

1  
2 **6.0 Cumulative Impacts and Other CEQA Considerations**  
3

4 This section addresses cumulative impacts and other considerations in accordance with the California  
5 Environmental Quality Act (CEQA), including growth-inducing impacts, significant and unavoidable  
6 adverse impacts, and significant and irreversible environmental changes, that may occur as a result of the  
7 South Orange County Reliability Enhancement Project (proposed project).  
8

9 **6.1 Cumulative Impacts**  
10

11 In accordance with CEQA (CEQA Guidelines Section 15130 *et seq.*) this Environmental Impact Report  
12 (EIR) analyzes the cumulative impacts of the proposed project in conjunction with other developments  
13 that affect or could affect the project area. According to CEQA, a cumulative impact refers to two or  
14 more individual effects that are considerable when taken together, or that compound or increase other  
15 environmental impacts (CEQA Guidelines Section 15355). CEQA requires the cumulative impacts  
16 discussion to reflect the likelihood that the impacts would occur and their severity if they did occur, but  
17 allows the discussion to contain less detail than must be provided for individual impacts. To comply with  
18 CEQA, a cumulative scenario has been developed that identifies and evaluates past, present, and  
19 reasonably foreseeable future projects within the cumulative study area that would be constructed or  
20 commence operation during the timeframe of activity associated with the proposed project.  
21

22 **6.1.1 Methodology**  
23

24 The following steps were used to develop the cumulative impacts analysis.  
25

26 **6.1.1.1 Past, Present, and Reasonably foreseeable Project List**  
27

28 A list of past, present, and reasonably foreseeable development projects within 1 mile of a component of  
29 the proposed project is presented in Table 6-1. This list includes both approved and pending projects that  
30 are anticipated to be either under construction or operational by the time the proposed project is  
31 completed. Information pertaining to past, present, and reasonably foreseeable future projects was  
32 obtained from the Planning Department and Division websites of the County of San Diego Planning and  
33 Development Services, Orange County Community Development Department, the City of San Clemente,  
34 and the City of San Juan Capistrano. Information on cumulative projects was also obtained from the  
35 California Public Utilities Commission (CPUC), California Independent System Operator (CAISO),  
36 California Department of Transportation (Caltrans), the California Office of Planning and Research  
37 (CEQANet Database 2014); the California Energy Commission, the U.S. Environmental Protection  
38 Agency, and San Diego Gas & Electric Company (SDG&E, or the applicant).  
39

40 As further discussed below, since the area within which a cumulative impact can occur varies by resource  
41 area, for the purpose of this analysis, the geographic scope also varies according to the resource being  
42 evaluated. Therefore, Table 6-1, does not include all projects that could contribute to cumulative impacts  
43 along with the proposed project; rather, it includes a number of concurrent projects in the area to  
44 demonstrate the scope and nature of development in Orange and San Diego counties.  
45

46 **6.1.1.2 Geographic Scope and Time Frame**  
47

48 Cumulative impacts most likely occur when impacts of a proposed project occur in the same or adjacent  
49 geographic location and at the same or similar time. Therefore, cumulative impacts are considered within

1 specific geographic scopes and time frames. The geographic scope and timeframe of analysis for each  
2 resource are defined in Section 6.4.

3  
4 The geographic scope (i.e., cumulative study area) used in this analysis varies by resource area.  
5 Generally, the cumulative study area for a particular resource is the same as the study area identified for  
6 that resource as defined in Chapter 4, “Environmental Analysis”, but it also extend beyond that study  
7 area.

8  
9 The time frame used in this analysis considers the past, present, and reasonably foreseeable future  
10 conditions within the cumulative study area. In addition, the time frame reflects the concerns associated  
11 with each resource, the cumulative study area, the proposed project, and how other important resources  
12 may be affected.

13  
14 In instances where the analysis in Chapter 4, “Environmental Analysis,” determines that the proposed  
15 project would result in no impact, the associated significance criterion is dismissed from the cumulative  
16 impacts analysis in Section 6.1.3.

### 17 18 **6.1.1.3 Cumulative Impact Analysis**

19 Cumulative impacts of the proposed project are discussed with respect to impacts of the projects included  
20 in the cumulative scenario (Section 6.3). The same significance criteria applied to the impacts analyses  
21 presented in Chapter 4, “Environmental Analysis,” are applied to the cumulative impacts analyses  
22 presented in this chapter.

23  
24 The following two-step approach is taken for each of the cumulative impacts analyses presented in  
25 Section 6.4:

- 26  
27 1. The analyses determine whether the combined impacts from both the proposed project and other  
28 projects would be “cumulatively significant,” i.e., result in a significant cumulative impact.
- 29  
30 2. If the combined impacts would result in a cumulatively significant impact, the analyses consider  
31 whether the incremental impacts of the proposed projects are “cumulatively considerable” and  
32 thus significant.

## 33 **6.2 Past, Present, and Reasonably Foreseeable Projects**

34  
35 A list of development projects within the cumulative study area is presented in Table 6-1. Figure 6-1  
36 depicts the location of each project. Each location is labeled with a number that correspond to those  
37 presented in Table 6-1.

Table 6-1 Past, Present, and Reasonably Foreseeable Future Projects within One Mile of the Proposed Project

Project Number	Project Name	Description of Project	Project Location	Approximate Distance from Proposed Project Area	Environmental Review and Construction Schedule
<b>County of Orange</b>					
O1	La Pata Avenue Gap Closure and Camino Del Rio Extension Project (OCPW 2014a; SDG&E 2012)	<p>This project will eliminate an existing gap in the County arterial highway system and establish a connection between Ortega Highway (SR-74) to the north and Avenida Vista Hermosa to the south. This project also includes the completion of the planned extension of Camino Del Rio to Avenida La Pata.</p> <p>This project will require the relocation of Transmission Line (TL) 13835, TL13816, and TL13833. In addition, SDG&amp;E single-wood pole No. 327390 (roadway), single-wood pole No. 327389 (remedial grading), double-wood poles No. 221648 (remedial grading), and double-wood poles No. 221649 (remedial grading) would be affected by this project. The circuit structures and conductors are being moved to accommodate changes to La Pata Avenue, and no conductor upgrades are being planned, which will increase transmission capacity. All work will be done within existing transmission line easements, and the total length of the section being relocated is less than 2,000 feet.</p>	Unincorporated Orange County, city of San Clemente	Immediately adjacent to TL Pole Nos. 18 through 31	The Orange County Board of Supervisors approved the Plans and Specifications for the Project on August 20, 2013 and awarded the construction contract on December 10, 2013. Construction of the La Pata Extension Project continues on the La Pata Gap Connector Phase and is scheduled for completion in Fall 2016.
O2	The Ranch Plan Planned Community Project/ Rancho Mission Viejo/Sendero Village (OCPW 2014b; SDG&E 2012)	<p>The Ranch Plan Planned Community includes 14,000 residential units, 3.48 million square feet of urban activity center uses, 500,000 square feet of Neighborhood Center uses, 1.22 million square feet of Business Park uses, a 25-acre golf resort, and 15,132 acres of open space.</p> <p>The first village on the Ranch would be Sendero, scheduled to open in summer of 2013 and currently under construction. The Sendero Village would be 690 acres in size and would include approximately 940 attached and detached homes, 200 apartment units, a gated active adult enclave of 285 single-level residences adjacent to a private clubhouse, and recreational facilities. Additional features include a community hall, clubhouse and recreational core, a 15-acre community park, neighborhood parks, hiking/biking trails accessing hiking and biking trails network, a 10-acre retail plaza, fire station, and a child day care center.</p>	Unincorporated Orange County	Planning Area 1 (Sendero) is located adjacent to the 12-kV distribution line segments F, G, and H.	This project was under construction as of December 1, 2014, with full build out anticipated by 2030.
O3	Prima Deshecha Landfill (OCIWMD 2006; Orange County Register 2013)	A 409-acre section of the landfill is scheduled to open for operation in 2019, when Zone 1—the 290-acre landfill operation currently visible from homes around Camino de los Mares—will close. The zone that opens in 2019 is to remain active until 2067. Prima Deshecha Energy LLC also operates two 3-MW LNG (methane gas) generation units at the landfill.	Prima Deshecha Landfill	Adjacent to Segment 3	Use anticipated to begin in 2019
O4	Cow Camp Road Project	The Cow Camp Road project includes the establishment of an alignment, design, and construction of a new major arterial highway between Antonio Parkway and the Foothill Transportation Corridor with future extension to Ortega Highway. This project will traverse the Rancho Mission Viejo Planned Community. This project will be constructed in two segments, Antonio Parkway to Foothill Transportation Corridor (Cow Camp Road - Segment 1) and Foothill Transportation Corridor to Ortega Highway (Cow Camp Road - Segment 2). Construction of each segment may be phased based on funding availability. Project construction has been awarded. Bridge and roadway construction are projected to be completed by December 2015	Intersects with Antonio Parkway northeast of Ortega Highway	Approximately 0.45 mile northeast of distribution line segment F	Project was under construction as of December 1, 2014, with full build out by December 2015.
SC1	Avenida La Pata Capital Project (City of San Clemente 2014a)	This project consists of rehabilitating Avenida La Pata from Via Onda to Calle Extremo. Deteriorated and deficient curb, gutter, access ramps, and pavement areas will be reconstructed as needed. The Avenida La Pata/ Avenida Pico intersection and the southwest side of Avenida La Pata from Onda to Avenida Pico will be cold milled as necessary to make grade. The entire road width will be overlaid with 2 inches of rubberized asphalt.	The Avenida La Pata / Avenida Pico intersection	Adjacent to Segment 4t	Part of 2015 CIP budget
<b>City of San Juan Capistrano</b>					
SJ1	Historic Town Center (San Juan Capistrano) Master Plan (City of San Juan Capistrano 2012; SDG&E 2012)	This project involves re-defining the zoning and land use plan for the downtown area of San Juan Capistrano. This project would provide guidance for future redevelopment of the downtown San Juan Capistrano area. The Mission Gate House Preservation Project is one of the first development projects under the Historic Town Center Master Plan. The overall project size is approximately 150 acres.	Downtown San Juan Capistrano – SR-74, Camino Capistrano, Del Obispo Street	0.6 mile southwest of Pole No. 6 and 0.7 mile south of the Capistrano Substation site	Plan has been approved but plan encourages individual property owners to develop in accordance with the plan.
SJ2	The Shops at Capistrano (City of San Juan Capistrano 2014a)	The applicant for this project is proposing the development of a 3.18-acre parcel at the northeast corner of Ortega Highway and El Camino Real in the City of San Juan Capistrano. This proposed project consists of a retail commercial development comprising approximately 45,000 square feet of commercial services, retail and restaurant uses, a professional office, and a specialty market within four single-story, free-standing buildings and one two-story building located on the west side of the property, along El Camino Real. The building heights range from 22 to 41 feet. This project includes approximately 207 parking spaces, and vehicular access will be provided via three driveways located at Spring Street, El Camino Real, and Ortega Highway.	Project is bounded on the north by Spring Street and on the south by Ortega Highway	Approximately 0.6 mile south of Pole No. 5	Notice of Preparation filed in June 2014. This project is in the initial stages of environmental review. An environmental consultant has been hired to prepare a Supplemental Environmental Impact Report, but the applicant has not yet submitted all the required data. The Supplemental Environmental Impact Report is not anticipated to be ready for considered by Planning Commission before January 2014 (City of San Juan Capistrano 2014a)

**Table 6-1 Past, Present, and Reasonably Foreseeable Future Projects within One Mile of the Proposed Project**

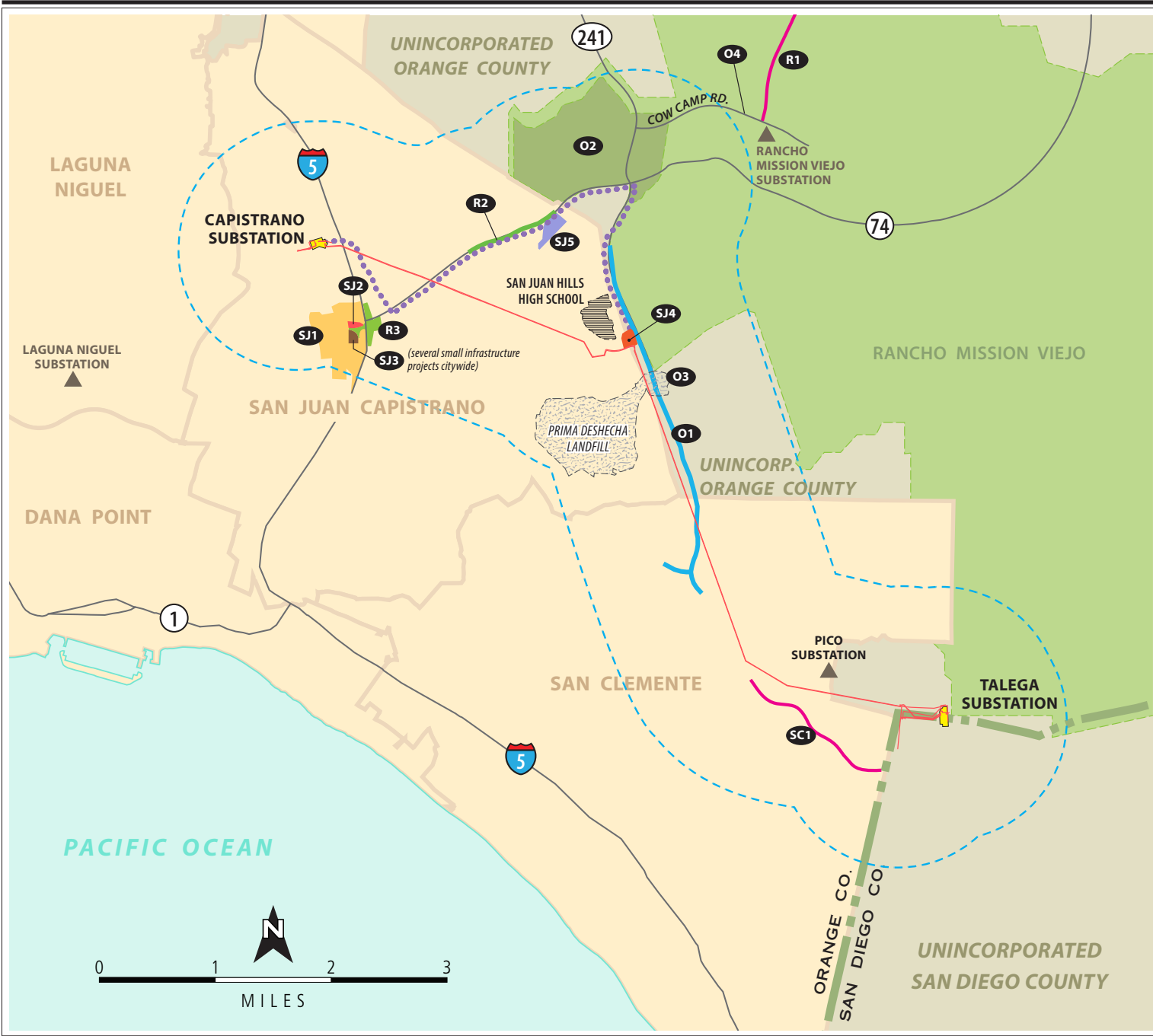
Project Number	Project Name	Description of Project	Project Location	Approximate Distance from Proposed Project Area	Environmental Review and Construction Schedule
SJ3	Infrastructure Projects (City of San Juan Capistrano 2012; SDG&E 2012)	This project involves the City of San Juan Capistrano constructing/updating water, sewer, circulation, and parks and recreation projects throughout the city. The affected area is approximately 2 acres.	Del Obispo Street	0.9 mile south of the Capistrano Substation site	Construction is anticipated to be completed in 2015.
SJ4	Church of Jesus Christ of Latter-day Saints Meetinghouse (City of San Juan Capistrano 2014b)	The applicant has submitted a pre-application package and is obtaining necessary entitlements to construct an LDS meetinghouse on approximately 4.2 acres located on the north side of Vista Montana, west of the northwest corner of Avenida La Pata and Vista Montana. The meetinghouse would be a church facility with up to 21,422 square feet of covered space, most likely constructed in two phases, along with associated hardscape, landscape, and parking areas.	Intersection of La Pata Road and Vista Montana	Adjacent to Segment 2 of the Proposed Project	Under County review.
SJ5	The Oaks Project (City of San Juan Capistrano 2014c)	This project involves residential development, including 32 single family units and a 10-acre equestrian facility. The affected area is approximately 20.4 acres.	SR-74 and Avenida Siega	0.7 mile northeast of Pole No. 12	This project is in the plan check process for rough grading, street, water, sewer and storm drain. This project is broken into three phases at the request of the developer, to aid in the movement of existing equestrian facilities and horses to the proposed new equestrian parcel located along San Juan Creek.
<b>Regional and Transportation Projects</b>					
R1	SR-241 Tesoro Extension Project (SJHTCA 2014a; SDG&E 2012)	The Tesoro extension would provide additional northern access for communities located inland of I-5 and commuters traveling to Orange County business centers from the Inland Empire via Ortega Highway. This project would comprise an approximately 5.5-mile extension of the existing SR-241 Toll Road from its current terminus at Oso Parkway to Cow Camp Road immediately north of SR-74 (Ortega Highway) in Orange County.	Unincorporated Orange County	Crosses under (between) Pole Nos. 43 and 44, 5b and 6b, 13a and 14a, 19a and 20a, and is adjacent to Talega Substation	Construction was anticipated to begin in 2013 and end in 2016. Currently, the State Water Resources Control Board is reviewing the Foothill/Eastern Transportation Corridor Agency's petition requesting review of the regional water board's July 19, 2013, decision to deny the waste discharge requirement permit for the State Route 241 Tesoro Extension (SJHTCA 2014b).
R2	SR-74 Widening Project (CalTrans 2013; SDG&E 2012)	For this project, Caltrans would widen approximately 0.9 mile of SR-74 from two lanes to four lanes, between Calle Entradero and the Orange County line. Construction is anticipated to last approximately 18 months.	From Calle Entradero to San Juan Capistrano/County of Orange limit line.	The west end of the SR-74 Widening Project is located approximately 0.3 mile west-southwest of Pole No. 8	A Supplemental Environmental Impact Report is currently being prepared by Caltrans.
R3	I-5/SR-74 Interchange Project (OCTA 2014; SDG&E 2012)	For this project, Caltrans would reconstruct the I-5/SR-74 Interchange. The new interchange would replace all four on/off-ramps and would affect adjacent land uses, as the new I-5/SR-74 interchange would be larger than the existing interchange. The affected area is approximately 22 acres.	I-5 and SR-74 Interchange within the city of San Juan Capistrano	0.8 mile south of the Capistrano Substation site and 0.5 mile southwest of Pole No. 7	Construction on the intersection started in May 2013 and is scheduled to be completed in Spring 2015 (City of San Juan Capistrano 2013).
<b>Known Distribution Improvements, Upgrades, and New Construction</b>					
Dist 1	SDG&E 69-kV Transmission Line Removal (SDG&E 2014)	Prior to construction of the South Orange County Reliability Enhancement Project, an SDG&E 69-kV transmission line to San Juan Hills High School (north of the landfill) from Talega Substation, would be removed. The line is currently de-energized. The wood single-circuit structures to be removed follow the TL13835, TL13816/33 corridor from Talega Substation to the high school and are adjacent to the proposed 230-kV line route.	San Juan Hills High School, San Juan Capistrano to Talega Substation, unincorporated Orange County	Within Project Area	Construction anticipated prior to construction of the South Orange County Reliability Enhancement Project.
Dist 2		Three new 12-kV distribution circuits emanating from Rancho Mission Viejo Substation are planned (C1244, C1245, C1246). These new circuits will serve new load being constructed in the vicinity of Rancho Mission Viejo Substation and confirm that load is being added to South Orange County.	Rancho Mission Viejo Substation in unincorporated Orange County	Within Project Area	Unknown

**Table 6-1 Past, Present, and Reasonably Foreseeable Future Projects within One Mile of the Proposed Project**

Project Number	Project Name	Description of Project	Project Location	Approximate Distance from Proposed Project Area	Environmental Review and Construction Schedule
<b>Known Transmission Improvements, Upgrades, and New Construction</b>					
Trans 1	SDG&E 69-kV Transmission Line Removal (SDG&E 2014)	The TL13831 Wood to Steel project will replace approximately 81 wood transmission line structures with steel poles between Talega and Rancho Mission Viejo substations. The project currently has an in-service date of 2016.	Between Talega Substation and Rancho Mission Viejo Substation in unincorporated Orange County	Within Project Area	Anticipated In-service date: 2016.
		The TL13835 Wood to Steel project would replace approximately 8 wood structures with steel poles between San Mateo Substation and the San Mateo transmission line tap. The project currently has an in-service date of 2018. TL13835 is one of two parallel transmission lines that connect San Mateo Substation to Talega Substation.	San Mateo Substation and the San Mateo transmission line	Within Project Area	Anticipated In-service date: 2018.
Trans 2	Trabuco-Capistrano 138 kV Line Upgrade	Upgrade terminal equipment (jumpers and CT) along a 3.7-mile section to Capistrano Substation to boost the line from 157 to 274 MVA. The proposed in-service date is June 1, 2018.	Capistrano Substation, San Juan Capistrano	Within Project Area	Anticipated In-service date: June 2018.
<b>Known Substation Improvements, Upgrades, and New Construction</b>					
Sub 1	Talega Substation Synchronous Condenser	The CAISO has approved the installation of synchronous condensers at Talega Substation. The replacement of the three 230-kV capacitor banks at Talega Substation with two 225 MVAR synchronous condensers has begun and is anticipated to be completed by June 2015. The synchronous condensers will be scheduled to support the voltage at the San Onofre 230-kV bus, which is sensitive to power transfers between SDG&E and the rest of the western 230-kV network. These devices do have an effect on the South Orange County 138-kV voltage but are being installed to support 230-kV power transfers.	Talega Substation in unincorporated Orange County	Within Project Area	Under construction; completion date estimated June 2015
Sub 2	Capistrano Substation Transformer Replacement	Replacement of the 138-kV potential transformers at Capistrano Substation.	Capistrano Substation, San Juan Capistrano	Within Project Area	Status unknown; completion estimate June 2015
Sub 3	Pico Substation Equipment Standardization	Replace protection equipment for standardization purposes at Pico Substation.	Pico Substation, San Clemente	Within Project Area	Status unknown; completion estimate December 2015
Sub 4	Capistrano Substation Equipment Standardization	Replace protection equipment for standardization purposes at Capistrano Substation.	Capistrano Substation, San Juan Capistrano	Within Project Area	Status unknown; completion estimate December 2015

Key:  
CAISO = California Independent System Operator  
CT =  
kV = kilovolt  
I-5 = Interstate 5  
LDS = Church of Jesus Christ of Latter-day Saints  
LNG = liquefied natural gas  
MVA = megavolt ampere  
MVAR = megavolt ampere reactive  
MW = megawatt  
N/A = not applicable  
SDG&E = San Diego Gas & Electric Company  
SR-74 = State Route 74  
SR-241 = State Route 241  
TL = Transmission Line

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**LEGEND**

- Existing 230-kV substation
- Existing 138-kV substation
- Existing Talega to Capistrano area transmission lines (SDG&E)
- Relocate 12-kV distribution line as proposed
- Radius of one mile from the Proposed Project
- O1** La Pata Avenue Gap Closure and Camino del Rio Extension
- O2** Sendero Village (Rancho Mission Viejo)
- O3** Prima Deshecha Landfill
- O4** Cow Camp Road Project
- SC1** Avenida la Pata Capital Project
- SJ1** Historic Town Center, San Juan Capistrano
- SJ2** The Shops at Capistrano
- SJ3** Infrastructure projects, City of San Juan Capistrano
- SJ4** Church of Jesus Christ of Latter-Day Saints
- SJ5** The Oaks Project
- R1** SR-241 Tesoro Extension Project
- R2** SR-74 Widening Project
- R3** I-5 / SR-74 Interchange Project

Figure 6-1  
**Cumulative Projects**  
 South Orange County Reliability Enhancement Project

1 **6.3 Cumulative Scenario**  
2

3 Orange County, the City of San Clemente, the City of San Juan Capistrano, and San Diego County have  
4 experienced a dynamic shift over the past 50 years toward greater urbanization. Open spaces, natural  
5 areas, and farmlands have been developed with residential neighborhoods, commercial spaces, public  
6 facilities, and public works infrastructure such as sanitary sewers and electrical transmission lines, as  
7 well as a landfills, highways, and roads. Other formerly industrial and commercial areas within existing  
8 cities and urban districts remain to be developed or redeveloped with new uses. Open spaces, natural  
9 areas, and ridgelines are often protected from urban encroachment, and development projects proposed  
10 for such areas are subject to rigorous regulatory and environmental review. The following sections  
11 summarize the development projects that are anticipated to occur in the vicinity of the proposed project.  
12 The numbers following the project names refer to Table 6-1, above.  
13

14 **6.3.1 Residential Projects**  
15

16 Two residential development projects associated with the Ranch Plan Planned Community Project—  
17 Rancho Mission Viejo and Sendero Village (O2)—have been proposed within 1 mile of the proposed  
18 project in Orange County and the city of San Juan Capistrano. These projects are in various stages of  
19 development; one has been partially constructed, and both may be constructed simultaneously with the  
20 proposed project, depending upon when permits are approved. All residential developments would have  
21 the same type of impacts, such as temporary and permanent increases in traffic, air emissions, and  
22 changes in the visual landscape.  
23

24 **6.3.2 Commercial and Retail Developments**  
25

26 The proposed project components would be located both within and adjacent to suburban areas in the  
27 cities of San Juan Capistrano and San Clemente, and numerous commercial and retail developments are  
28 also distributed throughout the proposed project vicinity. The proposed project would be located within 1  
29 mile of two proposed commercial and retail developments, Historic Town Center Master Plan (SJ1) and  
30 The Shops at Capistrano (SJ2). Both developments would be located in the city of San Juan Capistrano,  
31 and their construction may overlap with the construction of the proposed project, depending on when  
32 permits are approved. All commercial and retail developments would have the same type of impacts,  
33 such as temporary and permanent increases in traffic, air emissions, and changes in the visual landscape.  
34

35 **6.3.3 Infrastructure and Transportation Projects**  
36

37 Infrastructure projects within the cumulative study area include six road improvement projects and one  
38 water and sewer project. The La Pata Avenue Gap Closure and Camino Del Rio Extension Project (O1)  
39 would include the relocation of several distribution poles that would be used as part of 12-kilovolt (kV)  
40 Segment H of the proposed project. Three of these projects, Infrastructure Projects (SJ3), SR-74  
41 Widening Project (R2), and I-5/SR-74 Interchange Project (R3), would likely be complete prior to the  
42 start of construction of the proposed project. The SR-241 Tesoro Extension Project (R1) and Avenida La  
43 Pata Capital Project (SC1) may occur concurrently with the proposed project. Impacts associated with  
44 infrastructure and transportation can vary based on location, but these projects would have similar  
45 impacts on temporary air emissions. Additionally, infrastructure and transportation projects can have a  
46 beneficial impact on utilities or public services and transportation by improving service ratios or  
47 responses times.  
48



1 **6.3.3.1 Electrical Infrastructure**

2  
3 SDG&E is planning eight electrical infrastructure projects within 1 mile of the proposed project. These  
4 projects include distribution, transmission, and substation infrastructure.

5  
6 The two distribution level lines that are currently de-energized would be removed. Impacts associated  
7 with the distribution line would be temporary, with the exception of permanent beneficial impacts on  
8 visual resources. The two transmission line projects include upgrades to existing transmission lines,  
9 including replacing wood poles with steel poles. Impacts associated with the transmission line projects  
10 are anticipated to be similar to those associated with the proposed project. The four substation projects  
11 include upgrades to existing substations. Impacts associated with the substation projects would be  
12 minimal, as they would occur within existing substations and would be similar to the impacts associate  
13 with the work at Talega Substation for the proposed project.

14  
15 **6.3.3.2 Prima Deshecha Landfill**

16  
17 The Prima Deshecha Landfill (PDL; O3), located adjacent to proposed new poles No. 21 to 25, provides  
18 landfill capacity to meet the anticipated waste disposal demand created within the County of Orange. In  
19 addition, Prima Deshecha Energy LLC also operates two 3-megawatt liquefied natural gas (methane gas)  
20 generation units at the landfill. The landfill is anticipated to reach build-out around the year 2067. Should  
21 the remaining capacity of the PDL be reduced or project operations be interrupted, the County would be  
22 required to seek alternate refuse disposal alternatives, which would likely entail transporting refuse to  
23 other offsite locations (County of Orange 2007). The County, in its Statement of Overriding  
24 Considerations, approved the PDL to (1) provide for the areal extent of future landslide remediation  
25 activities around the PDL; (2) accommodate future landfill-related features such as landfill gas  
26 generation perimeter probes and landfill gas generation collection header lines; (3) make adjustments to  
27 provide drainage and erosion control facilities that avoid sensitive biological resources; and (4)  
28 implement measures to provide for the long-term success of the environmental mitigation and restoration  
29 components of the overall Gross domestic product. The environmental, social, and economic impacts  
30 resulting from these alternate disposal options would be severe (County of Orange 2007). The PDL (O3)  
31 allows for seamless continued operation of the landfill at its currently approved capacity. According to  
32 the Orange County Register, only 699 of the 1,530 acres of the landfill are used for trash disposal.  
33 Furthermore, 409 acres of the 699 available for refuse are not scheduled to open for operation until 2019,  
34 when Zone 1—the 290-acre landfill operation currently visible from homes around Camino de los  
35 Mares—will close. The zone that opens in 2019 is to remain active until 2067 (Orange County Register  
36 2013). Management of the remaining 831 acres as natural habitat may affect the development and/or  
37 mitigation requirements of the proposed project.

38  
39 **6.4 Resource Areas**

40  
41 **6.4.1 Aesthetics**

42  
43 **Scope and Geographic Extent**

44 This cumulative impact assessment of aesthetic resources uses the proposed project's Region of  
45 Influence (ROI) as the analysis boundary (see Figure 4.1-1). As described in Section 4.1, "Aesthetics,"  
46 the ROI is subdivided into four Landscape Units (LU), each consisting of a homogeneous landscape type  
47 or an enclosed space (FHWA 1981). The temporal scope of cumulative impacts includes both the  
48 construction and operation of the proposed project.

1 **Existing Cumulative Conditions**

2 A detailed description of the existing visual character and quality, including representative photos, of  
3 each LU, is provided in Subsection 4.1.1.5 of Section 4.1, “Aesthetics.” A summary of the existing  
4 setting for each LU is provided below.

5  
6 ***Landscape Unit 1 –Capistrano Substation to Paseo Boveda***

7 LU1 includes residential neighborhoods within the city of San Juan Capistrano, Interstate 5 (I-5), golf  
8 courses, hiking trails, and parks. Existing project-related infrastructure within LU1 includes Capistrano  
9 Substation and the 138-kV transmission line right-of-way (ROW). I-5 is listed as a scenic highway by  
10 Caltrans, and all arterial roadways within the city of San Juan Capistrano are managed as view corridors.  
11 Recreationists and residents within LU1 typically have high levels of visual sensitivity. Non-recreational  
12 motorists typically have short duration views of distant landscape features and low levels of visual  
13 sensitivity.

14  
15 ***Landscape Unit 2 – San Juan Creek***

16 LU2 comprises various residential neighborhoods within the eastern portion of the city of San Juan  
17 Capistrano. It includes golf courses, hiking trails, and parks-related infrastructure within LU2, as well as  
18 an existing 138-kV transmission line ROW. LU2 is bounded by ridgelines on both sides, with San Juan  
19 Creek running through its center. State Route 74 (SR- 74), a Caltrans-listed scenic highway, is also  
20 located in LU2. Recreational motorists, residents, and recreational users within LU2 typically have high  
21 levels of visual sensitivity. Non-recreational motorists typically have short duration views of distant  
22 landscape features and low levels of visual sensitivity.

23  
24 ***Landscape Unit 3 – West La Ronda to Forester Ridge***

25 LU3 comprises rural areas in unincorporated Orange County, San Juan Hills High School, PDL, and  
26 recreational trails. Existing project-related infrastructure within LU3 includes the 138-kV transmission  
27 line ROW noted under LU 2. Of the four LUs, LU3 has the least amount of residential development.  
28 Residents, viewers at San Juan Hills High School, and recreational users within LU3 experience views  
29 for an extended duration and have high levels of visual sensitivity.

30  
31 ***Landscape Unit 4 – San Clemente and Talega Substation***

32 LU4 includes two golf courses, Talega Substation, several existing transmission lines, residential  
33 communities within the city of San Clemente, and the northern portion of Marine Base Camp (MCB)  
34 Pendleton. LU4 also contains two scenic vistas and 12 view corridors identified by the City of San  
35 Clemente General Plan (Figure 4.1-2) (City of San Clemente 2014b). Viewer groups include residents,  
36 motorists, military personnel, and recreational users. Residents and recreational users typically both  
37 experience longer duration views and have higher visual sensitivity than do motorists.

38  
39 **Cumulative Impact Analysis**

40 Because the cumulative projects noted in Table 6-1 are all in various stages of development, this  
41 cumulative impact analysis is organized differently than Section 4.1, “Aesthetics.” This analysis groups  
42 cumulative projects by LU, focusing on aspects of proposed project construction and operation that,  
43 when analyzed alongside potential cumulative project impacts, may have a significant contribution to the  
44 degradation of visual resources. Additionally, this analysis uses the distance zones described in Section  
45 4.1 (foreground, middle-ground, and distant views) to discuss the intensity of potentially cumulative  
46 visual impacts.

1 **Landscape Unit 1**

2 Construction and operation of the proposed project within LU1 has the potential to substantially degrade  
3 the existing visual character or quality of the site and its surroundings through the introduction of new  
4 sources of visual contrast (such as transmission structures, grading activities during construction, etc.)  
5 (Impact AE-3). Additionally, construction of the proposed project could create a new source of  
6 substantial light or glare, which would adversely affect day or nighttime views in the area (Impact AE-4).

7  
8 The following projects may contribute cumulatively to the degradation of the existing visual character of  
9 LU1, or sources of light and glare (Fig 6-1):

- 10  
11
- 12 • Historic Town Center, City of San Juan Capistrano (SJ1),
  - 13 • The Shops at Capistrano (SJ2),
  - 14 • Infrastructure Projects, City of San Juan Capistrano (SJ3), and
  - 15 • I-5/SR 74 Interchange Project (R3).

16 These four projects are all sited just under 1 mile from Capistrano Substation, in the vicinity of the I-  
17 5/State Route 74 (SR-74) interchange. Topography, distance, and the presence of buildings and foliage  
18 block views of the proposed San Juan Capistrano Substation and Transmission Line from these project  
19 areas. Since neither the existing transmission infrastructure nor Capistrano Substation can be seen from  
20 these potentially cumulative project sites (and vice versa), it is unlikely that construction activities or  
21 changes to transmission infrastructure size and location would be perceivable. Therefore, the proposed  
22 project would not significantly contribute to the potential cumulative degradation of the visual character  
23 or light and glare of LU1.

24  
25 The proposed project would be located in an existing utility corridor, where transmission structures of a  
26 similar size and mass are currently located. Operation of the proposed project would not change baseline  
27 levels of visual intactness, unity, or vividness. The proposed project would have a less than significant  
28 contribution to cumulative impacts on visual resources within LU1 after implementation of the measures  
29 noted in Section 4.1, "Aesthetics."

30  
31 **Landscape Unit 2**

32 As with LU 1, construction and operation of the proposed project within LU2 has the potential to  
33 substantially degrade the existing visual character or quality of the site and its surroundings through the  
34 introduction of new sources of visual contrast (such as transmission structures, grading activities during  
35 construction, etc.) (Impact AE-3). The following projects may also contribute to the degradation of the  
36 existing visual character of LU2 (Fig 6-1):

- 37  
38
- 39 • SR-74 Widening Project (R2);
  - 40 • The Oaks Project (SJ5); and
  - 41 • The Ranch Plan Planned Community Project/Rancho Mission Viejo/Sendero Village (O2).

42 Westerly views from SR-74 in the vicinity of the cumulative projects in LU2 include open landscapes  
43 bifurcated by SR-74. The presence of native vegetation and rolling hills on both sides of the highway  
44 results in high levels of unity and intactness. The existing lattice transmission structures introduce  
45 sources of vertical mass, stopping the viewer's eye as it scans horizontally across the landscape. The

1 transmission lines cross the view horizontally, adding another source of visual clutter. The existing  
2 landscape has moderate to high levels of visual intactness and unity, and a low level of vividness.

3  
4 Removal of the existing 138-kV transmission line and construction of the proposed 230-kV transmission  
5 line may be visible in distant views of the cumulative projects. However, given the distance between the  
6 cumulative projects and the proposed project, it is not likely that all four projects would be observable  
7 within a given view. Additionally, the phased nature of the proposed project construction activities  
8 makes it unlikely that major construction activities would occur simultaneously with those of the  
9 cumulative projects. Since all three cumulative projects have differing construction schedules, and  
10 because the proposed project would only be noticeable in distant views from the cumulative projects,  
11 cumulative impacts on aesthetic resources in LU2 would be negligible. These negligible impacts would  
12 be reduced with the implementation of Applicant Proposed Measure (APM) AES-1 and APM AES-2,  
13 which would require the applicant to keep all worksites clean and restore disturbed areas to their pre-  
14 construction appearance as soon as possible. Potential cumulative impacts would be further reduced by  
15 Mitigation Measure (MM) AES-3, which requires the applicant to visually screen staging areas and  
16 worksites. The proposed project would have a less than significant contribution to cumulative impacts on  
17 visual resources within LU2 after implementation of these measures.

18  
19 The proposed project would be located in an existing utility corridor where transmission structures of a  
20 similar size and mass are currently located. Operation of the proposed project would not change baseline  
21 levels of visual intactness, unity, or vividness. Therefore, operation of the proposed project would not  
22 result in, or contribute to, a cumulatively considerable impact on aesthetic resources.

### 23 24 ***Landscape Unit 3***

25 Construction and operation of the proposed project within LU3 has the potential to substantially degrade  
26 the existing visual character or quality of the site and its surroundings (Impact AE-3) through the  
27 introduction of new sources of visual contrast. The following cumulative projects may also contribute to  
28 the degradation of the existing visual character of LU3 (Fig 6-1):

- 29  
30
- La Pata Avenue Gap Closure and Camino Del Rio Extension Project (O1), and
  - Church of Jesus Christ of Latter-day Saints (LDS) Meetinghouse (SJ4).
- 31  
32

33 Both of the cumulative projects in LU3 are sited adjacent to the proposed project, and construction and  
34 operation of all three projects would have the potential to result in cumulative visual impacts in LU3. The  
35 La Pata Avenue Gap Closure and Camino Del Rio Extension Project (O1) has been approved, and  
36 construction is anticipated to be completed by fall of 2016. This construction schedule would overlap  
37 with that of the proposed project where clearing and grading of new transmission access roads and  
38 construction of transmission foundations may occur during the start of construction (see Appendix G of  
39 this EIR). While construction of the two projects may occur simultaneously, the proposed project's  
40 construction activities would be difficult to discern from those associated with the La Pata Avenue Gap  
41 Closure and Camino Del Rio Extension Project, which would have much higher levels of ground  
42 disturbance. These impacts would be reduced with the implementation of APM AES-1 and APM AES-2,  
43 which would require the applicant to keep all worksites clean and restore disturbed areas to their pre-  
44 construction appearance as soon as possible. Potential cumulative impacts would be further reduced by  
45 MM AES-3, which requires the applicant to visually screen staging areas and worksites. Construction of  
46 the proposed project would not substantially increase the amount of visible ground disturbance, and thus  
47 would not contribute to a significant cumulative impact on visual resources in LU3.

48

1 The proposed LDS Meetinghouse would be located at the intersection of Vista Montana and La Pata  
2 Avenue, directly adjacent to San Juan Hills High School. In addition to the removal and construction of  
3 overhead transmission structures, the proposed project would involve trenching to bury a portion of the  
4 proposed 230-kV transmission line along Vista Montana (Transmission Line Segment 2). The proposed  
5 project would also involve using a portion of the proposed LDS Meetinghouse parcel as a staging area.  
6 Visual impacts resulting from this temporary use of the parcel would not contribute to visual impacts  
7 resulting from construction of the LDS Meetinghouse, as disturbance of that site would be minimal and  
8 consistent with future construction activities.

9  
10 Trenching activities associated with burying the proposed 230-kV transmission line would be short term  
11 and temporary and would occur within an existing roadbed. While trenching activities associated with the  
12 proposed project would introduce a new source of visual contrast during construction, their contribution  
13 to the cumulative degradation of existing views within LU3 would be negligible, given that they would  
14 occur within an existing roadbed. These negligible impacts would be reduced by ensuring that all  
15 worksites are kept clean (APM AES-1) and that disturbed areas are restored to their pre-construction  
16 appearance as soon as possible (APM AES-2). The proposed project's contribution to potential  
17 cumulative impacts would be further reduced by MM AES-3, which requires the applicant to visually  
18 screen staging areas and worksites. The proposed project would have a less than significant cumulative  
19 impacts on visual resources within LU3 after implementation of these measures.

20  
21 The proposed project would be located in an existing utility corridor where transmission structures of a  
22 similar size and mass are currently located. Operation of the proposed project would not change baseline  
23 levels of visual intactness, unity, or vividness. Therefore, operation of the proposed project would not  
24 result in, or contribute to, a cumulatively considerable impact on aesthetic resources.

#### 25 **Landscape Unit 4**

26  
27 Construction and operation of the proposed project within LU4 has the potential to adversely affect  
28 scenic vistas (Impact AE-1) and substantially degrade the existing visual character or quality of the site  
29 and its surroundings (Impact AE-3) through the introduction of new sources of visual contrast. The  
30 following cumulative projects may also contribute to the degradation of the existing visual character of  
31 LU4 (Fig 6-1):

- 32  
33 • Avenida La Pata Capital Project (SC1)

34  
35 Resurfacing of Avenida La Pata is planned for 2015 prior to the onset of construction activities  
36 associated with the proposed project (see Appendix G of this EIR). Therefore, construction of the  
37 proposed project and the Avenida La Pata Capital Project would have a less than significant cumulative  
38 impact on scenic vistas, or the degradation of the existing visual character or quality of LU4. Both  
39 projects would be constructed within existing road or transmission corridors, and the use of the corridors  
40 would remain consistent with baseline conditions. Therefore, there would be no cumulative operational  
41 impact associated with operation of the proposed project within LU4.

## 42 **6.4.2 Agriculture and Forestry Resources**

### 43 **Scope and Geographic Extent**

44  
45 The scope for considering cumulative impacts on agriculture includes any project that would directly or  
46 indirectly impact locally zoned agricultural lands. Given that the proposed project would not impact  
47 state-designated, Important Farmland (Prime Farmland, Unique Farmland, and/or Farmland of Statewide  
48

1 Importance); land zoned as forest land or timberland; or Williamson Act lands, impacts related to these  
2 resources are not discussed further in this analysis.

3  
4 The geographic extent of cumulative impacts on agriculture is Orange County because cumulative  
5 impacts on zoning are recorded at the local level. San Diego County is not included in the geographic  
6 extent because the proposed project would not impact agriculture within San Diego County.

7  
8 The temporal scope of analysis for determining potential effects on agricultural resources includes  
9 construction of the proposed project. Operation of the proposed project would have effects similar to  
10 those of the existing substations and transmission line; therefore, no new cumulative impact would occur  
11 during operation.

### 12 **Existing Cumulative Conditions**

14 Orange County has two agricultural zoning designations, General Agricultural and Agricultural  
15 Residential. The City of San Juan Capistrano has three agricultural zoning designations: Agri-Business  
16 District, Farm Market District, and Residential/Agriculture District.

### 17 **Cumulative Impact Analysis**

18  
19 One pole in Transmission Line Segment 1b is located within land zoned as Residential/ Agriculture by  
20 the City of San Juan Capistrano. The SR-74 Widening Project (R-2) could impact the  
21 Residential/Agriculture District in San Juan Capistrano. However, because Transmission Line  
22 Segment 1b would occur within an existing ROW, the proposed project would not contribute to a  
23 cumulative impact on zoned agricultural land within the city of San Juan Capistrano.

24  
25 Several portions of the proposed project would be located on lands in unincorporated Orange County  
26 zoned General Agriculture. As discussed in Section 4.2.3.5 of Section 4.2, “Agriculture and Forestry  
27 Resources,” these uses would not result in conflicts with existing agriculture zoning. None of the  
28 cumulative projects would impact General Agriculture in Orange County. Therefore, the proposed  
29 project would not contribute to a cumulative impact on zoned agricultural land within Orange County.  
30 No other portions of the proposed project would occur on land zoned for agriculture. Construction of the  
31 proposed project would have a less than significant contribution to cumulative impacts.

## 32 **6.4.3 Air Quality**

### 33 **Scope and Geographic Extent**

34  
35  
36 The scope for considering cumulative impacts on air quality includes any project that would directly or  
37 indirectly release air pollutant emissions. The geographic extent for cumulative impacts from air quality  
38 comprises the air quality management districts—South Coast Air Quality Management District  
39 (SCAQMD) and San Diego Air Pollution Control District (SDAPCD)—because impacts on air quality  
40 are regulated at the air quality management district level.

41 The temporal scope of analysis for potential effects on air quality includes construction of the proposed  
42 project. Operation of the proposed project would be similar to those associated with the existing  
43 substations and transmission lines; therefore, no new cumulative impacts would occur during operation.

### 44 **Existing Cumulative Conditions**

45 The proposed project would be located primarily in southern Orange County, which is in the SCAQMD,  
46 and a small portion of the proposed project would be located in northern San Diego County, which is in

1 the SDAPCD. Both counties are in nonattainment of the California Ambient Air Quality Standards for  
2 ozone, particulate matter less than 10 microns in diameter (PM<sub>10</sub>), and particulate matter less than 2.5  
3 microns in diameter (PM<sub>2.5</sub>). Both counties are in nonattainment of the National Ambient Air Quality  
4 Standards for ozone, and Orange County is in nonattainment of the standard for PM<sub>2.5</sub>. Accordingly, the  
5 contribution of additional emissions of ozone precursors (i.e., oxides of nitrogen (NO<sub>x</sub>), carbon monoxide  
6 (CO), and Reactive Organic Gases ([ROGs]/Volatile Organic Compounds (VOCs)), PM<sub>10</sub>, and PM<sub>2.5</sub>  
7 could result in a significant impact on air quality.

## 8 **Cumulative Impact Analysis**

### 9 ***Southern California Air Quality Management District***

10 Project emissions would be consistent with the SCAQMD's 2012 Air Quality Management Plan  
11 (AQMP) and would not conflict with or obstruct implementation of the plan. Therefore the proposed  
12 project would not significantly contribute to a cumulative conflict with SCAQMD AQMP.

13 During the peak construction period for the La Pata Avenue Gap Closure and Camino Del Rio Extension  
14 Project (O1) and the Ranch Plan Planned Community Project/Rancho Mission Viejo/ Sendero Village  
15 (O2) daily emissions are anticipated to exceed the SCAQMD thresholds for PM<sub>10</sub>, PM<sub>2.5</sub>, and other  
16 criteria pollutants despite the implementation of mitigation measures (County of Orange 2004, 2010).  
17 Therefore, the cumulative impacts from these projects may contribute to exceedances of local short-term  
18 air quality standards, leading to potential adverse effects on receptors in the vicinity that are sensitive to  
19 particulates.

20 Based on the analysis presented in Section 4.3, "Air Quality," construction emissions associated with the  
21 proposed project would have significant impacts on air quality in the SCAQMD, specifically for ROG,  
22 NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Maximum daily construction emissions would exceed the regional significance  
23 thresholds for ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> in the SCAQMD. Daily construction emissions would exceed  
24 Localized Significance Thresholds for NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Despite implementation of mitigation  
25 measures to control dust and reduce vehicle emissions, project emission levels would still exceed the  
26 SCAQMD's localized and regional thresholds for PM<sub>10</sub> and PM<sub>2.5</sub> and would result in a significant  
27 cumulatively considerable increase in these criteria pollutants for which Orange County is in  
28 nonattainment.

29 Construction of the proposed project would contribute to cumulative air impacts by contributing to  
30 violations of air quality standards, increasing criteria pollutants for which the region is currently in  
31 nonattainment, and exposing sensitive receptors to substantial pollutant concentrations. Construction  
32 emissions resulting from the proposed project represent less than one percent of the total SCAQMD daily  
33 emissions inventory (South Coast Air Quality Management District 2013); therefore, the proposed  
34 project would not result in a considerable contribution to cumulative impacts on air quality.

### 35 ***San Diego Air Pollution Control District***

36 Construction of the proposed project would be operated in compliance with applicable local, state, and  
37 federal regulations, and project emissions would be consistent with the 2009 SDAPCD Regional Air  
38 Quality Strategy. Therefore the proposed project would not significantly contribute to a cumulative  
39 conflict with SDAPCD AQMP.

40 Based on the analysis described in Section 4.3, "Air Quality," maximum daily construction emissions  
41 associated with the proposed project would not exceed the SDAPCD's screening and significance levels.  
42 Criteria pollutant emissions resulting from the proposed project in the SDAPCD with respect to  
43 nonattainment would be less than significant and would not be cumulatively considerable during  
44 construction.

## 6.4.4 Biological Resources

### Scope and Geographic Extent

The scope for the cumulative analysis of biological resources includes projects that could contribute to adverse effects on: 1) special status species; 2) United States Fish and Wildlife (USFWS)-designated critical habitat and sensitive habitat, coastal sage scrub, and wetlands or riparian habitat. The geographic extent for this analysis includes undeveloped land within a 5-mile radius of the proposed project components. This area was selected as a reasonable representative range for populations of the sensitive species, such as nesting birds, identified in the individual impact analysis for the proposed project. The temporal extent of the analysis includes construction and operation of the proposed project.

### Existing Cumulative Conditions

Land surrounding the project components contains commercial areas, residential and suburban developments, and large expanses of open space and wildlife habitat, including protected habitat areas. The areas surrounding the project components also include several designated wildlife areas, including USFWS-designated habitat for coastal California gnatcatcher and arroyo toad. Residential development in the area, while primarily confined to urbanized areas such as the city of San Juan Capistrano and the City of San Clemente, can result in disturbance impacts on sensitive species, aquatic habitats, wetlands, and riparian areas.

### Cumulative Impact Analysis

Direct and indirect impacts listed in Chapter 4.4, “Biological Resources,” when combined with those associated with the cumulative projects, may collectively modify the area’s natural habitat, resulting in a more significant impact on the natural vegetation and wildlife habitat than any single project alone. The existing and projected scale and nature of development in undeveloped portions of Orange and San Diego counties has the potential to result in a significant regional cumulative impact on habitat for special status species. However, most reasonably foreseeable projects within the cumulative geographic scope would not take place in the undeveloped portions of Orange County and San Diego County where critical habitat occurs. Cumulative projects, including the La Pata Avenue Gap Closure and Camino Del Rio Extension Project (O1), the SR-241 Tesoro Extension Project (R1), and the Ranch Plan Planned Community Project/Rancho Mission Viejo/Sendero Village (O2), include measures addressing impacts on sensitive species and critical habitats. Such measures include avoidance measures as well as disturbance measures to reduce potential impacts from equipment operation and maintenance, dust, trash and construction debris, erosion, and unnecessary disturbance of habitat.

The Ranch Plan Planned Community Project would permanently impact 5,450 acres of natural vegetation communities (grassland, coastal sage scrub, and chaparral). In comparison, the proposed project would permanently impact approximately 1.59 acres of native vegetation. Furthermore, the Ranch Plan Planned Community Project has been approved to impact 89.5 acres of wetlands or waters under the jurisdiction of the USFWS and 195.5 acres under the California Department of Fish and Wildlife’s (CDFW’s) jurisdiction (County of Orange 2004), whereas the proposed project would temporarily impact 25 linear feet (approximately 0.0006- acre). Both the Ranch Plan Planned Community Project and the proposed project are sited in or adjacent to critical habitat for coastal California gnatcatcher. The Ranch Plan Planned Community Project would impact 72 gnatcatcher locations and nearly 2,025 acres of coastal sage scrub compared to 3.6 acres (temporary and permanent) associated with the proposed project. According to the Biological Resources Alternatives Analysis prepared for the Ranch Plan Planned Community Project, there was a total of 19,724 acres of coastal sage scrub within the Rancho Mission Viejo Planning Area (County of Orange 2004). In addition, the Orange County Southern Subregion



1 Habitat Conservation Plan preserves an area totaling 32,818 acres, including 16,536 acres of dedicated  
2 conservation lands of coastal sage scrub, grasslands, oak woodlands, and habitat for coastal California  
3 gnatcatcher, arroyo toad, and San Diego fairy shrimp.  
4

5 Although both projects include mitigation to address sensitive species, including coastal California  
6 gnatcatcher, and habitat through the Southern Subregion Habitat Conservation Plan and SDG&E  
7 Subregional HCP/NCCP, the combined effects of the projects have the potential to affect large areas of  
8 critical habitat for special status species. Substantial mitigation is required for these projects, and  
9 continued review by CDFW and USFWS is required to ensure that mitigation is implemented effectively.  
10

11 In addition to impacts on sensitive habitat, cumulative construction disturbance could result in take of  
12 birds of prey. California Fish and Game Code Section 3503.5 states that it is “unlawful to take, possess,  
13 or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or  
14 destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation  
15 adopted pursuant thereto.” Cumulative construction disturbance during the nesting season could result in  
16 the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment, which would be  
17 considered take. The nesting season begins when the first nest or nest start is discovered and ends when  
18 the last nest is confirmed to be inactive. However, the actual nesting season varies depending on regional  
19 weather conditions. Generally, the avian breeding season in California is recognized as the interval from  
20 February 1 to August 31. Disturbance that causes nest abandonment and/or loss of reproductive effort is  
21 also considered take by CDFW.  
22

23 While the scale of planned development in undeveloped portions of Orange and San Diego counties has  
24 the potential to result in significant regional cumulative impacts on habitat for special status species, the  
25 proposed project’s contribution to this impact would be less than significant and not considerable. All  
26 native habitats affected by the proposed project are considered adequately conserved, as described in the  
27 SDG&E Subregional HCP/NCCP (SDG&E 1995), and the proposed project’s anticipated impacts on  
28 these habitats and associated species would be fully mitigated through implementation of the applicant’s  
29 obligations specified in the SDG&E Subregional HCP/NCCP. Furthermore, all of the special status birds  
30 in the proposed project area, with the exception of the white-tailed kite, are covered under the SDG&E  
31 Subregional HCP/NCCP. To avoid potentially significant impacts on the white-tailed kite and other  
32 special status birds, the applicant would adhere to the requirements of the SDG&E Subregional  
33 HCP/NCCP and would implement additional mitigation measures during the construction phase of the  
34 proposed project. The proposed project would have a less than significant cumulative impact on  
35 biological resources.  
36

## 37 **6.4.5 Cultural Resources**

### 38 **Scope and Geographic Extent**

39  
40 The scope for considering cumulative impacts on cultural resources includes projects that would  
41 potentially disturb human remains or historic, archaeological, or paleontological resources. The  
42 geographic extent of potential cumulative impacts on cultural resources is defined as a one-quarter-mile-  
43 wide buffer centered on the proposed double-circuit 230-kV transmission line, the proposed San Juan  
44 Capistrano Substation, and Talega Substation, herein referred to as the “searched area.” For the purpose  
45 of the analysis in this section, the term “cultural resources” encompasses historical resources;  
46 archeological resources (which may be historic or prehistoric and are a subset of historical resources);  
47 Native American resources; and paleontological resources. The temporal scope of analysis for potential  
48 effects on cultural resources includes construction of the proposed project. As no identified cultural  
49 resources would be impacted by the proposed project, this analysis of cumulative impacts on cultural

1 resources is limited to construction impacts on previously unidentified cultural resources that could occur  
2 as a result of the proposed project, and where the same unidentified resources could also be affected by  
3 the other projects.  
4

### 5 **Existing Cumulative Conditions**

6 The complete prehistoric, ethnohistoric, and historic background of the proposed project area is  
7 described in Section 4.5, “Cultural Resources.” Scientific evidence supports the claim that humans  
8 occupied Southern California as long as 10,000 years ago. The Juaneño/Acjachemen were known to  
9 occupy the proposed project area when the Spanish arrived in 1769. The proposed project area was first  
10 visited in 1769 by Gaspar de Portola as he led a 62-person expedition from San Diego to Monterey.  
11 Shortly after this visit, the seventh Franciscan mission in California was founded in 1776, the Mission  
12 San Juan Capistrano.  
13

14 During the project planning phase, SDG&E identified 48 cultural resources within a quarter-mile radius  
15 of the searched area.  
16

### 17 **Cumulative Impact Analysis**

18 As discussed in Section 4.5, “Cultural Resources,” the proposed project could disturb unknown  
19 subsurface human remains or historic, archaeological, or paleontological resources through excavation  
20 and ground disturbance that could take place in the area of the proposed 230-kV transmission line and  
21 12-kV Segments A,B, C D, and H; the proposed San Juan Capistrano Substation; and Talega Substation.  
22 The La Pata Avenue Gap Project (O1), the Ranch Plan Planned Community Project/Rancho Mission  
23 Viejo/Sendero Village (O2), Prima Deshecha Landfill (O3), Avenida La Pata Capital Project (SC1),  
24 LDS Meetinghouse (SJ4) could take place in the same location or within one-quarter mile of the ground  
25 proposed project, and there is some potential that the proposed project and another project could affect  
26 the same unknown resource or result in cumulatively significant impacts on unknown resources.  
27 However, similar to the proposed project, potential impacts on unknown cultural resources associated  
28 with other projects in the immediate vicinity, as well as with other development projects in the area,  
29 would be appropriately mitigated by construction monitoring and other standard mitigation measures  
30 (including recordation, avoidance, and relocation), as appropriate. For example, mitigation for the Ranch  
31 Plan Planned Community Project/Rancho Mission Viejo/Sendero Village (O2) requires the project  
32 applicant to prepare a Cultural Resources Management Plan to address the presence of cultural resources,  
33 evaluate the significance of any resource finds, provide final mitigation and monitoring program  
34 recommendations, and determine proper retention or disposal of resources prior to the approval of final  
35 plans and specifications for the development of Area Plans (County of Orange 2004). Furthermore,  
36 compliance with the California Health and Safety Code Section 7050.5 requires the stoppage of ground  
37 disturbing activities and coordination with the County Coroner if human remains are found. Therefore,  
38 the total impact of development projects on unknown cultural resources within the area of cumulative  
39 analysis would be less than significant, and the proposed project would not result in a considerable  
40 contribution to cumulative impacts on cultural resources or human remains.  
41

## 42 **6.4.6 Geology, Soils, and Mineral Resources**

### 43 **Scope and Geographic Extent**

44 The scope for the cumulative analysis of geology and soils includes projects that have the potential to  
45 expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or  
46 death involving rupture of a known earthquake fault, strong seismic ground shaking, or seismic-related  
47 ground failure, including liquefaction; result in substantial soil erosion or the loss of topsoil; be located  
48

1 on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed  
2 project, and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction,  
3 or collapse; or be located on expansive soil, creating substantial risks to life or property. Given that the  
4 proposed project would not impact mineral resources, impacts related to this resource is not discussed  
5 further in this analysis.

6  
7 The geographic extent for considering cumulative impacts on geology and soils is a 1 half mile radius  
8 from the footprint of the proposed project components, because areas more than 1 half-mile away would  
9 not be affected by ground-disturbing activities associated with the proposed project. The temporal scope  
10 of analysis for potential cumulative impacts on geological hazards includes construction and operation of  
11 the proposed project.

### 12 **Existing Cumulative Conditions**

14 The proposed project site, as with the cumulative projects, is located in a seismically active region, and  
15 ground shaking is expected. The proposed project would not be located within an Alquist-Priolo  
16 Earthquake Fault Zone (A-P Zone) established by the State Geologist under the Alquist-Priolo  
17 Earthquake Fault Zoning Act (AP Act). The intent of the AP Act is to ensure public safety by prohibiting  
18 the siting of most structures for human occupancy across traces of active faults that constitute a potential  
19 hazard to structures from surface faulting or fault creep. The AP Act addresses the hazard of surface fault  
20 rupture but is not directed toward other earthquake hazards. Although the nearest A-P Zone to the  
21 proposed project components is approximately 18 miles northeast of the proposed project area, faults  
22 within this zone are capable of producing strong seismic ground shaking in the event of a large  
23 magnitude earthquake. Strong shaking could result in secondary seismic effects such as surface  
24 displacement, seismically induced landslides, and liquefaction. The closest active fault to the proposed  
25 project area is an offshore segment of the Coronado Bank fault zone located about 14 miles to the  
26 southwest (refer to Section 4.6, “Geology, Soils, and Mineral Resources”).

27  
28 Soils in the area include alluvium and sandy loam, which are potentially susceptible to liquefaction.  
29 Some area soils include those that have a very high potential for erosion.

### 30 **Cumulative Impact Analysis**

32 Construction of the proposed project and other projects in the area would have the potential to expose  
33 individuals and structures to geological hazards such as direct and indirect loss of equipment or injury to  
34 personnel during the construction and operational phases. This could occur as a result of siting projects  
35 on historic landslide deposits and in an area susceptible to seismically induced, strong ground shaking. In  
36 addition, construction of the project has the potential to expose soils to erosion during grading and  
37 vegetation clearing.

38  
39 As discussed in Section 4.6, “Geology, Soils, and Mineral Resources,” the proposed project component  
40 areas are located in a seismically active region; however, no project component would be located within  
41 an A-P zone. In addition, the proposed project would replace older structures that are more susceptible to  
42 seismic events. Compliance with CPUC General Order 95 and industry requirements, and  
43 implementation of the applicant’s internal structural design requirements, would minimize potential  
44 impacts related to fault rupture or a strong seismic ground shaking during construction and operation of  
45 the proposed project.

46  
47 Simultaneous construction of the proposed project and other reasonably foreseeable projects within the  
48 cumulative impact area could result in cumulative soil instability–related impacts such as soil erosion,  
49 landslides, and soil collapse. Soil erosion, landslides, or soil collapse could result from the cumulative

1 loss of vegetation or ground-disturbing activities related to the construction phase of the proposed  
2 project. Implementation of APMs, implementation of erosion and sedimentation control measures  
3 required in the Stormwater Pollution Prevention Plan, and the application of appropriate and required  
4 engineering design, including compliance with current building codes and regulations as required by  
5 local jurisdictions, would reduce any potential impacts related to geology and soils as a result of the  
6 proposed project to a less than significant level. The cumulative projects that could occur concurrently  
7 with the proposed project (e.g., the Ranch Plan Planned Community Project/Rancho Mission  
8 Viejo/Sendero Village [O2], La Pata Avenue Gap Closure and Camino Del Rio Extension Project [O1]),  
9 Avenida La Pata Capital Project [SC1], LDS Meetinghouse [SJ4]) would be required to implement  
10 similar erosion controls and comply with applicable building codes and local grading ordinances.  
11 Therefore, cumulative impacts related to construction of the proposed project and reasonably foreseeable  
12 projects within the cumulative impact area for geology, soils, and mineral resources would be less than  
13 significant.

14  
15 Cumulatively significant impacts related to loss of life or property could result from a strong seismic  
16 event if existing transmission structures or structures associated with the proposed project fail during the  
17 seismic event. The proposed 230-kV and 138-kV transmission line poles would be steel, range in height  
18 from 80 to 160 feet, and be 4 to 6 feet wide. Similarly, the proposed 69-kV and 12-kV poles would be  
19 steel, range in height from 50 to 80 feet, and be 3 to 4 feet wide. Because the average width of the  
20 applicant's easement within the corridor is 150 feet and poles are typically located in the center of the  
21 ROW, a downed transmission pole could affect areas outside of the easement, including residential  
22 development. However, in areas with potential seismically induced liquefaction or landslide hazards, the  
23 applicant would be required to perform site-specific geotechnical investigations and design the  
24 foundations of the structures to withstand loads or stressors associated with landslides or liquefaction.  
25 Therefore, cumulative impacts related to loss of life or property resulting from a strong seismic event and  
26 associated with failure of proposed project components would be less than significant.

## 27 28 **6.4.7 Greenhouse Gas Emissions**

### 29 30 **Scope and Geographic Extent**

31 The scope for considering cumulative impacts related to emissions of greenhouse gases (GHGs) includes  
32 projects that have the potential to generate GHG emissions during construction or operation. Although  
33 impacts related to GHG emissions are inherently global in nature, the geographic extent for considering  
34 cumulative impacts related to GHGs is statewide, as they are regulated at a state level.

### 35 36 **Existing Cumulative Conditions**

37 Regional and global development patterns continue to rely on methods and practices that contribute large  
38 volumes of GHGs to the atmosphere, and impacts related to GHGs have widespread and potentially very  
39 harmful consequences. The increase in GHGs in the atmosphere caused in large part by human activity is  
40 now considered a key cause of global climate change. Current scientific research indicates that potential  
41 effects of climate change include variations in temperature and precipitation, sea-level rise, impacts on  
42 biodiversity and habitat, impacts on agriculture and forestry, and human health and social impacts  
43 (CNRA 2009). As described in the state's Climate Change Scoping Plan of 2008 (CARB 2008) and  
44 updated in 2014, GHG sources in the state collectively result in emissions that are higher than the targets  
45 established by Assembly Bill 32, which indicates that GHG emissions in the state continue to contribute  
46 to a total significant, state-wide cumulative impact.

47  
48 All projects included in the cumulative scenario would generate GHGs during construction (equipment  
49 emissions) and operations (increased traffic trips to new development).

## Cumulative Impact Analysis

The amended CEQA Guidelines (adopted in 2010) include revised provisions for assessing the cumulative impacts of projects with GHG emissions. According to these amendments, the lead agency “may determine that a project’s incremental contribution to a cumulative impact is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program (including, but not limited to, . . . plans or regulations for the reduction of GHG emissions) which provides specific requirements that will avoid or substantially lessen the cumulative problem” (Section 15064[h][3]). According to this section, if an adopted plan or program adequately addresses cumulative GHG emissions and would apply to proposed development, a determination may be made that the development would not result in a cumulatively considerable impact, as long as the plan or mitigation program being relied upon imposes requirements that adequately address cumulative GHG emissions. In addition, in order to appropriately determine and mitigate GHG impacts, the plan or mitigation program must provide specific requirements that will avoid or substantially lessen the cumulative impact, must be specified in law or adopted through a public review process, and must be enforceable.

The proposed project would generate direct emissions of GHGs from equipment/vehicle usage during construction and operation and from potential sulfur hexafluoride leakage from electrical equipment. In addition, GHG emissions would be generated indirectly at offsite electrical power plants used to supply power to the electrical grid, which in turn supplies electricity for the new electrical compressors proposed for the project. However, these emission increases would be offset by decreases in GHG emissions due to the removal of the existing gas turbine–driven compressors from use.

GHG emissions from construction of the proposed project would be 18,115 metric tons, with the majority originating from diesel emissions from off-road vehicles and equipment. This would be less than the SCAQMD interim GHG significance threshold of 10,000 metric tons of carbon dioxide equivalency per year for industrial facilities. These emissions represent 0.004 percent of the reported GHG emissions in California for 2012 (CARB 2014) and  $4 \times 10^{-6}$  percent of the global GHG emissions reported for 2010 (EPA 2014). In both the statewide and global context, the proposed project’s GHG contribution would be less than significant.

The total impact of development projects related to GHGs within the area of cumulative impact could be significant. However, the proposed project would include APMs, air quality and local agency permit conditions, and mitigation measures that would address and reduce the generation of GHGs during construction. Moreover, project construction emissions would be below SCAQMD’s interim GHG significance threshold of 10,000 metric tons of carbon dioxide equivalency per year. Although the overall cumulative context for GHG emissions in the state indicates a significant total cumulative impact, the proposed project would not result in a considerable contribution to cumulative impacts related to GHGs.

### 6.4.8 Hazards and Hazardous Materials

#### Scope and Geographic Extent

The scope for considering cumulative impacts related to hazards and hazardous materials includes projects that would have the potential to cause an accidental release to the public or environment during transport, use, or disposal of hazardous materials, and any project that would potentially expose sensitive receptors to an accidental release of hazardous materials. The geographic extent for considering project-related cumulative impacts related to hazards and hazardous materials is limited to a 1,000-foot buffer around the proposed project.

1 The temporal extent of the analysis includes construction and operation of the proposed project.  
2

### 3 **Existing Cumulative Conditions**

4 No hazardous materials or waste sites are known to be located within 1,000 feet of the proposed double-  
5 circuit 230-kV transmission line or the substations (EDR 2012; Appendix J). However, soils and  
6 materials at Capistrano Substation are known to be contaminated with lead, petroleum hydrocarbons, and  
7 asbestos.  
8

9 Talega Substation is located on land owned by the United States Marine Corps (Marine Corps) within its  
10 Camp Pendleton base, where there are at least 16 contaminated sites in cleanup programs; however, the  
11 two closest are over 3 miles from Talega Substation (USMC 2014a,b).  
12

13 Much of the cumulative area for hazards and hazardous materials is located in areas that have been  
14 identified by the California Department of Forestry and Fire Protection as very high in terms of fire  
15 hazard severity (CAL FIRE 2009).  
16

### 17 **Cumulative Impact Analysis**

18 As discussed in Section 4.8, “Hazards and Hazardous Materials,” with the applicant’s and SDG&E’s  
19 implementation of APMs, mitigation measures, plans, and measures addressing safety and hazards  
20 materials, and compliance with existing local, state, and federal regulations, the proposed project would a  
21 have less than significant impact in relation to hazards and hazardous materials associated routine  
22 transport, use, or disposal.  
23

24 A cumulatively significant impact could occur if multiple projects contributed to contamination in the  
25 same location or other locations very nearby. Improper handling of hazardous materials or wastes could  
26 occur at any construction or operation site and could result in small spills. During construction and  
27 overhead transmission line and underground cable maintenance, projects in the same location or crossing  
28 the proposed project corridors with concurrent construction schedules could contribute to cumulative  
29 impacts. Reasonably foreseeable projects in the vicinity of the proposed project’s components include the  
30 La Pata Avenue Gap Closure and Camino Del Rio Extension Project (O1), Prima Deshecha Landfill  
31 (O3), and LDS Meetinghouse (SJ4), which would be in close proximity to the 12-kV distribution line  
32 construction or Transmission Line Segments 2 and 3. The exact schedules for these projects are not  
33 known at this time; therefore, it is not known whether concurrent construction would occur in the same  
34 location as the proposed project. Those projects would have to adhere to state and federal regulations and  
35 would have to implement plans such as those required for the proposed project—Hazardous Materials  
36 Business Plans and a Stormwater Pollution Prevention Plan and Spill Prevention, Control, and  
37 Countermeasure plan—which provide for the handling, storage, transportation, and disposal of hazardous  
38 materials in a manner that prevents risks. Construction and operations at the substations would be  
39 confined to the footprint of the substations and would occur behind fences; therefore, any interactions  
40 between the proposed project and other projects are unlikely. It is unlikely that an incident would occur  
41 involving multiple projects with hazardous materials releases in close proximity to each other, resulting  
42 in cumulative impacts.  
43

44 Reasonably foreseeable upset and accident conditions involving the release of hazardous materials into  
45 the environment include large fuel spills while refueling, rupture of transformers, spills associated with  
46 removal of the existing transformer, spill of mineral oil during transport to and from the site, and/or  
47 rupture of containers. Both small and large spills are possible at work sites; large spills can cause  
48 cascading effects if not controlled quickly, but they are unlikely to induce accidents at other worksites.  
49 Cumulative impacts under this criterion could occur if an accident or spill occurred at a worksite that was

1 close enough to induce an accident or spill at another nearby worksite. Although accidents could occur at  
2 the work site of the proposed project, larger spills are more likely to occur where there is bulk storage of  
3 materials. The staging areas, helicopter fly yards, and substations are the areas of the proposed project  
4 where hazardous materials, fuels, or hazardous wastes could be temporarily stored in bulk. Construction  
5 and operation at the substations would involve removal, transport, and disposal of large quantities of  
6 mineral oil.

7  
8 To help reduce the risk of a hazardous materials incident in the proposed project area, the staging areas  
9 and the substations would be fenced, and all materials stored and contained according to state and federal  
10 regulations. APM HAZ-2 would require the implementation of transportation plans to ensure the safe  
11 passage of these materials. The substations are located in areas where there is no other industrial  
12 development. The LDS Meetinghouse is the only cumulative project that is in proximity to the staging  
13 areas or helicopter fly yards for the proposed project. However construction of a church does not  
14 typically involve bulk storage of chemicals. No cumulative projects that involve bulk storage of  
15 chemicals are in close proximity to the staging areas and helicopter fly yards for the proposed project ,  
16 with the exception of the PDL, which produces methane would be located in proximity to stag. However,  
17 the PDL is sufficiently large that the proposed project's staging area would not interrupt or increase any  
18 risk associated with methane production or distribution at the landfill. Therefore, there is not likely to be  
19 an incident involving the release of hazardous materials at multiple projects in close proximity to each  
20 other such that there would be cumulative effects.

21  
22 In general, the proposed project is surrounded by residential development. As a result, during operations,  
23 the proposed project would likely be the only entity potentially contributing to cumulative impacts due to  
24 routine use of hazardous materials or accidental conditions; therefore, the direct impacts described in  
25 Subsection 4.8.3.3 of Section 4.8, "Hazards and Hazardous Materials," would be applicable.

26  
27 As discussed in Subsection 4.3.3.3 of Section 4.3, "Air Quality," construction of the proposed project  
28 would emit toxic air contaminants—specifically diesel particulate material—primarily during  
29 construction. The direct impacts from the proposed project would be less than significant because  
30 exposures would be short term, given that construction activities in close proximity to schools would be  
31 temporary. Concurrent construction of projects, such as the La Pata Gap Closure, in close proximity to  
32 the proposed project and schools, would contribute to cumulative impacts, but all of them would be short  
33 term; therefore, exposure would be temporary and less than significant.

34  
35 Contaminated soils and materials are known to be located at Capistrano Substation and potentially at  
36 MCB Camp Pendleton. The PDL, due to the nature of the facility, contains wastes; however, the  
37 proposed project would not include installation of any components on the landfill itself. No other  
38 contaminated sites are known to occur in the proposed project area. Cumulative impacts could occur if  
39 multiple projects unearthed and exposed contamination in close proximity to each other. This could  
40 occur if there were co-located construction projects. No other reasonably foreseeably projects are  
41 proposed for Capistrano and Talega substations; therefore, there would be no cumulative impacts, and  
42 the impacts and mitigations regarding Impact HZ-4 discussed in Subsection 4.8.3.3 of Section 4.8,  
43 "Hazards and Hazardous Materials" would apply.

44  
45 The construction of the proposed project would not directly impair emergency access because all streets  
46 would remain open to emergency vehicles at all times through the implementation of APM TT-1 –  
47 Traffic Control Plan and APM TT-3 – Commuter Plan. Operation of the proposed project would be  
48 similar to the existing facility and would not contribute to impacts associated with impairing emergency  
49 response or evacuation plans.

1 Hazards related to fire would be addressed in the applicant's Wildland Fire Prevention and Fire Safety  
2 Plan (ESP No. 113.1) and APM HAZ-6. These include requirements for carrying fire suppression  
3 equipment, restrictions about equipment idling, and stop work orders if there are high fire threats. The  
4 applicant would maintain vegetation clearance in the transmission line corridor in accordance with  
5 California regulations. In addition, the applicant would implement a Fire Control and Emergency  
6 Response Plan in coordination with the Orange County Fire Authority. Other projects to be built in the  
7 area, such as the road projects and the Ranch Plan Planned Community Project/Rancho Mission  
8 Viejo/Sendero Village (O2) would be subject to design and operational measures and state and local  
9 regulations that would address fire hazards. Although the cumulative area has been mapped as one of  
10 high to extreme fire risk, impacts related to fire would be addressed by the proposed project and other  
11 projects on a project-specific basis, and the overall cumulative impact would not be significant.  
12

13 Projects within the cumulative scenario would not contribute to a significant cumulative impact related to  
14 hazards and hazardous materials, and the proposed project's potential to contribute to cumulative impacts  
15 related to hazards and hazardous materials would be less than considerable.  
16

## 17 **6.4.9 Hydrology and Water Quality**

### 18 **Scope and Geographic Extent**

19  
20 The scope for considering cumulative impacts on hydrology comprises any project that would have the  
21 same or similar impacts as the proposed project as relates to water quality, drainage patterns, or flooding.  
22 Therefore, the geographic extent for considering project-related cumulative impacts on hydrology and  
23 water quality is the area containing water resources that would be directly affected by construction  
24 activities; this comprises an area up to 0.5 miles from the proposed project components within the  
25 Mission Viejo, San Clemente, and San Mateo Canyon watersheds. The temporal scope of analysis  
26 includes construction and operation of the proposed project.  
27

### 28 **Existing Cumulative Conditions**

29 Washes and creeks in regional watersheds in the vicinity of the proposed project tend to be intermittent  
30 to ephemeral, with surface flow typically present only during or after storm events. Significant surface  
31 water bodies in the region include San Juan Creek, Prima Deshecha Creek, and Segunda Deshecha  
32 Creek. The majority of the drainages in portions of the proposed project area that cross undeveloped  
33 foothill terrain remain in their natural condition, whereas many of the watercourses in the low-lying  
34 developed portions of the proposed project area have been altered through straightening and/or  
35 fortification with sand levees or concrete channels for flood control purposes. Significant surface flow  
36 does not typically occur until major storm events, during which the soil underlying non-channelized  
37 washes becomes saturated. Water quality in the region varies from good in areas that are less developed  
38 or undeveloped to impaired in urbanized areas. None of the creek segments crossed by the proposed  
39 project are included on the California list of impaired waterways pursuant to Clean Water Act Section  
40 303(d). However, three creeks crossed by the proposed project have impaired segments downstream: San  
41 Juan Creek, Prima Deshecha Creek, and Segunda Deshecha Creek. Water quality issues in these creeks  
42 include erosion and runoff from increasing development within the floodplains, and pollution related to  
43 urban runoff and discharge, illegal dumping, and wastewater effluent. Federal Emergency Management  
44 Agency-designated Flood Hazard Zones are present throughout the proposed project region.  
45

46 Several projects, including the Ranch Plan Planned Community Project and numerous other residential  
47 developments and regional transportation projects, are located within the geographic extent for potential  
48 cumulative impacts on hydrology and water quality.  
49



## 1 Cumulative Impact Analysis

2 Cumulative development in the proposed project area is a continuation of the existing urban pattern of  
3 straightening and/or fortification of watercourses in the area with sand levees or concrete channels for  
4 flood control purposes. The proposed project and multiple reasonably foreseeable projects would convert  
5 undeveloped land to disturbed or developed land, which could increase stormwater runoff from project  
6 sites. Because cumulative hydrology and water quality impacts are caused by build-out of properties that  
7 increase impervious area and pollutant loads, cumulative development is characterized as the build-out of  
8 these watersheds over an extended period of time, resulting in development of all available parcels.  
9

10 Development of the proposed project and foreseeable projects could result in cumulative increases in the  
11 rate and amount of surface flow runoff within certain portions of the watersheds. Construction of the  
12 proposed project concurrently with other projects in the vicinity could contribute to significant increases  
13 in contaminated runoff (i.e., stormwater heavy sediment loads, oils, grease, and other petroleum  
14 hydrocarbons). The Ranch Plan Planned Community is projected to take approximately 20 to 25 years to  
15 be fully built out, with peak construction occurring between 2013 and 2016. Accordingly, this four-year  
16 period is when the most cut and fill would occur and the most heavy-duty construction equipment would  
17 be used (County of Orange 2004). The construction equipment and truck trips associated with the mass  
18 earthwork of nearly 9 million cubic yards of cut/fill for the La Pata Avenue Project would occur over a  
19 much shorter period of 30 months. The construction of the proposed project would be completed within  
20 64 months and would require the removal of vegetation at each of the proposed structure sites; the area  
21 where vegetation is removed would be graded flat or terraced if steep slopes are present and the soil  
22 types were conducive to grading. All three projects require earthwork and would change existing land  
23 uses, which could result in increased stormwater runoff volumes and degradation of water quality due to  
24 sedimentation or contaminated runoff. However, each project would be required to comply with National  
25 Pollution Discharge Elimination System Permits (i.e., Construction General Permits and a Regional MS4  
26 Permit) and other water quality permits (e.g., Clean Water Act Section 404/401 permits) that require  
27 source control measures (e.g., spill control, fueling location restrictions, material storage best  
28 management practices [BMPs]) and erosion and sediment control measures to protect water quality and  
29 drainage patterns.  
30

31 Furthermore, as discussed in Section 4.9, "Hydrology and Water Quality," the proposed project's impacts  
32 on hydrology and water quality would be less than significant after implementation of BMPs and  
33 compliance with all applicable laws and permits related to drainage patterns, runoff rates, and water  
34 quality. In addition, the proposed project would be required to comply with all applicable local grading  
35 and building ordinances. Similarly, other reasonably foreseeable projects within the watersheds crossed  
36 by the proposed project would be required to comply with all applicable laws and permits related to  
37 drainage, patterns, runoff rates, and water quality, which would require the implementation of site-  
38 specific BMPs to protect hydrology and water resources. Therefore, the proposed project's potential  
39 contribution to cumulative hydrology impacts would be less than significant.  
40

### 41 6.4.10 Land Use and Planning

#### 42 Scope and Geographic Extent

44 The scope and geographic extent for considering cumulative impacts on land use includes any project  
45 within local jurisdictions that would conflict with the General Plan or other land use regulations of any of  
46 these jurisdictions. The temporal scope of analysis for potential land use effects includes construction  
47 and operation of the proposed project.  
48

1 **Existing Cumulative Conditions**

2 The proposed project’s regional area includes unincorporated southern Orange County, the City of San  
3 Juan Capistrano, the City of San Clemente, and unincorporated northern San Diego County on land  
4 owned by and under the jurisdiction of the Marine Corps as part of MCB Camp Pendleton. These areas  
5 vary in character from wild and undeveloped to heavily urbanized, and land uses include rural,  
6 agricultural, residential, commercial, landfill, open space, parkland, rail lines, and major roads and  
7 highways.

8  
9 **Cumulative Impact Analysis**

10 As discussed in Section 4.10, “Land Use and Planning,” construction of the proposed project would  
11 result in some road closures, which would require drivers to use detours. Although impacts from these  
12 road closures would have a less than significant impact on an established community, a cumulative  
13 impact could occur if a cumulative project closed additional roads that would increase the detour for the  
14 proposed project. The only cumulative projects in the vicinity of the road closures associated with the  
15 proposed project are the La Pata Avenue Gap Closure and Camino Del Rio Extension Project (O1) and  
16 LDS Meetinghouse (SJ4). The application for the LDS Meetinghouse is currently being processed, and  
17 any road closures would have to receive approval from the City of San Juan Capistrano, which would  
18 reduce any potential for potential cumulative impacts on road closures along Vista Montana and Via  
19 Pamplona.

20  
21 Although, the proposed project is under the jurisdiction of the CPUC, it would also be generally  
22 consistent with applicable land use plans, policies, and regulations of local land agencies with the  
23 implementation of MM AES-1 and MM AES-2, which require the applicant to obtain the City of San  
24 Juan Capistrano Architectural Review Board’s approval of the design of the proposed San Juan  
25 Capistrano Substation facilities and landscaping prior to building and to restore disturbed areas to pre-  
26 project conditions. Cumulative projects under the jurisdiction of local agencies would need approval  
27 from these agencies before conflicting with land use plans, policies, or regulations; therefore, the  
28 proposed project would not contribute to a cumulative impact on land use plans, policies, or regulations.

29  
30 As discussed in Section 6.4.4, above, the proposed project would not contribute to a cumulative impact  
31 on any Habitat Conservation Plans or NCCPs.

32  
33 **6.4.11 Noise**

34  
35 **Scope and Geographic Extent**

36 The scope for considering cumulative noise impacts includes any project that would result in an increase  
37 in ambient noise levels and daytime exterior noise standards. The geographic extent for considering  
38 cumulative noise impacts comprises any project within 0.25 mile of the nearest sensitive noise receptor  
39 to the project component area because noise attenuates with distance and only projects operating  
40 simultaneously in close proximity would contribute to both cumulative noise and vibrational impacts.

41  
42 **Existing Cumulative Conditions**

43 SDG&E measured background noise levels at several proposed project component locations, including  
44 four locations near Capistrano Substation, as well as Transmission Line Poles 8, 11, 28, and 29. A  
45 summary of these noise measurements is provided in Table 4.11-3.

**Cumulative Impact Analysis**

**Construction Noise**

As discussed in Section 4.11, “Noise,” the proposed project could result in short-term increases in ambient noise levels that would temporarily exceed applicable exterior noise standards during portions of the construction period. Concurrent construction of cumulative projects in close proximity to the proposed project could result in cumulatively considerable noise impacts at sensitive receptors, specifically those where the noisiest activities are occurring (see Table 6-2).

**Table 6-2 Summary of the Noisiest Construction Activity for each Project Component**

Project Component	Noisiest Activity	Distance to Closest Sensitive Receptor (feet)	Estimated Combined Noise (dBA, L <sub>eq</sub> )	Applicable Noise Daytime Standard (dBA)	Applicable Noise Night time Standard (dBA)
Proposed San Juan Capistrano Substation	Above grade construction	18	101	65	55
Talega Substation Modification	Above grade construction	1,355	62	55	50
Transmission Line Segment 1a	Removal of structures	18	96	65	55
Transmission Line Segment 1b	Removal of structures	18	96		
Segment 2	Removal of steel riser structures	10	105		
Segment 3	Site grading/ access roads/ retaining walls	45	93	55	50
Segment 4	Site grading/ access roads/ retaining walls	230	78	55	50
Distribution Line Segments	Construction at each pole site	86	50	65	55
Helicopter Fly Yards	Helicopter flyover	540	67	55	55

Key:  
dBA = A-weighted decibels  
Leq = Sound Equivalent Level

Sensitive receptors located within 230 feet of the proposed project would be exposed to construction noise levels in excess of the exterior noise standards for residential uses during daytime hours. On a less frequent basis and for shorter timeframes, residents located within 540 feet from helicopter fly yards would be also exposed to noise levels in excess of the applicable noise standard. However, the noise ordinances applicable for the jurisdictions where the proposed project would be constructed have established exemptions for construction noise, if work is performed within daytime hours and specific timeframes (see Table 6-3).

**Table 6-3 Construction Hours per Jurisdiction**

Jurisdiction	Allowable Construction Hours
County of Orange	Weekdays: 7:00 a.m. to 8:00 p.m.
City of San Juan Capistrano	Weekdays: 7:00 a.m. to 6:00 p.m. Saturday: 8:30 a.m. to 4:30 p.m.
City San Clemente	Weekdays: 7:00 a.m. to 6:00 p.m. Saturday: 8:00 a.m. to 6:00 p.m.

Other projects within the cumulative study area, such as the La Pata Avenue Gap Closure and Camino Del Rio Extension Project (O1), PDL (O3), and LDS Meetinghouse (SJ4), would also contribute to

1 increases in noise levels during their construction periods, which may overlap. These projects would be  
2 located in close proximity of the 12-kV distribution line construction or Transmission Line Segments 2  
3 and 3. These projects would have to comply with the policies and regulations of applicable local  
4 jurisdictions for noise from such sources.

### 6 ***Operational Noise***

7 Two potential sources of operational noise associated with the proposed project are corona noise from  
8 the transmission lines segments, and transformer noise from San Juan Capistrano Substation. No  
9 operational noise impacts would be associated with the 138-kV transmission lines segments, 12-kV  
10 distribution lines, or Talega Substation. The corona discharge generates audible noise during operation of  
11 transmission lines and substation equipment, and this noise is generally characterized as a crackling or  
12 hissing sound that may be accompanied by a 120-hertz hum.

13  
14 The projected operational noise levels at San Juan Capistrano Substation would exceed the City of San  
15 Juan Capistrano's exterior noise standards for sensitive receptors located less than 100 feet from the  
16 230/138-kV and 138/12-kV transformer banks at the proposed San Juan Capistrano Substation. With  
17 implementation of MM NV-2, potential impacts from operational noise at San Juan Capistrano  
18 Substation would be reduced to less than the local nighttime standards. No other projects are known to be  
19 planned for this area, so cumulative noise impacts would reflect existing noise levels with the addition of  
20 the proposed project.

21  
22 Because the contribution of the proposed project to ambient noise levels at the nearest sensitive receptor  
23 would be less than significant, and because all such noise impacts from other projects within the  
24 cumulative analysis area would be required to comply with policies and regulations of applicable local  
25 jurisdictions, the proposed project would not result in a cumulatively considerable impact in relation to  
26 noise.

### 28 ***Vibration***

29 Vibration could occur primarily during construction or operations from the use of heavy-duty  
30 construction equipment (e.g., trucks, backhoes, excavators, loaders, and cranes). The use of this  
31 equipment for the proposed project would generate vibration levels range between 60 to 94 VdB<sup>1</sup>  
32 (equivalent to 0 to 0.012 inches per second in a range of 1 to 100 hertz) during construction activities;  
33 however, vibration events are anticipated to be infrequent (i.e., less than 30 vibration events of the same  
34 kind per day), resulting in noticeable, but relatively low, levels of vibration. The highest levels would be  
35 associated with the use of the vibratory roller, required during underground construction. The La Pata  
36 Avenue Gap Closure and Camino Del Rio Extension Project (O1) would use similar equipment during  
37 underground construction, possibly concurrently with the proposed project. Therefore, cumulative  
38 adverse impacts associated with vibration could occur, but only if there would be concurrent construction  
39 in close proximity.

40  
41 The applicant would avoid nighttime construction to the extent feasible and would conduct underground  
42 construction near residential areas in short periods of time, resulting in infrequent events of maximum  
43 vibration. In addition to the applicant's practices, implementation of MM NV-3 includes the development  
44 of a vibration monitoring plan during final design and the implementation of a compliance monitoring  
45 plan during construction. Through the implementation of these measures, the applicant would minimize  
46 the proposed project's contribution to cumulative adverse vibratory impacts.

---

<sup>1</sup> Vibration velocity levels measured in inches per second or in decibels

1  
2 If the road projects were to occur simultaneously, and construction were to occur in close proximity to  
3 the proposed project, the local jurisdictions would need coordinate projects to ensure that safe vibrations  
4 levels are not exceeded. In the event that vibration levels frequently exceeded thresholds of human  
5 perception and building damage, it would be necessary to implement additional vibration control  
6 measures, such as:

- 7
- 8 • Route heavily loaded trucks away from residential streets, if possible. Select streets with fewest  
9 homes if no alternatives are available.
- 10 • Operate earth-moving equipment on the construction lot as far away from vibration-sensitive  
11 sites as possible.
- 12 • Phase demolition, earth-moving, and ground-impacting operations so as not to occur in the same  
13 time period. Unlike noise, the total vibration level produced could be significantly less when  
14 each vibration source operates separately.
- 15 • Avoid nighttime activities. People are more aware of vibration in their homes during the  
16 nighttime hours. Avoid impact pile-driving where possible in vibration-sensitive areas. Drilled  
17 piles and the use of a sonic or vibratory pile driver cause lower vibration levels where the  
18 geological conditions permit their use.
- 19 • Select demolition methods not involving impact, where possible.
- 20 • Avoid vibratory rollers and packers near sensitive areas. (FTA 2006)

## 21

### 22 **6.4.12 Population and Housing**

#### 23 **Scope and Geographic Extent**

24

25 The scope for considering cumulative impacts on population and housing includes any project that would  
26 directly or indirectly affect population size. Given that the proposed project would have no impact on the  
27 displacement of housing or people, cumulative impacts related to these topics are not discussed further  
28 here.

29 The geographic extent for cumulative impacts on population during construction is Orange County  
30 because it is assumed that construction workers could move anywhere within Orange County and  
31 commute to the project site. San Diego County is not included in the geographic extent for cumulative  
32 impacts during construction because workers would have to locate outside of MCB Camp Pendleton,  
33 which would have a less desirable commute to the proposed project. The geographic extent for  
34 cumulative impacts on population during operation is SDG&E's South Orange County service area  
35 because this area would be affected by the operation of the proposed project.

36 The temporal scope of analysis for potential effects on population includes construction and operation of  
37 the proposed project.

#### 38 **Existing Cumulative Conditions**

39 As discussed in Section 4.12, "Population and Housing," the current and projected populations for  
40 unincorporated Orange County, the city of San Juan Capistrano, the city of San Clemente, and  
41 unincorporated San Diego County are listed in Table 4.12-1. The largest growth between 2014 and 2035  
42 is anticipated to occur in unincorporated Orange County (57 percent increase), followed by  
43 unincorporated San Diego County (30 percent increase). The cities of San Juan Capistrano and San  
44 Clemente are each expecting a population growth of approximately 5 percent by 2035.

1 **Cumulative Impact Analysis**

2 Construction of neither the residential developments nor other cumulative projects is anticipated to  
3 require the construction of replacement housing. These projects would likely draw from the existing  
4 labor pool in Orange County. The Ranch Plan Planned Community Project/Rancho Mission  
5 Viejo/Sendero Village (O2) and the Oaks Project (SJ5) are planned residential developments that have  
6 been accepted by Orange County and the City of San Juan Capistrano as part of their planned growth  
7 strategy. These projects would directly induce growth. As discussed in Section 4.12, "Population and  
8 Housing," although some construction workers may travel to the region during the construction period,  
9 the proposed project would not directly induce substantial population growth in the area. Therefore, the  
10 proposed project would not significantly contribute to a direct growth impact.

11  
12 Operation of the proposed project and the infrastructure and transportation projects would provide  
13 additional utilities and/or transportation capacity to the South Orange County service area. However,  
14 without approval from the local jurisdictions, unplanned population growth would not occur as a result of  
15 the increase utilities and transportation capacities. Therefore, the proposed project would have a less than  
16 significant cumulative impact on population and housing.

17  
18 **6.4.13 Public Services and Utilities**

19  
20 **Scope and Geographic Extent**

21 The scope for considering cumulative impacts on public services and utilities includes any project that  
22 would increase service ratios of public services, or utilize stormwater, water supplies, or landfills beyond  
23 their capacities. Given that the proposed project would have no impact on water treatment facilities,  
24 standards, or capacities, these topics are not discussed further here.

25 The geographic extent for cumulative impacts on public services is the service area of the public services  
26 and utilities.

27  
28 The temporal scope of analysis for potential effects on public services includes the construction period.  
29 Operation of the proposed project is not considered in this analysis because operation and maintenance  
30 activities associated with the proposed project would be similar to those associated with the existing  
31 substations, transmission, and distribution lines. Therefore, operation of the proposed project would have  
32 no new cumulative impact on public services and utilities.

33  
34 **Existing Cumulative Conditions**

35 The projects listed above would likely use all of the same public services and utilities as the proposed  
36 project, as described in Section 4.13, "Public Services and Utilities," during construction.

37  
38 **Cumulative Impact Analysis**

39 As discussed in Section 4.13, "Public Services and Utilities," the proposed project is not expected to  
40 result in additional use of public services in local jurisdictions that would result in substantial adverse  
41 physical impacts associated with provision of new or physically altered governmental facilities. The  
42 proposed project would not result in the need for new or physically altered governmental facilities in  
43 order to maintain acceptable service ratios, response times, or other performance objectives for any of the  
44 public services.

45  
46 Construction of the proposed project would occur concurrently with the construction or operation of the  
47 La Pata Avenue Gap Closure and Camino Del Rio Extension Project (O1), the Ranch Plan Planned

1 Community Project/Rancho Mission Viejo/Sendero Village (O2), the PDL Project (O3), and possibly  
2 The Shops at Capistrano project (SJ2).

3  
4 The concurrent development of multiple projects in the vicinity of the proposed project may contribute to  
5 a significant cumulative impact on public services and utilities. For example, according to the Ranch Plan  
6 Planned Community Draft Environmental Impact Report (DEIR), “additional population generated by the  
7 project would increase the need for additional police and fire protection services,” which requires  
8 evidence from the Orange County Sheriff’s Department and Orange County Fire Authority stating  
9 services can be provided to the proposed land uses. Conversely, the La Pata Avenue Gap Closure and  
10 Camino Del Rio Extension Project (O1) is a long-planned roadway improvement to complete the  
11 circulation system; it is not considered to be growth inducing and would not cause significant  
12 environmental impacts associated with service ratios, response times, or other performance standards  
13 (County of Orange 2010). In fact, the La Pata Avenue Gap Closure and Camino Del Rio Extension  
14 Project (O1) would be beneficial to emergency responders by providing additional connection in the  
15 existing circulation network.

16  
17 The DEIR for the La Pata Avenue Gap Closure and Camino Del Rio Extension Project (O1) states that  
18 impacts on existing SDG&E electrical utilities will occur during construction, but with the  
19 implementation of mitigation measures, the project would not result in or contribute to a significant  
20 cumulative impact on public services or utilities. The Ranch Plan Planned Community Project/Rancho  
21 Mission Viejo/Sendero Village (O2) would consume increased amounts of electricity, natural gas, and  
22 water. Additionally, the PDL Project (O3) would be beneficial to the available landfill capacity. The  
23 planned capacity of existing electrical distribution services would not be exceeded, and future  
24 coordination between the applicant and SDG&E would allow implementation of the proposed land use  
25 plan without any service disruptions. Notably, the Ranch Plan Planned Community Project/Rancho  
26 Mission Viejo/Sendero Village (O2) DEIR disclosed that project development requires the construction  
27 of additional infrastructure to meet electrical demand requirements (County of Orange 2004). Although  
28 the proposed project involves the construction of a new and expanded utility service, because the  
29 proposed project would alleviate the cumulative electricity demand required by the Ranch Plan Planned  
30 Community Project/Rancho Mission Viejo/Sendero Village (O2), the impact on this resource area would  
31 be less than significant.

32  
33 Neither the proposed project nor the Pata Avenue Gap Closure and Camino Del Rio Extension Project  
34 (O1) would significantly contribute to the demand for public services, such as water, waste water  
35 services, and solid waste disposal during the construction and operation phases. The two linear projects  
36 would not need new or expanded water or wastewater treatment facilities. Furthermore, old poles,  
37 associated hardware, conductor, and debris associated with the proposed project would be removed from  
38 the site(s) and placed on flatbed trucks for recycling or disposal in accordance with all applicable laws  
39 (Subsection 2.4.3.6 of Chapter 2, “Project Description”). Comparatively, the Ranch Plan Planned  
40 Community Project/Rancho Mission Viejo/Sendero Village (O2) has an average total water demand at  
41 full build-out under normal consumption conditions of 16,874 acre feet per year and a total peak dry-  
42 weather waste water flow of 7.58 million gallons per day (County of Orange 2004).

43  
44 The proposed project’s incremental contribution to the overall demand of public services would be  
45 positive, and it would not contribute to a cumulatively considerable adverse impact related to public  
46 services and utilities.

1 **6.4.14 Recreation**

2  
3 **Scope and Geographic Extent**

4 The scope for considering cumulative impacts on recreation includes any project that would increase the  
5 use of recreational facilities or involve the development of recreational facilities. Given that the proposed  
6 project would not include recreational facilities or require the construction or expansion of recreational  
7 facilities that might have an adverse physical effect on the environment, this topic is not discussed further  
8 here. The geographic extent for cumulative impacts on recreation is the local jurisdictions.  
9

10 The temporal scope of analysis for potential effects on recreation includes the construction period.  
11 Operation of the proposed project is not considered in this analysis as operation and maintenance  
12 activities associated with the proposed project would be similar to those associated with the existing  
13 substations, transmission, and distribution lines operation and maintenance activities. Therefore,  
14 operation of the proposed project would have no new cumulative impact on recreation.  
15

16 **Existing Cumulative Conditions**

17 As discussed in Section 4.14, “Recreation,” recreational facilities within the proposed project area are  
18 listed in Table 4.14-1.  
19

20 **Cumulative Impact Analysis**

21 As discussed in Section 4.14, “Recreation,” the proposed project is not expected to increase the use of  
22 existing neighborhood and regional parks or other recreational facilities such that substantial physical  
23 deterioration of such facilities would occur or be accelerated.  
24

25 There are multiple recreational facilities (trails, parks, bikeways, golf courses) within 5 miles of the  
26 proposed project (County of Orange 2005; City of San Juan Capistrano 1999, 2007; City of San  
27 Clemente 2014b,c). Several projects would be under construction at the same time as the proposed  
28 project (Table 6-1), each with the potential to affect use of recreational facilities. For example, the Ranch  
29 Plan Planned Community would result in significant impacts on existing local public recreational  
30 facilities (County of Orange 2004). However, impacts on these facilities would be reduced through a  
31 recreation easement and additional improvements (e.g., a trail rest stop and trail rest area). A cumulative  
32 impact could occur if multiple recreational facilities were affected at the same time, thus increasing use  
33 of the remaining recreational facilities to a level that would accelerate their wear and tear.  
34

35 La Pata Avenue Gap Closure and Camino Del Rio Extension Project (O1), LDS Meetinghouse (SJ4), and  
36 The Oaks Project (SJ5) are all projects that may be constructed concurrently with the proposed project  
37 and have the potential to impact recreational trails. However, one of the two trails that may be impacted  
38 by these cumulative projects would already be impacted by the proposed project. Therefore, only one  
39 additional trail (located parallel to SR-74, to the south) would be impacted under the cumulative scenario  
40 than the proposed project, which would not result in significant cumulative impacts on recreation.  
41

42 **6.4.15 Transportation and Traffic**

43  
44 **Scope and Geographic Extent**

45 The scope for considering cumulative impacts related to traffic and transportation includes any project  
46 that would, along with the proposed project, conflict with an applicable plan, ordinance, or policy  
47 establishing measures for the performance of the circulation system, conflict with an applicable  
48 congestion management program, result in change in air traffic patterns, substantially increase hazards



1 due to design features or incompatible uses, result in inadequate emergency access, or conflict with  
2 adopted policies, plans, or programs, regarding public transit, bicycle, or pedestrian facilities, or  
3 otherwise decrease the performance or safety of such facilities. Therefore, the geographic and temporal  
4 extent for considering cumulative impacts related to traffic and transportation includes all regional and  
5 local roadways that may be used to access the proposed project or that could otherwise be impacted by  
6 the proposed project during construction.

7  
8 Operation of the proposed project would be similar to those associated with the existing substations and  
9 transmission lines; therefore, no new cumulative impacts would occur during operation.

### 10 11 **Existing Cumulative Conditions**

12 The operational efficiency of traffic is typically measured by level of service (LOS), a traffic  
13 performance metric established by the Transportation Research Board's Highway Capacity Manual. LOS  
14 is based on volume-to-capacity ratio, which compares roadway capacity to level of traffic during peak  
15 hours. Roadways and intersections that are at or near capacity experience greater congestion and  
16 corresponding traffic delay. The highest ranked roadways are designated "LOS A," representing free-  
17 flowing traffic, and the lowest ranked roadways are designated "LOS F," representing extreme  
18 congestion. Approximately a third of the roadways that would be used during construction have an  
19 unacceptable LOS rating (i.e., LOS E or F) under the cumulative scenario without the project (Table 6-4)  
20 (LLG 2015).

21  
22 Section 4.15, "Transportation and Traffic," details the existing conditions for the congestion management  
23 program, air traffic patterns, emergency access, and public transit, bicycle, or pedestrian facilities  
24 policies.

### 25 26 **Cumulative Impact Analysis**

27 The proposed project would use highways and local roadways throughout the proposed project area  
28 during construction. Cumulatively significant impacts on service standards would occur if the cumulative  
29 projects generated traffic on the same roads at the same time as the proposed project. As shown in Table  
30 6-4, the proposed project would not considerably contribute to cumulative impacts on street segment  
31 operations, ~~with the exception of Camino Capistrano in the City of San Juan Capistrano. Under the~~  
32 ~~cumulative scenario, Camino Capistrano would operate at LOS E and D without the proposed project and~~  
33 ~~would operate at an unacceptable LOS F with the proposed project. The proposed project would have a~~  
34 ~~significant contribution to a cumulative impact on the performance standard of Camino Capistrano in the~~  
35 ~~City of San Juan Capistrano, but would not significantly contribute to cumulative impacts of performance~~  
36 ~~standard for any other street segments in the project area.~~

37  
38 The proposed project does not meet the requirements for further evaluation under the 2013 Orange  
39 County Congestion Management Plan (CMP), which addresses the impact of local growth and issues  
40 associated with increasing congestion on the regional transportation system by establishing the minimum  
41 acceptable LOS. Furthermore, the applicant would develop and implement a Traffic Control Plans (APM  
42 TR-7 and MM TR-5), avoid SR-74 traffic (APM TR-2), and complete off-peak deliveries (APM TR-4);  
43 therefore, the proposed project would not significantly contribute to a cumulative scenario that would  
44 conflict with an adopted congestion management program.

**Table 6-4 Cumulative Street Segment Operations <sup>a</sup>**

Street Segment	Capacity (LOS E) <sup>b</sup>	Cumulative Scenario without Project			Cumulative Scenario with Project		
		ADT	V/C	LOS	ADT	V/C	LOS
Junipero Serra Road	25,000	16,520	0.661	B	16,782	0.671	B
Camino Capistrano (North of SR-74)	18,750 <sup>d</sup>	17,020	0.908	E	17,282	<del>1.383</del> 0.922	<del>E</del>
Camino Capistrano (South of SR-74)	25,000 <sup>d</sup>	20,720	0.829	D	20,982	<del>1.679</del> 0.839	<del>F</del>
Rancho Viejo Road	25,000	14,790	0.592	A	15,052	0.602	B
Calle Arroyo	25,000	8,570	0.343	A	8,832	0.353	A
San Juan Creek Road	12,500	11,960	0.957	E	12,222	0.978	E
La Novia Avenue	12,500	15,370	1.230	F	15,632	1.251	F
Via Pomplana	12,500 <sup>d</sup>	770	0.062	A	1,032	0.165	A
Vista Montana	37,500 <sup>d</sup>	7,360	0.196	A	7,622	0.610	B
Calle San Diego	12,500 <sup>d</sup>	880	0.070	A	1,142	0.183	A
La Pata Avenue	12,500	5,760	0.461	A	6,022	0.482	A
Avenida La Pata (North of Avenida Pico)	56,300	14,560	0.259	A	14,822	0.263	A
Avenida La Pata (South of Avenida Pico)	37,500	10,810	0.288	A	11,072	0.295	A
Avenida Vista Hermosa	37,500	36,900	0.984	E	37,162	0.991	E
Calle Del Cerro	12,500	16,920	1.354	F	17,182	1.375	F
Avenida Vista Montana	12,200	7,250	0.580	A	7,512	0.601	B
Avenida Pico (West of Avenida La Pata)	56,300	56,480	1.003	F	56,742	1.008	F
Avenida Pico (East of Avenida La Pata)	56,300	20,180	0.358	A	20,442	0.363	A
Calle Saluda	12,500	4,730	0.378	A	4,992	0.399	A
State Route 74 (West of La Novia Avenue)	25,000	49,890	1.996	F	50,152	2.006	F
State Route 74 (East of La Nucia Avenue)	25,000	51,020	2.041	F	51,282	2.051	F
Interstate 5 (North of SR-74)	180,000 <sup>c</sup>	293,520	1.631	F	293,782	1.632	F
Interstate 5 (South of SR-74)	180,000 <sup>c</sup>	321,340	1.785	F	321,602	1.787	F

Source: LLG 2015

Notes:

- a. Cumulative impacts in 2020
  - b. Capacities based on Orange County Highway Design Manual Roadway Classification Table.
  - c. Capacities based on City of San Diego Roadway Classification Table
  - d. During construction, partial or full closure of this roadway is required, which would lower the roadway capacity. For the purpose of this analysis, the capacity was reduced by half.
- ADT – average daily traffic  
LOS – level  
V/C – volume-to-capacity ratio

1  
2 The proposed project would use helicopters during construction to complete transmission line structure  
3 assembly and erection; wire stringing; and structure removal activities. Helicopter operations would be  
4 conducted in accordance with applicable Federal Aviation Administration (FAA) regulations and  
5 Occupational Safety and Health Administration requirements. Helicopters would only be used on a  
6 temporary basis during construction. The only projects in the cumulative scenario that are likely to  
7 require the use of helicopters during construction of the proposed project are other SDG&E projects,  
8 such as the SDG&E 69-kV Transmission Line Removal (Trans 1) and the Trabuco-Capistrano 138 kV  
9 Line Upgrade (Trans 2). Compliance with FAA regulations and implementation of MM TR-3 and MM  
10 TR-4 would reduce potentially significant impacts from the proposed project. Therefore, the proposed  
11 project would not significantly contribute to cumulative impacts on air traffic patterns.

12  
13 The proposed project would not increase hazards due to design features along existing roadways. A  
14 potential design hazards could result from the use of access roads along Transmission Line Segments 1b,

3, and 4 and 12-kV Segments F and M that would merge with, cross, or run alongside unpaved trail segments. The only project in the cumulative scenario that is likely to require the use of these access roads during construction of the proposed project is the SDG&E 69-kV Transmission Line Removal (Trans 1). Compliance with MM TR-5 would require the applicant to prepare a traffic control plan that addresses use of unpaved trail facilities would reduce potentially significant impacts from the proposed project. Therefore, the proposed project would not significantly contribute to cumulative impacts to design hazards, and the project's contribution to design hazards would be less than significant.

The proposed project would result in short-term, traffic stops, partial ~~and full~~ lane closures. Concurrent and nearby road closures from the cumulative projects could create a significant impact to emergency access. The only cumulative projects in the vicinity of the road closures associated with the proposed project are the La Pata Avenue Gap Closure and Camino Del Rio Extension Project (O1) and LDS Meetinghouse (SJ4). The application for the LDS Meetinghouse is currently being processed, and any road closures would have to receive approval from the City of San Juan Capistrano, which would reduce any potential for cumulative impacts from road closures along Vista Montana and Via Pamplona.

Extensive bicycle infrastructure and unpaved hiking/equestrian/mountain biking trails are present throughout the proposed project area. The proposed project would cause short-term, temporary construction-related impacts where the proposed 138-kV transmission and 12-kV distribution line segments cross or run-parallel in close vicinity to bikeways, sidewalks, and unpaved trails. With implementation of APM TR-5, APM TR-7, and APM PS-3, construction activities would not interfere with the safety and performance of bicycle and pedestrian facilities. Incorporation of recommendations from the cities of San Juan Capistrano and San Clemente per review requirements under MM TR-5 would ensure any significant impacts are addressed in a final Traffic Control Plan prior to construction.

The proposed project is also located in the vicinity of several bus routes along with Metrolink and Amtrak rail routes. A cumulative impact to alternative transportation could occur if more than one project disrupts performance measures. During construction of the proposed project, it is anticipated that any full or partial road closures on Camino Capistrano would be coordinated under the Traffic Control Plan (APM TR-7) and the Route 91 and 191 buses would be rerouted temporarily if needed. The proposed project would not impact the rail system. Therefore, the proposed project would not significantly contribute to cumulative impacts on alternative transportation.

## 6.5 Growth-inducing Impacts

A project could induce growth if it results in additional development, such as an increase in population, employment, and/or housing above and beyond what is already anticipated in local and regional land use plans or in projections made by regional planning authorities, irrespective of the proposed project. Under CEQA (Section 15126.2[d]), a project would be growth inducing if it:

- Directly or indirectly fosters economic or population growth or the construction of additional housing;
- Taxes community facilities to the extent that the construction of new facilities would be necessary;
- Removes obstacles to population growth; or
- Encourages or facilitates other activities that cause significant environmental effects.

1 Typical growth-inducing factors might include the extension of urban services or transportation  
2 infrastructure to a previously unserved or under-served area or the removal of major barriers to  
3 development. This section evaluates the proposed project’s potential to create such growth inducements.  
4 It should “not be assumed that growth in any area is necessarily beneficial, detrimental, or of little  
5 significance to the environment” (CEQA Section 15126.2[d]).  
6

7 The proposed project would upgrade existing infrastructure to increase the electrical capacity of the  
8 SDG&E South Orange County service area. The applicant would hire a local construction workforce, and  
9 outside contractors would only be required if local contractors were not available. Due to the temporary  
10 nature of the employment, workers are not expected to relocate to the area in numbers that would result  
11 in a significant impact (Section 4.12, “Population and Housing”). In the event that a small number of  
12 workers did relocate to the area, the number would be very minor compared to the area’s total  
13 population, and numerous temporary lodging facilities, such as hotels and motels, would be available.  
14 New housing facilities would not be required.  
15

16 No additional staff would be required during operations or for periodic maintenance. SDG&E’s staff  
17 levels would remain the same as required for current operations and maintenance activities. In addition,  
18 operation and maintenance of the proposed project would not create long-term demands for emergency  
19 response services, schools, drinking water, parks, libraries, hospitals, or solid waste and wastewater  
20 facilities that could not be met by existing services and facilities (Section 4.13, “Public Services and  
21 Utilities”).  
22

23 The proposed project would indirectly induce growth. The proposed expansion of Capistrano Substation,  
24 the upgraded transmission capability, and the upgraded equipment at Talega Substation would increase  
25 the electrical capacity in the area, allowing for further growth beyond that projected for the project area  
26 (see Table 4.12-1). Therefore, the proposed project could result in increases in housing, which would  
27 also create an increase demand for community facilities and services and would create factors that  
28 encourage or otherwise facilitate development. However, no additional substantial growth would occur  
29 without local approval and permits.  
30

## 31 **6.6 Significant and Unavoidable Adverse Impacts**

32

33 Construction of the proposed project would result in significant impacts on air quality, transportation and  
34 traffic, and cumulative impacts. As further discussed in Section 4.3, “Air Quality,” impacts on air quality  
35 standards, cumulatively considerable net increase in criteria pollutants, and exposure of sensitive  
36 receptors to pollutant concentrations would be significant and unavoidable during construction after the  
37 implementation of all feasible mitigation. The proposed project would result in maximum daily  
38 construction emissions of ROG, PM<sub>10</sub>, and PM<sub>2.5</sub> that would exceed SCAQMD regional significance  
39 thresholds. Additionally, the proposed project would result in emissions of PM<sub>10</sub> and PM<sub>2.5</sub> during  
40 various substation and transmission line construction phases that are above the SCAQMD’s local  
41 significance thresholds. The SCAQMD is currently in nonattainment for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>.  
42 Therefore, the proposed project’s ozone, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions would result in a cumulatively  
43 significant impact on ambient air quality during construction activities.  
44

45 ~~As further discussed in Section 4.15, “Transportation and Traffic,” temporary impacts from generated~~  
46 ~~project traffic along Camino Capistrano in the City of San Juan Capistrano during partial road closures~~  
47 ~~would result in an unacceptable LOS. Additionally, full road closures along Camino Capistrano, Via~~  
48 ~~Pamplona, and Calle San Diego in the City of San Juan Capistrano would be significant and unavoidable~~  
49 ~~during construction after the implementation of all feasible mitigation.~~

1  
2 As discussed above in Section 6.4.15, the proposed project would significantly contribute to a cumulative  
3 traffic impact along Camino Capistrano in the City of San Juan Capistrano during partial road closures  
4 (Table 6-4).

5  
6 As further discussed in Section 4.5, “Cultural Resources,” construction of the San Juan Capistrano  
7 Substation would result in a significant impact, after implementation of all feasible mitigation, on a  
8 potentially historic resource as defined by CEQA.

9  
10 CEQA Guidelines Section 15093 allows the decision-making agency to determine whether the benefits of  
11 a project may outweigh its unavoidable adverse environmental impacts. The CPUC may prepare a  
12 Statement of Overriding Considerations to approve a project with unavoidable adverse impacts if it sets  
13 forth the specific reasons for making such a judgment.

## 14 15 **6.7 Significant and Irreversible Environmental Changes**

16  
17 CEQA Guidelines (Section 15126.2[c]) require that an EIR identify significant irreversible  
18 environmental changes that a proposed project would cause. These changes may include, for example,  
19 uses of nonrenewable resources, provision of access to previously inaccessible areas, or accidents that  
20 could change the environment in the long term. Significant irreversible changes to and irretrievable  
21 commitments of resources could occur from construction and operation of the proposed project as a  
22 result of energy and materials consumption, damage from fire, land disturbance (and associated habitat  
23 loss for sensitive biological resources), and damage to or loss of cultural or paleontological resources.

24  
25 Construction of the proposed project would require a permanent commitment of natural resources from  
26 the direct consumption of fossil fuels, construction materials, and energy required for the production of  
27 materials, as well as the manufacture of new components that largely cannot be recycled at the end of the  
28 project’s useful lifetime (see Chapter 2, “Project Description”). ~~As discussed in Section 4.2, “Agriculture~~  
29 ~~and Forestry Resources,” construction of the proposed project would result in the permanent conversion~~  
30 ~~of lands identified as important farmland.~~ During construction and operation, there is also the risk of  
31 impacts on undiscovered cultural and/or paleontological resources. The proposed project would also  
32 result in irreversible impacts on air quality due to emissions of NO<sub>x</sub>, ROG, and other pollutants and  
33 GHGs during construction.

34  
35 Accidents, such as the release of hazardous materials, can trigger irreversible environmental damage. As  
36 discussed in Section 4.8, “Hazards and Hazardous Materials,” construction and operation of the proposed  
37 project would involve the use of small quantities of hazardous materials such as gasoline, diesel fuel,  
38 transmission fluid, brake fluid, hydraulic fluid, solvents, motor oils, and lubricating grease. An accidental  
39 spill of any of these substances could impact water quality and biological resources and could pose a  
40 hazard to people if a large spill were to occur. However, given the small volumes of these materials and  
41 mandatory compliance with applicable regulations (as described in Section 4.8, “Hazards and Hazardous  
42 Material”) aimed at preventing spills, or reducing the severity of a spill should it occur, accidents  
43 resulting in significant environmental or health effects are unlikely.

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