible against the horizon, towering over rooftops and treetops, or situated along skyline ridges where they are even more visible. The PHLNHPA suggests a mitigation measure to reduce Impact V-3 (adverse visual effects to landscapes with an existing transmission line resulting from increased structure size and new materials). It suggests habitat restoration in priority restoration areas within 500 feet of a powerline, 50 feet of a trail, and 1,000 feet of the Powder Canyon Trailhead and Horse Ring. The CPUC rejects this mitigation measure for the reasons explained below.

The Final EIR already includes the following mitigation measures to reduce Impact V-3: Mitigation Measures V-1 (Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular basis), V-2a (Use tubular steel poles instead of lattice steel towers in designated areas), V-2b (Treat surfaces with appropriate colors, textures, and finishes), V-3a (Match spans of existing transmission structures), V-2c (Establish permanent screen), V-3a (Match spans of existing transmission structures), V-3b (On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality), V-4b (Slope-round and re-contour in areas prescribed), and V-4d (Dispose of excavated materials as prescribed).

Further, habitat restoration and compensation, though not specifically identified as mitigation for Impact V-3, will be accomplished through many of the mitigation measures identified in the Final EIR to reduce biological resources impacts to a less-than-significant level. These mitigation measures include: Mitigation Measure B-1a (Provide restoration/compensation for impacts to native vegetation communities), B-1b (Implement a Worker Environmental Awareness Program), B-1c (Treat cut tree stumps with Sporax), B-2 (Implement RCA Treatment Plan), B-3a (Prepare and implement a Weed Control Plan), B-3b (Remove weed seed sources from construction access routes), B-17 (Preserve off-site habitat and/or habitat restoration for the coastal California gnatcatcher), B-19 (Compensate for loss of foraging habitat for Swainson's hawks), B-22c (Preserve off-site habitat for the Mojave ground squirrel), and B-23 (Preserve offsite habitat/management of existing populations of special-status plants). For example, Mitigation Measure B-1a requires SCE to restore disturbed sites to pre-construction conditions and to prepare a Habitat Restoration and Revegetation Plan. The plan shall include at minimum: (a) the location of the mitigation site (off site mitigation may be required); (b) locations and details for top soil storage (c) the plant species to be used; (d) seed and cutting collecting guidelines; (d) a schematic depicting the mitigation area; (e) time of year that the planting will occur and the methodology of the planting; (f) a description of the irrigation methodology for container, bareroot or other planting needing irrigation; (g) measures to control exotic vegetation on site; (h) success criteria; (i) a detailed monitoring program; and (j) locations and impacts to all oaks and native trees (over 3 inches DBH). Implementation of this mitigation measure alone will substantially reduce the visual impacts from ground-disturbing activities resulting from Project construction. In addition, Mitigation Measure B-17 requires SCE to mitigate the effects of Project construction on coastal California gnatcatcher by requiring SCE to acquire habitat occupied by the coastal California gnatcatcher and/or restore unoccupied coastal sage scrub. Mitigation Measures B-19 and B-22c require SCE to mitigate for the loss of foraging habitat for Swainson's hawks and occupied Mojave ground squirrel habitat resulting from Project construction, respectively, by providing Habitat Management lands. Furthermore, Mitigation Measure B-23 requires SCE to conduct rare plant surveys and implement avoidance/minimization/compensation strategies. As such, these mitigation measures would mitigate the temporary and permanent impacts to the biological resources within the Preserve and any visual impacts caused by ground-disturbing activities to a less-than-significant level.

Moreover, the PHLNHPA's suggested mitigation for habitat restoration is focused on areas not impacted by the Project, which would not reduce or avoid the visual impacts resulting from the Project, specifically the installation of larger and more transmission lines through the Preserve. Furthermore, in accordance with Supreme Court rulings (*Nollan v. California Coastal Commission* (1987) 483 U.S. 825) and the State CEQA Guidelines (14 Cal Code Regs. §15126.4(a)(4)(A)), there must be an essential nexus between an impact and the measures proposed to mitigate the impact and the mitigation requirements must be roughly proportional to the magnitude of the impact (14 Cal. Code Regs., § 15126.4(a)(4)(B); *Dolan v. City of Tigard* (1994) 512 U.S. 374; *Ehrlich v. City of Culver City* (1996) 12 Cal.4th 854). As discussed above, the suggested habitat restoration in areas not impacted by Project construction would not reduce any of the impacts that result from the installation of larger and more transmission lines through the preserve, and therefore no nexus has been established to justify such measures.

PHLNHPA proposed two measures to reduce recreational Impacts R-1 and R-2. Section 3.15 (Wilderness and Recreation) of the Final EIR provides analysis and discussion of Project impacts that would affect recreational resources, including trails in the PHLNHPA area. As described in the impact analysis presented in Section 3.15, passive recreation and outdoor enjoyment opportunities in the PHLNHPA, including use of trails along tower access roads and near towers, would be temporarily disrupted during construction activities (Impact R-1), as well as during site-specific maintenance activities (Impact R-2). The discussion of Impact R-1 analyzed whether construction activities would restrict access to or disrupt activities within established recreational areas. The PHLNHPA suggested adding Education Personnel to reduce this impact. Mitigation Measures R-1a (Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas), R-1b (Identify and provide noticing of alternative recreation areas), R-1c (Notification of temporary closure of OHV routes), R-1d (Notification of temporary closure and reroute of the Pacific Crest National Scenic Trail), and R-1e (SCE shall assist in the completion of backlogged maintenance activities in the ANF) will reduce impacts to recreation during construction to a less-than-significant level. As part of Mitigation Measure R-1a, SCE will develop and adhere to construction timetables developed in coordination with all affected resource agencies, including the Habitat Authority. In the event that a recreational area falls within one-half mile of a construction staging area and must be temporarily closed during construction, SCE will identify alternative recreational areas and post public notices informing recreationists of closures and alternatives. This documentation will be submitted to the CPUC at least 30 days prior to the start construction activities in that area to ensure the public receives sufficient notice. As such, Project-related disruptions of recreational resources and opportunities within the PHLNHPA area during construction would be mitigated to less than significant by required mitigation measures identified in the Final EIR. No additional mitigation measures are needed to reduce this impact. The PHLNHPA's suggestion to add Education Personnel will not provide meaningful additional mitigation beyond the adopted measures discussed above. Therefore, the CPUC rejects this measure.

The discussion of Impact R-2 in the Final EIR analyzed whether operational and maintenance activities would restrict access to or disrupt activities within established recreational areas. In the Puente Hills Habitat Area, this included an analysis of whether the Project would introduce features that would contribute to the degradation of the backcountry experience for public recreationists (Final EIR Section 3.15.6.1). The PHLNHPA proposed habitat restoration to reduce this impact. Mitigation Measures R-1a through R-1d, described above, will reduce this impact to less than significant. No additional mitigation measures are needed to reduce this impact. The PHLNHPA's suggestion for habitat restoration will not provide meaningful additional mitigation beyond the adopted measures discussed above. Therefore, the CPUC rejects this measure.

The PHLNHPA proposed five mitigation measures to reduce impacts to wildlife movement through wildlife corridors, habitat fragmentation and disturbance. It proposed the acquisition and preservation of undeveloped land and a telemetry/movement study to reduce impacts to movement through wildlife corridors. It also proposes habitat restoration, ecology personnel, and educational materials restoration to mitigate impacts to plant and wildlife due to habitat disturbance and fragmentation. These measures will not be effective in mitigating an impact or will not provide meaningful additional mitigation beyond the measures that are adopted. Therefore, the CPUC rejects these measures.

The Project crosses three geographically important wildlife movement areas including the high desert, the ANF, and the Puente/Chino Hills Corridor area. As discussed in Section 3.4 of the Final EIR, with the exception of a short segment in the northern Antelope Valley, the Project would not result in a new barrier to wildlife movement. Due to the intermittent locations of construction activity and its temporary nature, wildlife would not be physically prevented from moving around Project equipment in the transmission corridor. During Project operation, the widely spaced towers would not physically obstruct wildlife movement; wildlife could move under and around the towers (Final EIR, Section 3.4). No mitigation measures are needed because the Project will have no impact on terrestrial wildlife movement. The CPUC rejects the PHLNHPA's suggestion for the acquisition of undeveloped land and a Telemetry/Movement Study because no significant impact requiring mitigation exists. Additionally, a Telemetry/Movement Study of effects to medium and large mammals is not considered mitigation as it would not result in a reduction of any Project impacts.

The PHLNHPA proposed avifauna monitoring to reduce collisions, electrocutions, corona noise and EMF impacts to birds and bats resulting from the installation of more and taller towers and powerlines. Avifauna monitoring to study the effects on bird and bat migration and breeding success would not result in a reduction of any Project impacts. Impacts to birds and bats as a result of electrocution, collision with overhead wires, corona noise, and EMF will be less than significant without mitigation (Final EIR, Section 3.4.6.1, impact analysis for impacts B-20, B-21, B-34, and B-41). Bats are expected to avoid strikes with transmission lines "...given that most bat species can use echolocation to discriminate objects as small as 0.4 to 0.004 inch in size (Vaughan and Vaughan, 1986), and the size of guard lines and 500-kV or 220-kV transmission lines are typically equal to or greater than 0.5 inch in diameter (SCE 2007), the frequency of transmission line strikes is expected to be extremely low" (Final EIR, Section 3.4.6.1, Impact B-34). Therefore, the number of fatal strikes is expected to be quite low and insufficient to substantially reduce the number of these species.

The effects on birds as a result of collisions and electrocutions are addressed in Impacts B-20, and B-21 of the Draft EIR in Section 3.4.6.1. It is inevitable that birds will collide with the structures; however, Applicant Proposed Measure APM BIO-9, which requires the transmission facilities be designed to be raptor-safe in accordance with the *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006* (APLIC, 2006), would reduce potential effects from bird electrocution. Impacts to birds from electrocution and collision would be less than significant; therefore, no additional mitigation is required.

Impacts from corona noise on birds and bats will be less than significant without mitigation (Final EIR, Section 3.4.6.1, Impact B-41). The effects of corona noise on wildlife are poorly understood and it is difficult to predict the degree to which the increase in corona noise will impact local wildlife. Animals, especially breeding birds and other wildlife that use sound for communication, would be expected to move away from the line in order to minimize interference with communication. However, because of the availability of habitats in the Project area, this will not be a significant impact.

To date there is little conclusive information pertaining to the effects of EMF on birds and bats. The analysis of these potential effects is too speculative to evaluate and, therefore, need not be considered in the environmental document. (14 Cal. Code Reg. §§ 15064(d)(3), 15145).

As explained above, impacts to birds and bats as a result of electrocution, collision with overhead wires, corona noise, and EMF will be less than significant without mitigation. The CPUC therefore rejects the PHLNHPA's proposed mitigation measures because no significant adverse impacts requiring mitigation exist.

The PHLNHPA proposed adding Ranger Personnel to mitigate increased public hazards during project construction. Final EIR Section 3.11 (Public Services and Utilities) includes Impact PSU-2, which addresses the Project's potential to impede or interfere with access for emergency response vehicles. Impacts will be reduced to a less-than-significant level with implementation of Mitigation Measure T-1a (Prepare Traffic Control Plans), which requires SCE to inform emergency service agencies of road closures, detours, and delays. This measure also includes provisions to accommodate emergency vehicles, such as immediately stopping work for emergency vehicle passage, short detours, and alternate routes developed in conjunction with local agencies. As such, additional mitigation, such as hiring a ranger for the PHLNHPA, is not required. The CPUC therefore rejects the PHLNHPA's proposed mitigation measure because it will not provide meaningful additional mitigation beyond the measures that are adopted.

The PHLNHPA proposes increasing fire fighting capacity through the purchase of a compressed air foam unit, truck, and associated equipment to compensate for the increased risk of wildfires resulting from accidental ignitions during construction and maintenance of the proposed T/Ls. As noted above, the Final EIR concludes that the risk of wildfire as a result of Project construction and operation would be less than significant with implementation of Mitigation Measures F-3a through F-3g, F-4, and B-3a. Therefore, no additional mitigation is necessary and the CPUC rejects these additional measures.

VIII. Findings on Project Alternatives

In total, the alternatives screening process resulted in the identification and screening of 29 potential alternatives. The alternatives considered included: (1) minor routing adjustments to SCE's proposed route; (2) entirely different transmission line routes for some segments of the proposed alignment; and (3) alternate system voltages and system configurations. Renewable resource technologies, distributed generation, and demand-side management were also considered. The alternatives that were eliminated either did not meet project objectives, did not meet legal, regulatory, and technical feasibility criteria, and/or did not avoid or reduce environmental effects of the Project.

VIII.1 Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Twenty-nine (29) alternatives were screened for evaluation in the Draft EIR/EIS (see Appendix A of the Draft EIR/EIS and Final EIR). Twenty-three (23) of these were eliminated from further analysis after a detailed alternatives screening process (Section 2.2 of Appendix A describes screening methodology). Table VII-1, below, summarizes the rationale for eliminating each of these alternatives from further consideration. In addition to the 29 potential alternatives that were evaluated in the Alternatives Screening Report (Final EIR Appendix A), other ideas for potential alternatives were suggested by agencies and the public during the scoping period for the Draft EIR/EIS (August-October 2007). Many of these suggestions were conceptual and were not offered as specific alternatives, but rather as ideas to be explored. The CPUC hereby finds that all of the alternatives eliminated from further consideration in the Draft EIR/EIS are infea-

sible, will not meet most Project objectives, will not meet CAISO/WECC/NERC reliability planning criteria, and/or will not reduce or avoid any of the significant effects of the Project, as summarized in Table D2 and detailed in Appendix A of the Draft EIR/EIS.

Table VII-1. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Meets Project Purpose?	Feasible?	Meets Reliability Criteria?	Environmental Advantages	Environmental Disadvantages
DESIGN VARIATIONS TO THE PROJECT / ACTION					
Whirlwind Substation Site A Alternative	This alternative would allow for the reliable interconnection of up to 4,500 MW of new wind generation resources in the TWRA, would be designed to meet projected load growth in the Antelope Valley, and would address South of Lugo transmission constraints.	This alternative would be feasible.	Meets CAISO/NERC/WECC requirements. Requires crossing of existing 220-kV T/Ls, decreasing overall reliability.	<ul style="list-style-type: none"> • Located on 113 acres of previously disturbed land, which would reduce potential biological impacts • Located between Cottonwind and Antelope Substations near proposed wind generation projects, thereby minimizing routing distances 	<ul style="list-style-type: none"> • Soil stability issues could be a concern as an aquifer recharge facility is proposed for this site • Greater permanent land disturbance than the proposed Whirlwind Substation site
Whirlwind Substation Site B Alternative	This alternative would allow for the reliable interconnection of up to 4,500 MW of new wind generation resources in the TWRA, would be designed to meet projected load growth in the Antelope Valley, and would address South of Lugo transmission constraints.	This alternative would be feasible.	Meets CAISO/NERC/WECC requirements. No reliability issues identified.	<ul style="list-style-type: none"> • Located between Cottonwind and Antelope Substations near proposed wind generation projects, thereby minimizing routing distances 	<ul style="list-style-type: none"> • Located on 102 acres of previously undisturbed land, increasing potential for biological impacts • Grading of the site would result in an estimated quantity of 24,000 cubic yards of soil mixed with small stones and organic matter versus 15,000 cubic yards for the Project/Action
Upgrade Transmission through ANF in Segment 6 Only Alternative	This alternative would allow for the interconnection of new wind generation resources in the TWRA; however, reliability would be a concern (see #3 below). This alternative would be designed to meet projected load growth in the Antelope Valley and would address South of Lugo transmission constraints when operating reliably.	This alternative would be feasible.	Does not meet CAISO/NERC/WECC requirements. Collocates multiple transmission lines in a common corridor (three 500-kV T/Ls and one 220-kV T/L), which compromises overall system reliability. A simultaneous outage condition of the T/Ls in Segment 6 would result in loading the T/Ls in Segment 11 beyond the available thermal capability. Implementing a Special Protection System (SPS)	<ul style="list-style-type: none"> • Avoids any upgrades and associated environmental impacts in Segment 11 within the ANF 	<ul style="list-style-type: none"> • Need to establish a new east-west T/L corridor between Duarte and Altadena (south of Gould Substation) resulting in additional environmental impacts (air quality, biological resources, land use, noise, traffic, visual) • East-west corridor would parallel the Sierra Madre Fault (geotechnical issues) • Potential land use conflict in establishing new east-west corridor outside of

Table VII-1. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Meets Project Purpose?	Feasible?	Meets Reliability Criteria?	Environmental Advantages	Environmental Disadvantages
			<p>which trips TWRA generation would not provide for an adequate solution to mitigate the identified thermal overload problem, as it would exceed the maximum 1,400 MW tripping limits of the SPS.</p>		<p>the ANF</p> <ul style="list-style-type: none"> • Longer alignment (35 versus 26 miles for proposed route)
<p>Upgrade Transmission through ANF in Segment 11 Only Alternative</p>	<p>This alternative would allow for the interconnection of up to 4,500 MW of new wind generation resources in the TWRA, would be designed to meet projected load growth in the Antelope Valley, and would address South of Lugo transmission constraints.</p>	<p>This alternative would be feasible.</p>	<p>Meets CAISO/NERC/WECC requirements. No reliability issues identified.</p>	<ul style="list-style-type: none"> • Avoids upgrades and associated environmental impacts in Segment 6 within the ANF, although the Antelope-Mesa 220-kV T/L would be removed, as this T/L segment would be disconnected 	<ul style="list-style-type: none"> • Need to establish a new east-west T/L corridor between La Cañada Flintridge and Duarte resulting in additional environmental impacts (air quality, biological resources, land use, noise, traffic, visual) • East-west corridor would parallel the Sierra Madre Fault (geotechnical issues) • Potential land use conflict in establishing new east-west corridor outside of the ANF • Longer alignment (34 vs. 27 miles for proposed route)
<p>Reduced Upgrades in Segment 6 Alternative</p>	<p>This alternative would not provide for the reliable transmission of up to 4,500 MW from the TWRA and would not address South of Lugo transmission constraints. It would meet projected load growth in the Antelope Valley.</p>	<p>This alternative would be feasible.</p>	<p>This alternative would leave a choke point in the transmission system which would result in overloading of the existing Antelope-Mesa 220-kV T/L under normal operations. As such, the reliability of the system would be in jeopardy.</p>	<ul style="list-style-type: none"> • Limits upgrades in Segment 6 to the first approximately 4.8 miles between Vincent Substation and the crossover span • Impacts associated with the removal of the existing 220-kV T/L and the construction of a new 500-kV T/Ls would not occur. • Long-term visual impacts 	<ul style="list-style-type: none"> • 220-kV lines would need to be rebuilt to 500-kV standards at some point in the future • Not upgrading the Antelope-Mesa 220-kV T/L along the entire length of Segment 6 would immediately limit the ability of the system to accommodate the additional generation from

Table VII-1. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Meets Project Purpose?	Feasible?	Meets Reliability Criteria?	Environmental Advantages	Environmental Disadvantages
				would be reduced as fewer T/Ls would traverse the ANF along Segment 6.	the TWRA. <ul style="list-style-type: none"> • New infrastructure would be required resulting in additional environmental impacts
<p>Co-Locate All SCE T/Ls in Either Segment 6 or 11 Across the ANF Alternative</p>	<p>This alternative would allow for the interconnection of new wind generation resources in the TWRA; however reliability would be a concern (see #3 below). This alternative would be designed to meet projected load growth in the Antelope Valley and would address South of Lugo transmission constraints when operating reliably.</p>	<p>This alternative would be feasible.</p>	<p>Does not meet CAISO/NERC/WECC requirements. Collocates multiple transmission lines in a common corridor (three 500-kV T/Ls and two 220-kV T/L), which compromises overall system reliability.</p>	<ul style="list-style-type: none"> • Avoids any upgrades and associated environmental impacts in either Segment 6 or 11 within the ANF • Reduces long-term visual impacts in Segment 6 or 11, with the removal of existing infrastructure 	<ul style="list-style-type: none"> • Requires deconstruction of approximately 27 miles of existing T/Ls in Segment 6 or 18 miles in Segment 11 • Need to establish a new east-west T/L corridor between Duarte and La Cañada Flintridge (Gould Substation) resulting in additional environmental impacts (air quality, biological resources, land use, noise, traffic, visual) • East-west corridor would parallel the Sierra Madre Fault (geotechnical issues) • Longer alignment than proposed route – 34 miles (All T/Ls in Segment 6) or 27 miles (All T/Ls in Segment 11)
<p>Reduced Number of 220-kV T/Ls in the ANF Alternative</p>	<p>Upgrades at Rio Hondo Substation and Mesa Substation would take a minimum of 4 to 5 years, which would prevent compliance with the Renewables Portfolio Standard deadline of 2010. In addition, a reduction of 220-kV lines through the ANF would decrease capacity and potentially overload the system, which</p>	<p>This alternative appears to be technically feasible; however additional analysis is needed to ensure the feasibility of construction, specifically south of Gould Substation along Segment 11.</p>	<p>Elimination of 220-kV lines in Segments 6 and 11 would reduce capacity and potentially overload the system. A power flow analysis would need to be conducted to further understand the effect of this alternative on overall system power flow to ensure compliance with CAISO/NERC/WECC requirements.</p>	<ul style="list-style-type: none"> • Reduces the amount of visual “clutter” within the ANF along both Segments 6 and 11 by reducing the number of 220-kV T/Ls by one in each corridor • Provides the potential to reduce the width of the T/L corridors in the ANF, thereby decreasing potential biology and land use impacts 	<ul style="list-style-type: none"> • Greater construction impacts (air quality, noise, and traffic) as a result of additional activities to remove 220-kV T/Ls in Segment 6 and 11 that would otherwise be untouched under the Project/Action • Upgrading Segment 11 south of Gould Substation to accommodate new single-circuit 500-kV

Table VII-1. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Meets Project Purpose?	Feasible?	Meets Reliability Criteria?	Environmental Advantages	Environmental Disadvantages
	<p>would interfere with the objective of reliably transmitting 4,500 MW from the TWRA and would not fully address the South of Lugo transmission constraints. This alternative, however, would meet the projected load growth in the Antelope Valley, as upgrades north of Vincent Substation would be identical to the Project/Action.</p>				<p>structures would result in substantially greater impacts (air quality, noise, traffic, and visual) than the stringing activities that would occur under the Project/Action</p> <ul style="list-style-type: none"> • Upgrades at Rio Hondo and Mesa Substations would result in greater construction impacts than the Project/Action, which would require limited upgrades
<p>Minimize 500-kV Upgrades Alternative</p>	<p>This alternative would allow for the reliable interconnection of new wind generation resources in the TWRA; however, it would not allow for the integration of the full 4,500 MW. Furthermore, the majority of the system would not be designed to allow for future increases in voltage operation from 220 kV to 500 kV. Therefore, this alternative would not fully meet projected load growth in the Antelope Valley, or address South of Lugo transmission constraints.</p>	<p>This alternative would be feasible.</p>	<p>Meets CAISO/NERC/WECC requirements; however, reliability would become an issue as power generation within the TWRA increases to meet the expected 4,500 MW.</p>	<ul style="list-style-type: none"> • Constructs a new 220-kV line rather than a 500-kV line in Segment 5 thereby reducing visual impacts that would result from installation of larger, taller 500-kV structures • Replaces 220-kV structures in Segments 6 and 11 with new structures and conductor, thereby reducing visual impacts that would result from installation of larger, taller 500-kV structures 	<ul style="list-style-type: none"> • 220-kV lines would need to be rebuilt to 500-kV standards at some point in the future • CAISO may not allow the 220-kV T/Ls to be taken out of service at a later date, which would require the future upgrades to be built in parallel or elsewhere, requiring new ROW • Existing 220-kV structures in Segments 6 and 11 through the ANF would still need to be replaced to allow for the use of new conductor resulting in similar environmental impacts as identified for the Project/Action
<p>Segments 6 and 11 Double-Circuit Structures Alternative</p>	<p>This alternative would allow for the reliable interconnection of up to 4,500 MW of new wind</p>	<p>This alternative appears to be feasible. A non-standard design for double-circuit 500-kV structures would need to</p>	<p>Meets CAISO/NERC/WECC requirements. Standard SCE double-circuit structures are impacted by ice loading and</p>	<ul style="list-style-type: none"> • ROW width through the ANF along Segments 6 and 11 would potentially be reduced, thereby 	<ul style="list-style-type: none"> • Larger, taller (over 200-foot) double-circuit 500-kV structures would result in potentially greater visual

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Alternative	Meets Project Purpose?	Feasible?	Meets Reliability Criteria?	Environmental Advantages	Environmental Disadvantages
	<p>generation resources in the TWRA, would meet projected load growth in the Antelope Valley, and would address South of Lugo transmission constraints; however, due to the need for non-standard structures at elevations above 3,000 feet within Segments 6 and 11, the Project schedule would not be met and as a result the California Renewables Portfolio Standard of 20 percent renewable energy by 2010 would not be met.</p>	<p>be developed and tested.</p>	<p>wind loading at high elevations (>3,000 feet), which would occur within Segments 6 and 11. The reliability of a non-standard design for double-circuit 500-kV structures is unknown. The potential to lose two T/Ls resulting from the failure of a single tower in an area prone to extreme weather conditions, as well as conditions such as fires followed by rains which increases the potential for landslides, would substantially degrade the preconceived reliability of the system.</p>	<p>allowing for revegetation of those portions of the ROW which would no longer be in use</p> <ul style="list-style-type: none"> • Visual “clutter” and long-term footprint of transmission infrastructure within the ANF would be reduced 	<p>impacts in Segment 6 than having two single-circuit 500-kV structures placed in parallel due to the lack of symmetry and increased potential for skylined conditions</p> <ul style="list-style-type: none"> • Requires approximately 60 additional towers due to severe topography and weather conditions in the ANF • May require additional towers along existing adjacent lines for clearance • May require re-routing outside of the existing ROW to circumvent large valleys which currently have long spans resulting in potentially greater visual, biological, and cultural impacts • May result in the placement of towers at ridge top locations resulting in greater fire safety impacts • Not feasible to construct double-circuit towers by helicopter thereby requiring additional access roads and the associated environmental impacts • Additional environmental impacts (AQ, noise, biological resources) associated with removing

Table VII-1. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Meets Project Purpose?	Feasible?	Meets Reliability Criteria?	Environmental Advantages	Environmental Disadvantages
					<p>another 500-kV T/L from Segment 6 and an additional 220-kV T/L in Segment 11, which would otherwise be unaffected by the Project/Action</p>
<p>Segments 7/8A Single-Circuit 500-kV Structures Alternative</p>	<p>This alternative would allow for the reliable interconnection of up to 4,500 MW of new wind generation resources in the TWRA; however, the overall capacity provided would not be comparable to the Project. It would meet projected load growth in the Antelope Valley and would address South of Lugo transmission constraints.</p>	<p>This alternative would require expansion of the ROW, which is not viable within Segment 7 due to existing infrastructure. Therefore, this alternative would not be feasible.</p>	<p>Meets CAISO/NERC/WECC requirements. No reliability issues identified.</p>	<ul style="list-style-type: none"> • Placement of single-circuit 500-kV structures within Segment 7, south of Rio Hondo Substation, and Segment 8A, to Chino Substation would reduce visual impacts associated with the proposed double-circuit 500-kV structures. 	<ul style="list-style-type: none"> • Would not facilitate the possibility of adding a second 500-kV T/L if and when one is determined to be required (e.g., when generation in the TWRA exceeds 4,500 MW), which would result in tearing down and rebuilding double-circuit structures sometime in the future and the associated environmental impacts (air quality, biology, noise, traffic, visual) • Would not allow for a split-phased configuration
<p>Partial Composite Core Conductor Alternative</p>	<p>This alternative would allow for the interconnection of new wind generation resources in the TWRA; however, the amount of generation would be limited and would not support the identified 4,500 MW anticipated from the TWRA. Furthermore, use of existing structures would not allow for future increase in voltage operation from 220 kV to 500 kV. This alternative would only partially address South of Lugo transmission constraints, as the upgrades</p>	<p>This alternative would be feasible.</p>	<p>Meets CAISO/NERC/WECC requirements; however, reliability would become as issue as power generation within the TWRA increases to meet the expected 4,500 MW. Composite core conductor is a new, unproven technology with unknown life-cycle performance; therefore, its reliability in long-term use is unknown.</p>	<ul style="list-style-type: none"> • Reduces visual impacts as a result of not installing bulkier, taller 500-kV structures between Vincent Substation and Mesa Substation, and between Mesa Substation and Chino Substations 	<ul style="list-style-type: none"> • Existing structures would not be able to support the composite core conductor to provide the required capacity increase and would need to be replaced resulting in similar environmental impacts similar to the Project/Action

Table VII-1. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Meets Project Purpose?	Feasible?	Meets Reliability Criteria?	Environmental Advantages	Environmental Disadvantages
	south of Vincent Substation would limit the capacity of the system. Projected load growth in the Antelope Valley would generally be met.				
ALTERNATE CORRIDORS					
Segment 10A Route Alternative	This alternative would allow for the reliable interconnection of up to 4,500 MW of new wind generation resources in the TWRA, would meet projected load growth in the Antelope Valley, and would address South of Lugo transmission constraints.	This alternative would be feasible.	Meets CAISO/NERC/WECC requirements. No reliability issues identified.	<ul style="list-style-type: none"> • Parallels Los Angeles Aqueduct for a short distance allowing for use of existing access roads thereby reducing construction impacts (air quality, noise, visual) 	<ul style="list-style-type: none"> • Longer route (18 vs. 16.8 miles for proposed Segment 10) resulting in potentially greater air quality, biology, noise, and visual impacts
Segment 10B Route Alternative	This alternative would allow for the reliable interconnection of up to 4,500 MW of new wind generation resources in the TWRA, would meet projected load growth in the Antelope Valley, and would address South of Lugo transmission constraints.	This alternative would be feasible.	Meets CAISO/NERC/WECC requirements. No reliability issues identified.	<ul style="list-style-type: none"> • Parallels Los Angeles Aqueduct for a short distance allowing for use of existing access roads thereby reducing construction impacts (air quality, noise, visual) • Re-routed portion of ROW would go behind homesteads located along the Project/Action route 	<ul style="list-style-type: none"> • Longer route (18.9 vs. 16.8 miles for proposed Seg. 10) resulting in potentially greater air quality, biology, noise, and visual impacts
Windhub Substation to Cottonwind Substation to Whirlwind Substation Alternative	This alternative would allow for the interconnection of new wind generation resources in the TWRA; however, due to its location it could potentially interfere with wind generation projects planned in the area such that the full 4,500 MW may not be realized. It would accommodate the projected load growth in the Antelope	This alternative would be feasible.	Meets CAISO/NERC/WECC requirements. No reliability issues identified.	<ul style="list-style-type: none"> • Would place the new T/L adjacent to existing ROW for a short distance, which would reduce access road requirements and associated impacts 	<ul style="list-style-type: none"> • New ROW and access roads would be needed to establish the east-west portion of this alternative, crossing the foothills of the Tehachapi Range resulting in greater environmental impacts (air quality, noise, visual) • Construction along the foothills versus the valley floor would be more

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Alternative	Meets Project Purpose?	Feasible?	Meets Reliability Criteria?	Environmental Advantages	Environmental Disadvantages
	Valley and address South of Lugo transmission constraints.				difficult and have the potential to interfere with arroyos in the area
Whirlwind Substation to Antelope Substation Alternative	This alternative would allow for the reliable interconnection of up to 4,500 MW of new wind generation resources in the TWRA. In fact, it would improve the system reliability by eliminating the risk of simultaneous outage of T/Ls contained within a common corridor. It would also accommodate the projected load growth in the Antelope Valley and address South of Lugo transmission constraints.	This alternative would be feasible.	Meets CAISO/NERC/WECC requirements. No reliability issues identified.	<ul style="list-style-type: none"> • None identified 	<ul style="list-style-type: none"> • Would require the establishment of a separate new corridor (200-foot wide) with access roads and spur roads, resulting in greater environmental impacts (air quality, biology, land use, noise, visual) • Placing the new T/L at least 2,000 feet to the west of the existing T/L corridor would move the line closer to the Antelope Valley California Poppy Reserve, a California State Park, which would have the potential to result in greater biology and visual impacts • Placing the new T/L at least 2,000 feet to the east of the existing T/L corridor would potentially interfere with existing and planned development in the Antelope Valley
Antelope Substation to Vincent Substation Alternative	This alternative would allow for the reliable interconnection of up to 4,500 MW of new wind generation resources in the TWRA. In fact, it would improve the system reliability by eliminating the risk of simultaneous outage of T/Ls	This alternative would be feasible.	Meets CAISO/NERC/WECC requirements. No reliability issues identified.	<ul style="list-style-type: none"> • None identified 	<ul style="list-style-type: none"> • Would require the establishment of a separate new corridor (200-foot wide) with access roads and spur roads, resulting in greater environmental impacts (air quality, noise, visual) • Placing the new T/L at

Table VII-1. Alternatives Eliminated from EIR/EIS Consideration After Detailed Screening

Alternative	Meets Project Purpose?	Feasible?	Meets Reliability Criteria?	Environmental Advantages	Environmental Disadvantages
	<p>contained within a common corridor. It would also accommodate the projected load growth in the Antelope Valley and address South of Lugo transmission constraints.</p>				<p>least 2,000 feet to the west or east of the existing T/L corridor would potentially interfere with existing and planned development in the Antelope Valley</p>
<p>Use LADWP Transmission Corridor Through the ANF Alternative</p>	<p>This alternative would allow for the interconnection of new wind generation resources in the TWRA; however, it could inhibit full integration of up to 4,500 MW (see #3 below). Furthermore, this alternative may not adequately improve the South of Lugo transmission constraints. It would be expected to generally accommodate the projected load growth in the Antelope Valley.</p>	<p>This alternative would be feasible.</p>	<p>The increased distance of the T/Ls would increase the corresponding electrical impedance and thus result in additional power flow being carried by the existing T/Ls south of Vincent Substation. This increase in power flow under base case conditions results in a corresponding increase under outage conditions. Evaluation of single outage conditions (i.e., loss of Rio Hondo-Vincent No. 2 500-kV T/L [energized at 220 kV]) reveals that the existing Rio Hondo-Vincent No. 1 220-kV T/L loads in excess of its maximum long-term emergency limit (by 5.8%). Therefore, this alternative would compromise system reliability and would therefore not meet CAISO/NERC/WECC requirements.</p>	<ul style="list-style-type: none"> • Eliminates construction in Segments 6 and 11 through the ANF • Removes the existing Antelope-Mesa 220-kV T/L in Segment 6, which would reduce visual “clutter” 	<ul style="list-style-type: none"> • Would require widening the existing LADWP corridor, which may be located with the ANF (Northern). • Would require establishing a new corridor (300-foot wide) between the exit point of the LADWP corridor and Gould Substation and the City of Duarte in densely populated urban areas resulting in greater land use impacts • Longer route than proposed Segments 6 and 11 resulting in potentially greater air quality, biology, noise, and visual impacts: Northern route (starting at Antelope Substation) would be approximately 62 miles longer, Southern route (starting at Vincent Substation) would be approximately 45 miles longer
<p>New SCE Corridor Across the ANF</p>	<p>This alternative would allow for the interconnection of new wind generation</p>	<p>This alternative would be feasible.</p>	<p>The increased distance of the T/Ls would increase the corresponding electrical</p>	<ul style="list-style-type: none"> • Eliminates construction in Segments 6 and 11 through the ANF 	<ul style="list-style-type: none"> • Would require establishing a new ROW (300-foot wide) within a new utility

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Alternative	Meets Project Purpose?	Feasible?	Meets Reliability Criteria?	Environmental Advantages	Environmental Disadvantages
Alternative	resources in the TWRA; however, it could inhibit full integration of up to 4,500 MW (see #3 below). Furthermore, this alternative may not adequately improve the South of Lugo transmission constraints. It would be expected to generally accommodate the projected load growth in the Antelope Valley.		impedance and thus result in additional power flow being carried by the existing T/Ls between the Vincent, Rio Hondo, and Mesa Substations. This increase in power flow under base case conditions results in a corresponding increase under outage conditions. Evaluation of single outage conditions (i.e., loss of Rio Hondo-Vincent No. 2 500-kV T/L [energized at 220 kV]) reveals that the existing Rio Hondo-Vincent No. 1 220-kV T/L loads in excess of its maximum long-term emergency limit (by 3%). Therefore, this alternative would compromise system reliability and would therefore not meet CAISO/NERC/WECC requirements.	<ul style="list-style-type: none"> Removes the existing Antelope-Mesa 220-kV T/L in Segment 6, which would reduce visual “clutter” 	<ul style="list-style-type: none"> corridor through the ANF Would require establishing a new 300-foot-wide ROW between the exit point of the ANF and the City of Duarte and a new 200-foot-wide corridor between the City of Duarte and a point south of Gould Substation through densely populated urban areas resulting in greater land use impacts Longer route than proposed Segments 6 and 11 (approximately 26 miles longer) resulting in potentially greater air quality, biology, noise, and visual impacts
New Corridor Along Highway 14 Alternative	This alternative would allow for the interconnection of new wind generation resources in the TWRA; however, it could inhibit full integration of up to 4,500 MW (see #3 below). Furthermore, this alternative may not adequately improve the South of Lugo transmission constraints. It would be expected to generally accommodate the projected load growth in the Antelope Valley.	This alternative would be feasible.	The increased distance of the T/Ls would increase the corresponding electrical impedance and thus result in additional power flow being carried by the existing T/Ls between the Vincent and Rio Hondo Substations and between the Vincent and Mesa Substations. This increase in power flow under base case conditions results in a corresponding increase under outage conditions. Evaluation of single outage	<ul style="list-style-type: none"> Eliminates construction in Segments 6 and 11 through the ANF Removes the existing Antelope-Mesa 220-kV T/L in Segment 6, which would reduce visual “clutter” 	<ul style="list-style-type: none"> Would require establishing a new ROW (300-feet wide) between the Vincent Substation and the Rinaldi Substation area (near the interchange of Interstate 5 and Highway 210) and from the Rinaldi Substation area to the City of Duarte through densely populated urban areas resulting in greater land use impacts Longer route than proposed Segments 6 and

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Alternative	Meets Project Purpose?	Feasible?	Meets Reliability Criteria?	Environmental Advantages	Environmental Disadvantages
			<p>conditions (i.e., loss of Rio Hondo-Vincent No. 2 500-kV T/L [energized at 220 kV]) reveals that the existing Rio Hondo-Vincent No. 1 220-kV T/L loads in excess of its maximum long-term emergency limit (by 4.4%). Therefore, this alternative would compromise system reliability and would therefore not meet CAISO/NERC/WECC requirements.</p>		<p>11 (approximately 42 miles longer) resulting in potentially greater air quality, biology, noise, and visual impacts</p>
<p>New Corridor Through Cajon Pass Alternative</p>	<p>This alternative would not result in sufficient system capability to interconnect and deliver up to 4,500 MW of generation resources from the TWRA (see #3 below), and would not improve the South of Lugo transmission constraints. It would, however, be expected to generally accommodate the projected load growth in the Antelope Valley.</p>	<p>This alternative would be feasible.</p>	<p>Implementation of a complex SPS would be required, which would not be practical or feasible. Therefore it would not comply with CAISO/NERC/WECC requirements.</p>	<ul style="list-style-type: none"> • Eliminates construction in Segments 6 and 11 through the ANF • Removes the existing Antelope-Mesa 220-kV T/L in Segment 6, which would reduce visual “clutter” 	<ul style="list-style-type: none"> • Would require establishing a new ROW (300-feet wide) from the Vincent Substation to the Lugo Substation and then south through the Cajon Pass, through the San Bernardino National Forest (SBNF), to the Cities of Fontana and Rialto • Longer route than Project/Action (approximately 10 miles longer) and would impact the SBNF resulting in potentially greater air quality, biology, noise, and visual impacts
<p>San Gabriel Valley New Corridor Alternative</p>	<p>This alternative would allow for the interconnection of up to 4,500 MW of new wind generation resources in the TWRA, would be designed to meet projected load growth in the Antelope Valley, and</p>	<p>This alternative would be feasible.</p>	<p>Meets CAISO/NERC/WECC requirements. No reliability issues identified.</p>	<ul style="list-style-type: none"> • Avoids environmental impacts associated with construction and operation of a 500-kV T/L along Segments 7 and 8a between the Rio Hondo Substation and Chino 	<ul style="list-style-type: none"> • Need to establish a new east-west T/L corridor (200-feet wide) for 20 miles along the foothills of the San Gabriel Mountains between Duarte and Rancho Cucamonga,

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Alternative	Meets Project Purpose?	Feasible?	Meets Reliability Criteria?	Environmental Advantages	Environmental Disadvantages
	would address South of Lugo transmission constraints.			Substation <ul style="list-style-type: none"> • 	resulting in additional environmental impacts (air quality, biological resources, land use, noise, traffic, visual) <ul style="list-style-type: none"> • East-west corridor would parallel the Sierra Madre Fault (geotechnical issues) • Potential need to acquire private property and/or residences resulting in additional land use impacts
SYSTEMS ALTERNATIVES					
Transmission Lines to Midway Substation Alternative	This alternative would allow for the interconnection of new wind generation resources in the TWRA; however the power would enter the PG&E system rather than SCE's system. Furthermore, this alternative would only provide a minimal benefit to load growth in the Antelope Valley, as the new wind generation would not connect into Antelope Substation. South of Lugo transmission constraints would be addressed by this alternative.	This alternative would be feasible.	Reliability of the PG&E system would need to be evaluated to ensure compliance with CAISO/NERC/WECC requirements.	<ul style="list-style-type: none"> • Eliminates construction between Antelope and Whirlwind Substations (approximately 16 miles) 	<ul style="list-style-type: none"> • Upgrades in Segments 5 through 11 would continue to be required • Longer than proposed route (approximately 76 miles) and within new ROW, resulting in greater air quality, biology, land use, noise, and visual impacts
Non-Transmission System Alternative	This alternative would not interconnect new wind generation resources in the TWRA, would not	This alternative would be feasible, although new sources of in-basin generation would need to be identified, evaluated, and built.	No reliability issues identified.	<ul style="list-style-type: none"> • No substantial or notable environmental advantages identified. Upgrades would continue to be required to integrate up to 4,500 MW of new wind generation in the TWRA. 	<ul style="list-style-type: none"> • New sources of in-basin generation would result in site-specific impacts associated with the construction and installation of new gas, solar, and/or geothermal

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Alternative	Meets Project Purpose?	Feasible?	Meets Reliability Criteria?	Environmental Advantages	Environmental Disadvantages
					<p>power plants, which would result in air quality, biology, land use, noise, traffic, and visual impacts, among others.</p> <ul style="list-style-type: none"> • Transmission upgrades may also be required to integrate these sources into the transmission system.

VIII.2 No Project Alternative

Under the No Project/Action Alternative, construction and operation of the Tehachapi Renewable Transmission Project would not occur. Environmental impacts associated specifically with the Project would not occur, and the objectives for the Project would remain unfulfilled. SCE would continue to operate and maintain the existing transmission structures, access, and spur roads for operations and maintenance purposes under a variety of agreements (with landowners and land managers) and permits (Forest Service and US Army Corps of Engineers [USACE]). SCE would also be required to interconnect and integrate power generation facilities into its electric system, as required under Sections 210 and 212 of the Federal Power Act (16 U.S.C. § 824 [i] and [k]) and Sections 3.2 and 5.7 of the CAISO's Tariff. Without new transmission infrastructure (north of Antelope Substation) and upgrades to the existing system (south of Antelope Substation), SCE would not be able to interconnect new renewable generation facilities and therefore would not meet Renewables Portfolio Standard requirements and the power needs of southern California. Therefore, under the No Project/Action Alternative, the following events or actions (scenarios) related to the electricity generation and transmission are reasonably expected to occur in the foreseeable future:

- As currently conceived, some wind projects in the Antelope Valley and Tehachapi areas may require alternate means of transmitting their electricity, as SCE's capacity to transmit energy from the TWRA would be limited to the 700 MW already approved for the Antelope Transmission Project. Any such alternative transmission projects would have to meet the same system reliability requirements.⁶
- The requirement of the Renewables Portfolio Standard (RPS), which requires retail sellers of electricity such as SCE and PG&E to increase their sale of electricity produced by renewable energy sources to 20 percent by 2010 (updated from 2017 to 2010 per the Energy Action Plan), may not be achieved as access to renewable energy from the Antelope Valley-Tehachapi region would either not be provided or would be delayed, and other sources of renewable energy would have to be developed.
- Other renewable energy resources would need to be identified and transmission studies would need to be conducted to connect these newly identified sources to the transmission grid, which would likely further limit achievement of the RPS goal by the 2010 deadline.
- The conceptual plan recommended by the Tehachapi Collaborative Study Group, as discussed in Section 1.2.1 of the Final EIR, would not be fully implemented. This plan is intended to collect power from Tehachapi area wind projects, interconnect facilities into the State's backbone grid, and upgrade the network to reliably deliver that power to load centers. The conceptual plan, which would allow for the transmission of over 4,000 MW of wind power, would not be fully achieved because as SCE's capacity to transmit energy from the TWRA would be limited to the 700 MW already approved for the Antelope Transmission Project.
- Transmission providers such as SCE, PG&E, LADWP, or Sagebrush would need to accommodate the power load by upgrading existing transmission infrastructure or building new transmission facilities along a different alignment and/or developers of wind generation facilities would need to build their own transmission facilities to connect to the transmission grid.
- The additional reliability needs of the CAISO-controlled grid due to projected load growth in the Antelope Valley would not be met and would have to be accommodated by other transmission upgrades to bring power into the area.

⁶ The Antelope Transmission Project, which provides 700 MW of transmission capacity, is comprised of three segments: Segment 1 or the Antelope-Pardee 500-kV Transmission Project (SCH No. 2005061161) and the Antelope Transmission Project, Segments 2 & 3 (SCH No. 2006041160) were previously analyzed and approved by the CPUC and Forest Service (Segment 1 only).

- The reliability issues of the existing Lugo-Mira Loma transmission lines within the Cajon Pass related to voltage collapse as a result of uncontrollable loss of load (in the event of wildfires or other natural disasters in the area) would persist.

As indicated above, 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 additional 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 for the development of a private transmission line, similar to the existing Sagebrush line, which could connect wind projects to the electrical grid. However, at this time, the Lead Agencies do not know what alternate transmission might be proposed in the future to accomplish the Project objectives if the Project is not implemented.

Finding/Rationale. The CPUC hereby finds that the No Project Alternative is infeasible and rejects this alternative in light of the considerations discussed above, the fact that environmental impacts similar to those of the proposed Project would likely occur in the foreseeable future even under the No Project Alternative based on current plans and consistent with available infrastructure (See Final EIR, Chapter 4), and because it will not provide the benefits of the Project discussed above.

VIII.3 Alternative 4: Chino Hills Alternatives

The following alternatives were analyzed in detail in Chapter 3 of the Final EIR as alternative routes within Segment 8 of the proposed Project:

VIII.3.1 Route A

Alternative 4A would deviate from Alternative 2 beginning about two miles east of State Route 57 (approximately S8A MP 19.2). At that point, the new Vincent-Mira Loma 500-kV transmission line would turn southeast, remaining parallel and south of the existing Walnut/Olinda-Mira Loma 220-kV double-circuit transmission line for approximately 6.2 miles, traversing Los Angeles, Orange, and San Bernardino Counties, including approximately 2.3 miles of Chino Hills State Park (CHSP). Along this portion of the alignment, approximately 150 feet of additional ROW would be required to accommodate the new 500-kV double-circuit structures. New permanent access and spur roads would be required to access the transmission structures and switching station constructed as part of this alternative. At the junction of the existing Walnut/Olinda-Mira Loma 220-kV transmission lines and the existing Serrano-Mira Loma and Serrano-Rancho Vista 500-kV transmission lines, the new Vincent-Mira Loma 500-kV transmission line would terminate into a new 500-kV gas-insulated switching station. The existing 500-kV lines would be looped into the new switching station allowing for power to be transferred along the existing 500-kV lines to Mira Loma Substation.

From the point of deviation (S8A MP 19.2) to the new switching station (6.2 miles), approximately 21 new double-circuit 500-kV structures would be required, of which approximately 8 to 10 structures would be within CHSP. In addition, the re-route work at the new switching station would include replacing one existing single-circuit 220-kV dead-end lattice structure with one single-circuit 220-kV 3-pole steel dead-end structure; the relocation of two existing single-circuit 500-kV dead-end lattice structures; and the installation of two new single-circuit 500-kV dead-end lattice structures outside of the switching station

area. At the point of deviation (S8A MP 19.2), an existing 220-kV lattice structure would also be replaced with a 220-kV lattice dead-end structure to move the wires out of the way for the new 500-kV wires and structures. As a result of this alternative, no upgrades would occur in Segment 8A between S8A MP 19.2 and 35.2 (16 miles) or in Segment 8C (6.4 miles) through Chino Hills, Chino, and Ontario. Consequently, approximately 78 double-circuit 500-kV structures (18 LSTs and 60 TSPs) would no longer be constructed within Segment 8A. However, upgrades would occur in Segment 8B (Chino-Mira Loma No. 1 and No. 2) between Chino and Mira Loma Substations (6.8 miles) through the cities of Chino and Ontario, and would include the construction of approximately 37 new double-circuit 220-kV transmission structures.

Finding/Rationale. The CPUC hereby finds that Route A of Alternative 4 is environmentally inferior to the Project and rejects this portion of the alternative as infeasible for the following reasons:

- Traverses the least distance of agricultural land (77.2 miles) compared to Alternatives 4B-4D, but more than all the other alternatives, which makes this alternative environmentally inferior to the Project.
- Slightly higher air quality emissions in Segment 8 than the Project due to additional emissions for construction of the new switching station that more than compensates the reduction in emissions from the reduction in new towers. GHG emissions would also be higher during operation due to new switchyard SF₆ use.
- Net increase to disturbance of sensitive vegetation communities as route would traverse primarily natural habitats such as CHSP whereas the Project would traverse primarily disturbed and developed lands, as well as agricultural lands.
- Results in increased construction and ground disturbance in hillside areas with known landslides and slope stability issues, as well as earthquake induced slope failures. The increased ground disturbance resulting from the greater amount of grading required for access and spur roads, and for construction of the new switching station also results in an increase in potential to accelerate or trigger erosion and destroy paleontologic resources.
- Would affect high quality, natural streams within CHSP that would not be affected by Alternatives 2, 3, and 7.
- This alternative would be inconsistent with the CHSP General Plan.
- Visual integrity would be degraded by a new double-circuit 500-kV transmission line alongside an existing 500-kV single-circuit transmission line near the north boundary of CHSP. Switching station would be in CHSP and on a hillside that would be very visible in the foreground from existing hiking and equestrian trails, and in the middleground from the Horse Camp.
- Would affect more resources (biological, visual, wilderness/recreation, etc.) in CHSP than the Project.
- Increases the miles of new transmission lines through high-risk Tehachapi Fireshed by 6.2 miles as compared to Alternative 2, thereby increasing the potential for construction and operational ignitions in high-risk fuels areas.
- Alternative 4A would be located in an area of higher cultural resources sensitivity than the Project, as a greater number of cultural resources have been identified in the Area of Potential Effect (APE).

Reference. Final EIR Chapter 3 and Chapter 4

VIII.3.2 Route B

Alternative 4B would deviate from Alternative 2 beginning about two miles east of State Route 57 (approximately S8A MP 19.2). At that point, the new Mira Loma-Vincent 500-kV transmission line would

turn southeast, remaining parallel and north of the existing Walnut/Olinda-Mira Loma 220-kV double-circuit transmission line for approximately 4.2 miles, traversing Los Angeles, Orange, and San Bernardino Counties. The alternative route would then enter CHSP, continuing to parallel the existing 220-kV double-circuit T/L for approximately 4.9 miles, at which point the new Mira Loma-Vincent 500-kV transmission line would exit the east side of CHSP. The new transmission line would continue parallel to the existing 220-kV double-circuit transmission line for another approximately 0.6 mile outside of CHSP before turning south, crossing the existing transmission lines, to terminate at a new 500-kV gas-insulated switching station located just south of the existing 500-kV transmission lines. Approximately 150 feet of additional ROW would be required to accommodate the new 500-kV double-circuit structures along the 9.7-mile re-route associated with this alternative. New permanent access and spur roads would be required to access the transmission structures and switching station constructed as part of this alternative. The existing 500-kV transmission lines located in this area would be looped into the new switching station, allowing for power to be transferred along the existing 500-kV transmission lines to Mira Loma Substation.

From the point of deviation (S8A MP 19.2) to the new switching station, approximately 37 new double-circuit 500-kV structures would be required, of which approximately 18 to 21 structures would be within CHSP. In addition, the re-route work at the new switching station would include replacing four existing double-circuit 220-kV suspension and dead-end lattice structure with four single-circuit 220-kV 3-pole steel dead-end structures; replacing two existing double-circuit 500-kV suspension lattice structures with dead-end structures; and the installation of two new double-circuit 500-kV dead-end lattice structures outside of the switching station area. At the point of deviation (S8A MP 19.2), an existing 220-kV lattice structure would also be replaced with a 220-kV lattice dead-end structure to move the wires out of the way for the new 500-kV wires and structures. As a result of this alternative, no upgrades would occur in Segment 8A between S8A MP 19.2 and 35.2 (16 miles) or in Segment 8C (6.4 miles) through Chino Hills, Chino, and Ontario. Consequently, approximately 78 double-circuit 500-kV structures (18 LSTs and 60 TSPs) would no longer be constructed within Segment 8A. However, upgrades would occur in Segment 8B (Chino-Mira Loma No. 1 and No. 2) between Chino and Mira Loma Substations (6.8 miles) through the cities of Chino and Ontario, and would include the construction of approximately 37 new double-circuit 220-kV transmission structures.

Finding/Rationale. The CPUC hereby finds that Route B of Alternative 4 is environmentally inferior to the Project and rejects this portion of the alternative as infeasible for the following reasons:

- Same acreage of Farmland converted as Alternative 4A, but traverses 79.8 miles of agricultural land, which makes this alternative environmentally inferior to the Project.
- Higher air quality emissions in Segment 8 than Alternative 4A.
- Net increase to disturbance of sensitive vegetation communities as route would traverse primarily natural habitats such as CHSP whereas the Project would traverse primarily disturbed and developed lands and agricultural lands.
- Results in more miles of construction in hillside areas with known landslides and slope stability issues, as well as earthquake induced slope failure hazards compared to the Project and all other alternatives. Alternative 4B has an incrementally increased potential for damage from surface fault rupture due to the location of the switching station adjacent to or on the mapped trace of the Alquist-Priolo zoned Chino Fault compared to the Project.
- Would affect high quality, natural streams within CHSP that would not be affected by the Project or Alternatives 2, 3, and 7.
- This alternative would be inconsistent with the CHSP General Plan, unlike the Project.

- Visual integrity would be compromised by a new double-circuit 500-kV transmission line through the center of CHSP further cluttering the visual environment of the Park. Switching station would be very visible in the foreground from Butterfield Ranch Road.
- This route alternative would have the most impacts to recreation resources and recreational opportunities in the CHSP.
- Increases the miles of new transmission line through high-risk Tehachapi Fireshed by 9.7 miles, which would increase the potential for construction and operational ignitions in high-risk fuels areas.
- Alternative 4B would be located in an area of higher cultural resources sensitivity than the Project, as a greater number of cultural resources have been identified in the APE.

Reference. Final EIR Chapter 3 and Chapter 4

VIII.3.3 Route C / Route C Modified

Route 4C

Alternative 4C would deviate from the Alternative 2 beginning about two miles east of State Route 57 (approximately S8A MP 19.2). At that point, the new Mira Loma-Vincent 500-kV transmission line would turn southeast, and remain parallel and south of the existing Walnut/Olinda-Mira Loma 220-kV double-circuit transmission line up to the CHSP boundary (approximately 4.2 miles). Along this portion of the alignment, approximately 150 feet of additional ROW would be required to accommodate the new 500-kV double-circuit structures. At this point, the alternative route would turn east along a new approximately 300-foot-wide ROW for approximately 1.5 miles, which would remain just north of the CHSP boundary, to a new 500-kV gas-insulated switching station. Approximately 19 double-circuit 500-kV LSTs would be required for this approximately 5.7-mile re-route to the new switching station. In addition, at the point of deviation (S8A MP 19.2), an existing 220-kV lattice structure would be replaced with a 220-kV lattice dead end structure to move the wires out of the way for the new 500-kV wires and structures.

The two existing 500-kV single-circuit transmission lines located within CHSP would be re-routed to allow them to loop into the new switching station, allowing for power to be transferred along the existing 500-kV transmission lines to Mira Loma Substation. Approximately 3.6 miles of new ROW would be required to re-route the existing 500-kV transmission lines in and out of the new switching station. The new north-south re-route into the switching station (1.6 miles, of which 1.5 miles is within CHSP) would require an approximately 330-foot wide ROW to accommodate the two 500-kV single-circuit structures. The new east-west re-route beginning at the switching station and proceeding north and east around raptor ridge (2.0 miles, of which 1.6 miles is within CHSP) would require an approximately 480-foot wide ROW to accommodate the two 500-kV single-circuit structures and the re-routed 220-kV double-circuit structures. To complete the two re-routes of the 500-kV transmission lines (approximately 3.6 miles) would require approximately 30 new single-circuit 500-kV LSTs (approximately 25 within CHSP and 5 outside CHSP). In addition, approximately 17 LSTs (approximately 13 of which are within CHSP) of the existing single-circuit 500-kV transmission lines would be removed (approximately 2.5 miles).

A portion of the existing 220-kV transmission lines within CHSP would also be re-routed as part of this alternative. Beginning just west of the CHSP boundary (outside of CHSP), the existing 220-kV double-circuit structures would be re-routed to parallel the new 500-kV double-circuit structures along the northern boundary of CHSP to the new switching station (approximately 1.45 miles). As noted above, the new ROW in this area would be approximately 300-foot wide, to accommodate the 500-kV double-circuit and 220-kV double-circuit structures. The 220-kV transmission lines would continue past the switching station, paralleling the re-routed 500-kV transmission lines for approximately 0.36 mile to the boundary of CHSP.

At this point, the re-routed 220-kV and 500-kV transmission lines would enter CHSP for approximately 1.62 mile to reconnect with the existing 220-kV and 500-kV structures. As noted above, the new ROW in this area would be approximately 480-feet wide. To complete the approximately 3.43-mile 220-kV re-route, approximately 17 new double-circuit 220-kV LSTs would be required (approximately 5 to 7 within CHSP). In addition, approximately 12 existing 220-kV double-circuit LSTs within CHSP and 2 outside CHSP (14 total) would be removed (2.4 miles).

As a result of this alternative, no upgrades would occur in Segment 8A between S8A MP 19.2 and 35.2 (16 miles) or in Segment 8C (6.4 miles) through Chino Hills, Chino, and Ontario. Consequently, approximately 78 double-circuit 500-kV structures (18 LSTs and 60 TSPs) would no longer be constructed within Segment 8A. However, upgrades would occur in Segment 8B (Chino-Mira Loma No. 1 and No. 2) between Chino and Mira Loma Substations (6.8 miles) through the cities of Chino and Ontario, and would include the construction of approximately 37 new double-circuit 220-kV transmission structures.

Route 4C Modified

Alternative 4, Route C Modified (“Route 4C Modified”) is similar to the original Route C option discussed above, with the exceptions that (1) the new gas-insulated switching station would be located approximately 2,500 feet northwest of the location described for the original Alternative 4C, (2) transmission line configurations and access roads would be altered to account for relocation of the switching station, and (3) re-routing of the existing single-circuit 500-kV towers in CHSP to the new switching station would occur utilizing double-circuit 500-kV towers as opposed to two parallel single-circuit 500-kV towers. As with the original Route C, this proposed Route 4C Modified would also divert from the Project Segment 8A at Mile 19.2, as well as re-route the existing 500-kV and 220-kV transmission lines from within CHSP, through a new switching station located north of CHSP.

Finding/Rationale. The CPUC hereby finds that Route C of Alternative 4 is environmentally inferior to the Project and rejects this portion of the alternative as infeasible for the following reasons:

- Same acreage of Farmland converted as Alternative 4A, but Alternative 4C traverses 84.4 miles of agricultural land and Alternative 4C Modified traverses 85.5 miles of agricultural land. This is more than the Project, which makes this alternative environmentally inferior.
- Highest air quality emissions in Segment 8 of the Alternative 4 routes, with 4C Modified being the highest.
- Alternative 4C and/or 4C Modified would not be preferable to the Project from a Biological Resources perspective as it would result in a net increase to disturbance of sensitive vegetation communities, wildlife, and habitat, including riparian areas, as the route would traverse primarily natural habitats such as CHSP whereas the Project would traverse primarily disturbed and developed lands, as well as agricultural lands.
- Results in increased construction and ground disturbance in hillside areas with known landslides and slope stability issues, as well as earthquake induced slope failures due to its longer length. The increased ground disturbance resulting from the greater amount of grading required for access and spur roads, and for construction of the new switching station also results in an increase in potential to accelerate or trigger erosion and destroy paleontologic resources.
- Alternative 4C and/or 4C Modified would also be less preferred than Alternatives 4A and 4B from an Environmental Contamination and Hazards perspective because these routes would be placed near a former burn area at the Aerojet Chino Hills ammunitions test facility, and final DTSC clearance has not been completed for all areas. Although prudent selection of structure locations and new access

roads could avoid the waste area, it may still increase the potential to encounter environmental contamination, ordnance, and hazards.

- Would affect high quality, natural streams within CHSP that would not be affected by the Project or Alternatives 2, 3, and 7. Route 4C also crosses six additional streams and Route 4C Modified crosses eight additional streams (compared to other Alternative 4 Routes).
- This alternative would be inconsistent with the CHSP General Plan, unlike the Project.
- Alternative 4C Modified would potentially place the switching station within view of KOP-South-22: Vellano Development.
- Would affect more resources (biological, visual, wilderness/recreation, etc.) in CHSP than the Project.
- Alternative 4C increases the miles of new transmission line through high-risk Tehachapi Fireshed by 9.3 miles; Alternative 4C Modified increases the miles of new transmission line through high-risk Tehachapi Fireshed by 8.3 miles. This would increase the potential for construction and operational ignitions in high-risk fuels areas.
- Alternative 4C and/or 4C Modified would be located in an area of higher cultural resources sensitivity than the Project, as a greater number of cultural resources have been identified in the APE.

Reference. Final EIR Chapter 3 and Chapter 4

VIII.3.4 Route D

Alternative 4D would deviate from Alternative 2 beginning about two miles east of State Route 57 (approximately S8A MP 19.2). At that point, the new Mira Loma-Vincent 500-kV transmission line would turn southeast, remaining parallel and north of the existing Walnut/Olinda-Mira Loma 220-kV double-circuit transmission line for approximately 4.2 miles, up to the CHSP boundary, traversing Los Angeles, Orange, and San Bernardino Counties. Along this portion of the alignment, approximately 150-foot of additional ROW would be required to accommodate the new 500-kV double-circuit structures. At this point, the new Mira Loma-Vincent 500-kV transmission line would turn east within a new 200-foot-wide ROW and follow the northern boundary of CHSP for approximately 3.7 miles to just east of Bane Canyon. At this point the alignment would turn southeast, traversing the northeast corner of CHSP for approximately 1.4 miles, at which point the new 500-kV transmission line would turn northeast again parallel and north of the existing transmission lines for approximately 0.5 mile (outside CHSP) before terminating at a new 500-kV gas-insulated switching station located outside of CHSP, just south of the existing 500-kV transmission lines. For this approximately 9.8-mile re-route, approximately 47 new double-circuit 500-kV structures would be required, of which approximately 5 to 8 would be within CHSP. In addition, the re-route work at the new switching station would include replacing four existing double-circuit 220-kV suspension and dead-end lattice structure with four single-circuit 220-kV 3-pole steel dead-end structures; replacing two existing double-circuit 500-kV suspension lattice structures with dead-end structures; and the installation of two new double-circuit 500-kV dead-end lattice structures outside of the switching station area. At the point of deviation (S8A MP 19.2), an existing 220-kV lattice structure would also be replaced with a 220-kV lattice dead-end structure to move the wires out of the way for the new 500-kV wires and structures.

As a result of this alternative, no upgrades would occur in Segment 8A between S8A MP 19.2 and 35.2 (16 miles) or in Segment 8C (6.4 miles) through Chino Hills, Chino, and Ontario. Consequently, approximately 78 double-circuit 500-kV structures (18 LSTs and 60 TSPs) would no longer be constructed within Segment 8A. However, upgrades would occur in Segment 8B (Chino-Mira Loma No. 1 and No. 2) between Chino and Mira Loma Substations (6.8 miles) through the cities of Chino and Ontario, and would include the construction of approximately 37 new double-circuit 220-kV transmission structures.

Finding/Rationale. The CPUC hereby finds that Route D of Alternative 4 is environmentally inferior to the Project and rejects this portion of the alternative as infeasible for the following reasons:

- Same acreage of Farmland converted as Alternative 4A, but traverses 80.8 miles of agricultural land. This is more than the Project, which makes this alternative environmentally inferior.
- Higher air quality emissions in Segment 8 than Alternatives 4A and 4B.
- Net increase to disturbance of sensitive vegetation communities as route would traverse primarily natural habitats such as CHSP whereas the Project would traverse primarily disturbed and developed lands, as well as agricultural lands.
- Results in more miles of construction in hillside areas with known landslides and slope stability issues, as well as earthquake induced slope failure hazards compared to all other Project alternatives. Alternative 4D has increased potential for damage from surface fault rupture due to the location of the switching station adjacent to or on the mapped trace of the Alquist-Priolo zoned Chino Fault compared to the Project.
- Alternative 4D would be the least preferred of the Alternative 4 routes from an Environmental Contamination and Hazards perspective, as some of its elements (i.e., transmission structures) would be placed within 100 to 400 feet of a former burn area at the Aerojet Chino Hills ammunition test facility. The proximity to this area increases the potential to encounter environmental contamination and hazards, although prudent selection of structure locations and new access roads could avoid the waste area.
- Would affect high quality, natural streams within CHSP that would not be affected by the Project or Alternatives 2, 3, and 7.
- This alternative would be inconsistent with the CHSP General Plan, unlike the Project.
- Visual integrity would be compromised by a new double-circuit 500-kV transmission line aligned along the north boundary of CHSP and crossing over Bane Canyon near the entry kiosk. Switching station would be very visible in the foreground from Butterfield Ranch Road.
- Would affect more resources (biological, visual, wilderness/recreation, etc.) in CHSP than the Project.
- Increases the miles of new transmission line through high-risk Tehachapi Fireshed by 9.8 miles. Would also introduce a new 5.3-mile linear element to a high-risk fuel laden landscape and create an indefensible space of approximately 2,000 acres in combination with existing transmission lines, thereby increasing potential interference with fire suppression efforts.
- Alternative 4D would also be located in an area of higher cultural resources sensitivity than the Project, as a greater number of cultural resources have been identified in the APE.

Reference. Final EIR Chapter 3 and Chapter 4

VIII.4 Alternative 5: Partial Underground Alternative

Alternative 5 would utilize underground construction through Chino Hills between approximately S8A MP 21.9 and 25.4 in place of the proposed overhead line construction, following generally the same route as Alternative 2. Beginning just west of the dead-end of Eucalyptus Avenue (~S8A MP 21.9) the proposed double-circuit 500-kV transmission line would transition from overhead to underground via a new transition station. The underground segment would continue underground generally following the existing ROW for approximately 3.5 miles through the developed area of Chino Hills to an area just west of Pipeline Avenue and State Highway 71 (~S8A MP 25.4), where a transition station would be placed to convert the double-

circuit 500-kV transmission line back from underground to overhead. The existing 220-kV transmission line along Segment 8A would be left in place from approximately S8A MP 21.9 to 25.4.

Finding/Rationale. The CPUC hereby finds that Alternative 5 is environmentally inferior to the Project and rejects this alternative as infeasible for the following reasons:

- Substantially increases construction requirements, including use of large equipment and more truck trips to transport materials on and off site. Operating GHG emissions would be higher than the Project due to greater maintenance requirements and use of SF₆.
- Same number of cultural resources identified in the APE as the Project; however, there is a greater potential to affect cultural resources than the Project because the unique construction methods may affect more area than above-ground construction resulting in greater physical impacts.
- Underground construction activities and construction of large transition stations results in an increase in ground disturbance compared to the Project, which increases the potential for construction triggered erosion and construction related damage or destruction of paleontological resources. The eastern transition station and east end of tunnel would be located along the projected trend of the active Chino Fault, increasing the potential for fault rupture as compared to the Project. The tunnel portion of the alignment could also result in ground subsidence/ settlement that would potentially damage overlying structures, which would not occur with any of the other alternatives.
- Potential to come into direct contact with groundwater resources in the Chino Hills area.
- Results in permanent loss of non-residential land uses along Segment 8A to accommodate Eastern Transition Station. No other alternative results in permanent loss of any existing or planned land use.
- Same potential utility service interruptions associated with construction as the Project; however, reliability of the system is unknown due to the lack of precedence in installing GIL systems of the length and voltage proposed.
- Potential effects on local business revenue resulting from extended construction schedule.
- Extended construction schedule would increase the duration of traffic impacts.
- Retains the elements that Alternative 4 eliminates in Segment 8, specifically the rebuilding of 16 miles of 220-kV transmission lines with double-circuit 500-kV transmission lines between S8A MP 19.2 and 35.2; and includes two large transition stations, similar in appearance to a typical substation, all of which have adverse and significant visual impacts. Existing de-energized transmission line would remain in place aboveground along the underground portion.

Reference. Final EIR Chapter 3 and Chapter 4

IX. Responses to Comments on the Draft EIR/EIS and Revisions to the Final EIR

The Final EIR includes the comments received on the Draft EIR/EIS and responses to those comments. The focus of the responses to comments is on the disposition of significant environmental issues as raised in the comments, as specified by CEQA Guidelines §15088(b).

Finding/Rationale. Responses to comments made on the Draft EIR/EIS and revisions made in the Final EIR merely clarify and amplify the analysis presented in the document and do not trigger the need to recirculate, per CEQA Guidelines §15088.5(b).

X. Custodian of Records

The documents and other materials that constitute the record of proceedings on which the Project findings are based are located at the California Public Utilities Commission, 505 Van Ness Avenue, San Francisco, CA 94102. The custodian for these documents is the Energy Division, CEQA Unit. This information is provided in compliance with Public Resources Code §21081.6(a)(2) and CEQA Guidelines §15091(e).

XI. Adoption of the Mitigation Monitoring Plan for CEQA Mitigation Measures

Section 21081.6 of the Public Resources Code requires this Commission to adopt a monitoring or reporting program regarding the changes in the Project and mitigation measures imposed to lessen or avoid significant effects on the environment. The Mitigation Monitoring Plan (MMP) is adopted because it fulfills the CEQA mitigation monitoring requirements:

- The Mitigation Monitoring Plan is designed to ensure compliance with the changes in the Project and mitigation measures imposed on the Project during Project implementation.
- Measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures.

The MMP is presented as **Attachment XX to the Decision**. The MMP is hereby adopted by the CPUC.

XII. References

APLIC/Service (Avian Power Line Interaction Committee/U.S. Fish and Wildlife Service). 2005. Avian Protection Plan (APP) Guidelines. Washington, D.C. 88 pp.

Bagley, Ken. 2008. "Memorandum Re: Need for the Tehachapi Transmission Project"

Best, T.L. 1995. *Spermophilus mohavensis*. *Mammalian Species* 509:1-7.

California Invasive Plant Council (Cal IPC). 2009. Invasive Plants of California's Wildland. [online] <http://www.cal-ipc.org/ip/management/ipcw/pages/detailreport.cfm@usernumber=21&surveynumber=182.php>. Accessed September 29.

Caltrans (California Department of Transportation). 2007. "Stormwater Quality Handbooks, Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual." March.

CDFG (California Department of Fish and Game). 1994a. A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607. Environmental Services Division.

CEC (California Energy Commission). 2009. Renewable Energy Transmission Initiative (RETI). [online]: <http://www.energy.ca.gov/reti/index.html>. Accessed September 29.

_____. 2009. "2007 Integrated Energy Policy Report." November. [online]: http://www.energy.ca.gov/2007_energypolicy/index.html. Accessed September 29.

- CPUC (California Public Utilities Commission), 2009. Rules for Overhead Electric Line Construction. www.cpuc.ca.gov/PUBLISHED/GENERAL_ORDER/52593.pdf. [online] Accessed September 29.
- _____. 2004. "Interim Opinion on Transmission Needs in the Tehachapi Wind Resource Area." Investigation 00-11-001, Decision 04-06-010. June 9. [online]: http://docs.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/37393.htm. Accessed September 29, 2009.
- Geotechnical Consultants, Inc. (GTC), prepared under subcontract to Aspen Environmental Group. 2009. Tehachapi Renewable Transmission Project Geology, Soils, and Paleontology Specialist Report. August.
- Keeley, J.E., C.J. Fotheringham, and M. Morais. 1999. Reexamining fire suppression impacts on shrubland fire regimes. *Science* 284:1829-1832.
- Landres, P.B., P. Morgan, and F.J. Swanson. 1999. Overview of the use of natural variability concepts in managing ecological systems. *Ecological Applications* 9: 1179-1188.
- RETI (Renewable Energy Transmission Initiative) Coordinating Initiative. 2009. Renewable Energy Transmission Initiative: Phase 1B. Final Report. January. [online]: <http://www.energy.ca.gov/reti/documents/index.html>. Accessed September 29, 2009.
- SCE (Southern California Edison. 2007a. Proponent's Environmental Assessment for the Tehachapi Renewable Transmission Project. Application No. A.07-06-031. June 29.
- Syphard, A.D., V.C. Radeloff, J.E. Keeley, T.J. Hawbaker, M.K. Clayton, S.I. Stewart, and R.B. Hammer. 2007. Human influence on California Fire Regimes. *Ecological Applications* 17(5): 1388-1402.
- TCSG (Tehachapi Collaborative Study Group). 2005. "Development Plan for the Phased Expansion of Electric Power Transmission Facilities in the Tehachapi Wind Resource Area." March 16. [online]: <http://www.cleanpower.org/ceert-reports.php>. Accessed September 29, 2009.
- USDA (United States Department of Agriculture). 2005. Land Management Plan: Part 1 Southern California National Forests Vision. Forest Service. Pacific Southwest Region. R5-MB-075.
- _____. 2000. "Water Quality Management for Forest System Lands in California, Best Management Practices." September.
- Wiedinmyer, C. and J.C. Neff, 2007. Estimates of CO₂ from fires in the United States: implications for carbon management. *Carbon Balance and Management*. 2007, 2:10.