5 CUMULATIVE IMPACTS

This Draft EIR includes an analysis of "cumulative impacts" as required by CEQA (CEQA Guidelines Section 15130). Under CEQA, "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts" (CEQA Guidelines Section 15130(a)(1)). Cumulative impacts can result from "individually minor but collectively significant projects taking place over a period of time" (CEQA Guidelines Section 15355). An EIR must discuss cumulative impacts if the incremental effect of a project, combined with the effects of other projects, is "cumulatively considerable" (CEQA Guidelines Section 15130(a)). Such incremental effects are to be "viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (CEQA Guidelines Section 15164(b)(1)). Together, these projects comprise the cumulative scenario for the cumulative analysis.

Both the severity of impacts and the likelihood of their occurrence are to be reflected in the discussion, "but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion of cumulative impacts shall be guided by standards of practicality and reasonableness, and shall focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact" (14 CCR Section 15130(b)).

5.1 APPROACH TO CUMULATIVE IMPACT ANALYSIS

To analyze the cumulative effects of the Proposed Project per CEQA requirements, the following approach for each resource topic was applied:

Pursuant to CEQA Guidelines Section 15130, determine:

1. Is there a cumulative impact?
   a. If the Proposed Project has no impact on a given resource, then there is no cumulative impact.
   b. If the Proposed Project does have an incremental impact, could it combine with the impacts of other projects to produce a cumulative impact?
2. Is the cumulative impact significant?
   c. Would the effect of the Proposed Project in combination with the related cumulative projects exceed the EIR significance criteria for that resource area? If so, there is a significant cumulative impact. If not, the cumulative impact is less than significant.
3. Is the Proposed Project's incremental contribution cumulatively considerable?

   d. If the impact of the Proposed Project is significant, then it generally also will be considered a cumulatively considerable contribution to a significant cumulative impact. Even if the impact of the Proposed Project is less than significant, the incremental effect may still be a cumulatively considerable contribution to a significant cumulative impact.

4. Can the Proposed Project's contribution to a significant cumulative impact be rendered less than cumulatively considerable?

   e. Are there feasible mitigation measures that would reduce the Proposed Project's incremental effect to less than cumulatively considerable when combined with the effects of the related cumulative projects? If not, the contribution of the Proposed Project to the cumulative impact is significant and unavoidable.

CEQA Guidelines Section 15130(b) presents two approaches for analyzing cumulative impacts:

- A list of past, present, and probable future projects producing related or cumulative impacts, including those projects outside the control of the agency; or
- A summary of projections contained in an adopted local, regional, or statewide plan, or related planning document that describes or evaluates conditions contributing to the cumulative effect. Such plans may include a general plan, regional transportation plan, or plans for the reduction of GHG emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program.

A hybrid approach is used in this Draft EIR where a list of probable future projects is considered in combination with the baseline conditions, agency projections, and adopted planning documents. The cumulative analysis considers, but does not exclusively rely on, general plans and other documents to establish the cumulative scenario for the analysis.

The project list includes those projects found within the geographic scope of analysis for each resource area. The geographic area over which the cumulative scenario is evaluated varies by environmental resource topic because the nature and range of potential cumulative impacts varies by resource. The study area for analysis of cumulative impacts by each environmental resource topic is defined in the geographic scope for the analysis.

The analysis of cumulative impacts considers a number of variables including:

- Geographic (spatial) limits
- Time (temporal) limits
- Characteristics of the resource being evaluated

The geographic scope of the analysis is based on the nature of the geography surrounding the Proposed Project and the characteristics and properties of each resource and the region to which they apply. Each project in a region will have its own implementation schedule, which may or may not coincide with the Proposed Project's schedule.

5.2 CUMULATIVE SCENARIO PROJECTS

5.2.1 Cumulative Project List

Present and reasonably foreseeable future projects that could contribute to the cumulative scenario are listed in Table 5.1-1. Past projects are considered part of the baseline condition that has contributed to existing impacts on the environment as documented in the environmental setting for each resource topic in Chapter 4. The table indicates the project name and type, a description of the project, and its location and status. Figures 5.1-1and 5.1-2 show the locations of all identified projects in relation to the Proposed Project and ancillary work areas. Each project in Table 5.1-1 has an assigned number that is keyed to Figures 5.1-1 and 5.1-2.

Projects were identified through review of websites, by contacting the surrounding local and state agencies (Caltrans, City of San Diego, and City of Poway), and by contacting private developers to inquire whether any projects were recently constructed, are being constructed, or are currently planned near the Proposed Project or its alternatives. In general, cumulative projects were identified within an approximately one-mile radius around all Proposed Project components; however, additional projects outside of this radius were also considered if they were determined to be relevant to the geographic scope of a particular environmental resource topic (e.g., air quality, traffic).

A total of 50 projects were identified near the Proposed Project; however, not all of these projects would have impacts that would interact with the impacts of the Proposed Project due to the nature and/or timing of the project.

Collectively, the cumulative scenario projects represent known and anticipated activities that may occur near the Proposed Project and that have the potential to contribute to a cumulative impact. Because the Proposed Project would be linear with occasional nodal facilities along its length and in other isolated areas (e.g., Encina Hub), most of the projects in Table 5.1-1 do not interact with the Proposed Project along its entire route. Many projects in the cumulative scenario are limited in their geographic extent. For example, the Mission—Peñasquitos 230-kV Transmission Line (described in more detail below) is a linear project that would overlap only with Segment D of the Proposed Project. Therefore, the potential for projects to cumulatively interact with the Proposed Project varies along the length of the alignment.

Table 5.2-1 Cumulative Scenario Projects

No.	Project Name (Project Type)	Project Components	Location	Status
1	Fanita Junction Enhancement TL13821/22/28 (Utility)	Create two 138-kV circuits (Sycamore Canyon to Carlton Hills Substation and Sycamore Canyon to Santee Substation), eliminate the existing ring bus configuration at the Sycamore Canyon Substation, and harden existing 138-kV lines in the Fire Threat Zone	Between Sycamore Canyon and Carlton Hills Substations and Sycamore Canyon and Santee Substations (Carmel Valley area to Santee)	Construction is anticipated to conclude in October 2015.
2	TL 639 Elliott to Sycamore Canyon Wood to Steel (Utility)	Replace existing wood structures with new steel structures along approximately 8.14 miles of TL 639 between the Sycamore Canyon and Elliot Substations	Between Sycamore Canyon and Elliot Substations	Construction is anticipated to commence in September 2017 and conclude in May 2018.
3	TL 6916 Sycamore Canyon to Scripps Wood to Steel (Utility)	Replace existing wood structures with new steel structures along approximately 4.77 miles of TL 6916 located near the Sycamore Canyon Substation	Between Sycamore Canyon and Scripps Substations	Construction is anticipated to commence in September 2018 and conclude in January 2019.
4	TL 6913 Pomerado-Poway[1] (Utility)	Convert an existing single circuit 69-kV power line to double circuit 69-kV power line between the Pomerado and Poway Substations	Between Pomerado and Poway Substations	Construction is anticipated to be completed by June 1, 2016.
5	Sunrise Senior Living (Development)	Construct a 4-story, 70,268-square-foot, 83-room residential care facility on a 2.38-acre lot	12304 Springhurst Drive	Construction anticipated to begin in September/October 2015 and complete in November/December 2016.
6	Poway Road Bicycle Path (Transportation)	Construct approximately 1,950 feet of a Class I bicycle path (combined pedestrian and bicycle travel)	South side of Poway Road between I-15 and Sabre Springs Parkway	Construction is anticipated to conclude in January 2016.
7	The Watermark (Development)	Community plan amendment for mixed use of approximately 650,000 square feet for office, retail, hotel, and theater space	10137 Scripps Gateway Court	Construction schedule is currently unknown; however, the complex may be open to the public in late 2016.

No.	Project Name (Project Type)	Project Components	Location	Status
8	Canyon Hills Resource Park Improvements (Recreation)	Construct a resource-based park in the Mira Mesa community	Intersection of Mercy Road and I-15	Construction is estimated to commence in July 2019 and conclude in May 2020.
9	New Streetlights – 19 Locations (Utility)	Install street lighting to city standards to improve safety	La Tortola and Cuca Street	Construction is anticipated to commence in June 2016 and conclude in October 2016.
10	SR-56, I-5 to I-15 Project Study Report (Transportation)	Preliminary engineering study to investigate the feasibility of a phased implementation of proposed improvements to SR-56. Improvements would include upgrading SR-56 from a four-lane to a six-lane freeway.	SR-56	The Project Study Report is anticipated to be released in September 2015. Plans for formal environmental evaluation are unknown.
11	Rancho Peñasquitos Towne Centre Park Improvements (Recreation)	Install miscellaneous amenities to serve dog off-leash users, such as a group shade structure and dog drinking fountains	Paseo Montalban near the intersection with Via Cima Bella	Construction is anticipated to commence in November 2015 and conclude in February 2016.
12	Peñasquitos North Trunk Sewer (Utility)	Replace 711 feet of 15” sewer main, 460 feet of 18” sewer main, slipline 471 linear feet of 15" sewer main with 8" sewer main, and 4 trunk sewer point repairs.	North of the I-15 and SR-56 interchange along Caminito Anzio	In the planning phase. Construction was anticipated to commence in August 2017. Scope of project is being re-assessed. Construction TBD.
13	Black Mountain Open Space Natural Resources Management Plan (Recreation)	Create, modify, remove, and enhance existing trails on Environmentally Sensitive Lands. Closure of 11.9 miles of unauthorized trails and development of 3.45 miles of new trails.	Black Mountain Open Space Park	Work began in early 2015. Project will take a few years to complete. Completion date unknown at this time.
14	Camelot (Development)	Construct 307 dwelling units, 259 of which are attached to market rate condo units to be constructed onsite. Remaining 55 units will be transferred.	West of Deer Road and south of Camino San Bernardo	Approved by San Diego Planning Commission in April 2015. Construction start and end date are unknown at this time.

No.	Project Name (Project Type)	Project Components	Location	Status
15	Black Mountain Ranch Recycled Water Tank Modifications (Utility)	Re-route sub-drains and tank drains of water tanks from storm drain to sewer. Consists of installing 7 manholes and 1,875 linear feet of sewer main.	South of Carmel Valley Road, east of Black Mountain Road, and across the street from Black Mountain Ranch Community Park	Project is in the planning phase. Construction is scheduled for March 2016, and will finish January 2017.
16	TL 13825 Wood to Steel (Utility)	Replace existing wood structures with new steel structures along TL 13825 between Black Mountain Ranch Community Park and the Meadowlark Junction	Between Black Mountain Ranch Community Park and Meadowlark Junction	TBD
17	Black Mountain Ranch Community Park (Recreation)	Install lights to the existing ball fields Phase II: Improve the undeveloped area to the west of the existing park with turf multipurpose fields, multi-purpose courts, parking, restrooms, a playground, and an off-leash dog area Phase III: Construct a swimming pool and recreation center	14700 Carmel Valley Road	Construction of Phase II may begin in late 2015 or 2016. Construction of Phase III is anticipated to commence in 2016 and conclude in 2018.
18	East Clusters Enclave, Process 4 (Development)	Re-subdivide a portion of East Clusters Unit No. 2 to increase residential development from nineteen to twenty-seven residential lots	Carmel Valley Road and Valle Del Sur Court	Site development completed. Residences may be built in the future, but nothing is scheduled at this time.
19	Heritage Bluffs II (Development)	Construct 171 single-family residential units, site improvements including public and private streets, hardscaping, and landscaping. 49 dwelling units to be transferred to Black Mountain Ranch North Village.	South of Bernardo Center Drive and Carmel Valley Road intersection and west of I-15	The project is undergoing review of draft environmental documents and entitlement process. Construction schedule is currently unknown.
20	Torrey Highlands Community ID and Enhancement (Development)	Install identification signs that will help differentiate Torrey Highlands from the adjacent areas of Rancho Peñasquitos, Black Mountain/Santa Luz, and Pacific Highland Ranch	Various locations along Carmel Valley Road, Camino Del Sur, and Torrey Santa Fe Road	Construction is anticipated to commence in February 2016 and conclude in June 2016.

No.	Project Name (Project Type)	Project Components	Location	Status
21	Kilroy Development (Development)	Build out the area at Torrey Santa Fe and Camino Del Sur for commercial use. Construction would occur in 2 phases, with 2 buildings per phase.	West of the intersection of Torrey Santa Fe Road and Camino Del Sur	Grading permit for project has been issued. Construction likely to start by mid-2016 and would last anywhere from 3 to 6 years.
22	The Merge56 (Development)	Develop 242 residential dwelling units and 525,000 sf of (combined) commercial and office space on a 42-acre site. Also involves construction of Camino Del Sur, SR-56 to Dormouse Road, which would construct Camino Del Sur (formerly Camino Ruiz) as a four-lane major street with Class II bicycle lanes from SR-56 to 1,600 feet north of Park Village Road	Southeast of the intersection of SR-56 and Camino Del Sur Along Camino Del Sur between SR-56 and Dormouse Road	The subsequent EIR is anticipated to be released in May 2015 with a determination in June 2015. Construction is anticipated to commence in 2016 and conclude in 2018.
23	Watermark (Development)	Residential development	West of Golden Lily Way and Lopelia Meadows Place intersection	Construction began in 2013 and is anticipated to conclude between July and August of 2016.
24	Pacific Highlands Ranch: The Elms and The Ivy (Development)	Construct 146 single family residential dwelling units and 28 multi-family affordable units on a 30.44 acre site	Located off of SR-56, close to intersection of Rancho Santa Fe Farms Road and Rancho Del Sol Way	Construction began in April 2015. Anticipated completion of construction is unknown; however, model homes are currently under inspection.
25	Rancho Del Sol (Restoration)	Conduct restoration activities on a previously graded site; includes removing 80,000 cubic yards of soil to create a wetland and drain pond	Intersection of Rancho Santa Fe Farms Road and Caminito Mendiola and an off-site parcel north of Carmel Valley Road and east of Rancho Santa Fe Farms Road for temporary stockpiling of soils	The San Diego Planning Commission approved the project in November 2014. Phase I of project is unlikely to commence until end of 2016.
26	LaTerra at Pacific Highlands Ranch (Development)	Construct 69 multi-family units with five tandem parking spaces on a 3.49-acre site	North of Village Center Loop Road	Construction is anticipated to commence in June 2016 and conclude in July 2017.

No.	Project Name (Project Type)	Project Components	Location	Status
27	The Village at Pacific Highlands Ranch (Development)	Construct a mixed-use development with 331 multi-dwelling units, 194,000 square feet of commercial use, a civic use area, and a lot reserved for future development/public library on a previously graded 27.67-acre site	Northeast corner of Del Mar Heights Rd and Carmel Valley Road	Construction began in early 2014. The residential portion is expected to open in Spring 2017.
28	The Preserve at Del Mar (Development)	Residential development within The Preserve gated community	The Preserve Way	Site development concluded in late 2014. There are three custom-build lots where homes may be constructed at any time.
29	TL 6906 Loop-In Mesa Rim (Utility)	Create a loop-in on TL 6906 from Mesa Rim Substation to Peñasquitos Substation and from Mesa Rim Substation to Miramar Substation	Between Mesa Rim and Peñasquitos Substations and between Mesa Rim and Miramar Substations	Construction is anticipated to commence in March 2016 and conclude in August 2016.
30	Torrey Meadows Neighborhood Park (Recreation)	Acquire, design, and construct a 5-acre neighborhood park in Torrey Highlands adjacent to a proposed elementary school; also involves half-width street improvements and a comfort station.	West of the Torrey Meadows Drive and Torrey Ranch Court intersection	Construction is anticipated to commence in May 2016 and conclude in June 2017.
31	Del Mar Mesa Neighborhood Park Phase II (Recreation)	Design and construct a 3.7-acre neighborhood park. Facilities would include a horse rest stop, basketball court, restrooms, and open use grass field	Intersection of Carmel Mountain Road and Duck Pond Lane	Construction is anticipated to commence in February 2016 and conclude in June 2016.
32	Alta Del Mar Residential Development (Development)	Construct approximately 136 estate and custom homes sites in the Del Mar Mesa community	Off of Carmel Mountain Road, on Belmont Trail Court and associated streets	Construction is anticipated to conclude in November 2015.
33	The Merge (Development)	Construct 22 multi-family residential units and approximately 32,355 square feet of neighborhood serving retail and office uses in four buildings on 4.11 acres	Intersection of Carmel Mountain Road and Carmel Country Road	Construction is anticipated to commence in August 2015 and conclude in June 2016.

No.	Project Name (Project Type)	Project Components	Location	Status
34	Mission—Peñasquitos 230-kV Transmission Line[1] (Utility)	Construct a 230-kV transmission line between Mission and Peñasquitos Substations	Between Mission and Peñasquitos Substations	Project is in pre-planning phase. The desired in-service date is currently set for June 1, 2019.
35	Torrey Hills SDG&E Easement Enhancement (Development)	Enhance an easement area located under SDG&E power and transmission lines	Intersection of East Ocean Air Drive and Corte Mar Asombrosa	The enhancement is anticipated to commence in October 2015 and conclude in December 2015.
36	Coast View Park (Recreation)	Construct a 1.05-acre mini park in the Torrey Hills Community, including a children play area, turf, par course, shade trellis, and picnic tables. The park will be open to the public during construction.	West Ocean Air Drive, south of the intersection with Calle Mar de Mariposa	Construction is anticipated to conclude in November 2015.
37	TL 674A Reconfiguration/TL 666 Rancho Santa Fe (Utility)	Remove 8 miles of TL 666D from service to eliminate the need for ongoing operation and maintenance work in environmentally sensitive areas (San Dieguito Lagoon, Torrey Pines State Park, and Los Peñasquitos Lagoon). Replace the existing TL 674A tap (will be eliminated in Phase II as part of the Rancho Santa Fe Tap reconfiguration) with a new one mile underground 69-kV transmission line segment along Via de la Valle to provide a new TL connecting the Del Mar Substation to the North City West Substation.	Via de la Valle	Construction is anticipated to commence in September 2017 and conclude in May 2018.
38	I-5 Express Lanes Project (Transportation)	Add two express lanes in each direction on I-5 from La Jolla Village Drive to Harbor Drive	On I-5 from La Jolla Village Drive to Harbor Drive	The first phase will be under construction from late 2015 to 2018.
39	Water & Sewer Group 965 (Utility)	Replace 4,960 feet of cast iron, cast iron cement-lined, and asbestos-cement water mains in the Torrey Pines Community	Along Sorrento Valley Road, Industrial Court, and Tripp Court	Construction is anticipated to commence in May 2016 and conclude in September 2016.

No.	Project Name (Project Type)	Project Components	Location	Status
40	Industrial Court Channel Replacement (Utility)	Replace the cement mortar lined drainage channel near Industrial Court to eliminate water splashing over the slope/embankment and prevent flooding of the commercial establishments adjacent to the channel	Along Industrial Court	Construction is anticipated to commence in August 2016 and conclude in December 2016.
41	Residential Project Block 1Y (Utility)	Underground utilities within two discrete residential areas in residential project block 1Y. Includes an estimated 13,987 feet of trenches and would take place in four phases (trenching, cabling, cut-overs, and pole removal). Phases I & II would coincide with the Proposed Project.	Southeast of I-5 and SR-56 interchange between El Camino Real and Carmel Creek Road	Construction is anticipated to commence in June 2016 and conclude in June 2018.
42	Coastal Rail Trail (Transportation)	Install a bike route of approximately 10 miles between Sorrento Valley/Carmel Valley Road to the Gilman Drive/I-5 intersection	Starting from Carmel Valley Road along Sorrento Valley Road to the Gilman Drive/I-5 intersection	Project is in the preliminary engineering phase. Construction is anticipated to commence in December 2017 and conclude in April 2019.
43	Cal Coast Academy (Development)	Construct 5,340 square feet of classrooms in three buildings	11555 Clews Ranch Road	Draft IS/MND was released in October 2014. Construction start and end date are unknown.
44	Mission Cove Affordable Housing/Mixed Use Development Project (Development)	Construct 288 affordable housing units in 14 separate buildings, community facilities, and commercial/retail space	South side of Mission Avenue between Foussat Road and Carolyn Circle	First phase began in August 2014. Construction is expected to be completed by August 2016.
45	I-5 North Coast Corridor Improvements (Transportation)	Construct HOV lanes, highway and LOSSAN rail bridge replacements at San Elijo & Batiquitos Lagoon, a direct access ramp at Manchester Avenue, and a separated bike and pedestrian facility	On I-5 from Manchester Avenue to SR-78	Construction is anticipated to commence in late 2015 and conclude in late 2018.

No.	Project Name (Project Type)	Project Components	Location	Status
46	Traffic Signal Upgrades Citywide FY14 (Utility)	Upgrade curb ramps, install signal poles with signal mast arms, install pedestrian countdown timers, upgrade vehicle heads, and install emergency vehicle preemption detectors	Intersection of Diane Avenue and Clairemont Mesa Boulevard, intersection of Mira Mesa Boulevard and Camino Ruiz	Construction is anticipated to commence in March 2017 and conclude in August 2017.
47	Hickman Fields Athletic Area (Recreation)	Prepare a General Development Plan Amendment to include an aquatic complex, additional parking, picnic areas, children's play areas, comfort stations, and ADA improvements	Hickman Field Drive	Project is currently in Design Phase. Phase 1 is expected to start in December 2016 and complete by January 2018.
48	Civita (Development)	More than 15 residential and commercial developments "master-planned village" of 230 acres. Includes construction of 4870 residential units and nearly a million square feet of commercial and office space as well as four parks (Creekside, Central, Franklin Ridge, and Phyllis Place Parks). Residential units will include single-family homes, condos, townhomes, apartments, penthouses.	North of Friars Road near intersection with Qualcomm Way	Construction began in 2007 and is anticipated to conclude in 2035.
49	Black Mountain Ranger Station (Recreation)	Construct an 800-square-foot Ranger Station with bathroom facilities to serve the communities of Mira Mesa, Black Mountain and Rancho Peñasquitos at the Black Mountain Road entrance to Los Peñasquitos Canyon Preserve	Intersection of Mercy Road and Black Mountain Road	Construction began in February 2015 and is anticipated to conclude in January 2016.
50	Canyonside Community Park Improvements (Recreation)	Miscellaneous improvements to serve park users, such as accessibility upgrades to the children's play area, drainage repair at the rear parking lot, and creation of a parking area in the northwest corner to accommodate overflow parking.	Intersection of Black Mountain Road and Canyonside Park Driveway	Construction is anticipated to commence in June 2016 and conclude in December 2016.

Notes:

[1] This project is part of the No Project Alternative. It is described further in Section 3.7: No Project Alternative.

Sources: Ammerlahn 2015, Brady 2015, Brunette 2015, CAISO 2015a, CAISO 2015b, Caltrans District 11 2015, CIP 2015 (Updated 8/12/2015), City of Poway 2015, City of San Diego 2014a, 2014b, and 2013b, City of San Diego Facilities Financing Program 2013, City of San Diego Planning Commission 2015, Coast Income Properties, Inc. 2014, Coehlo 2015, Cooter 2015, Deisher 2015, Del Rincon 2015, Dumka 2015a and 2015b, Fisher 2015a and 2015b, Garcia 2015, Hook 2005, Hynek 2015, Ilko 2015, Levitt 2015a and 2015b, Little 2015, Metcalf 2015, Office of the City Clerk 2015, Open DSD 2015, OPR 2015, Peterson 2015, Prinz 2015, Radelow 2015, Rodrigues 2015,SDG&E 2015, Zirkle 2015

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Figure 5.2-1 Cumulative Projects near the Proposed Project

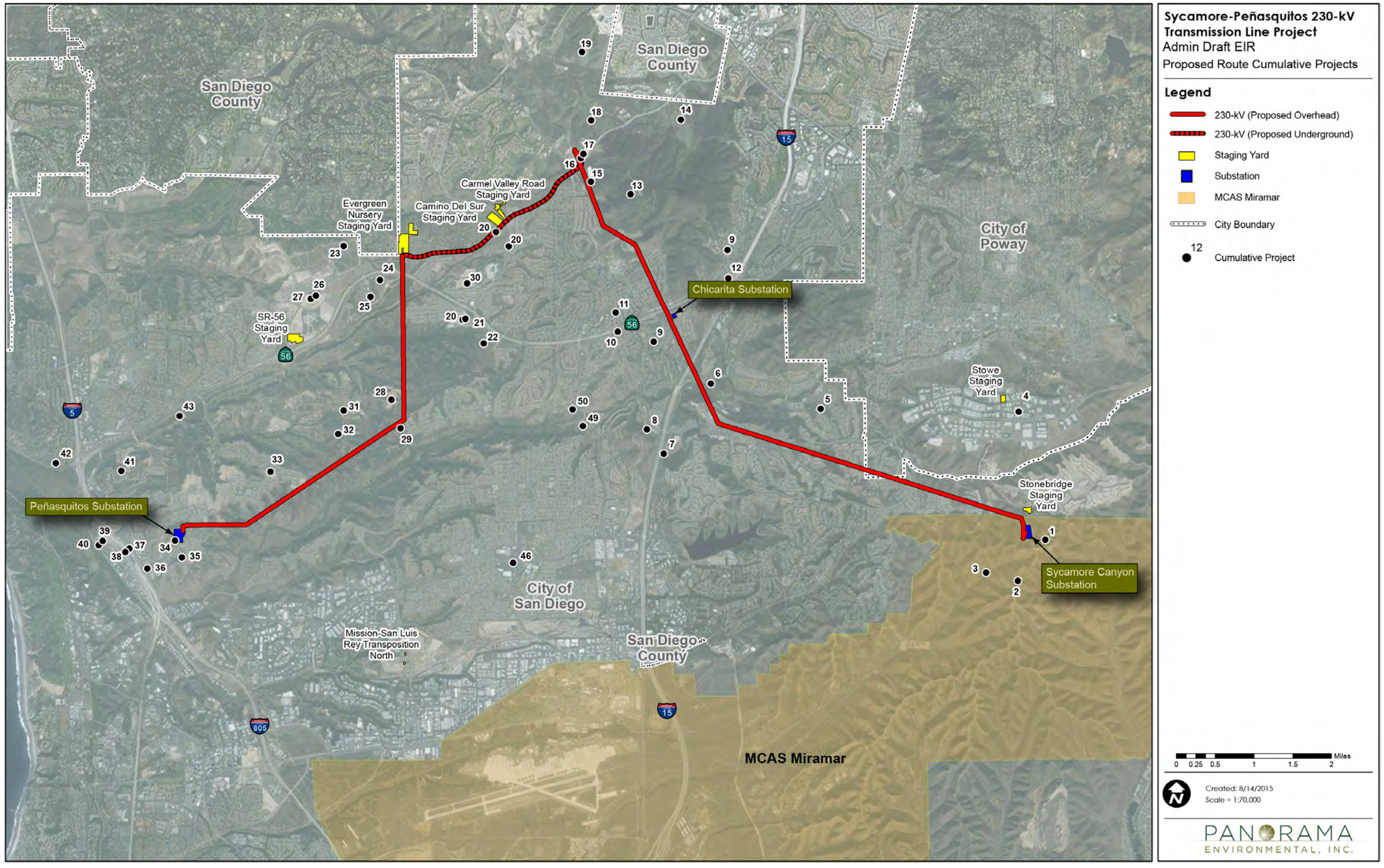

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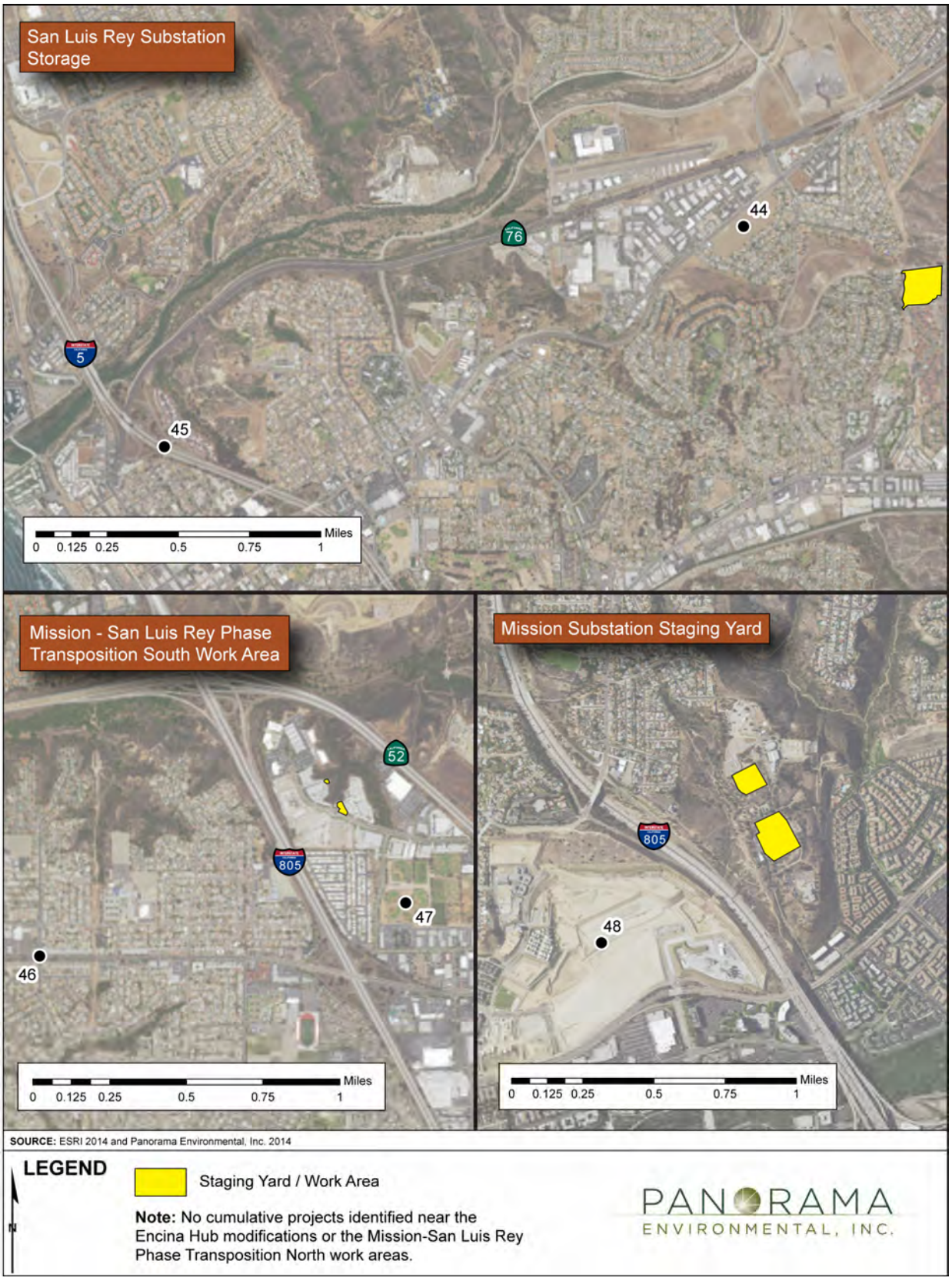
Figure 5.2-2 Cumulative Projects Near Ancillary Work Areas



5.2.2 Plans and Projections

The following planning documents and projections were considered in this cumulative impact analysis:

- City of San Diego General Plan (City of San Diego 2008)
- City of Poway General Plan (City of Poway 1991)
- City of Carlsbad General Plan (City of Carlsbad 2015)
- City of San Diego MSCP (City of San Diego 1997)
- CAISO 2014-2015 Transmission Plan (CAISO 2015b)
- Eight-Hour Ozone Attainment Plan for San Diego County (SDAPCD 2007)

5.2.3 Mission—Peñasquitos 230-kV Transmission Line

A new 230-kV transmission line was approved by CAISO in the 2014/2015 Transmission Plan that would connect the Mission and Peñasquitos Substations. The CAISO-approved Mission—Peñasquitos 230-kV transmission line would involve reconfiguring the southern 10-mile portion of the existing Mission—San Luis Rey 230-kV transmission line TL 23001 between the Mission Substation and Peñasquitos Junction to form part of the new Mission—Peñasquitos 230-kV transmission line (CAISO 2015). An additional new 230-kV transmission line would then be installed between Peñasquitos Junction and the Peñasquitos Substation to complete the new circuit between these substations.

From Peñasquitos Junction to Peñasquitos Substation, the new 230-kV transmission line would be installed on a new set of approximately sixteen TSPs in SDG&E ROW following the same alignment as Segment D of the Proposed Project. The new transmission line would require installation of either new 230-kV TSPs adjacent to the proposed 69-kV TSPs or installation of the new 230-kV transmission line on the existing steel lattice tower (opposite side from the Proposed Project 230-kV transmission line) and relocation of the existing 138-kV power line to new 138-kV TSPs. In either case, the Mission—Peñasquitos 230-kV transmission line would add three conductors and a new set of TSPs approximately 65 south of the Proposed Project double-circuit 69-kV TSPs within Los Peñasquitos Canyon.

(Note: The Mission-Peñasquitos 230-kV line is also considered as an alternative to the Proposed Project [refer to the Appendix D: Alternatives Screening Report] and is a component of the No Project Alternative [refer to the No Project Alternative description in Chapter 3: Alternatives and the No Project Alternative analysis in Chapter 4: Environmental Analysis]).

5.3 CUMULATIVE IMPACT ANALYSIS FOR THE PROPOSED PROJECT

5.3.1 Introduction

The following sections present the cumulative analysis for the Proposed Project for each of the environmental resource topics considered in Chapter 4 of this EIR. Each section evaluates cumulative impacts based on the list of projects within the cumulative analysis study area

(Table 5.1-1, above), and the locations of these projects (shown on Figures 5.1-1 and 5.1-2, above).

For each environmental resource topic, the geographic scope of the cumulative impact analysis is explained first. Next, the cumulative impacts and their severity are described. Finally, the CEQA impact significance is presented to define whether the Proposed Project's contribution to cumulative impacts is considerable.

The Proposed Project would result in no impact to Forestry Resources, Land Use, Mineral Resources, or Population and Housing. Therefore, the Proposed Project would not contribute to cumulative impacts on Forestry Resources, Land Use, Mineral Resources, or Population and Housing; these resource topics are not discussed in the following cumulative analysis.

5.3.2 Biological Resources

5.3.2.1 Geographic Scope

The geographic scope for the biological resources cumulative analysis includes the entire extent of all vegetation and wildlife communities and special-status species (including their habitats) that could be adversely affected by construction, operation, restoration, and decommissioning of the Proposed Project, specifically all similar habitats within 1 mile of the Proposed Project. This geographic scope is appropriate because it accounts for the cumulative degradation or loss of a particular vegetation community or special-status species from all projects that have impacted or would impact vegetation communities of concern or special-status species.

5.3.2.2 Cumulative Analysis

Many past, present, and reasonably foreseeable development projects contribute or would contribute to the cumulative conditions for biological resources within the cumulative analysis study area. The types of projects that could combine to result in cumulative impacts to biological resources include residential, commercial, industrial, infrastructure, and transmission projects listed in Table 5.1-1.

Construction and operation of numerous past and present projects within the area have resulted in significant changes to the vegetation communities of the region. These past and present projects have resulted in direct and indirect impacts to vegetation communities through ground disturbance, vegetation removal, the introduction of non-native invasive plant species, hydrologic alteration, the creation of fugitive dust, the disturbance or destruction of wetlands and riparian habitats, and permanent land use conversion. San Diego County contains diverse flora and fauna that includes many rare, threatened, and endangered species including narrow endemic communities. San Diego County provides habitat for nearly 200 special-status plants and animals including species listed under the federal ESA, CESA, or both. The development of past residential, commercial, industrial, and infrastructure projects has led to a reduction in habitat for native vegetation and wildlife and the subsequent federal and state listing of several species.

The impacts of past and present cumulative projects on biological resources have been both temporary and permanent. Temporary impacts to species and habitat have occurred with construction of past and present cumulative projects where vegetation was removed for temporary work areas, without long-term land use conversion, so that vegetation has returned to a more natural condition or has been actively revegetated or enhanced. However, some areas of disturbance that were not subject to long-term land use conversion are still classified as permanent impacts because the restoration of the area was not successful. Wetlands including vernal pools and streams with adjacent riparian habitat occur throughout the region. In general, the extent of wetlands, riparian habitats, and vernal pools has been reduced by the development of past and present cumulative projects.

In addition to the direct impacts to vegetation described above, past and present cumulative projects have resulted in several indirect impacts to vegetation. These indirect impacts include dust caused by project activities or vegetation removal, interruption of surface flows and water quality impacts to downstream habitat, the introduction or spread of invasive species, and the loss of species and habitat from wildfires.

The current and reasonably foreseeable projects described above and in Table 5.1-1 would affect biological resources in the cumulative analysis study area in a similar manner as past activities. Earth movement, grading, and the creation of new impervious surfaces (such as that associated with the residential and commercial development projects or linear transportation and transmission projects) would lead to habitat removal, the introduction of non-native invasive plant species, hydrologic alteration, the creation of fugitive dust, the disturbance or destruction of wetlands, and permanent land use conversion.

The City of San Diego and County of San Diego have developed MSCPs that function as HCPs and NCCPs. These MSCPs cover the range of habitats and species that would be impacted by the cumulative projects in the region. These MSCPs require the following mitigation for projects that impact more than one acre, according to ratios identified in each MSCP:

- On-site restoration for temporary impacts to sensitive vegetation communities, including wetlands
- Off-site compensatory mitigation for permanent impacts to sensitive vegetation communities, including wetlands
- Compensation for impacts to special-status plants

The MSCPs mitigate for cumulative impacts from the reasonably foreseeable projects in the region by requiring compensatory habitat mitigation and preservation of sensitive habitats in open space preserves including Black Mountain Ranch Open Space Preserve, Del Mar Mesa Preserve and Los Peñasquitos Canyon Open Space Preserve which are located within the Proposed Project area.

5.3.2.3 Proposed Project Contribution to Cumulative Impacts

The Proposed Project would contribute to the cumulative biological resource impacts by temporarily impacting approximately 25.4 acres of sensitive habitat and permanently impacting

approximately 9.3 acres of sensitive habitats. In addition, the Proposed Project would temporarily impact approximately 0.06 acre of jurisdictional waters and would permanently impact approximately 0.05 acre of jurisdictional waters. The Proposed Project would also affect special-status plants and special-status wildlife in the Proposed Project vicinity (see Tables 4.1-8 and 4.1-9). The Proposed Project would also generate dust and has the potential to introduce non-native plants to native vegetation communities including open space preserve areas. Construction activities in wildlands would increase the risk of wildfire in the area, which would result in the loss of sensitive habitat. These potential adverse impacts would combine with the adverse impacts on biological resources from other projects within the cumulative analysis study area to result in a significant cumulative impact.

SDG&E has an NCCP which requires mitigation for impacts to sensitive habitats. CDFW and USFWS have been conducting an audit of SDG&E's NCCP and the remaining take authorization; CDFW and USFWS provided updates on the remaining take authorization to SDG&E and the CPUC in May and June 2015 (USFWS and CDFW 2015). Based on information provided by SDG&E, CDFW and USFWS determined that, at the end of 2015, SDG&E will have 129.42 acres of take authorization available within the NCCP for pending and future SDG&E projects including maintenance of existing facilities. SDG&E has four projects that are proposed for construction in 2016 and 2017 (South Orange County Reliability, Salt Creek Substation, Cleveland National Forest Master Special Use Permit, and the Proposed Project). These four projects were estimated by SDG&E to impact 122 acres of NCCP sensitive habitats; CDFW and USFWS determined that only 7.42 acres of take would remain under the NCCP after the estimated authorized take is deducted for these four projects. However, SDG&E's impact estimates for the future projects did not fully account for the potential impacts of the Proposed Project. In particular, the 29.41 acres of impact to sensitive habitats considered by SDG&E does not account for any impacts to sensitive habitats from access road refreshing or reestablishment. There are sensitive habitats located within the roadways and along the margins of these roads that would be impacted by the Proposed Project and other covered activities may also vary from projected estimates including on-going maintenance impacts; these impacts could exceed the remaining take authorization in SDG&E's NCCP. In addition, CDFW and USFWS recommend that SDG&E proceed with an amended NCCP. It is possible that the amended NCCP will be implemented prior to the completion of the Proposed Project construction in 2017. The NCCP may therefore not apply to the Proposed Project throughout the duration of construction because there may not be adequate take authorization remaining in the current NCCP or an amended NCCP may be implemented during construction. Therefore, compliance with the current NCCP cannot be relied on to mitigate significant biological resource impacts. The mitigation measures in Section 4.1: Biological Resources are therefore designed to mitigate the significant biological resource impacts for the Proposed Project independent of the NCCP.

Mitigation Measures Biology-2, Biology-4, and Biology-6 require compensatory habitat mitigation for temporary and permanent impacts to sensitive habitats and special-status species. The compensatory habitat requirements are consistent with the City of San Diego MSCP and mitigate the cumulative impact from temporary and permanent loss of habitat

through on-site revegetation and restoration and off-site habitat enhancement and preservation. Mitigation Measure Biology-4 defines specific requirements for the mitigation of vernal pool habitat impacts including minimization of impacts as well as habitat creation, enhancement and preservation for impacts that cannot be avoided.

APMs AIR-1, HYDRO-1, HYDRO-2, and Mitigation Measures Biology-3, Fire-1, Fire-2, Fire-3, and Fire-4 would reduce the Proposed Project's contribution to indirect biological resource impacts through fugitive dust control, use of temporary and permanent BMPs to control sedimentation and erosion, invasive weed control, and wildfire prevention.

5.3.2.4 CEQA Significance Determination

The cumulative impacts to sensitive habitats, wetlands, special-status plants and special-status wildlife from the Proposed Project and all cumulative projects within San Diego County would result in a significant impact to biological resources. Without the implementation of mitigation, the incremental contribution of the Proposed Project to significant cumulative impacts would be cumulatively considerable; however, with the implementation of the mitigation measures noted above and described in Section 4.1, the incremental contribution of the Proposed Project to the significant biological resources cumulative impact would be less than cumulatively considerable. Impacts would be less than significant with mitigation.

5.3.3 Aesthetics

5.3.3.1 Geographic Scope

The geographic scope for the analysis of cumulative impacts associated with aesthetic resources includes both local and regional viewsheds. Local cumulative effects could occur within the immediate Proposed Project viewshed (projects, activities, and landscapes visible within the same field of view as the Proposed Project) and could generally be visible along the Proposed Project alignment. The alignment traverses a mix of land uses including residential, business parks, master planned communities, freeway, parks, and open space preserves. Landforms in the area generally consist of rolling hills, canyons, and mesas, or flat-topped outcroppings, and canyon rims. From some locations, hillsides and peaks are visible landscape features in the distance. Dominant landmarks in the vicinity are Black Mountain with a peak of approximately 1,500 feet (amsl) and Los Peñasquitos Canyon and its tributaries. This east-west lying coastal ravine reaches approximately 250 feet in depth and almost 1 mile across.

Regional cumulative effects occur when viewers perceive that the general visual quality or landscape character of a regional area is diminished by the proliferation of visible similar structures or construction effects, even if the changes are not within the same field of view as existing or known future structures or facilities. The result is a perceived "industrialization" or "urbanization" of the existing landscape character. Cumulative aesthetic impacts would occur within 1 mile or less of the Proposed Project. Beyond one mile, structures become less distinct or not visible if they blend in sufficiently with background forms, colors, and textures. Also, beyond 1 mile it is likely that sightlines will become impaired or blocked by intervening terrain

and vegetation. The geographic scope of the cumulative analysis therefore extends 1 mile from the Proposed Project.

5.3.3.2 Cumulative Analysis

The current and reasonably foreseeable projects listed in Table 5.1-1 include residential and commercial development, recreation, transportation, and utility projects that would affect visual resources in the cumulative analysis study area. There are 38 reasonably foreseeable projects located within the geographic scope of the aesthetic cumulative analysis. Of these, 26 are recreation, development, and transportation projects that would not exhibit visual characteristics similar to the Proposed Project. These projects may, in combination with the Proposed Project, contribute to cumulative construction impacts (discussed below), but would not result in cumulative operational impacts in conjunction with the Proposed Project because the casual observer would not perceive any type of visual association or comparability between the urban development projects and the proposed transmission line. Of the remaining twelve projects, six projects are electrical utility projects that would involve pole replacement and/or new power and transmission lines that would have visual elements similar to the Proposed Project. These projects include:

- Mission—Peñasquitos 230-kV Transmission Line
- TL 639 Elliott to Sycamore Canyon Wood to Steel
- TL 6913 Pomerado-Poway
- TL 6916 Sycamore Canyon to Scripps Wood to Steel
- TL 13825 Wood to Steel
- TL 6906 Loop-In Mesa Rim

5.3.3.3 Proposed Project Contribution to Cumulative Impacts

The severity of the cumulative impacts to aesthetics are discussed below for both construction and operation of the Proposed Project combined with the construction and operation impacts of other projects within the cumulative analysis study area.

Construction Impacts

Construction of the Proposed Project would affect aesthetic resources through views of construction-related activities, equipment, vehicle traffic, and fugitive dust. Short-term cumulative impacts can occur if other projects within the same viewshed as the Proposed Project are constructed at the same time as the Proposed Project. Construction activities and/or equipment associated with more than one project that are visible within the same field of view and at the same time could create significant impacts to the visual environment. The presence of construction equipment during Proposed Project construction and potential concurrent construction of the cumulative projects in the local viewshed would contrast substantially with the existing landscape in residential, recreational, and open space areas. The duration of Proposed Project construction in any area would be short-term; however, the cumulative development projects in the vicinity of the transmission line would involve construction for several years, which would result in a cumulative impact as sensitive viewers are exposed to views of construction activities in multiple areas over an extended period of time. The

cumulative views of construction equipment, vegetation removal, and earthwork would significantly impact aesthetic resources. The Proposed Project would contribute considerably to cumulative construction impacts by adding visual impacts from vegetation clearing, steel pole installation and conductor installation, and underground duct bank construction to the landscape. While construction activities would result in a high level of visual contrast, viewer sensitivity to the visual impact would be low due to the short exposure to construction views (a few days in each location). Impacts would therefore be less than significant.

Operational Impacts

Mission—Peñasquitos 230-kV Transmission Line

The Mission—Peñasquitos 230-kV Transmission Line Project would add a second 230-kV transmission line to the Segment D transmission corridor between Peñasquitos Junction and Peñasquitos Substation. The transmission line would require installation of either new 230-kV TSPs adjacent to the proposed 69-kV TSPs or installation of the 230-kV line on the existing steel lattice tower and relocation of the existing 138-kV power line to new 138-kV TSPs. In either case, the Mission—Peñasquitos 230-kV transmission line would add three conductors and a new set of TSPs approximately 65 feet south of the Proposed Project double-circuit 69-kV TSPs. Figure 5.2-1 provides a representative view of the existing aesthetic conditions within Segment D (i.e., without the Proposed Project). Figure 5.2-2 provides a conceptual rendition from the same view of the cumulative impact of the Mission—Peñasquitos 230-kV transmission line and the Proposed Project in Segment D. The Mission—Peñasquitos 230-kV Transmission Line and Proposed Project would degrade the visual quality of the open space area along Los Peñasquitos Canyon by introducing linear industrial elements including poles, conductors, and marker balls to the landscape. The Proposed Project would contribute considerably to this cumulative impact by adding a new set of 69-kV poles adjacent to the proposed Mission—Peñasquitos transmission line. Mitigation Measures Aesthetics-2 (retaining wall screening) and Aesthetics-3 (facilities color treatment plan) would reduce the Proposed Project contribution to cumulative effects; however, the Proposed Project contribution to a cumulatively significant impact would remain considerable. The cumulative impact would be significant and unavoidable because it is not feasible to add the Mission—Peñasquitos line to the Proposed Project structures in Segment D.

The Proposed Project and Mission—Peñasquitos Project would contribute considerably to an increase in glare through the introduction of steel poles and a conductor. APM AES-5 requires treatment of steel poles and use of non-specular conductor to reduce glare from the Proposed Project. The Proposed Project contribution to significant glare impacts would less than cumulatively considerable with APM AES-5.

Wood to Steel Projects

Three wood to steel projects, TL 639 Elliott to Sycamore Canyon Wood to Steel, TL 6916 Sycamore Canyon to Scripps Wood to Steel, and TL 13825 Wood to Steel, are proposed in the same viewshed as the Proposed Project. TL 639 and TL 6916 both extend from Sycamore Substation and TL 13825 extends north of Black Mountain Ranch Community Park. These cumulative projects and the Proposed Project would replace existing wood poles, which are

Figure 5.3-1 Segment D Representative View – Existing Conditions

Figure 5.3-2 Segment D Representative View – Cumulative Impact

similar in color to the surrounding arid landscape, with steel poles which add to the industrial appearance of the area. The Proposed Project and these cumulative projects would add to the level of contrast in the surrounding open space areas, which would be a significant impact.

The Proposed Project is located in a different corridor and would not be constructed side by side with any of the wood to steel projects; however, the Proposed Project TSPs and conductors would be visible in the same areas as the cumulative projects and the Proposed Project would appear to extend the length of the wood-to-steel conversion and would further degrade the viewshed. The Proposed Project's contribution to cumulative impacts is considerable. APM AES-3 (landscaping for cable poles), Mitigation Measure Aesthetics-3 (facilities color treatment plan), and Mitigation Measure Aesthetics -4 (cable pole screening) would reduce the impact; however, the Proposed Project contribution to a cumulatively significant impact would remain considerable (refer to Section 4.2.9 for details on mitigation measures that would be applied to the Proposed Project).

Power Line Projects

Two power-line projects, TL 6913 Pomerado-Poway and TL 6906 Loop-in Mesa Rim, are proposed in the same viewshed as the Proposed Project. TL 6913 would add a second circuit to the existing Pomerado-Poway line. The additional circuit would result in more conductors within the landscape. The TL 6906 loop-in would add additional conductors and potentially additional structures to the area south of and into Peñasquitos Junction. The additional conductors and potential additional poles would impact the same viewshed as the Proposed Project where the conductors and structures are within proximity of the Proposed Project. The projects would result in a cumulative impact in areas where there is increased degradation of the visual quality due to the cumulative introduction of more industrial structures and elements in the viewshed. The Proposed Project and cumulative projects would introduce new industrial elements to areas of suburban and open space uses, which would result in a significant cumulative impact to aesthetics. The Proposed Project would have a considerable contribution to this significant impact as it would introduce new taller structures and additional conductors along the overhead alignment. Mitigation Measures Aesthetics-2 (retaining wall screening) and Aeshtetics-3 (facilities color treatment plan) would reduce the Proposed Project contribution to the cumulative impact; however, the Proposed Project contribution would remain considerable and the cumulative impact would be significant and unavoidable (refer to Section 4.2.9 for details on mitigation measures that would be applied to the Proposed Project).

5.3.3.4 CEQA Significance Determination

Overall, construction and operation of the Proposed Project would combine with the impacts from construction and operation of other projects in the cumulative analysis study area to result in a significant cumulative impact to aesthetic resources. Mitigation Measures Aesthetics-2, Aesthetics-3, and Aesthetics-4 would reduce the Proposed Project contribution to cumulative effects; however, the Proposed Project contribution cumulative impacts would remain considerable even with mitigation. The Proposed Project's contribution to cumulative impacts would be significant and unavoidable.

5.3.4 Cultural Resources

5.3.4.1 Geographic Scope

The geographic scope for the cultural resources cumulative analysis includes all of the area that could be directly or indirectly impacted by the Proposed Project. The geographic scope of direct impacts includes the existing SDG&E ROW plus a 50-foot buffer around all other linear project components and the ground disturbance footprint of all non-linear project components, including staging areas and substations. The analysis of direct impacts focuses on cumulative impacts to cultural resource sites that may be affected by both the Proposed Project and cumulative projects.

The geographic scope for indirect impacts to cultural resources from construction of the Proposed Project includes a 0.5-mile buffer around the Proposed Project. This geographic scope is appropriate because it includes a large enough area to account for potential impacts to similar cultural resources from other projects in the cumulative analysis study area, yet is focused enough to represent the Proposed Project's actual potential to combine with the impacts of other cumulative projects.

5.3.4.2 Cumulative Analysis

Many past, present, and reasonably foreseeable development projects contribute or would contribute to the cumulative conditions for cultural resources within 0.5 mile of the Proposed Project. The types of projects that could combine to result in adverse cumulative impacts to cultural resources include residential, commercial, industrial, infrastructure, and transmission projects. Projects within 0.5 mile of the Proposed Project include the following:

- Alta Del Mar Residential Development
- Black Mountain Open Space Natural Resources Management Plan
- Black Mountain Ranch Community Park
- Camelot
- Civita
- Kilroy Development
- LaTerra at Pacific Highlands Ranch
- The Village at Pacific Highlands Ranch
- The Watermark
- Mission—Peñasquitos 230-kV Transmission Line
- Pacific Highlands Ranch (The Elms and The Ivy)
- Rancho Del Sol
- Sorrento Mesa Recycled Water Pipeline
- Sunrise Senior Living
- The Merge
- The Merge56
- The Preserve at Del Mar
- Torrey Hills SDG&E Easement Enhancement
- The Watermark

Construction and operation of numerous past and present projects within the cumulative analysis study area have resulted in substantial changes to the cultural resources of the region. Depending on the age and type of project, some past projects may themselves be counted as historic resources.

The previous development projects in the area have resulted in changes and significant impacts to the cultural resource landscape, particularly with projects that were conducted prior to the

NHPA and CRHR. Disturbance or destruction of known historic resources is generally avoidable through project modification or implementation of mitigation. However, it is likely that some disturbance of historic resources in the region has occurred. Disturbance or destruction of previously unidentified buried cultural resources, including unknown or undiscovered human remains, is more difficult to avoid than known cultural resources. Past and present projects within the cumulative analysis study area have very likely disturbed or destroyed previously unidentified buried cultural resources. Typical activities that would result in the disturbance or destruction of buried cultural resources include grading, excavation, boring, trenching, and other types of sub-surface ground disturbance.

The current and reasonably foreseeable future projects described above and in Table 5.1-1 include ground disturbing activities including grading, excavation and trenching, which could affect cultural resources in the cumulative analysis study area in a similar manner as past activities. The cumulative impact to cultural resources is significant because the ground disturbance from the combination of these projects would likely damage or destroy unidentified cultural resources in the area.

5.3.4.3 Proposed Project Contribution to Cumulative Impacts

Construction of the Proposed Project would involve ground disturbing activities such as vegetation removal, grading, trenching, boring, and excavation for new structure locations and transmission lines, access roads, and pull sites. These ground disturbing activities could impact unknown or undiscovered buried cultural resources, including unknown or undiscovered human remains. Indirect impacts to cultural resources could also result from inadvertent or malicious vandalism or unauthorized collection of cultural resources on the surface of sites.

The incremental contribution of the Proposed Project to the significant cumulative impact would be reduced through implementation of APMs CUL-1 (archaeological monitoring), CUL-2 (avoidance of ESAs), CUL-3 (procedure upon discovery of resources), CUL-4 (analysis of cultural remains), CUL-5 (monitoring report), and CUL-6 (Native American monitoring) as well as Mitigation Measures Cultural Resources-1 (cultural resource monitoring, evaluation, and treatment of resources), Cultural Resources-2 (worker training), and Cultural Resources-3 (monitoring report). The full text of these APMs and mitigation measures is presented in Section 4.3. With implementation of the mitigation measures noted above and described fully in Section 4.3, the incremental contribution of the Proposed Project would not be cumulatively considerable.

5.3.4.4 CEQA Significance Determination

Construction and operation of the Proposed Project would combine with the impacts from construction and operation of other projects in the cumulative analysis study area to result in a significant cumulative impact to cultural resources. Without the implementation of mitigation, the incremental contribution of the Proposed Project to the significant cumulative impact would be cumulatively considerable. However, with the implementation of the mitigation measures noted above and described fully in Section 4.3, the contribution of the Proposed Project to the

significant cultural resources cumulative impact would not be cumulatively considerable. Impacts would be less than significant with mitigation.

5.3.5 Paleontological Resources

5.3.5.1 Geographic Scope

The geographic scope for cumulative paleontological impacts of the Proposed Project includes areas of ground disturbance underlain by paleontologically sensitive geologic formations. Sedimentary rocks including the Scripps Formation, Friars Formation, Mission Valley Formation, and Ardath Shale have a high sensitivity and potential for paleontological resources. The geographic scope for the paleontological resources cumulative impacts includes geologic formations with similar paleontological sensitivity that are contiguous with or adjacent to the Proposed Project area. This geographic scope is appropriate because these contiguous or adjacent geologic formations could contain similar paleontological resources, which would contain the same research potential as resources found within the Proposed Project area.

5.3.5.2 Cumulative Analysis

All of the past, present, and reasonably foreseeable development projects listed in Table 5.1-1 contribute or would contribute to the cumulative conditions for paleontological resources within the cumulative analysis study area. Construction of past and present projects within the cumulative analysis study area has resulted in discovery and disturbance of paleontological resources of the region. The results of the paleontological resources records searches revealed 59 fossil localities within a 0.25-mile radius for the Proposed Project alignment, with 8 known fossil localities occurring directly within the Proposed Project alignment boundary. The eight fossil locations occur in the Scripps Formation (one locality), the Ardath Shale (one locality), the Friars Formation (four localities), and the Mission Valley Formation (two localities). There are no unique geologic features in the Proposed Project area.

The current and reasonably foreseeable projects described above would affect paleontological resources in the cumulative analysis study area in a similar manner as past activities. Ground disturbance associated with the construction of various cumulative projects, including the residential, commercial, and infrastructure projects, could lead to disturbance or destruction of important paleontological resources. The likelihood of an adverse cumulative impact on paleontological resources is increased when ground disturbance occurs within geologic areas of high paleontological sensitivity, such as sedimentary rock formations. Due to the presence of cumulative projects in areas of high paleontological sensitivity, there is a high potential for cumulative impacts to paleontological resources from reasonably foreseeable projects.

The future Mission—Peñasquitos 230-kV Transmission Line and residential development at Pacific Highlands Ranch and the Preserve at Del Mar would be geographically contiguous with Segment D of the Proposed Project and would introduce similar ground disturbance during construction. The same paleontologically sensitive geologic formations that underlie the Proposed Project would be located within the area of the future transmission line and future projects that are contiguous to the Proposed Project. Therefore, past, present and reasonably

foreseeable projects including the Mission—Peñasquitos 230-kV Transmission Line would have a significant impact on paleontological resources.

5.3.5.3 Proposed Project Contribution to Cumulative Impacts

Construction of the Proposed Project would involve foundations and subsurface excavation and trenching that could result in the damage and loss of identifiable fossil that could yield information important to prehistory, or that embodies the distinctive characteristics of a type of organism, environment, period of time, or geographic region, resulting in a significant impact. The Proposed Project's contribution to cumulative impacts would be considerable in the absence of mitigation due to the large amount of subsurface excavation required for the underground duct bank construction in Carmel Valley Road and the excavation required for the transmission poles in areas of high sensitivity for paleontological resources.

The Proposed Project's incremental contribution would be reduced through implementation APMs PAL-1 (paleontological monitor) and PAL-2 (paleontological screen-washing), and Mitigation Measures Paleontology-1 (paleontological monitoring), Paleontology-2 (note monitoring areas on plans), and Paleonteology-3 (avoidance of resources or other methods of mitigation). The full text of these mitigation measures is presented in Section 4.4. With implementation of the mitigation measures noted above and described fully in Section 4.4, the Proposed Project's contribution would not be cumulatively considerable.

5.3.5.4 CEQA Significance Determination

As described above, ground disturbance associated with construction of the Proposed Project could result in the damage or destruction of important paleontological resources. The Proposed Project, in combination with other projects in the vicinity, would result in a significant cumulative impact on paleontological resources. Without the implementation of mitigation, the incremental contribution of the Proposed Project to the significant cumulative impacts would be considerable. However, with implementation of the mitigation measures described above, the contribution of the Proposed Project to the significant cumulative impact would be less than cumulatively considerable. Impacts would be less than significant with mitigation.

5.3.6 Geology and Soils

5.3.6.1 Geographic Scope

The geographic scope for the analysis of cumulative impacts associated with geology and soils includes projects within 0.5 miles of the Proposed Project because nearby projects could contribute to slope instability or geologic hazards.

5.3.6.2 Cumulative Analysis

Potential adverse impacts related to geology and soils can be roughly divided into two categories: geology and soil conditions that could adversely affect a project (such as seismic hazards and problematic soils), and project-related impacts to the surrounding geology and soil (such as erosion and slope instability). Impacts related to seismic hazards and problematic soils result from the geologic characteristics of an area and are generally unrelated to past, present, and reasonably foreseeable development projects and human activity. On the other hand, the

cumulative conditions for erosion and slope instability are the result of many past, present, and reasonably foreseeable projects within the cumulative analysis study area. The types of projects that could combine to result in adverse cumulative impacts for geology and soils include residential, commercial, industrial, infrastructure, and transmission projects. Projects within the cumulative analysis study area include the following:

- Alta Del Mar Residential Development
- Black Mountain Open Space Natural Resources Management Plan
- Canyonside Community Park Improvements
- Mission—Peñasquitos 230-kV Transmission Line
- Pacific Highlands Ranch (The Elms and The Ivy)
- Sorrento Mesa Recycled Water Pipeline
- The Merge56
- The Preserve at Del Mar
- TL 674A Reconfiguration/TL 666 Rancho Santa Fe
- Torrey Meadows Neighborhood Park

Construction and operation of numerous past and present projects within the study area have resulted in soil loss and slope reconstruction throughout the region. Earth movement, mass grading, excavation, boring, trenching, and vegetation clearance have resulted in exposed, loose, or unstable soils. Site preparation for numerous projects throughout the region (including large master-planned communities) has altered the length and angle of repose for many slopes in the cumulative analysis study area. These earth disturbing activities have generally been designed to prevent soil loss and slope instability; however, the combined impact of past and present ground disturbance has generally led to increased soil loss and slope instability in the region.

The current and reasonably foreseeable projects listed above would affect soil loss and slope stability in the cumulative analysis study area in a similar manner as past activities. Earth movement and grading (such as that associated with the residential development projects near Proposed Project Segments C and D) would lead to increased erosion and sedimentation. Linear projects such as the Proposed Project and Mission—Peñasquitos 230-kV Transmission Line would include less mass grading and more dispersed ground disturbance than the large residential projects. Linear projects would generally result in less erosion at any one location compared to more concentrated development, but would still result in an overall increase in erosion at the watershed level. These potential adverse impacts would combine with the adverse impacts on soil loss and slope stability from other projects within the cumulative analysis study area to result in a cumulative adverse impact.

5.3.6.3 Proposed Project Contribution to Cumulative Impacts

Construction of the Proposed Project would result in minor impacts on slope stability and soil loss due to grading, excavation, and vegetation clearance. Construction of the Proposed Project would result in soil loss and slope stability impacts that would combine with the impacts from construction and operation of other projects in the cumulative analysis study area to result in a significant cumulative impact to soil and slope stability. Construction activities for the Proposed

Project such as grading and excavation would cause ground disturbance and loosen soil which could trigger or accelerate erosion. The Proposed Project would be required to obtain a NPDES permit, which would require that the applicant prepare and adhere to a SWPPP. The SWPPP would require development and implementation of BMPs to identify and control erosion, which would reduce the potential for construction to trigger erosion. Steeply sloping areas in portions of Segment A and Segment D are prone to landslide when the soils are disturbed. Excavation and grading for pole foundations and work areas could result in slope instability in these areas. The incremental contribution of the Proposed Project impacts to the significant cumulative impacts on geology and soils would be reduced through implementation of APMs GEO-2 (geotechnical recommendations), HYDRO-1 (temporary BMPs), HYDRO-2 (permanent BMPs), and Mitigation Measure Geology-2 (geotechnical investigation for landslides). The full text of these mitigation measures is presented in Sections 4.5 and 4.6. With implementation of the mitigation measures noted here, the incremental contribution of the Proposed Project to the significant cumulative impact would not be cumulatively considerable.

Operation of the Proposed Project would not increase erosion or slope instability because no disturbance would occur outside of the previously graded and constructed work areas.

5.3.6.4 Significance Determination

Construction of the Proposed Project would combine with the impacts from construction of other projects in the cumulative analysis study area to result in a significant cumulative impact to soil and slope stability. Without the implementation of mitigation, the incremental contribution of the Proposed Project to the significant cumulative impact would be cumulatively considerable. However, with implementation of the mitigation measures noted above and described fully in Sections 4.5 and 4.6, the contribution of the Proposed Project to the significant geology and soils cumulative impact would be less than cumulatively considerable. Impacts would be less than significant with mitigation.

5.3.7 Hydrology and Water Resources

5.3.7.1 Geographic Scope

The geographic scope for the hydrology and water resources cumulative analysis includes the water resources that would be affected by the Proposed Project, as well as any downstream receiving water and upland contributing area related to those water resources. The National Hydrography Dataset divides all of the surface area within the United States into nested, hydrologically defined units that each drain to a single point. The geographic scope for this cumulative analysis includes the Peñasquitos watershed. While a single pole would extend into both the San Dieguito and San Diego watersheds, the degree of Proposed Project disturbance and hydrologic impacts in the area is small enough that the Proposed Project contribution to cumulative hydrologic impacts is less than cumulatively considerable and these watersheds are therefore not evaluated further. The Peñasquitos watershed is located within the jurisdictional area of the SDRWQCB. These watersheds represent both the hydrologic and administrative units for water quality control and protection of beneficial uses for water resources in the

Proposed Project area. This geographic scope is appropriate because it includes a watershed-level analysis of potential cumulative adverse impacts.

5.3.7.2 Cumulative Analysis

Many past, present, and reasonably foreseeable projects contribute or would contribute to the cumulative conditions for hydrology within the cumulative analysis study area. The types of projects that could combine to result in adverse cumulative impacts to hydrology include residential, commercial, industrial, infrastructure, and transmission projects. Projects within the cumulative analysis study area include the following:

- Black Mountain Ranch Community Park
- Camelot
- Canyonside Community Park Improvements
- Civita
- Kilroy Development
- LaTerra at Pacific Highlands Ranch
- Mission Cove Affordable Housing/Mixed Use Development Project
- Mission—Peñasquitos 230-kV Transmission Line
- Rancho Del Sol
- Sorrento Mesa Recycled Water Pipeline
- The Merge
- The Merge56
- The Village at Pacific Highlands Ranch
- Torrey Hills SDG&E Easement Enhancement
- Watermark

Construction and operation of numerous past and present projects within the cumulative analysis study area have resulted in substantial changes to the physical hydrology and water quality of the region. Land disturbance and earth movement, including grading and excavation, have led to increased erosion and sedimentation. Floodplain functions have been impaired through the placement of structures (such as housing) within floodplains and through the deliberate alteration of floodplain hydrology (including channel modification). The creation of vast areas of impervious surface (including parking lots, roadways, and rooftops) has altered the rate and amount of surface water runoff in the cumulative analysis study area. Improper handling, storage, and disposal of hazardous materials have led to contamination of water resources. Adjacent land uses and increased sedimentation have led to impairment of water resources in Los Peñasquitos Creek (listed for enterococcus, fecal coliform, manganese, phosphorous, selenium, TDS, total nitrogen, and toxicity) and a TMDL for sediment in Los Peñasquitos Lagoon.

The Poway Valley groundwater basin is located within the Peñasquitos Watershed. Water levels within the Poway Valley groundwater basin fluctuate seasonally, and water quality is affected by high chloride and TDS concentrations in various areas, which impairs irrigation and domestic use, respectively (DWR 2004). Water quality and water levels within the groundwater basin have been affected primarily by extraction from regional groundwater use.

The current and reasonably foreseeable projects described above would affect water resources in the cumulative analysis study area in a similar manner as past activities. Earth movement

and grading (such as that associated with the residential development projects near Proposed Project Segments C and D) would lead to increased erosion and sedimentation. Residential and commercial development would increase the intensity of storm runoff from the removal of vegetation and addition of impervious surfaces. Many of the cumulative projects would involve the storage or use of hazardous materials, which could contaminate surface water and groundwater. These potential adverse impacts would combine with the adverse impacts on water resources from other projects within the cumulative analysis study area to result in a significant cumulative impact to hydrology and water resources.

5.3.7.3 Proposed Project Contribution to Cumulative Impacts

Construction and operation of the Proposed Project would result in impacts on water resources and hydrology due to dewatering activities, impacts to vernal pools, increased erosion and sedimentation from ground disturbance, and accidental spill or release of hazardous materials.

Construction and operation of the Proposed Project would result in impacts to water resources that would combine with the impacts from construction of other projects in the cumulative analysis study area to result in a significant cumulative impact to water resources. Construction activities for the Proposed Project such as grading and excavation would cause ground disturbance and loosen soil which could trigger or accelerate erosion. The Proposed Project would be required to obtain a NPDES permit, which would require that the applicant prepare and adhere to a SWPPP. The SWPPP would require development and implementation of BMPs to identify and control erosion, which would reduce the potential for construction to trigger erosion. While compliance with NPDES requirements would reduce the impacts on water quality from erosion and sedimentation, Los Peñasquitos Lagoon, a downstream waterbody, has a TMDL for sediment and the Proposed Project grading could result in increased sedimentation to downstream waterbodies. The Proposed Project would also use hazardous materials in proximity to Los Peñasquitos Creek, which is also an impaired waterbody. The Proposed Project land disturbance and grading would contribute considerably to cumulative impacts to water quality in the absence of mitigation.

The severity of the Proposed Project impacts to water quality, as well as the incremental contribution of the Proposed Project to the significant cumulative impacts, would be reduced through implementation of APMs and Mitigation Measures. APMs HYDRO-1 (temporary BMPs), HYDRO-2 (permanent BMPs), GEO-3 (minimize soil disturbance), HAZ-1 (SEAP), HAZ-2 (consistency with state and federal regulations), Mitigation Measure Hydrology-1 (SWPPP and treatment of shallow groundwater discharge), and Mitigation Measure Biology-4 (compensatory mitigation for vernal pools) would reduce the Proposed Project contribution to cumulative impacts. The full text of these APMs and mitigation measure are presented in Section 4.6 and 4.1. With implementation of the APMs and mitigation measure described above and in Section 4.6, the incremental contribution of the Proposed Project to the significant cumulative impact would be less than considerable.

There are no groundwater basins underlying the Proposed Project area and the dewatering of foundation excavations, if perched groundwater is encountered, would not result in cumulative

impacts to a groundwater basin because the foundations are not located in a groundwater basin. Construction water would be obtained from reclaimed water resources consistent with Mitigation Measure Utilities-1 and would not impact groundwater. The irrigation water source for the Proposed Project restoration has not been specified. The use of groundwater for irrigation of restoration areas would contribute considerably to a cumulative impact because the groundwater basins in the Proposed Project vicinity have been impacted by over-withdrawal. Mitigation Measure Hydrology-3 requires use of reclaimed water. The cumulative impact to groundwater resources would be less than significant with mitigation.

5.3.7.4 CEQA Significance Determination

Construction and operation of the Proposed Project would combine with the impacts from construction and operation of other projects in the cumulative analysis study area to result in a significant cumulative impact to water resources. Without the implementation of mitigation, the incremental contribution of the Proposed Project to the significant cumulative impact would be cumulatively considerable. However, with implementation of the mitigation measures noted above and described fully in Section 4.6, the contribution of the Proposed Project to the significant water resources cumulative impact would be less than cumulatively considerable. Impacts would be less than significant with mitigation.

5.3.8 Transportation and Traffic

5.3.8.1 Geographic Scope

The geographic scope for the transportation and traffic cumulative analysis includes the local and regional roadways and highways that would be crossed by the Proposed Project or utilized for transportation of Proposed Project materials (refer to Figures 2.2-1 through 2.2-7, which show the roads in the Proposed Project area). The scope of the analysis specifically includes all projects within 1 mile of the Proposed Project because these projects are expected to use the same roads for access. In general, the Proposed Project's transportation and traffic impacts (such as increased traffic volume and lane closures) would diminish with increased distance from Proposed Project area. Accordingly, greater weight is placed on cumulative projects that are located nearer to the Proposed Project.

5.3.8.2 Cumulative Analysis

Many past, present, and reasonably foreseeable development projects contribute or would contribute to the cumulative conditions for transportation and traffic within the cumulative analysis study area. The types of projects that could combine to result in a cumulative impact on transportation and traffic include residential, commercial, transportation, infrastructure, and transmission projects. Projects within the cumulative analysis study area include the following:

- Alta Del Mar Residential Development
- Black Mountain Ranch Community Park
- Camelot
- Canyonside Community Park Improvements
- Civita
- Residential Project Block 1Y
- Sorrento Mesa Recycle Water Pipeline
- The Merge
- The Merge56
- The Preserve at Del Mar
- The Village at Pacific Highlands

- East Clusters Enclave, Process 4
- I-5 Express Lanes Project
- I-5 North Coast Corridor Improvements
- Kilroy Development
- LaTerra at Pacific Highlands Ranch
- Pacific Highlands Ranch (The Elms and The Ivy)
- Poway Road Bicycle Path
- Rancho Del Sol
- Ranch
- The Watermark
- TL 13825 Wood to Steel
- TL 674A Reconfiguration/TL 666 Rancho Santa Fe
- TL 6906 Loop-In Mesa Rim
- Torrey Meadows Neighborhood Park
- Watermark

Construction and operation of the above-listed past, present, and reasonably foreseeable projects have resulted in substantial changes to the transportation network and the level of traffic within the cumulative analysis study area. As a result of cumulative impacts on traffic, SR-56 and Scripps Poway Parkway, east of Spring Canyon Road currently operate at LOS F and do not meet City of San Diego or the CMP standards for operation.

Reasonably foreseeable development listed above would increase vehicle and truck traffic in the area during project construction and the proposed development projects would result in a long-term increase in commuter traffic in the area as those new residents travel to and from work. The increased vehicles on area roads during peak traffic hours would further impact roadways that are already operating below standards for LOS and would impact the level of service for roadways in the area. The Proposed Project, in conjunction with past, present and reasonably foreseeable projects would result in a significant cumulative impact on traffic.

5.3.8.3 Proposed Project Contribution to Cumulative Impacts

The incremental contribution of the Proposed Project to this significant cumulative impact would be considerable. As described in Section 4.7, construction of the Proposed Project would result in increased vehicle traffic on roads that are not currently meeting LOS standards. The Proposed Project would also result in temporary road or travel lane closures, increased construction-related traffic, interference with emergency vehicle access, reduced access to adjacent properties, and nuisance caused by helicopter use. Without the implementation of mitigation measures the Proposed Project's incremental contribution to cumulative impacts to transportation and traffic would be significant.

The Proposed Project's incremental contribution to the significant cumulative traffic impact would be reduced through implementation of the following mitigation measures: Mitigation Measures Traffic-1 (Construction Transportation Management Plan), Traffic-3 (post-construction road repair), Traffic-5 (highway closure plans), Traffic-6 (restrict road closures and maintain access), Traffic-7 (closure notification and detours), and Traffic-8 (notify emergency personnel of road closures). The full text of these mitigation measures is presented in Section 4.7. Even with implementation of the mitigation measures described above and in Section 4.7, the incremental contribution of the Proposed Project would be considerable because the Proposed Project traffic could not reasonably avoid roads that are not meeting LOS (i.e., SR 56) and the additional traffic (up to 200 trips per day) would result in further declines to LOS.

5.3.8.4 CEQA Significance Determination

Construction of the Proposed Project would combine with the impacts from construction of other projects in the cumulative analysis study area to result in a significant cumulative impact to transportation and traffic. The incremental contribution of the Proposed Project to the significant cumulative impact would be cumulatively considerable. Even with mitigation, the significant transportation and traffic cumulative impact would be considerable. Impacts would be significant and unavoidable.

5.3.9 Noise

5.3.9.1 Geographic Scope

The geographic scope for the analysis of cumulative impacts associated with noise is limited to areas within 0.5 mile of the Proposed Project components. This geographic scope is appropriate because noise levels attenuate rapidly with distance and the noise generated by activities greater than 0.5 mile from the Proposed Project would not combine with the noise generated by Proposed Project construction and operation.

5.3.9.2 Cumulative Analysis

A wide variety of past, present, and reasonably foreseeable development projects in combination with the Proposed Project contribute or would contribute to the cumulative conditions for noise within the cumulative analysis study area. The types of projects that could combine to result in adverse cumulative impacts to ambient noise levels include residential, commercial, industrial, infrastructure, and energy transmission projects. Projects within the cumulative analysis study area that may generate noise at the same time as the Proposed Project within the geographic scope of the cumulative analysis include the following:

- Black Mountain Ranch Recycled Water Tank Replacement
- The Merge 56
- Torrey Meadows Neighborhood Park
- Pacific Highlands Ranch (The Elms and The Ivy)
- The Preserve at Del Mar
- Alta Del Mar Residential Development
- The Merge
- TL 639 Elliott to Sycamore Canyon Wood to Steel
- TL 6916 Sycamore Canyon to Scripps Wood to Steel
- TL13825 Wood to Steel
- TL6906 Loop-in Mesa Rim
- Camino Del Sur SR-56 to Dormouse Road
- Hickman Fields Athletic Area
- Civita
- Rancho Del Sol
- East Clusters
- Kilroy Development
- Mission—Peñasquitos 230-kV Transmission Line
- Black Mountain Ranch Community Park

Construction and operation of past projects within the cumulative analysis study area have resulted in substantial changes to the ambient noise level of the surrounding area. Large highways, such as I-5, I-15, and State Route 56, convey heavy volumes of traffic through the region. MCAS Miramar has brought military air traffic to the region. Residential development

and growth of incorporated cities have led to increased ambient noise levels, primarily as a result of vehicle traffic along local roads and highways.

The current and reasonably foreseeable projects listed above would affect ambient noise levels in the cumulative analysis study area in a similar manner as past activities. Commercial and industrial development (including warehouses near Proposed Project Segment C) would temporarily raise ambient noise levels during construction from the use of heavy machinery and equipment. After construction, the residential developments would bring increased traffic to the area (including to previously undeveloped areas), which would permanently raise ambient noise levels. The existing ambient noise level in portions of the Proposed Project area exceeds the City of San Diego day time noise standards. The adjacent power lines along Proposed Project Segments A and C produce corona noise that exceeds nighttime noise standards set by the City of San Diego. The Proposed Project increase in ambient noise levels could combine with the noise generated by other nearby activities to form a cumulative impact. Proposed Project construction is scheduled to occur between June 2016 and May 2017. Where construction activities for the Proposed Project and other projects in the cumulative analysis study area overlap temporally, the noise-related adverse impacts of the Proposed Project would combine with the noise-related adverse impacts of the other cumulative projects to result in a significant temporary cumulative impact to nearby sensitive receptors. Permanent noise from the proposed Mission—Peñasquitos 230-kV Transmission Line would add to the cumulative corona noise in the Segment D corridor. The corona noise from the Proposed Project and the Mission—Peñasquitos 230-kV Transmission Line would be cumulatively considerable. The cumulative impact to noise is therefore significant.

5.3.9.3 Proposed Project Contribution to Cumulative Impacts

Construction

Construction and operation of the Proposed Project would cause temporary localized increases in ambient noise levels. Construction of the Proposed Project would result in increases to the ambient noise levels throughout the project area due to the use of heavy equipment such as cranes, trucks, graders, compactors, dozers, excavators, backhoes, and helicopters. Elevated noise levels would also occur due to operation of smaller equipment, such as light-duty vehicles, concrete saws, jackhammers, compressors, generators, and welders. Sensitive receptors for elevated noise levels near the Proposed Project include residences, schools, community parks, and other recreational uses. These sensitive receptors are described in Section 4.8: Noise.

Proposed Project individual impacts to ambient noise levels during construction and the incremental contribution to the significant temporary cumulative noise impacts would be considerable. Mitigation Measures Noise-2 (noise-suppression techniques), Noise-3 (helicopter take-off and landing areas), Noise-6 (coordinate helicopter activity with schools), and Hazards-1 (site-specific blasting plan) would reduce temporary construction noise impacts. The full text of these mitigation measures is presented in Section 4.8. Even with implementation of the

mitigation measures noted above and described in Section 4.8, the incremental contribution of the Proposed Project to cumulative noise impacts would remain cumulatively considerable.

Operation

The Proposed Project would introduce long-term sources of noise related to the audible corona effect of the 230-kV lines, which occurs with normal and routine operation. Routine inspection and maintenance of the new 230-kV line would not adversely affect ambient noise levels. Noise associated with the audible corona effect of the new 230-kV line would produce noise levels that exceed existing nighttime ambient noise levels along Segment D of the Proposed Project. Corona noise from the Proposed Project would result in a significant impact to nearby sensitive receptors. The corona noise from the Proposed Project and the Mission—Peñasquitos 230-kV Transmission Line would be cumulatively considerable. Mitigation Measure Noise-4 (corona rings) would reduce the corona noise impact at the transmission pole structures, but there is no feasible mitigation to reduce the corona noise levels along the proposed transmission line. The incremental contribution of the Proposed Project to cumulative noise impacts would remain considerable.

5.3.9.4 CEQA Significance Determination

Noise impacts related to construction of the Proposed Project would combine with the noise impacts from construction of other projects in the cumulative analysis study area to result in a significant cumulative impact to sensitive noise receptors. The incremental contribution of the Proposed Project to the significant cumulative impact would be cumulatively considerable. Implementation of the mitigation measures listed above and described in Section 4.8 would reduce the Proposed Project's contribution to the significant cumulative impact. Even with implementation of mitigation measures, the Proposed Project contribution to the significant cumulative impact would remain significant. Impacts would be significant and unavoidable.

The operational noise generated by the Proposed Project would combine with the operational noise generated by the future Mission—Peñasquitos 230-kV Transmission Line Project to result in an adverse, significant cumulative impact. Even with mitigation, the Proposed Project would contribute considerably to a significant cumulative impact due to a substantial permanent increase in ambient noise levels. Impacts would be significant and unavoidable.

5.3.10 Recreation

5.3.10.1 Geographic Scope

The geographic scope for the analysis of cumulative impacts associated with recreation includes areas within 1 mile of the Proposed Project. This includes the recreational facilities that would be traversed by or adjacent to the Proposed Project and viewsheds of the affected recreation areas. The geographic scope of cumulative aesthetic impacts described in Section 5.2.3 would apply to the cumulative aesthetic impacts on recreational value. A geographic distance of 1 mile is appropriate because neighbors are expected to use recreational facilities in proximity to their community. A 1 mile area surrounding the Proposed Project includes the parks that are most likely to be used by the same community that uses the parks affected by the Proposed Project.

This geographic scope is appropriate because it considers the effects of other projects within this region on the resources impacted by the Proposed Project.

5.3.10.2 Cumulative Analysis

Past, present, and reasonably foreseeable development projects contribute or would contribute to the cumulative conditions for recreation resources within the cumulative analysis study area. The types of projects that could result in adverse cumulative impacts on recreational resources in combination with the Proposed Project include recreational and infrastructure projects. Projects within the cumulative analysis study area include the following:

- Black Mountain Open Space Natural Resources Management Plan
- Black Mountain Ranch Community Park
- Canyonside Community Park Improvements
- Mission—Peñasquitos 230-kV Transmission Line
- The Preserve at Del Mar
- TL 13825 Wood to Steel
- Torrey Hills SDG&E Easement Enhancement
- Torrey Meadows Neighborhood Park

Construction and operation of numerous past and present projects within the study area have resulted in substantial changes to the recreation resources of the region. Residential development has led to an increase in the region's population that has placed additional demand on recreational resources, including open space.

The cumulative projects that could impact recreational facilities in combination with the Proposed Project include recreational improvements, which could result in temporary loss of recreational areas during construction of the park improvements, and other infrastructure projects located within recreational areas that could restrict access to the recreational facility or impact the value of a recreational area through impacts on the viewshed of the recreational resource. These cumulative projects could significantly impact access to recreation areas due to temporary facility closures, effectively reducing the opportunities for recreation during the construction time frame. As a whole, these projects would result in a cumulatively considerable impact to recreation for nearby residents.

5.3.10.3 Proposed Project Contribution to Cumulative Impacts

Black Mountain Ranch Community Park

The Proposed Project would impact recreational facilities at Black Mountain Ranch Community Park that would also be impacted by cumulative projects. The Proposed Project, Black Mountain Ranch Community Park improvements, and TL 13825 wood to steel may have overlapping construction schedules. The temporary loss of park access, increased noise, loss of parking, and visual impact from simultaneous construction of the two projects would result in a cumulatively considerable impact. The Proposed Project's contribution to cumulative impacts on recreation would be considerable due to the temporary loss of access to Black Mountain Ranch Community Park during overhead stringing of the transmission line and underground duct bank construction. Implementation of APMs would reduce the Proposed Project's

contribution to this cumulative impact. APMs REC-1 (coordination with parks and preserves, and buffer between active work areas and trails), PS-1 (recreation access), PS-2 (notification of construction), PS-3 (coordination with recreational facilities), PS-4 (signage), and PS-5 (recreational facility repair) would reduce the severity of Proposed Project impacts on Black Mountain Ranch Community Park. Even with these measures, the Proposed Project would result in a considerable contribution to cumulative impacts on temporary park closures because the underground duct bank construction and overhead transmission line construction would still restrict access to the park and result in reduced recreational opportunities. Mitigation Measure Recreation-4 requires that SDG&E coordinate with the City of San Diego to avoid construction during peak use periods at the park and maintain access to the park. While this mitigation would reduce impact, it is not feasible to avoid temporary loss of access to the park during scheduled activities due to the location of the Proposed Project facilities within the park and parking areas and the duration of construction at the park.

Los Peñasquitos Canyon Open Space Preserve

The Proposed Project would impact recreational facilities in Los Peñasquitos Canyon that would also be impacted by cumulative projects. The Proposed Project and the Mission—Peñasquitos 230-kV Transmission Line would result in a cumulatively considerable impact on the recreational value of passive recreation areas in Los Peñasquitos Canyon Preserve. As shown in Figures 5.2-1 and 5.2-2, the Proposed Project and Mission—Peñasquitos 230-kV Transmission Line would result in a significant cumulative impact to views from Los Peñasquitos Canyon Preserve. This significant visual impact would result in a cumulatively considerable impact on the recreational value of trails in the Los Peñasquitos Canyon Preserve because recreationists who use the trail system to access open space areas may abandon the trails due to the increasingly industrial aesthetics of the area and increased corona noise. Mitigation Measures Aesthetics-2 (retaining wall screening), Aesthetics-3 (facilities color treatment plan), Aesthetics-4 (cable pole screening), Noise-4 (corona rings), and Noise-5 (respond to corona noise complaints) would reduce impacts. There is no feasible mitigation to reduce the view of these transmission lines from the neighboring trails and open space areas.

5.3.10.4 Significance Determination

As noted above, construction and operation of the Proposed Project would combine with impacts from construction and operation of other projects in the cumulative analysis study area to result in a significant cumulative impact to recreation. The recreational and energy infrastructure projects would have similar construction impacts as the Proposed Project, such as an increase in noise, dust, and loss of recreational access. In addition, in the case of Los Peñasquitos Canyon Preserve, there would be lasting visual impacts that would impact the recreational value of the open space trails in the area. The Proposed Project would have a considerable contribution to cumulative impacts on temporary recreational access during construction and long-term impacts on recreational values. These impacts would be reduced through APMs and mitigation measures, but would remain significant after implementation of APMs and mitigation measures. Impacts would be significant and unavoidable.

5.3.11 Hazards and Hazardous Materials

5.3.11.1 Geographic Scope

The geographic scope for the analysis of cumulative impacts associated with hazards and hazardous materials is the area within approximately 1 mile of the Proposed Project. This geographic scope is appropriate because it accounts for the amount of hazardous materials that would be utilized for the construction of the Proposed Project, the likelihood of discovering contaminated soil within or near the project footprint, and the likely maximum distance of contaminated transport based on the types of hazardous materials that would be used by the Proposed Project.

5.3.11.2 Cumulative Impact Analysis

Many past, present, and reasonably foreseeable development projects contribute or would contribute to the cumulative conditions for hazards and hazardous materials within the cumulative analysis study area. Some examples of development projects that could result in accidental releases of hazardous materials or mobilization of contaminated soil include commercial and residential development (The Watermark, Heritage Bluffs II, and Camelot), transportation projects (including various highway improvements), and existing and future transmission line projects that would share portions of the Proposed Project ROW (e.g., Mission—Peñasquitos 230-kV Transmission Line).

Construction and operation of numerous past and present projects within the cumulative analysis study area have resulted in the accidental release of hazardous materials and soil contamination. A review of hazardous material investigation and cleanup site databases from the DTSC and SWRCB revealed 40 hazardous material releases have occurred along the Proposed Project alignment. The majority of hazardous materials releases have been associated with commercial and industrial development. Of these releases, five sites remain active with open records. The other 35 sites have been remediated. Hazardous materials releases have affected soil and groundwater. Agricultural development in the area has led to the presence of residual pesticides in the soil.

The reasonably foreseeable projects described in Table 5.1-1 would require construction equipment and vehicles that could leak hazardous materials including gasoline and diesel fuel, engine oil, coolant, lubricants, and grease, which could contaminate soil or groundwater. The residential developments near Proposed Project Segments C and D would involve the grading of large areas that could disturb previously unidentified contaminated soil. The exposure of contaminated soils by these cumulative projects would result in a cumulatively considerable impact from hazardous materials.

The MCAS Miramar ALUCP establishes an airport influence area (AIA) that covers portions of the cumulative analysis study area where substantial development has occurred since MCAS Miramar was established. Past projects, including transmission lines, radio and communication towers, and tall buildings have created potential hazards for air traffic within the AIA area.

5.3.11.3 Proposed Project Contribution to Cumulative Impacts

Construction of the Proposed Project could result in leaks and accidental spills of hazardous materials such as gasoline, diesel fuel, oil, lubricants, and solvents. In addition, construction activities could disturb previously unidentified contaminated soil, including residual pesticide and herbicide contamination from past agricultural activities. Operations and maintenance activities associated with the Proposed Project could result in spills and leaks of hazardous materials at the substations and along the transmission line. The storage of hazardous materials used for routine maintenance activities may occur at the substations where leaks and spills could also result in worker exposure and soil contamination. These potential adverse impacts would combine with the hazards and hazardous materials adverse impacts from other projects within the cumulative analysis study area to result in a cumulatively significant impact.

The Proposed Project impacts to hazards and hazardous materials and the incremental contribution of the Proposed Project to the cumulative impact would be considerable in the absence of mitigation. Mitigation Measures Hazards-2 (Spill Prevention, Control, and Countermeasure Plan), Hazards-3 (Hazardous Substance Control and Emergency Response Plan), Hazards-4 (uncover existing utility pipelines), Hazards-5 (soil and groundwater testing), Hazards-7 (unexploded ordnance investigation), Biology-3 (Weed Control Plan), and Utilities-3 (notify utility companies and adjust underground work locations) would reduce the Proposed Project's contribution to cumulative hazardous materials impacts by controlling and treating sources of hazards material contamination. The full text of these mitigation measures is presented in Section 4.11, 4.4, and 4.17, respectively. With implementation of these mitigation measures, the Proposed Project's incremental contribution to cumulative hazardous materials impacts would not be cumulatively considerable.

Construction-related helicopter use for the Proposed Project could cause a hazard for normal air traffic out of MCAS Miramar. This impact would combine with the hazards from other projects within the cumulative analysis study area. The Proposed Project contribution to cumulative impacts to air traffic hazards would be significant in the absence of mitigation. APM TR-2 (comply with relevant helicopter use restrictions) and Mitigation Measure Traffic-2 (Helicopter Lift Plan) would reduce the Proposed Project's contribution to cumulative impacts from air traffic hazards. With implementation of the APM and mitigation measure, the Proposed Project's incremental contribution to cumulative air traffic hazards would not be cumulatively considerable.

5.3.11.4 CEQA Significance Determination

Construction and operation of the Proposed Project would contribute to a cumulatively considerable hazards and hazardous materials impact. Without the implementation of mitigation, the incremental contribution of the Proposed Project to the significant cumulative impact would be considerable. However, with implementation of mitigation measures noted above and described fully in Sections 4.4, 4.11, and 4.17, the Proposed Project's contribution to a cumulatively significant hazards and hazardous materials impact would not be cumulatively considerable. Impacts would be less than significant with mitigation.

5.3.12 Fire and Fuels Management

5.3.12.1 Geographic Scope

The geographic extent for the analysis of cumulative impacts related to fire and fuels management includes the area within the three project firesheds identified in Section 4.12: Fire and Fuels Management. Firesheds are regional landscapes that are delineated based on fire history, fire regime, vegetation, topography, and potential wildfire behavior. Figure 4.12-3, Fireshed Boundaries, shows the boundaries of the three firesheds along the Proposed Project route.

5.3.12.2 Cumulative Impact Analysis

A wide variety of past, present, and reasonably foreseeable development projects contribute or would contribute to the cumulative conditions for fire and fuels management within the cumulative analysis study area. The types of projects that could combine to result in adverse cumulative impact to fire and fuels management include residential, commercial, industrial, infrastructure, and energy transmission projects. All projects in Table 5.1-1 would contribute to cumulative impacts to fire and fuels management.

Numerous past and present projects within the cumulative analysis study area have resulted in changes to the surrounding area that increased the level of human influence adjacent to wildlands. Large highways, such as I-5, I-15, and State Route 56 convey heavy volumes of traffic through wildlands in the region. Residential and industrial development and growth of incorporated cities have increased fire danger by introducing human activities to wildlands along the wildland-urban interface. Overhead transmission lines constructed in the area have created obstacles for firefighting efforts, specifically for aerial attacks. Numerous construction projects of all types have resulted in the increase in ignition potential through the use of heavy machinery and equipment for construction in undeveloped areas.

The current and reasonably foreseeable projects would affect fire and fuels management in the cumulative analysis study area in a similar manner as past activities. Residential development (including several residential development projects near the Peñasquitos Canyon Preserve and Black Mountain Open Space) would temporarily increase the risk of igniting wildfires during construction due to the use of heavy machinery and equipment, and through worker behavior such as smoking or parking vehicles in dry vegetation. After construction, these projects increase the level of human influence adjacent to wildlands, thereby increasing human-caused wildfire ignitions. Other phenomena, such as increased travel on wildland-adjacent roadways also contribute to wildfire ignitions that result in widespread damages. These increases in fire risk are cumulatively considerable.

5.3.12.3 Proposed Project Contribution to Cumulative Impacts

Construction

Construction of the Proposed Project would cause an increase in fire risk. Construction activities associated with the Proposed Project would occur between June 2016 and May 2017. These activities would create a temporary increase in fire risk due to the use of heavy machinery and equipment, and through worker behavior such as smoking and cigarette disposal, or parking

vehicles in dry vegetation. Where construction activities for the Proposed Project and other projects in the cumulative analysis study area overlap temporally, the potential for wildfire ignition from the Proposed Project would combine with potential fire risk of other cumulative projects. The Proposed Project contribution to cumulative impacts would be considerable in the absence of mitigation.

Mitigation Measures Fire-1 (Final Fire Prevention Plan), Fire-2 (maintain emergency access), Fire-3 (water tanks), and Fire-4 (conductor clearance), would reduce the probability of igniting a wildfire and reduce the impacts of fires when they occur. Even a single ignition that escapes containment in the highly fire-prone region of San Diego County could have devastating effects on communities, firefighter health and safety, and natural resources. These mitigation measures would not ensure prevention or containment of all ignitions; however, the Proposed Project contribution to ignition sources and risk of wildfire would be less than considerable.

Operation

The Proposed Project would introduce long-term fire risk by introducing an additional overhead power line to the Proposed Project area. Line faults can be caused by such unpredictable events as conductor contact by floating debris, gun shots, and helicopter collisions; these events are rare but would be unavoidable. Overhead transmission lines create an obstacle for aerial attacks during firefighting efforts. The Proposed Project contribution to significant impacts to fire and fuels during operation is nominal because the risk of line faults, gun shots, and helicopter collisions on 13 miles of overhead line is very small as these events are very rare. Therefore, the incremental contribution of the Proposed Project to increase probability of human-caused wildfire ignitions would be less than considerable. The Proposed Project would also have a less than considerable contribution to cumulative impacts on fire containment efforts because the Proposed Project would be located in existing transmission corridors where the exiting transmission lines already result in impacts to firefighting efforts and the Proposed Project's contribution to that impact would not be cumulatively considerable.

5.3.12.4 CEQA Significance Determination

As described above, the potential for wildfire ignition from the Proposed Project could combine with potential ignition risk from the construction of other projects in the cumulative analysis study area to result in a significant cumulative impact to fire and fuels management. Without the implementation of mitigation, the Proposed Project would contribute considerably to cumulative impacts on fire and fuels management. The Proposed Project's contribution to significant cumulative impacts would be less than considerable with implementation of the mitigation measures defined above and in Section 4.12. Impacts would be less than significant with mitigation.

5.3.13 Air Quality

5.3.13.1 Geographic Scope

The geographic scope for the air quality cumulative analysis includes the SDAB, the same air basin that was analyzed for the Proposed Project. This geographic scope is appropriate because

it accounts for the potential for emissions from other cumulative projects to combine with the emissions of the Proposed Project and exceed air quality thresholds within the SDAB.

5.3.13.2 Cumulative Analysis

Many past, present, and reasonably foreseeable development projects contribute or would contribute to the cumulative conditions for air quality within the cumulative analysis study area. All of the projects listed in Table 5.1-1 would contribute to the cumulative air quality impact because they would result in emissions within the same air basin as the Proposed Project. All of the cumulative activities considered in the SDAPCD ozone attainment plan (SDAPCD 2007) are considered as cumulative projects for the purpose of air quality impacts.

Construction and operation of numerous past and present projects within the study area have resulted in substantial changes to the air quality of the region. Although air quality has generally improved since the high levels of pollution in the 1970s, the SDAB remains impaired by several pollutants. As described in Section 4.13, the SDAB is in nonattainment and exceeds the local or federal thresholds for several criteria pollutants, including ozone, PM_{10}, and $PM_{2.5}$.

The current and reasonably foreseeable projects considered in the SDAPCD ozone attainment plan (2007) would impact air quality in the cumulative analysis study area. Emission of criteria pollutants and TACs could result from the operation of construction and maintenance vehicles and equipment and other permanent emissions sources in the basin. Ground disturbance from construction of numerous cumulative projects could lead to the mobilization of fugitive dust (PM_{10} and $PM_{2.5}$). As described in Section 4.13, emissions from construction of the Proposed Project would exceed the SDAPCD New Source Rule emissions threshold for PM_{10}; emissions from all other criteria pollutants would be below emissions thresholds. Construction and operation of the Proposed Project would result in impacts to air quality that would combine with the impacts from construction and operation of other projects in the cumulative analysis study area to result in a significant cumulative impact to air quality. Construction and operation of all projects within the cumulative analysis study area could result in emissions of criterial air pollutants that would cause non-attainment of state and/or federal air quality criteria. The Proposed Project's air quality impacts from emissions of criteria air pollutants would combine with the impacts on air quality from other projects within the cumulative analysis study area to result in a significant cumulative impact.

5.3.13.3 Proposed Project Contribution to Cumulative Impacts

The Proposed Project would not involve any notable sources of odors or TACs other than diesel-powered construction equipment, no individual sensitive receptor would be exposed to substantial concentrations of pollutants, no new stationary sources of TACs would be introduced, and construction-related diesel equipment emissions would not occur at any single location near receptors for more than a couple days (refer to Section 4.12: Air Quality for further details on odors and TACs). Therefore, the Proposed Project would not make a cumulatively considerable contribution to TACs and odors that may affect sensitive receptors near Proposed Project work areas.

The maximum daily PM_{10} emissions during construction of the Proposed Project would be above the SDAPCD daily threshold. Therefore, PM_{10} construction emissions from the Proposed Project would be cumulatively considerable. Depending on the timing of construction of other projects within the SDAB, the air quality impacts of the Proposed Project could combine with the air quality impacts of the other projects to result in a cumulative impact to air quality, and the incremental contribution of the Proposed Project to cumulative impacts would be cumulatively considerable.

The Proposed Project's incremental contribution to the significant cumulative air quality impact identified above would be reduced through implementation of APM AIR-1 (dust control). The full text of this APM is presented in Section 4.13. The incremental contribution of the Proposed Project to the adverse cumulative impacts to air quality would be reduced with implementation of APM AIR-1.

5.3.13.4 Significance Determination

Construction and operation of the Proposed Project would result in emissions of air quality pollutants that would combine with the emissions from construction and operation of other projects in the cumulative analysis study area (described above and in Table 5.1-1) to result in a significant cumulative impact to air quality because the area is currently in non-attainment for ozone and fugitive dust due to cumulative impacts throughout the air basin. As discussed in Impact Air-3 in Section 4.13.7, the Proposed Project would have a cumulatively considerable impact on air quality if it would result in ozone or fugitive dust emissions above the significance thresholds. The Proposed Project's daily emissions of ozone precursors (VOC, CO, SO_x, NO_x) would not exceed the thresholds set by the SDAPCD and SCAQMD and the Proposed Project's contribution to cumulative air quality impacts from ozone emissions would be less than significant. Daily construction emissions would be cumulatively considerable and significant for PM_{10} because the uncontrolled PM_{10} emissions would exceed the threshold. APM AIR-1 (fugitive dust control) would reduce PM_{10} emissions to below the emissions threshold. The Proposed Project impacts to air quality after implementation of APMs would not be cumulatively considerable. Impacts would be less than significant. No mitigation is required.

5.3.14 Greenhouse Gas Emissions

5.3.14.1 Geographic Scope

GHG emissions have global impacts. Globally, temperature, precipitation, sea level, ocean currents, wind patterns, and storm activity are all affected by the presence of GHG pollutants in the atmosphere. In contrast to air quality, which generally is a regional or local concern, human-caused emissions of GHGs have been linked to climate change on a global scale. Therefore, the geographic scope for the GHG emissions cumulative analysis is global.

5.3.14.2 Cumulative Analysis

From the standpoint of CEQA, GHG impacts to climate change are inherently cumulative. This cumulative impact analysis considers and relies on the impact analysis for the Proposed Project. The quantity of GHGs required to ultimately result in climate change is not precisely known. However, a single project is very unlikely to measurably contribute to a noticeable incremental change in the global average temperature, or to the global, local, or micro climate.

Many past, present, and reasonably foreseeable development projects worldwide contribute or would contribute to the cumulative conditions for GHG emissions. Some examples of regional projects that could combine to result in adverse cumulative impacts to GHG emissions include all residential and commercial development listed in Table 5.1-1 and highway improvements along I-15.

5.3.14.3 Proposed Project Contribution to Cumulative Impacts

Emission of GHGs would result from the operation of construction and maintenance vehicles and equipment. As described in Section 4.14, emissions from construction of the Proposed Project would not exceed the SCAQMD GHG emissions threshold of 10,000 $MTCO_2e$. However, GHG emissions from construction and operation of the Proposed Project would combine with GHG emissions from projects worldwide to create significant cumulative impacts, such as sea level rise and other climate change related impacts.

The Proposed Project's contribution to global GHG emissions would be approximately 2,752 $MTCO_2e$. The incremental contribution of the Proposed Project to the adverse cumulative impact would not be cumulatively considerable because construction and operation of the Proposed Project would emit GHGs that would not contribute considerably to climate change worldwide because the emissions would be temporary during construction and the emissions level is below the threshold of 10,000 $MTCO_2e$, above which GHG emissions would be considered considerable.

5.3.14.4 Significance Determination

Construction and operation of the Proposed Project would result in GHG emissions that would combine with the emissions from construction and operation of other projects around the globe to result in a significant cumulative impact. The contribution of the Proposed Project to GHG emissions would not be cumulatively considerable. Impacts would be less than significant. No mitigation is required.

5.3.15 Agriculture

5.3.15.1 Geographic Scope

The geographic scope for the analysis of cumulative impacts associated with agriculture is the area within the Cities of San Diego and Poway, throughout which agricultural land is being converted to other land uses. This geographic scope accounts for regional cumulative impacts to agriculture.

5.3.15.2 Cumulative Analysis

Development projects along the Proposed Project alignment and throughout the City of San Diego and Poway have converted agricultural land to non-agricultural use as residential and commercial developments have been built in areas that were previously used for agricultural production. Residential and commercial development in the Carmel Valley area along the Proposed Project alignment began in the 1970s. Prior to this development, the area supported agricultural production. The surrounding development projects have resulted in a cumulative loss of agricultural land in the area and the reasonably foreseeable projects in the area continue to convert agricultural land to non-agricultural uses.

5.3.15.3 Proposed Project Contribution to Cumulative Impacts

The Proposed Project would contribute to a cumulative impact to agricultural resources where project structures would occupy agricultural land that includes Farmland (Prime Farmland, Farmland of Statewide Importance, and Unique Farmland), Williamson Act lands, or agricultural operations. The Proposed Project is not located on Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Williamson Act lands and construction and operation would not result in temporary or permanent impacts to these resources.

The Proposed Project would convert a total of 0.7 acres of grazing land and Farmland of Local Importance to nonagricultural use. These areas are currently located within SDG&E's ROW and are not currently used for agricultural operations; however, the Proposed Project does not preclude the use of agricultural areas around the new structures and the transmission line does not preclude future agricultural use of the area impacted by the pole after the life of the transmission line.

5.3.15.4 Significance Determination

A cumulative impact would result if Proposed Project impacts, when combined with other past, present and reasonably foreseeable future projects would exceed the significance criteria presented in Section 4.14. The Proposed Project would not impact Farmland or Williamson Act land and would not contribute considerably to cumulative impacts to DOC-designated Farmland. The Proposed Project would temporarily interfere with active agricultural operations by using approximately 3 acres at Evergreen Nursery for staging of construction materials. Proposed Project impacts would be significant when combined with impacts of current and future projects if those projects would interfere with operations to the same agricultural areas at the same time as the Proposed Project. There are no other proposed uses at the Evergreen Nursery. Therefore, Proposed Project impacts would not contribute to cumulative impacts to agricultural resources. Impacts would be less than significant. No mitigation is required.

5.3.16 Utilities and Public Services

5.3.16.1 Geographic Scope

The geographic scope for the analysis of cumulative impacts associated with utilities and public services is the service area of the cities and counties traversed by the Proposed Project. Because the Proposed Project traverses land within the jurisdiction of the Cities of San Diego, Poway,

and Oceanside, the geographic scope for this analysis includes these cities. However, the demand that would be placed on utilities and public services by construction and operation of the Proposed Project would diminish considerably with increased distance from the Proposed Project. Therefore, cumulative impacts on utilities and public services are analyzed with increased importance placed on other projects that are nearer to the Proposed Project, specifically projects within 1 mile of the Proposed Project as provided in Table 5.1-1.

5.3.16.2 Cumulative Analysis

Past, present, and reasonably foreseeable projects contribute or would contribute to the cumulative conditions for utilities and public services within the cumulative analysis study area. The types of projects that could combine to result in adverse cumulative impacts for utilities and public services include residential, commercial, infrastructure, and transmission projects. Projects within the cumulative analysis study area include all of the projects in Table 5.1-1 and projects included in City General Plans (City of Carlsbad 2015; City of Poway 1991; City of San Diego 2008).

Construction and operation of many past and present projects within the cumulative study area have resulted in substantial changes to the demand for public services and utilities in the region. The most obvious sources of increased demand on public services are past and present residential development projects. Residential development projects generally coincide with population growth in the cumulative analysis study area. Population growth and the associated increase in housing development are analyzed within the City of Carlsbad, City of Poway, and City of San Diego General Plans (City of Carlsbad 2015; City of Poway 1991; City of San Diego 2008). These general plans include goals and policies to maintain adequate public services and utilities such that population growth and residential development are anticipated and accompanied by a commensurate increase in public services.

The current and reasonably foreseeable cumulative projects included in General Plans and in Table 5.1-1would increase the demand for public services and utilities. Several projects within the cumulative analysis study area, including the residential development projects listed in Table 5.1-1, would place a substantial additional demand on utilities and public services. The combined demand placed on utilities and public services from all of the projects within the cumulative analysis study area would likely exceed existing capacity for public services and would result in a significant cumulative impact, particularly to water supply during drought conditions.

5.3.16.3 Proposed Project Contribution to Cumulative Impacts

Construction of the Proposed Project would result in a cumulatively considerable impact on demand for water. The 25 million gallons of water required for construction and operation of the Proposed Project could contribute considerably to a cumulative impact on water supply, particularly given drought conditions in southern California.

Construction of the Proposed Project would impede or delay emergency response within the Proposed Project area due to road closures. The cumulative impact would be considerable if

multiple projects resulted in road closures at the same time as the Proposed Project and in the vicinity of the Proposed Project.

The Proposed Project would also result in corrosion of buried parallel utility pipelines as a result of induced current. Mitigation Measure Utilities-4 (cathodic protection) would minimize this potential impact and none of the cumulative projects would contribute to cumulative induced current impacts because potential impacts dissipate rapidly with distance and there are no other power or transmission lines that are proposed in the vicinity of the areas where the Proposed Project crosses or runs parallel to buried utility pipelines.

The incremental contribution of the Proposed Project to cumulative impacts on water availability, fire response, and emergency response, would be reduced through implementation of APMs TR-1 (emergency access), TR-3 (traffic control plan), TR-4 (encroachment permits) and Mitigation Measures Fire-1 (Final Fire Prevention Plan), Fire-2 (maintain emergency access), Fire-3 (water tanks), Fire-4 (conductor clearance), Traffic-1 (Construction Transportation Management Plan), Traffic-6 (restrict road closures and maintain access), Traffic-8 (notify emergency personnel of road closures), and Utilities-1 (reclaimed water use for dust control). The full text of these mitigation measures is presented in Section 4.7, 4.12, and 4.17. The incremental contribution of the Proposed Project to the significant cumulative impacts would be less than considerable with mitigation.

5.3.16.4 Significance Determination

Construction of the Proposed Project would combine with the impacts from construction and operation of other projects in the cumulative analysis study area to result in a significant cumulative impact on public services and utilities. The incremental contribution of the Proposed Project to the cumulative impact would not be cumulatively considerable with mitigation. The impact would be less than significant with mitigation.

5.4 CUMULATIVE IMPACT ANALYSIS FOR ALTERNATIVES

5.4.1 Introduction

The following analysis describes the potential for the alternatives, in combination with other projects, to result in cumulatively significant environmental impacts. In each instance, the evaluation identifies whether the cumulative impact would be significant, and whether the alternative's contribution would be considerable.

The list of cumulative projects and plans for alternatives was identified in the same manner as for the Proposed Project. Projects and plans were reviewed to identify whether the alternatives could contribute to cumulatively significant impacts when evaluated in combination with these other projects.

To determine if an alternative's incremental contribution to a significant cumulative impact would be cumulatively considerable, the following questions were considered in the analysis:

- Would the overall impact of the alternative be the same, greater, or less than the impact of the Proposed Project?
- Considering the geographic scope and context of the alternative, would the alternative's incremental contribution to a cumulative impact substantially differ from the incremental contribution of the Proposed Project?
- Is there anything else about the alternative that would reduce or increase the type, intensity, or duration of its incremental contribution to a cumulative impact?

The cumulative projects for the alternatives are provided in Table 5.3-1 and shown on Figure 5.3-1. The table provides information on the status of each cumulative project and defines which alternative each cumulative project would apply to. In some cases, the cumulative projects apply to more than one alternative (e.g., Alternatives 1 and 2) or to the Proposed Project and an alternative due to the proximity of the alternatives to each other and/or the Proposed Project. The alternatives are located in the same cities as the Proposed Project; therefore, the same plans that were used to evaluate cumulative impacts for the Proposed Project were used to evaluate cumulative impacts for the alternatives.

Similar to the Proposed Project, none of the alternatives would result in impacts to Forestry Resources, Land Use, Mineral Resources, or Population and Housing. Therefore, none of the alternatives would contribute to cumulative impacts on Forestry Resources, Land Use, Mineral Resources, or Population and Housing; these resource topics are not discussed in the following cumulative analysis.

Table 5.4-1 Cumulative Scenario Projects Near Alternative Alignments

No.	Project Name (Project Type)	Project Components	Location	Status	Alternative Affected
1	Fanita Junction Enhancement TL13821/22/28 (Utility)	Create two 138-kV circuits (Sycamore Canyon to Carlton Hills Substation and Sycamore Canyon to Santee Substation), eliminate the existing ring bus configuration at the Sycamore Canyon Substation, and harden existing 138-kV lines in the Fire Threat Zone	Between Sycamore Canyon and Carlton Hills Substations and Sycamore Canyon and Santee Substations (Carmel Valley area to Santee)	Construction is anticipated to conclude in October 2015.	Alternative 5
2	TL 639 Elliott to Sycamore Canyon Wood to Steel (Utility)	Replace existing wood structures with new steel structures along approximately 8.14 miles of TL 639 between the Sycamore Canyon and Elliot Substations	Between Sycamore Canyon and Elliot Substations	Construction is anticipated to commence in September 2017 and conclude in May 2018.	Alternative 5
3	TL 6916 Sycamore Canyon to Scripps Wood to Steel (Utility)	Replace existing wood structures with new steel structures along approximately 4.77 miles of TL 6916 located near the Sycamore Canyon Substation	Between Sycamore Canyon and Scripps Substations	Construction is anticipated to commence in September 2018 and conclude in January 2019.	Alternative 5
4	TL 6913 Pomerado-Poway[1] (Utility)	Convert an existing single circuit 69-kV power line to double circuit 69-kV power line between the Pomerado and Poway Substations	Between Pomerado and Poway Substations	Construction anticipated to complete by June 1, 2016	Alternative 5
5	Poway Road Bicycle Path (Transportation)	Construct approximately 1,950 feet of a Class I bicycle path (combined pedestrian and bicycle travel)	South side of Poway Road between I-15 and Sabre Springs Parkway	Construction is anticipated to conclude in January 2016.	Alternative 3
6	The Watermark (Development)	Community plan amendment for mixed use of approximately 650,000 sf for office, retail, hotel, and theater space	10137 Scripps Gateway Court	Construction schedule is currently unknown; however, the complex may start to be open to the public in late 2016.	Alternative 3

No.	Project Name (Project Type)	Project Components	Location	Status	Alternative Affected
7	Canyon Hills Resource Park Improvements (Recreation)	Construct a resource-based park in the Mira Mesa community	Intersection of Mercy Road and I-15	Construction is estimated to commence in July 2019 and conclude in May 2020.	Alternative 3
8	New Streetlights – 19 Locations[2] (Utility)	Install street lighting to city standards to improve safety	La Tortola and Cuca Street	Construction is anticipated to commence in June 2016 and conclude in October 2016.	Alternative 3
9	SR-56, I-5 to I-15 Project Study Report (Transportation)	Preliminary engineering study to investigate the feasibility of a phased implementation of proposed improvements to SR-56. Improvements would include upgrading SR-56 from a four-lane to a six-lane freeway.	SR-56	The Project Study Report is anticipated to be released in September 2015. Work on the SR-56 PSR-PDS began in 2014 and is anticipated to complete in winter 2015. Determinations for the next step, including possible formal environmental studies for the first phase of improvements, will be made upon work completion.	Alternative 3
10	Rancho Peñasquitos Towne Centre Park Improvements (Recreation)	Install miscellaneous amenities to serve dog off-leash users, such as a group shade structure and dog drinking fountains	Paseo Montalban near the intersection with Via Cima Bella	Construction is anticipated to commence in November 2015 and conclude in February 2016.	Alternative 3
11	Black Mountain Open Space Natural Resources Management Plan (Recreation)	Create, modify, remove, and enhance existing trails on Environmentally Sensitive Lands. Closure of 11.9 miles of unauthorized trails and development of 3.45 miles of new trails.	Black Mountain Open Space Park	Work began in early 2015. Project will take a few years to complete. Completion date unknown at this time.	Alternative 1 Alternative 2

No.	Project Name (Project Type)	Project Components	Location	Status	Alternative Affected
12	Black Mountain Ranch Recycled Water Tank Modifications (Utility)	Re-route sub-drains and tank drains of water tanks from storm drain to sewer. Consists of installing 7 manholes and 1,875 linear feet of sewer main.	South of Carmel Valley Road, east of Black Mountain Road, and across the street from Black Mountain Ranch Community Park	Project is in the planning phase. Construction is scheduled for March 2016, and will finish January 2017	Alternative 1 Alternative 2
13	TL 13825 Wood to Steel (Utility)	Replace existing wood structures with new steel structures along TL 13825 between Black Mountain Ranch Community Park and the Meadowlark Junction	Between Black Mountain Ranch Community Park and Meadowlark Junction	TBD	Alternative 1 Alternative 2
14	Black Mountain Ranch Community Park (Recreation)	Install lights to the existing ball fields Phase II: Improve the undeveloped area to the west of the existing park with turf multipurpose fields, multi-purpose courts, parking, restrooms, a playground, and an off-leash dog area Phase III: Construct a swimming pool and recreation center	14700 Carmel Valley Road	Construction of Phase II may begin in late 2015 or 2016. Construction of Phase III is anticipated to commence in 2016 and conclude in 2018.	Alternative 1 Alternative 2
15	East Clusters Enclave, Process 4 (Development)	Re-subdivide a portion of East Clusters Unit No. 2 to increase residential development from nineteen to twenty-seven residential lots	Carmel Valley Road and Valle Del Sur Court	Site development completed. Residences may be built in the future, but nothing is scheduled at this time.	Alternative 1 Alternative 2
16	Torrey Highlands Community ID and Enhancement[2] (Development)	Install identification signs that will help differentiate Torrey Highlands from the adjacent areas of Rancho Peñasquitos, Black Mountain/Santa Luz, and Pacific Highland Ranch	Various locations along Carmel Valley Road, Camino Del Sur, and Torrey Santa Fe Road	Construction is anticipated to commence in February 2016 and conclude in June 2016.	Alternative 3

No.	Project Name (Project Type)	Project Components	Location	Status	Alternative Affected
17	Kilroy Development (Development)	Build out the area at Torrey Santa Fe and Camino Del Sur for commercial use. Construction would occur in 2 phases, with 2 buildings per phase.	West of the intersection of Torrey Santa Fe Road and Camino Del Sur	Grading permit for project has been issued. Construction likely to start by mid-2016 and would last anywhere from 3 to 6 years.	Alternative 3
18	The Merge56 (Development)	Develop 242 residential dwelling units and 525,000 sf of (combined) commercial and office space on a 42-acre site Also involves construction of Camino Del Sur, SR-56 to Dormouse Road, which would construct Camino Del Sur (formerly Camino Ruiz) as a four-lane major street with Class II bicycle lanes from SR-56 to 1,600 feet north of Park Village Road	Southeast of the intersection of SR-56 and Camino Del Sur Along Camino Del Sur between SR-56 and Dormouse Road	The subsequent EIR is anticipated to be released in May 2015 with a determination in June 2015. Construction is anticipated to commence in 2016 and conclude in 2018.	Alternative 3
19	The Preserve at Del Mar (Development)	Residential development within The Preserve gated community	The Preserve Way	Site development concluded in late 2014. There are three custom-build lots where homes may be constructed at any time.	Alternative 3 Alternative 4
20	TL 6906 Loop-In Mesa Rim (Utility)	Create a loop-in on TL 6906 from Mesa Rim Substation to Peñasquitos Substation and from Mesa Rim Substation to Miramar Substation	Between Mesa Rim and Peñasquitos Substations and between Mesa Rim and Miramar Substations	Construction is anticipated to commence in March 2016 and conclude in August 2016.	Alternative 3
21	Del Mar Mesa Neighborhood Park Phase II (Recreation)	Design and construct a 3.7-acre neighborhood park. Facilities would include a horse rest stop, basketball court, restrooms, and open use grass field	Intersection of Carmel Mountain Road and Duck Pond Lane	Construction is anticipated to commence in February 2016 and conclude in June 2016.	Alternative 3 Alternative 4

No.	Project Name (Project Type)	Project Components	Location	Status	Alternative Affected
22	Alta Del Mar Residential Development (Development)	Construct approximately 136 estate and custom homes sites in the Del Mar Mesa community	Off of Carmel Mountain Road, on Belmont Trail Court and associated streets	Construction is anticipated to conclude in November 2015.	Alternative 3 Alternative 4
23	The Merge (Development)	Construct 22 multi-family residential units and approximately 32,355 square feet of neighborhood serving retail and office uses in four buildings on 4.11 acres	Intersection of Carmel Mountain Road and Carmel Country Road	Construction is anticipated to commence in August 2015 and conclude in June 2016.	Alternative 4
24	Mission—Peñasquitos 230-kV Transmission Line[1] (Utility)	Construct a 230-kV transmission line between Mission and Peñasquitos Substations	Between Mission and Peñasquitos Substations	Project is in pre-planning phase. The desired in-service date is currently set for June 1, 2019.	Alternative 4
25	Torrey Hills SDG&E Easement Enhancement (Development)	Enhance an easement area located under SDG&E power and transmission lines	Intersection of East Ocean Air Drive and Corte Mar Asombrosa	The enhancement is anticipated to commence in October 2015 and conclude in December 2015.	Alternative 4 Alternative 5
26	Coast View Park (Recreation)	Construct a 1.05-acre mini park in the Torrey Hills Community, including a children play area, turf, par course, shade trellis, and picnic tables. The park will be open to the public during construction.	West Ocean Air Drive, south of the intersection with Calle Mar de Mariposa	Construction is anticipated to conclude in November 2015.	Alternative 4 Alternative 5

No.	Project Name (Project Type)	Project Components	Location	Status	Alternative Affected
27	TL 674A Reconfiguration/ TL 666 Rancho Santa Fe (Utility)	Remove 8 miles of TL 666D from service to eliminate the need for ongoing operation and maintenance work in environmentally sensitive areas (San Dieguito Lagoon, Torrey Pines State Park, and Los Peñasquitos Lagoon). Replace the existing TL 674A tap (will be eliminated in Phase II as part of the Rancho Santa Fe Tap reconfiguration) with a new one mile underground 69-kV transmission line segment along Via de la Valle to provide a new TL connecting the Del Mar Substation to the North City West Substation.	Via de la Valle	Construction is anticipated to commence in September 2017 and conclude in May 2018.	Alternative 4 Alternative 5
28	I-5 Express Lanes Project (Transportation)	Add two express lanes in each direction on I-5 from La Jolla Village Drive to Harbor Drive	On I-5 from La Jolla Village Drive to Harbor Drive	The first phase will be under construction from late 2015 to 2018.	Alternative 4 Alternative 5
29	Water & Sewer Group 965 (Utility)	Replace 4,960 feet of cast iron, cast iron cement-lined, and asbestos-cement water mains in the Torrey Pines Community	Along Sorrento Valley Road, Industrial Court, and Tripp Court	Construction is anticipated to commence in May 2016 and conclude in September 2016.	Alternative 4 Alternative 5
30	Industrial Court Channel Replacement (Utility)	Replace the cement mortar lined drainage channel near Industrial Court to eliminate water splashing over the slope/embankment and prevent flooding of the commercial establishments adjacent to the channel	Along Industrial Court	Construction is anticipated to commence in August 2016 and conclude in December 2016.	Alternative 4 Alternative 5

No.	Project Name (Project Type)	Project Components	Location	Status	Alternative Affected
31	Residential Project Block 1Y (Utility)	Underground utilities within two discrete residential areas in residential project block 1Y. Includes an estimated 13,987 feet of trenches and would take place in four phases (trenching, cabling, cut-overs, and pole removal). Phases I & II would coincide with the Proposed Project.	Southeast of I-5 and SR-56 interchange between El Camino Real and Carmel Creek Road	Construction is anticipated to commence in June 2016 and conclude in June 2018.	Alternative 4 Alternative 5
32	Coastal Rail Trail (Transportation)	Identify the best alignment for a bikeway route of approximately 10 miles between Sorrento Valley/Carmel Valley Road to the Gilman Drive/I-5 intersection	Starting from Carmel Valley Road along Sorrento Valley Road to the Gilman Drive/I-5 intersection	In the preliminary engineering phase. Construction is anticipated to commence in December 2017 and conclude in April 2019.	Alternative 4 Alternative 5
33	Cal Coast Academy[2] (Development)	Construct 5,340 square feet of classrooms in three buildings	11555 Clews Ranch Road	Draft IS/MND was released in October 2014. Construction start and end date are unknown at this time.	Alternative 4
34	Black Mountain Ranger Station (Recreation)	Construct an 800-square-foot Ranger Station with bathroom facilities to serve the communities of Mira Mesa, Black Mountain and Rancho Peñasquitos at the Black Mountain Road entrance to Los Peñasquitos Canyon Preserve	Intersection of Mercy Road and Black Mountain Road	Construction began in February 2015 and is anticipated to conclude in January 2016.	Alternative 3
35	Canyonside Community Park Improvements (Recreation)	Miscellaneous improvements to serve park users, such as accessibility upgrades to the children's play area, drainage repair at the rear parking lot, and creation of a parking area in the northwest corner to accommodate overflow parking	Intersection of Black Mountain Road and Canyonside Park Driveway	Construction is anticipated to commence in June 2016 and conclude in December 2016.	Alternative 3

No.	Project Name (Project Type)	Project Components	Location	Status	Alternative Affected
36	Black Mountain and Park Village FY13 Accessible Pedestrian Signals (Utility)	Install Accessible Pedestrian Signal countdown timers, ADA pedestrian push buttons, ADA compliant curb ramps, traffic stripping and signage, and sections of concrete sidewalk as needed. Modify the raised median curb nose at the south and west portions of the intersection.	Intersection of Park Village Road and Black Mountain Road	Construction is anticipated to commence in June 2016 and conclude in November 2016.	Alternative 3
37	The Glen at Scripps Ranch (Development)	Construct a continuing care retirement community on a 53 acre site consisting of 450 assisted living units, lecture halls, and common buildings. Includes construction of site improvements, such as hardscapes and landscapes.	10455 Pomerado Road	Draft EIR was released on March 30, 2015. Specific construction start and end dates are not available at this time, but construction is estimated to last approximately 2 years.	Alternative 5
38	Miramar Clearwell Improvements (Utility)	Construct two new clearwells west of the Miramar Water Treatment Plant	South of Lake Miramar near the northern end of Red Cedar Drive	Construction is anticipated to commence in February 2016 and conclude in January 2020.	Alternative 5
39	Recycled Water Tank Modifications (Utility)	Relocation of drains (sub-drains and tank drains) from stormdrain to sewer to meet the California Water Code, Section 13529.2, for the following tanks: 1) The South Bay International Boundary and Water Commission's Steel Tank, 2) Black Mountain Ranch Recycled Water Steel Tank, and 3) Miramar Recycled Water Tank	Meanley Drive	Construction is anticipated to commence in 2015 and conclude in April 2017.	Alternative 5
40	City Street Lights – 25 Locations[2] (Utility)	Install street lights at various locations	Willow Creek Road near intersection with Caminito Membrillo	Construction is anticipated to commence in August 2016 and conclude in December 2016.	Alternative 5

No.	Project Name (Project Type)	Project Components	Location	Status	Alternative Affected
41	Carroll Canyon Commercial Center (Development)	Demolish existing facilities and redevelop with approximately 144,621 square feet of commercial retail space for shops, financial institutions, restaurants, and parking on a 9.5-acre site	9850 Carroll Canyon Road	Construction is anticipated to begin within the next two years.	Alternative 5
42	Wangenheim Joint Use Facility (Development)	Construct an approximately 4-acre expansion to the existing joint use facility at Wangenheim Middle School	At the end of Flanders Drive	TBD	Alternative 5
43	Mira Mesa Community Park Expansion (Recreation)	Phase I: Construct an 11-acre expansion with a comfort station, play area, jogging path, fields, and parking areas Phase II: Construct an aquatic complex and a 12,000-square-foot skate plaza Phase III: Construct a 15,000 to 17,000-sqaure-foot recreation center	Intersection of Mira Mesa Boulevard and New Salem Street	Construction began in October 2014 and is anticipated to conclude in March 2017.	Alternative 5
44	Salk Neighborhood Park and Joint Use Development (Recreation)	Construct a 4.1-acre park and 2.0-acre joint use area adjacent to Salk Elementary School	Parkdale Avenue near the intersection with Port Royale Drive	TBD	Alternative 5
45	Mira Mesa Trunk Sewer (Utility)	Replace 9,900 feet of vitrified clay trunk sewer pipelines	Along Parkdale Avenue, Flanders Drive, Montongo Street, Westmore Drive, and side streets	Project is in the pre-planning phase. Planning will start in August/ September 2015. Anticipated to take 4 to 5 years from planning and design to construction completion.	Alternative 5

No.	Project Name (Project Type)	Project Components	Location	Status	Alternative Affected
46	Sorrento Mesa Recycled Water Pipeline (Utility)	Construct approximately 1.25 miles of 8-inch PVC recycled water pipelines along Morehouse Dr, Lusk Blvd, Barnes Canyon Road, Pacific Heights Blvd, Pacific Center Dr and McKellar Ct	Morehouse Dr, Lusk Blvd, Barnes Canyon Road, Pacific Heights Blvd, Pacific Center Dr and McKellar Ct	Construction began in August 2015 and will conclude in March 2016.	Alternative 5
47	Nexus Esplenade (Development)	Construct a 3-story, 78,000-square-foot research and development facility, including 150 subterranean and 83 surface parking spaces on 11.3 acres	4750 Executive Drive	Permit for construction approved in March 2015. Construction will begin within 36 months of permit approval and will take a maximum of 2 years.	Alternative 5
48	Rose Canyon Trunk Sewer Joint Repair[2] (Utility)	Repair the PVC liners at the Rose Canyon trunk sewer pipe joints by installing sleeves using creamer in-weg internal joint seals	Judicial Drive near the intersection with La Jolla Village Drive	Construction is anticipated to commence in August 2016 and conclude in June 2017.	Alternative 5
49	Mid-Coast Corridor Transit Project (Transportation)	Extend the Mid-Coast trolley by 11 miles from Old Town Station to University Town Centre via University of California San Diego	Along Genesee Avenue and I-5	Construction is anticipated to begin in spring 2016 and will be completed in a minimum of 3 years.	Alternative 5
50	Scripps Memorial Hospital La Jolla (Development)	Demolish, renovate, and construct new buildings to result in a net increase of 357,625 square feet of hospital _ and an increase to 531 hospital beds according to General/Community Plan Amendment. 5 phases.	9888 Genesee Avenue	Construction of CUP 9 began in November 2013 and projected to complete in March 2016. Subsequent construction of the 30-year plan not known. Each phase will take approximately 5 years to complete.	Alternative 5
51	I-5/Genesee Interchange (Transportation)	Replace Genesee Bridge with a new 10-lane bridge, widen ramps, and construct a separated bike and pedestrian facility between Sorrento Valley Road and Voigt Drive	I-5/Genesee Interchange between Sorrento Valley Road and Voigt Drive	Construction is anticipated to conclude in summer 2017.	Alternative 5

No.	Project Name (Project Type)	Project Components	Location	Status	Alternative Affected
52	Campus Pointe Master Plan (Development)	Construct three multi-story buildings totaling 276,600 square feet and up to three parking structures on a 41.7-acre site. Includes site improvements, such as retaining walls, hardscaping, and landscaping.	10300 Campus Point Drive	Draft EIR released on May 2015.	Alternative 5
53	Sorrento Gateway (Development)	Construct a 3-story medical office building with surface level parking	4930 Directors Place	Construction may begin within the next three years.	Alternative 5

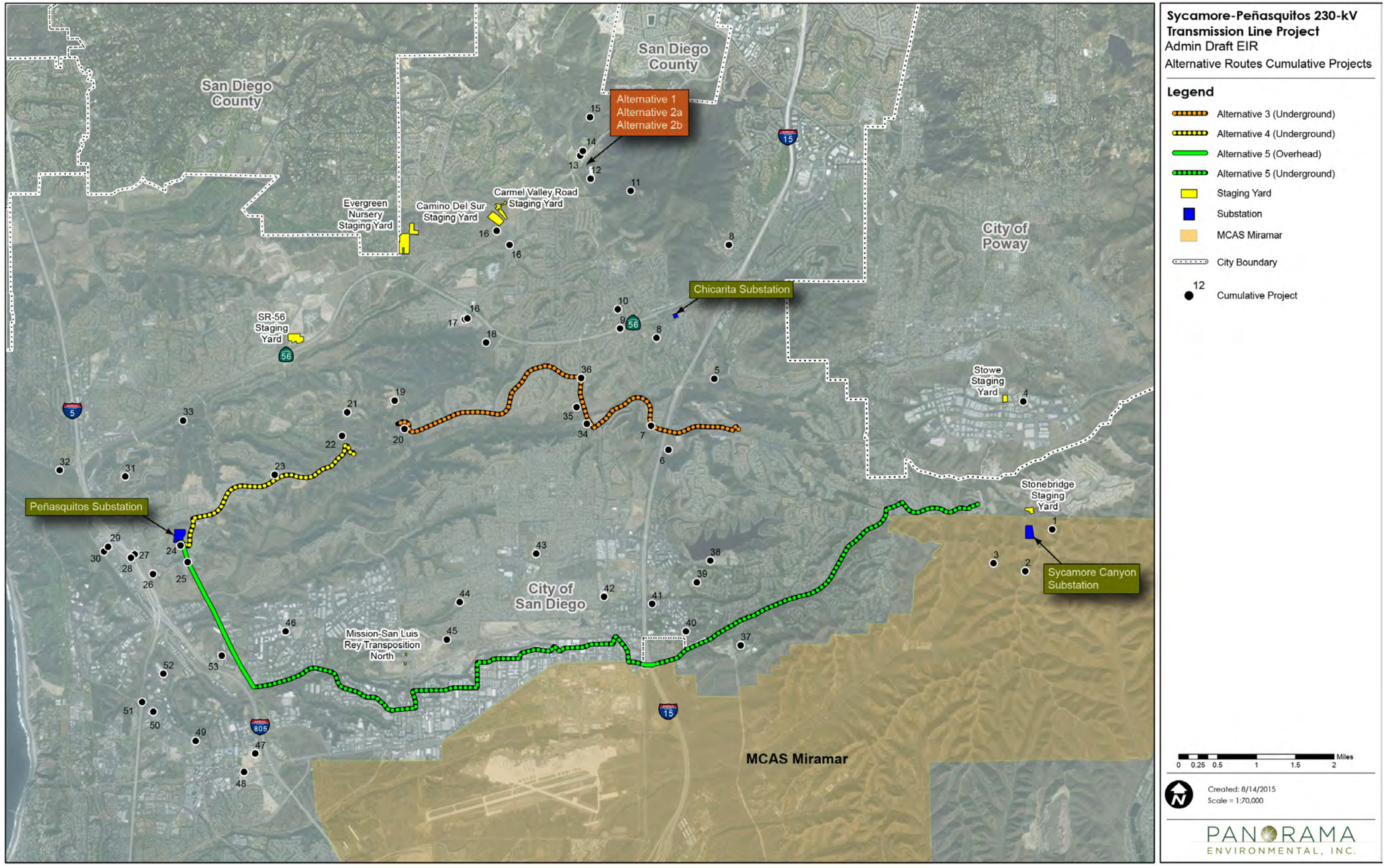
Notes:

[1] This project is part of the No Project Alternative. It is described further in Section 3.7: No Project Alternative.

[2] This project would not contribute to cumulative impacts due to the type, scale, and timing of the project. This cumulative project is therefore not discussed in the impact analysis that follows. The project is included in this table because it is a reasonably foreseeable project in the geographic scope of the cumulative analysis.

Source: Ammerlahn 2015, Blanda 2015, Brady 2015, Brunette 2015, Caltrans District 11 2015, City of San Diego 2014a, 2014b, 2014c, 2014d, 2013a and 2013b, City of San Diego Facilities Financing Program 2013, City of San Diego Planning Commission 2015, Cooter 2015, D'Ambrosia 2015, Deisher 2015, Dumka 2015a, Fisher 2015a and 2015b, Hynek 2015, Ilko 2015, Levitt 2015a and 2015b, Little 2015, Monroe 2015, Open San Diego 2015, Phung 2015, Prinz 2015, Radelow 2015, Rainey 2015, Rodrigues 2015, Schultz 2015a and 2015b, SDG&E 2015, Shearer-Nguyen 2015, Zirkle 2015

Figure 5.4-1 Cumulative Projects near Project Alternatives



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5.4.2 Alternatives

As described in Chapter 3, five alternatives are carried forward for further analysis in this EIR. These alternatives include two cable pole relocation and three alternative transmission route alternatives. The cable pole alternatives include two optional locations for the eastern cable pole to relocate the pole south of Carmel Valley Road and outside of Black Mountain Ranch Community Park. The transmission reroutes include Alternative 3: Los Peñasquitos Canyon Preserve–Mercy Road, Alternative 4: Segment D 69-kV Partial Underground Alignment, and Alternative 5: Pomerado Road/Miramar Area North Combination Underground/Overhead. All three routing alternatives are shown on Figure 5.3-1 and range in length from 3.1 to 12.8 miles.

5.4.2.1 Alternative 1: Eastern Cable Pole at Carmel Valley Road

Alternative 1 would install a new cable pole immediately south of and adjoining Carmel Valley Road within existing SDG&E ROW, transitioning the Proposed Project Segment A overhead transmission line directly into the Proposed Project Segment B underground alignment in Carmel Valley Road.

Alternative 1 would avoid installation of a cable pole and underground duct bank within the Black Mountain Ranch Community Park and avoid a stringing site in Black Mountain Open Space Preserve. This alternative would reduce impacts on biological resources, recreational resources and aesthetics within the park; however, it would increase visibility of the cable pole from Carmel Valley Road. The cumulative impacts of Alternative 1 are described in Table 5.3-2, below.

5.4.2.2 Alternatives 2a and 2b: Eastern Cable Pole at Pole P40 and Underground Alignment through City Open Space or City Water Utility Service Road

Alternative 2 would install a new cable pole in the same location for both Alternatives 2a and 2b, approximately 300 feet south of Carmel Valley Road within existing SDG&E ROW, transitioning the Proposed Project Segment A overhead transmission line into the Proposed Project Segment B underground alignment in Carmel Valley Road via one of two underground alignment options. Alternative 2a would locate the underground duct bank west of SDG&E ROW through City of San Diego open space and into Carmel Valley Road. Alternative 2b would locate the underground duct bank east of SDG&E ROW through a City of San Diego water utility service road and into Carmel Valley Road.

Both Alternative 2a and 2b would avoid installation of a cable pole and underground duct bank within the Black Mountain Ranch Community Park and thereby reduce impacts on recreational resources. Both option 2a and 2b would result in greater impacts to sensitive habitats and special-status species resulting from trenching of an underground duct bank in sensitive opens space habitat. Option 2b would result in increased impacts on utilities in the City water utility service road. These additional impacts would be less than cumulatively considerable after implementation of the APMs and mitigation measures that would be applied similar to the Proposed Project. The cumulative impacts of Alternative 2 are described in Table 5.3-2 below.

5.4.2.3 Alternative 3: Los Peñasquitos Canyon Preserve – Mercy Road Underground Alternative

Alternative 3 would be an underground alignment starting at a new cable pole where the existing SDG&E ROW crosses Ivy Hill Road and ending at a new cable pole approximately 550 feet west of the Peñasquitos Junction (i.e., where Proposed Project Segments C and D meet). The underground alignment would follow Scripps Poway Parkway, Mercy Road, Black Mountain Road, and finally Park Village Road. Alternative 3 would bypass the northern half of Proposed Project Segment A and all of Proposed Project Segments B and C.

Alternative 3 would avoid impacts to sensitive habitats and special-status species within Black Mountain Open Space Preserve and Del Mar Mesa Preserve. Impacts within Black Mountain Ranch Community Park would also be avoided. This alternative would increase the duration of underground construction activities as well as the noise, air quality, and traffic impacts associated with such activities. Alternative 3 would decrease long-term operational impacts to aesthetics, biological resources, recreation, noise and fire and fuels management. With the exception of new air quality impacts, Alternative 3 would not result in any new significant unavoidable cumulative impacts beyond those described for the Proposed Project. APMs and mitigation measures would apply similarly to the Proposed Project. The cumulative impacts of Alternative 3 are described in Table 5.3-2 below. A discussion of new air quality impacts resulting from Alternative 3 is provided in Section 5.3.4.

5.4.2.4 Alternative 4: Segment D 69-kV Partial Underground Alignment

Alternative 4 would be a double 69-kV underground alignment starting at two new cable poles (P48AA and P48BB) in Proposed Project Segment D near existing lattice tower E17. The underground alignment would follow Carmel Mountain Road and East Ocean Air Drive, ending at the Peñasquitos Substation. Within Proposed Project Segment D, an existing 69-kV line would be removed from the existing steel lattice towers, and a second 69-kV power line on existing H-frame structures would be de-energized and left in place.

Construction within Proposed Project Segment D would be reduced under Alternative 4. The 230-kV transmission line would be installed on the existing steel lattice towers similar to the Proposed Project; however, the H-frame structures would not be removed, and no new TSPs would be installed between lattice tower E17 and the Peñasquitos Substation. This alternative would increase the duration of underground construction activities as well as the noise, air quality, and traffic impacts associated with such activities. Alternative 4 would decrease construction impacts on biological resources and recreation resources due to avoidance of new poles in the preserve. Alternative 4 would decrease long-term operational impacts to aesthetics, biological resources, recreation, and fire and fuels management. With the exception of new air quality impacts, Alternative 4 would not result in any new significant unavoidable cumulative impacts beyond those described for the Proposed Project. APMs and mitigation measures would apply similarly to the Proposed Project. The cumulative impacts of Alternative 4 are described in Table 5.3-2 below. A discussion of new air quality impacts resulting from Alternative 4 is provided in Section 5.3.4.

5.4.2.5 Alternative 5: Pomerado Road to Miramar Area North Combination Underground/Overhead Alternative

Alternative 5 would be underground with the exception of the east and west ends where the transmission line would be overhead within existing SDG&E ROWs. This alternative would exit the Sycamore Canyon Substation at MCAS Miramar overhead westerly within an existing SDG&E ROW toward Stonebridge Parkway. The transmission line would transition to underground beneath Stonebridge Parkway in the vicinity of Greenstone Court, then continuing underground in Pomerado Road, Miramar Road, Kearny Villa Road, Black Mountain Road, Activity Road, Camino Ruiz, Miralani Drive, Arjons Drive, Trade Place, Camino Santa Fe, Carroll Road/Carroll Canyon Road and Scranton Road. The transmission line would temporarily transition overhead where it would cross I-15 via two new cable poles and two new interset poles. At the western end of the underground portion, the line would transition back to overhead structures located within an existing SDG&E ROW heading northward into the Peñasquitos Substation.

Alternative 5 would avoid construction within the Proposed Project alignment with exception of approximately 3,400 feet of existing SDG&E ROW in Segment A connecting to the Sycamore Canyon Substation. This alternative would increase the duration of underground construction activities as well as the noise, air quality, and traffic impacts associated with such activities. The underground portion would be located under existing roads, and would avoid construction impacts to sensitive species and habitat. Alternative 5 would substantially decrease long-term operational impacts to aesthetics, biological resources, recreation, noise and fire and fuels management. With the exception of new air quality impacts, Alternative 5 would not result in any new significant unavoidable cumulative impacts beyond those described for the Proposed Project. APMs and mitigation measures would apply similarly to the Proposed Project. The cumulative impacts of Alternative 5 are described in Table 5.3-2 below. A discussion of new air quality impacts resulting from Alternative 5 is provided in Section 5.3.4.

5.4.3 Comparative Analysis of Cumulative Impacts

Table 5.3-2 presents the results of the cumulative impact analysis for Alternatives 1 through 5. The table analyzes the alternative contributions to the significant cumulative impacts identified for the Proposed Project. When combined with the impacts of similar impacts of past, present and reasonably foreseeable projects, the Alternatives would eliminate significant cumulative recreational impacts of the Proposed Project. Alternatives 3, 4, and 5 would result in a new cumulative impact to air quality. The cumulative impact to air quality from Alternatives 3, 4, and 5 is analyzed, below.

5.4.4 Alternative Impacts on Air Quality

5.4.4.1 Geographic Scope and Cumulative Analysis

Alternatives 3, 4, and 5 would be located in the same air basin (SDAB) as the Proposed Project and would therefore have the same geographic scope as the Proposed Project, described in Section 5.2.13, above. As described in Section 5.2.13, past, present, and reasonably foreseeable

projects in the SDAB have resulted in non-attainment of the state or federal thresholds for criteria pollutants, including ozone, PM_{10}, and $PM_{2.5}$. This cumulative impact is therefore significant.

5.4.4.2 Alternative 3 Contribution to Cumulative Impacts and Significance Determination

The incremental contribution to air quality impacts from construction of Alternative 3 would be greater than that of the Proposed Project because construction of a longer underground transmission line would emit greater amounts of criteria pollutants than the Proposed Project (refer to Table 4.13-10). Alternative 3 construction emissions would exceed the emissions threshold for NO_x. The incremental contribution of emissions from construction of Alternative 3 to a cumulative air quality impact would therefore be cumulatively significant. Implementation of Mitigation Measure Air-3 (refer to Section 4.13), which requires the use of Tier 3 construction equipment, would reduce NO_x emissions; however, this mitigation would not reduce emissions below the threshold. Even with mitigation, the incremental contribution to cumulative air quality impacts from Alternative 3 would be considerable. Impacts would be significant and unavoidable.

5.4.4.3 Alternative 4 Contribution to Cumulative Impacts and Significance Determination

The incremental contribution to air quality impacts from construction of Alternative 4 would be greater than that of the Proposed Project because Alternative 4 would emit greater amounts of criteria pollutants than the Proposed Project (refer to Table 4.13-14). Construction emissions from Alternative 4 would exceed emissions thresholds for NO_x and PM_{10} when Alternative 4 emissions are considered in combination with the larger project (e.g., either with the Proposed Project in Segments A through D or with Alternative 3, depending on what the CPUC approves). The incremental contribution of emissions from construction of Alternative 4 would therefore be cumulatively significant. APM AIR-1 (dust control) would reduce fugitive dust emissions below the significance threshold; however, impacts would remain significant because APM AIR-1 does not address NO_x emissions. Implementation of Mitigation Measure Air-3, which requires the use of Tier 3 construction equipment, and Mitigation Measure Air-4, which requires SDG&E to phase construction activities such that the Alternative 4 duct bank construction would not occur simultaneously with either the Proposed Project Segment B underground construction or the Alternative 3 underground construction (depending on what the CPUC approves), would reduce NO_x emissions below the threshold. Refer to Section 4.13 for the full text of these air quality mitigation measures. With implementation of APM AIR-1 and Mitigation Measures Air-3 and Air-4, Alternative 4 contribution to a cumulatively significant air quality impact would be less than considerable. Impacts would be less than significant with mitigation.

Table 5.4-2 Cumulative Analysis of Alternatives

Impact Area	Alternative 1: Eastern Cable Pole at Carmel Valley Road	Alternative 2: Eastern Cable Pole at Pole P40	Alternative 3: Los Peñasquitos Canyon Preserve-Mercy Road Underground Alternative	Alternative 4: Segment D 69-kV Partial Underground Alignment	Alternative 5: Pomerado Road to Miramar Area North Combination Underground/Overhead Alternative
Biological Resources	Decreased contribution to biological impacts due to elimination of stringing activities in Black Mountain Ranch Open Space Preserve	Increased contribution to biological impacts due to underground duct bank in sensitive open space habitats	Decreased contribution to impacts due to elimination of construction in Black Mountain Ranch Open Space and Del Mar Open Space Preserves	Decreased contribution to impacts due to elimination of new poles for 2.8 miles in Los Peñasquitos Canyon Preserve	Decreased contribution to impacts due to underground construction in roads for 11.5 miles and avoidance of new structures in Preserves
Contribution to Cumulative Impact	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*
Aesthetics	Decreased aesthetic impacts on Black Mountain Ranch Community Park; increased aesthetic impacts on Carmel Valley Road.	No change	Decreased contribution to impacts due to elimination of new overhead transmission line in northern portion of Segment A and all of Segment C	Decreased contribution to impacts due to elimination of new poles for 2.8 miles in Segment D	Decreased contribution due to elimination of the majority of the overhead transmission line
Contribution to Cumulative Impact	*Considerable*	*Considerable*	*Considerable*	*Considerable*	*Considerable*

Impact Area	Alternative 1: Eastern Cable Pole at Carmel Valley Road	Alternative 2: Eastern Cable Pole at Pole P40	Alternative 3: Los Peñasquitos Canyon Preserve-Mercy Road Underground Alternative	Alternative 4: Segment D 69-kV Partial Underground Alignment	Alternative 5: Pomerado Road to Miramar Area North Combination Underground/Overhead Alternative
Cultural Resources	No change	No change	Increased contribution to impacts due to increased underground construction and potential for inadvertent discoveries	Increased contribution to impacts due to increased underground construction and potential for inadvertent discoveries	Increased contribution to impacts due to increased underground construction and potential for inadvertent discoveries
Contribution to Cumulative Impact	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*
Paleontological Resources	No change	No change	Increased contribution to impacts due to increased underground construction and potential for inadvertent discoveries	Increased contribution to impacts due to increased underground construction and potential for inadvertent discoveries	Increased contribution to impacts due to increased underground construction and potential for inadvertent discoveries
Contribution to Cumulative Impact	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*
Geology and Soils	No change	No change	Decreased contribution to impact due to reduction of new areas of soil disturbance	Decreased contribution to impact due to reduction of new areas of soil disturbance	Decreased contribution to impact due to reduction of new areas of soil disturbance
Contribution to Cumulative Impact	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*

Impact Area	Alternative 1: Eastern Cable Pole at Carmel Valley Road	Alternative 2: Eastern Cable Pole at Pole P40	Alternative 3: Los Peñasquitos Canyon Preserve-Mercy Road Underground Alternative	Alternative 4: Segment D 69-kV Partial Underground Alignment	Alternative 5: Pomerado Road to Miramar Area North Combination Underground/Overhead Alternative
Hydrology and Water Resources	No change	No change	Increased contribution to impact due to increased work in Los Peñasquitos Canyon in proximity to Los Peñasquitos Creek	Decreased contribution to impact due to reduction of new areas of soil disturbance	Decreased contribution to impact due to reduction of new areas of soil disturbance
Contribution to Cumulative Impact	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*
Transportation and Traffic	Decreased contribution to parking impact due to elimination of underground line in Black Mountain Community Park parking lot	Decreased contribution to parking impact due to elimination of underground line in Black Mountain Community Park parking lot	Increased contribution to impact due to increased duration of road closures and increased trip generation	Increased contribution to impact due to increased duration of road closures and increased trip generation	Increased contribution to impact due to increased duration of road closures and increased trip generation
Contribution to Cumulative Impact	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Considerable (same conclusion as Proposed Project)*	*Considerable (same conclusion as Proposed Project)*	*Considerable (same conclusion as Proposed Project)*

Impact Area	Alternative 1: Eastern Cable Pole at Carmel Valley Road	Alternative 2: Eastern Cable Pole at Pole P40	Alternative 3: Los Peñasquitos Canyon Preserve-Mercy Road Underground Alternative	Alternative 4: Segment D 69-kV Partial Underground Alignment	Alternative 5: Pomerado Road to Miramar Area North Combination Underground/Overhead Alternative
Noise	No change	No change	Decreased contribution to impact due to elimination of new overhead transmission line and associated corona noise in northern portion of Segment A and all of Segment C	Decreased contribution to impact due to decreased use of helicopters	Decreased contribution to impact due to elimination of new overhead transmission line and associated corona noise in the majority of Segment A and all of Segments C and D
Contribution to Cumulative Impact	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Considerable*	*Considerable*	*Considerable*
Recreation	Decreased contribution to impact due to elimination of cable pole in Black Mountain Ranch Community Park	Decreased contribution to impact due to elimination of cable pole in Black Mountain Ranch Community Park	Decreased contribution to impact due to elimination of transmission line in Black Mountain Ranch Community Park and trails in Black Mountain Ranch Open Space and Del Mar Mesa Open Space	Decreased contribution to impact due to elimination of new poles in Los Peñasquitos Canyon Open Space	Decreased contribution to impact due to elimination of transmission line in Black Mountain Ranch Open Space, Del Mar Mesa Open Space, and Black Mountain Ranch Community Park
Contribution to Cumulative Impact	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*

Impact Area	Alternative 1: Eastern Cable Pole at Carmel Valley Road	Alternative 2: Eastern Cable Pole at Pole P40	Alternative 3: Los Peñasquitos Canyon Preserve-Mercy Road Underground Alternative	Alternative 4: Segment D 69-kV Partial Underground Alignment	Alternative 5: Pomerado Road to Miramar Area North Combination Underground/Overhead Alternative
Hazards and Hazardous Materials	No change	No change	Increased contribution to impact due to higher emissions near sensitive receptors	No change	Increased contribution to impact due to increased open hazardous material sites along the underground alignment
Contribution to Cumulative Impact	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*
Fire and Fuels Management	No change	No change	Decreased contribution to impact due to reduced construction in areas with flammable vegetation	Decreased contribution to impact due to reduced construction in areas with flammable vegetation	Decreased contribution to impact due to reduced construction in areas with flammable vegetation
Contribution to Cumulative Impact	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Less than considerable with mitigation*
Air Quality	No change	No change	Increased contribution to air quality impacts due to greater criteria pollutant emissions	Increased contribution to air quality impacts due to greater criteria pollutant emissions	Increased contribution to air quality impacts due to greater criteria pollutant emissions
Contribution to Cumulative Impact	*Less than considerable with mitigation*	*Less than considerable with mitigation*	*Considerable (see discussion below)*	*Considerable (see discussion below)*	*Considerable (see discussion below)*

Impact Area	Alternative 1: Eastern Cable Pole at Carmel Valley Road	Alternative 2: Eastern Cable Pole at Pole P40	Alternative 3: Los Peñasquitos Canyon Preserve-Mercy Road Underground Alternative	Alternative 4: Segment D 69-kV Partial Underground Alignment	Alternative 5: Pomerado Road to Miramar Area North Combination Underground/Overhead Alternative
Greenhouse Gases	No change	No change	Increased contribution to greenhouse gas emission due to increased equipment activity during construction	Increased contribution to greenhouse gas emission due to increased equipment activity during construction	Increased contribution to greenhouse gas emission due to increased equipment activity during construction
Contribution to Cumulative Impact	*Less than considerable*	*Less than considerable*	*Less than considerable*	*Less than considerable*	*Less than considerable*
Agriculture	No change	No change	No change	No change	No change
Contribution to Cumulative Impact	*Less than considerable*	*Less than considerable*	*Less than considerable*	*Less than considerable*	*Less than considerable*
Utilities and Service Systems	No change	Increased contribution to induced current impacts on buried utilities; no cumulative impacts from induced current	Increased contribution to induced current impacts on buried utilities; no cumulative impacts from induced current	Increased contribution to induced current impacts on buried utilities; no cumulative impacts from induced current	Increased contribution to induced current impacts on buried utilities; no cumulative impacts from induced current
Contribution to Cumulative Impact	*Less than considerable*	*Less than considerable*	*Less than considerable*	*Less than considerable*	*Less than considerable*

5.4.4.4 Alternative 5 Contribution to Cumulative Impacts and Significance Determination

The incremental contribution to air quality impacts from construction of Alternative 5 would be greater than that of the Proposed Project because construction of a longer underground transmission line would emit greater amounts of criteria pollutants than the Proposed Project (refer to Table 4.13-17). Alternative 5 construction emissions would exceed the emissions threshold for PM_{10} and NO_x. The incremental contribution of emissions from construction of Alternative 5 would therefore be significant. APM AIR-1 (dust control) would reduce fugitive dust emissions below the significance threshold; however, impacts would remain significant because APM AIR-1 does not address NO_x emissions. Implementation of Mitigation Measure Air-3 (refer to Section 4.13), which requires the use of Tier 3 construction equipment, would reduce NO_x emissions; however, this mitigation would not reduce emissions below the threshold. Even with mitigation, the incremental contribution to cumulative air quality impacts from Alternative 5 would be considerable. Impacts would be significant and unavoidable.

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