F. Other Considerations

F.1 OTHER CEQA REQUIREMENTS AND CONSIDERATIONS

F.1.1 Significant Unavoidable Impacts

The environmental impacts of the Proposed Project are described in Section D (Environmental Analysis) of this EIR. Impacts that are significant and cannot be reduced to less-than-significant levels through the application of feasible mitigation measures have been characterized as Class I impacts. All significant and unavoidable (Class I) impacts resulting from the Proposed Project are summarized below. Complete descriptions of these impacts are presented in each applicable issue area discussion in Section D. As analyzed in Section D, the Proposed Project would result in the following significant unavoidable impacts: AQ-1 (construction emissions exceed regional significance criteria); AQ-2 (construction emissions exceed localized significance criteria); AQ-3 (emissions contribute to climate change); and N-3 (noise from operation of the overhead subtransmission line).

Furthermore, as analyzed below in Section F.1.5, Cumulative Impact Analysis, the Proposed Project was found to have the following significant unavoidable cumulative impacts: cumulatively exceed regional emission thresholds; cumulatively exceed localized emission thresholds; cumulative contribution to climate change; cumulatively expose people or structures to a significant risk of loss, injury or death involving wildland fires; construction activities would cumulatively degrade surface water and groundwater quality; operational activities would cumulatively degrade surface water and groundwater quality; cumulatively result in a substantial permanent increase in ambient noise levels; result in a cumulative perceived increase in industrialization of the landscape; cumulatively cause temporary or permanent loss of native vegetation communities; cumulatively cause loss of foraging or breeding habitat for wildlife; cumulatively introduce non-native and invasive plant species; cumulatively result in a loss of nesting birds; cumulatively result in indirect or direct loss of listed plants; cumulatively result in indirect or direct loss of Quino Checkerspot habitat; cumulatively result in habitat loss or disturbance to listed birds including migratory birds and raptors; cumulatively result in the electrocution of listed and special-status bird species; cumulatively result in transmission line collisions by listed and special-status bird species; cumulatively result in the loss of special-status plant species; cumulatively result in indirect or direct loss of individuals or a direct loss of habitat for sensitive wildlife; cumulatively result in the loss of special-status reptile species; cumulatively result in the loss of burrowing owls; cumulatively result in the loss of foraging habitat or disruption of nesting for special-status raptor species; cumulatively result in the loss of the American badger; cumulatively result in loss of special-status rodent species; cumulatively result in the loss of jurisdictional waters and wetlands; and cumulatively result in the loss or restriction of habitat connectivity in Constrained Linkage 22.

F.1.2 Significant Irreversible Changes

The CEQA Guidelines (Section 15126.2[c]) require that an EIR identify significant irreversible environmental changes that would be caused by the Proposed Project. These changes include, for example, uses of nonrenewable resources or provision of access to previously inaccessible areas. These changes can also include project accidents that could change the environment in the long-term or project-related changes that could commit future generations to similar uses.

The subtransmission line construction phase would require an irretrievable commitment of natural resources from direct consumption of fossil fuels, construction materials, the manufacture of new equipment that largely cannot be recycled at the end of the project's useful lifetime, and energy required

for the production of materials. Additionally, construction would require the manufacture of new materials, some of which would not be recyclable at the end of the Proposed Project's lifetime, and the energy required for the production of these materials, which would also result in an irretrievable commitment of natural resources.

The construction of the proposed El Casco Substation would result in permanent loss of open space land. Impacts to biological species from this permanent conversion of land use are presented in Section D.4, Biological Resources. With the implementation of mitigation presented within Section D.4, permanent impacts to these resources would be less than significant. As discussed in Section D.3, Land Use, the permanent conversion of this land to a substation facility was found to be less than significant with the incorporation of mitigation measures.

F.1.3 Growth-Inducing Effects

CEQA requires a discussion of the ways in which a Proposed Project could induce growth. The CEQA Guidelines (Section 15126.2 [d]) identify a project to be growth-inducing if it fosters economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. New employees hired for proposed commercial and industrial development projects and population growth resulting from residential development projects represent direct forms of growth. Other examples of projects that are growth-inducing are the expansion of urban services into a previously unserved or under-served area, the creation or extension of transportation links, or the removal of major obstacles to growth. It is important to note that these direct forms of growth have secondary effects of expanding the size of local markets and attracting additional economic activity to the area.

Typically, the growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population above what is assumed in local and regional land use plans, or in projections made by regional planning authorities. Significant growth impacts could also occur if the project provides infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies.

F.1.3.1 Growth Caused by Employment

As described in Section D.13 (Effects Found Not to be Significant - Population and Housing), a total of 331 construction personnel would be employed on the Project. It is assumed that required construction personnel would come from within Riverside and San Bernardino Counties. The number of workers required for the Proposed Project (331) would account for only 2.2 percent of the total construction workforce within Riverside and San Bernardino Counties. Therefore, construction personnel are not expected to relocate to the area and generate a permanent increase in population levels or result in a decrease in available housing. No construction impacts related to existing or future population growth impacts would occur as a result of the Proposed Project.

Upon completion, the Proposed Project would be unmanned, requiring only periodic maintenance and would therefore not require additional employees for operation. Furthermore, the Proposed Project does not involve the construction of any new residential housing units. In addition, no residential properties exist within the Proposed Project right-of-way (ROW) and no housing or persons would be displaced by the project. The Proposed Project is required to properly serve new development in the area with electrical service, but is not considered a catalyst for housing development. As such, implementation of the Proposed Project would not generate a direct increase in the permanent population of the area or cumulatively exceed official regional or local population projections, nor would it require the relocation of existing housing or persons. No impacts related to an increase in population or the displacement of existing housing or persons would occur as a result of the Proposed Project.

F.1.3.2 Growth Related to Provision of Additional Electrical Infrastructure

As outlined in Section A.2.1, Statement of Objectives, the primary purposes of the Proposed Project is to maintain safe and reliable service and serve customer electrical demands. SCE lists the following as its basic objectives for the El Casco System Project:

- Serve long-term projected electrical load requirements in the Electrical Needs Area;
- Provide enhanced system reliability by constructing a project in a suitable location to serve the Electrical Needs Area;
- Provide greater operational flexibility to transfer load between lines and substations;
- Provide substations with more than one 28 MVA transformer with service from two 115 kV lines;
- Provide safe and reliable electrical service consistent with SCE's planning guidelines and Subtransmission Guidelines;
- Meet project need while minimizing environmental impacts; and
- Meet project need in a cost-effective manner.

As discussed in Section B.2, the Proposed Project would construct the proposed El Casco Substation in northern Riverside County within the Norton Younglove Reserve in close proximity to San Timoteo Canyon Road and SCE's existing Devers-San Bernardino No. 2 220 kV transmission line ROW. The Devers-San Bernardino No. 2 220 kV transmission line would serve as the electrical source for the El Casco Substation and its 115 kV system. The 115 kV subtransmission line work would occur between El Casco, Maraschino, and Banning Substations within existing SCE ROWs within unincorporated Riverside County and the Cities of Beaumont and Banning. The Project would also involve the rebuilding of switchracks at Banning and Zanja Substations in the Cities of Banning and Yucaipa, respectively. As part of the new fiber optic system, microwave towers would be installed at El Casco Substation and the existing Mill Creek Communications Site, located on SCE-owned property within the San Bernardino National Forest. Five new fiber optic circuits would be installed between the Cities of Redlands and Banning within existing SCE ROWs.

Table F-1 provides a description of the existing and projected population within the Proposed Project area. Between 2005 and 2030, the populations of Riverside and San Bernardino Counties and the Cities of Banning, Beaumont, Calimesa, Yucaipa, and Redlands are anticipated to increase significantly. Both locally and regionally, the Proposed Project area is experiencing substantial population growth, which is reflected in the large number of proposed and planned future residential development projects listed in Table F-2 (El Casco System Project Cumulative Projects List) and shown in Figures F-1a (Cumulative Projects – Northwest) and F-1b (Cumulative Projects – Southeast) (all located in section F.1.4, Cumulative Impact Scenario) This growth is expected to occur with or without implementation of the Proposed Project. The Proposed Project would accommodate the anticipated future load growth in a timely manner and would be consistent with local planning documents and policies regarding population growth. Any growth that occurs with the availability of the additional power provided by the Proposed Project would need to conform to the local planning documents and policies. An assessment of the potential significant cumulative impacts of the Proposed Project is provided below, in Section F.1.5. Although the Proposed Project would not directly result in growth in the area, its implementation would remove future obstacles to population growth by facilitating the transmission of future projected power generation in the Proposed Project area.

Table F-1 Projected Populations for Riverside County, City of Banning, City of Beaumont, City of Calimesa, City of Yucaipa, City of Redlands, and San Bernardino County

	Riverside County	City of Banning	City of Beaumont	City of Calimesa	City of Yucaipa	City of Redlands	San Bernardino County
2005 Population	1,850,231	26,917	18,933	8,304	47,042	69,288	1,919,215
2010 Population	2,085,432	29,213	27,305	9,879	49,689	72,036	2,059,420
2015 Population	2,370,526	33,623	43,709	13,122	53,361	76,415	2,229,700
2020 Population	2,644,278	37,972	59,898	16,325	56,984	80,737	2,397,709
2025 Population	2,900,563	42,140	75,411	19,393	60,456	84,875	2,558,729
2030 Population	3,143,468	46,140	90,290	22,336	63,786	88,842	2,713,149

Note: The population estimates for Riverside County, City of Banning, City of Beaumont, City of Calimesa, City of Yucaipa, City of Redlands, and San Bernardino County differ between the Census and SCAG due to the time of the year the estimates were made.
Source: SCAG, 2007.

F.1.4 Cumulative Impact Scenario

F.1.4.1 Introduction and Methodology

Cumulative impact analysis is required under CEQA. CEQA Guidelines state "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," (14 Cal Code Regs §15130[a][1]). An EIR must discuss cumulative impacts if the incremental effect of a project, combined with the effects of other projects is "cumulatively considerable," (14 Cal Code Regs §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" (14 Cal Code Regs §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 Cal Code Regs §15130[b]).

There are two different methodologies for identifying what would constitute the cumulative scenario. One is to use a "list of past, present, and probable future projects producing related or cumulative impacts," (14 Cal Code Regs §15130[b][1][A]). An alternate method of establishing the cumulative scenario for the analysis is to use a "summary of projects contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact," (14 Cal Code Regs §15130[b][1][B]). This EIR uses a combination of the list and projections approaches.

The project list includes those projects found within a geographic area sufficiently large to provide a reasonable basis for evaluating cumulative impacts. The area over which the cumulative scenario is evaluated may vary by resource, because the nature and range of potential effects vary by resource. This area is identified as the geographic scope for the analysis of cumulative impacts related to a particular resource.

The analysis of cumulative effects must consider a number of variables. These include geographic (spatial) limits, time (temporal) limits, and the 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. In addition, each project in a region will have its own implementation schedule, which may or may not coincide with the Proposed Project's schedule. This is a consideration for short-term impacts from the Proposed Project.

F.1.4.2 Applicable Cumulative Projects and Projections

Specific Projects

Reasonably foreseeable projects that could contribute to the cumulative scenario are listed in Table F-2 (El Casco System Project Cumulative Projects List). The table indicates the project name and project type, as well as its location and status. Each project is identified by a map number, keyed to Figures F-1a (Cumulative Projects – Northwest) and F-1b (Cumulative Projects – Southeast). These figures show the Proposed Project and Alternatives, and indicate locations of projects contributing to the cumulative scenario.

Collectively, these projects represent known and anticipated activities that may occur in the Project vicinity that have the potential to contribute to a cumulative impact. Because the El Casco System Project would be linear with occasional nodal facilities along its length, the projects in Table F-2 do not interact with the Proposed Project or alternative routes. Most projects in the cumulative scenario are limited in their geographic extent. Some are linear projects that would occur along some segments of the Proposed Project or alternative routes. Projects in the cumulative scenario become more or less relevant along the length of the Proposed Project, based on their changing proximity to the Proposed Project and, therefore, to the potential for cumulative interactions. As shown on Figures F-1a and F-1b, most of the projects in the cumulative scenario are located in developed or rapidly developing areas.

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
Multiple Jurisdictions				
DEUTSCH PROPERTY SPECIFIC PLAN (Pardee Construction): Development of 1,552 acres. 5,901 residential units, including 673 estate residences on 269 acres, 728 single family detached residences on 208 acres, 2,845 patio homes on 569 acres, 1,335 townhomes on 89 acres, 160 apartment units on 8 acres, and 160 senior housing units on 8 acres. Proposed project would also include non-residential uses on 401 acres including 24 acres of school and educational uses, 75 acres of parks and trails, 83 acres of roads and easements, 20 acres of commercial use, 5 acres of medical office use, 1 acre for a fire station, and a 193-acre golf course. (Unincorporated Riverside County and the Cities of Banning and Beaumont)	Residential, Recreational, Educational, Open Space, Commercial, Public Facilities	1,268 acres within the City of Banning and 284 acres in unincorporated Riverside County. Roughly bounded by Cherry Ave (west), Brookside Avenue (north), Highland Home Road (east), and 8th Street/Wilson Street (south).	Draft EIR (SCH #90020698). (7/24/07)	A1
DEVERS-PALO VERDE NO. 2 TRANSMISSION LINE PROJECT: Construction of a 230-mile 500 kV transmission line between Devers Substation in California and Harquahala Generating Station in Arizona as well as a 41.6-mile 500 kV transmission line between Devers Substation and Valley Substation. (Riverside County and multiple jurisdictions to the east and south of the Project area)	Industrial	See Figures F-1a and F-1b	Permitting and construction for the Devers to Valley Substations tentatively scheduled to be completed by 2009/2010. Still awaiting permit approval from Arizona Corporation Commission on the Harquahala to Devers Substation portion of route. (8/7/07)	A2
NON-POTABLE WATER DISTRIBUTION SYSTEM PROJECT: The proposed project would expand a non-potable water distribution system serving the Yucaipa Valley Water District. A total of approximately 153,100 linear feet of distribution pipeline, three reservoirs, and four pump stations would be constructed, operated, and maintained to distribute non-potable water to markets identified in the Water Master Plan as Phase I and II customers. Approximately 24,000 linear feet of pipeline would also be constructed to discharge water to San Timoteo Creek at the Live Oak Road bridge crossing and the current discharge location. Also, one existing reservoir (H-1) located near the proposed Casa Blanca golf course would be converted from potable to non-potable water storage. (Yucaipa Valley Water District, Cities of Yucaipa and Calimesa)	Other	Township 2S, Range 2/3W, Section 10-14	EIR (SCH #2003091108). Approved 4/19/2006. (7/24/07)	A3

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
INTERSTATE 10/LIVE OAK CANYON ROAD RECONSTRUCTION AND BRIDGE WIDENING PROJECT: Roadway improvements including widening the Live Oak Canyon Road/I-10 overcrossing from two lanes to five lanes and modifying the existing ramp connections and existing intersections along Live Oak Canyon Road between Outer Highway South and Calimesa Boulevard to relieve traffic congestion along Live Oak Canyon Road and provide greater spacing between intersections. (Cities of Yucaipa and Calimesa)	Transportation	Live Oak Canyon Road/I-10 overcrossing; Live Oak Canyon Road between Outer Highway South and Calimesa Boulevard	NOE filed 12/21/06. An early portion of the project (construction of a new bridge at 14th Street) was completed in 2002. Final design of this phase was approved in May 2007. Construction is expected to begin in fall of 2007 and would take 18 to 24 months to complete. (7/24/07)	A4
City of Redlands				
I-10 WESTBOUND LANE ADDITION PROJECT: Addition of one mixed-flow lane on westbound Interstate 10 from the Live Oak Canyon overcrossing in the city of Yucaipa to the Ford Street undercrossing in the city of Redlands. (SANBAG and Caltrans)	Transportation	I-10 from Live Oak Canyon Road in Yucaipa to Ford Street in Redlands	Project approval expected in August 2007. Construction schedule: January 2010 to June 2011. (8/7/07)	B1
REDLANDS PROMENADE PROJECT: Demolition of structures currently existing on-site and the construction of approximately 160,000 square feet of retail space on 13.2 acres.	Commercial	Eureka Street and Stuart Avenue	An EIR was prepared. NOD (SCH #2005121029) filed 7/6/2007. (7/24/07)	B2
TENTATIVE TRACT MAP NO. 18429: A subdivision of 20.62 acres into six condominium lots	Industrial	Park Avenue and Iowa Street	MND (SCH #200706117) review period ended 7/25/2007. (8/6/2007)	B3
SAN TIMOTEO CREEK HABITAT ENHANCEMENT PROJECT: Habitat enhancement and vegetation restoration plan on approximately 30-foot wide corridor along San Timoteo Creek Channel for approximately 10 miles. Areas along the creek would be reestablished as a wildlife corridor with native vegetation.	Other	Redlands Boulevard/Anderson Street	FONSI (SCH #2005111024) filed 6/21/2007. (7/24/07)	B4
ESRI CAMPUS EXPANSION PROJECT: Development of an 81,635 square foot office building, a 3,632 square foot central cooling plant, and a new 233 stall parking lot.	Office	New York Street, Redlands Boulevard, and State Street	Negative Declaration (SCH #2006101048) review period ended 5/30/2007. (8/6/2007)	B5
PROLOGIS-REDLANDS PIONEER BUSINESS CENTER: Construction of four industrial buildings to be used as "High Cube" and general warehouse distribution facilities. The buildings ranging from 38,045 square feet to a maximum of 860,000 square feet with a total not to exceed 1,150,000 square feet, including 44,000 square feet of office space. The project site has a gross area of 58.85 acres and net area of 51.8 acres.	Industrial	Pioneer and State Route 30	Negative Declaration (SCH #2007041099) review period ended 5/22/2007. (8/6/2007)	B6

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
DEPARTMENT OF WATER RESOURCES EAST BRANCH EXTENSION PHASE 2: Construction of approximately six miles of 72 and 78 inch pipeline, construction of a reservoir providing 525 to 950 acre feet of storage, construction of a two story, 5,000 square foot pump station, and expansion of the Crafton Hills Pump Station.	Water Facilities	Opal Avenue, Greenspot Road, San Bernardino Avenue, Garnet Street, Crafton Avenue	NOP (SCH #2007041017) review period ended 5/3/2007. (8/6/2007)	B7
CONDITIONAL USE PERMIT 836 AND DEMOLITION 68: Construction of a 40-unit multi-family development that would be located in two, 2-story buildings, each with an area of approximately 20,670 square feet. An existing residence and accessory structure would be demolished as part of the project. The project would also include 60 carports, 24 uncovered parking spaces, a laundry area, walkways, and landscaping.	Residential	Grove Street and Sylvan Boulevard	DEIR (SCH #2004101004) review period ended 4/23/2007. (8/6/2007)	B8
WATSON DISTRIBUTION CENTER: Construction of three "High Cube" warehouse buildings, with a total of 1,536,000 square feet, including 50,000 square feet of office space, on a site that has a gross area of 71.7 acres.	Industrial	California and San Bernardino	Negative Declaration (SCH #2007021082) review period ended 3/23/2007. (8/6/2007)	B9
RIVERBLUFF DISTRIBUTION CENTER: Construction of two "High Cube" warehouse buildings, with a maximum total of 1,058,000 square feet, including 30,000 square feet of office space, on a site that has a gross area of 55.7 acres.	Industrial	Palmetto and Alabama	Negative Declaration (SCH #2007011058) review period ended 2/14/2007. (8/6/2007)	B10
COMMISSION REVIEW AND APPROVAL NO. 841: Minor subdivision of 3.2 acres for condominium purposes and construction and operation of a two-story, 45,584 square foot medical office condominium building with associated parking areas and landscape elements.	Office	Iowa Street and Barton Road	MND (SCH #2006101113) review period ended 11/16/2006. (8/6/2007)	B11
STANDARD PACIFIC HOMES RESIDENTIAL DEVELOPMENT TENTATIVE TRACT NO. 16689: Subdivision of 71 acres into 201 dwelling units and common open space lots. Development would include interior roadways and two access driveways. The project proposes approximately 14 acres of open space to remain or be replanted.	Residential	San Bernardino Avenue (north), Lugonia Avenue (south), Dearborn Street (east)	MND (SCH #2006101024) review period ended 11/2/2006. (8/6/2007)	B12
ALABAMA BUSINESS CENTER CUP FOR A 600,000 SQ. FT. WAREHOUSE: Construction of a 600,000 square foot maximum, "High Cube" warehouse building, including 5,800 square feet of office on a site that has a gross area of 28 acres.	Industrial	Olive, Pioneer, and Alabama	Negative Declaration (SCH #2006081104) review period ended 9/18/2006. (8/6/2007)	B13

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
REDLANDS MALL REDEVELOPMENT PROJECT: Redevelopment of the Redlands Mall site with a mixed use development of up to 220,000 square feet of commercial/retail space, 230 residential units, including live/work units, and 1,703 parking stalls.	Residential, Commercial	Redlands Boulevard and North Eureka Street	NOP (SCH #2006061003) review period ended 6/30/2006. (8/6/2007)	B14
REDLANDS COMMONS AND TROJAN GROVES: Project is comprised of both the Redlands Commons and Trojan Groves development projects. Redlands Commons is a mixed-use project that includes single-family residential, open space consisting of a small park and meandering walkways, single-story office, and retail. Trojan Groves is a commercial project that may include a mix of major commercial, inline retail, neighborhood commercial, restaurant, and/or office uses.	Residential, Commercial, Office	San Bernardino Avenue, Texas Street, Pioneer Avenue, Interstate 210	NOP (SCH #2006051097) review period ended 6/19/2006. (8/6/2007)	B15
COMMISSION REVIEW AND APPROVAL NO. 810: Construction of a 31,647 square foot, two-story medical office building on a two acre parcel.	Office	Iowa Street and Barton Road	MND (SCH #2006031045) review period ended 4/10/2006. (8/6/2007)	B16
THE HASKELL COMPANY CUP FOR A FULLY ENCLOSED 70,000 SQ. FT. COMPOSTING FACILITY: Construction of a maximum 70,000 square foot industrial building for a fully enclosed composting facility with 4,500 square feet of office space, 2,000 square feet of nursery space and other ancillary facilities of a portion of 19.6 acres.	Industrial	Palmetto and Nevada	Negative Declaration (SCH #2006021056) review period ended 3/13/2006. (8/6/2007)	B17
ALABAMA STREET OVERLAY PROJECT: The project consists of pulverizing existing pavement on Alabama Street, and then overlaying with new pavement in order to remove a dip.	Existing Facilities	Alabama Avenue	NOE (SCH #2005128300) filed 12/19/2005. (8/6/2007)	B18
SEVEN OAKS DAM, NO. 87-16: Repair the damaged invert of the outlet tunnel using reinforced concrete.	Water Facilities	Redlands, San Bernardino County	NOE (SCH #2005108570) filed 10/25/2005. (8/6/2007)	B19
REDLANDS HIGH SCHOOL STADIUM PROJECT: Construction of a new 4,500 person capacity stadium onsite at Redlands High School.	Educational	Citrus Avenue and Church Street	An EIR was prepared. NOD (SCH #2005031061) filed 8/26/2005. (8/6/2007)	B20
APPLIED TECHNOLOGY TRAINING CENTER FOR SAN BERNARDINO COMMUNITY COLLEGE DISTRICT: Construction and operation of the ATTC building, annexed to the existing Professional Development Center facility. The ATTC would consist of a 10,000 square foot building located on approximately one acre.	Educational	Rialto Avenue (north), Enterprise Street (south), Frank Bland Drive (west), Del Rosa Drive (east)	A Negative Declaration was prepared. NOD (SCH #2005081111) filed 5/16/2006. (8/6/2007)	B21

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
JUDSON-CALIFORNIA ELEMENTARY SCHOOL: Construction and operation of the San Bernardino County Superintendent of School's California Children's Therapy Unit. The project will consist of an approximate 4,500 square foot children's therapy unit, to be located on the 5-acre parcel.	Educational	Judson Street and Pennsylvania Avenue	A Negative Declaration was prepared. NOD (SCH #2001101083) filed 8/8/2005. (8/7/2007)	B22
TRAMMELL CROW-CALIFORNIA PALMS BUSINESS CENTER (WEST): Construction of a 54,005 square foot, a 146,440 square foot, and a 784,200 square foot industrial building on 73.7 acres.	Industrial	California, Palmetto, and Nevada	Negative Declaration (SCH #2005071091) review period ended 8/17/2005. (8/6/2007)	B23
TRAMMELL CROW-CALIFORNIA PALMS BUSINESS CENTER (EAST): Construction of two light industrial buildings over a gross area of 26.35 acres, including 38,000 square feet of office space and 515,124 square feet of warehouse space.	Industrial	Pioneer, Nevada, and San Bernardino	Negative Declaration (SCH #2005061130) review period ended 7/21/2005. (8/6/2007)	B24
TENTATIVE TRACT NO. 16361: Subdivision of four contiguous lots totaling approximately 180.9 acres into 84 residential lots for future development of single family homes, four common lots to be used for open space.	Residential	Freya Drive, South Lane, Alta Vista	An EIR was prepared. NOD (SCH #2003101029) filed 5/6/2005. (8/6/2007)	B25
COMMISSION REVIEW AND APPROVAL NO. 802: Construction of a 1,313,470 square foot concrete tilt-up building for a regional warehouse distribution center on approximately 60.32 acres.	Industrial	California Street and San Bernardino Avenue	MND (SCH #2005051018) review period ended 6/1/2005. (8/6/2007)	B26
COMMISSION REVIEW AND APPROVAL NO. 801: Construction of a 699,350 square foot concrete tilt-up building for a regional warehouse distribution center on approximately 32.1 acres.	Industrial	California Street and San Bernardino Avenue	MND (SCH #2005051017) review period ended 6/1/2005. (8/6/2007)	B27
REDLANDS TOWN CENTER: Construction of a retail shopping center on an approximately 29.5 acre site. Project consists of 243,759 square feet of commercial development, including two buildings for shops and four freestanding pad buildings for retail sales, personal service, restaurant, and drive-through restaurant.	Commercial	Alabama and Lugonia	DEIR (SCH #2005021105) review period ended 6/13/2005. (8/6/2007)	B28
PUMP INSTALLATION AT GREENSPOT AND CRAFTON HILLS PUMP STATIONS: One additional 20 cfs pump will be installed at the Greenspot Pump Station and one additional 20 cfs pump will be installed at the Crafton Hills Pump Station.	Water Facilities	Redlands, San Bernardino County	NOE (SCH #2005048214) filed 4/14/2005. (8/6/2007)	B29
TENTATIVE TRACT NOS. 16465 & 16627: Tentative Tract No. 16465 is the development of approximately 30.4 acres into 75 residential lots and three common lots, including 6.4 acres of open space. Tentative Tract No. 16627 is the development of approximately 12.1 acres into 33 residential lots and one common lot.	Residential	Pioneer Avenue/Judson Street/ San Bernardino Avenue	DEIR (SCH #2004091164) review period ended 2/28/2005. (8/6/2007)	B30

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
City of Yucaipa				
FREEWAY CORRIDOR SPECIFIC PLAN: Land use, policy, and regulatory document that will establish the land use, development, and design standards for the Freeway Corridor Specific Plan project area. Land uses in the Specific Plan project area may include Single-family and Multiple-family Residential (1,547 DU), Regional Commercial (162 AC), Business Park (43.9 AC), Community Commercial (15.6 AC), Institutional (44.8 AC), Roadway (25.25 AC), and Natural Open Space (542.9 AC).	Residential, Commercial	1,234 acres surrounding Interstate 10 in City of Yucaipa.	Final Draft. (7/27/07)	C1
CHICKEN SPRINGS WASH STORM DRAIN AND STREET IMPROVEMENTS: Project would remove portions of the existing channel and street crossings, and construct storm drain improvements, inlet and outlet drainage structures, transition structures, catch basins with laterals, parkway drains, and a floodwall. Would also include pavement grinding and the construction of concrete curb and gutter, driveways, and sidewalks, with asphalt concrete pavement, traffic striping, wrought iron fencing, and channel grading.	Transportation	4th Street and 2nd Street	MND (SCH #2007071092) under review by City of Yucaipa. (8/6/07)	C2
ROUGH GRADING PERMIT: The proposed project consists of a Rough Grading Plan for an approximately 10-acre site. No development is planned at this time, though parcel is zoned for commercial development in the future.	Commercial	7th Street, north of Sandalwood Drive in Cities of Yucaipa and Calimesa. Approximately 0.8 mile south of proposed communications route.	NOD (SCH #2007031152) filed 7/10/07. (7/24/07)	C3
OAK HILLS MARKETPLACE: Regional shopping center totaling approximately 613,000 square feet of building space on 61.33 acres.	Commercial	Live Oak Canyon Road and I-10 Freeway.	Draft EIR (SCH #2006061065) filed 2/28/07. Final EIR filed July 2007. (7/24/07)	C4
OAK GLEN/WILSON II BASINS: The proposed project would involve construction of three detention/desilting basins along Oak Glen Creek, east of Bryant Street in the city of Yucaipa. The project would also include construction of an access road and parking area, overlook/rest areas, and hiking trails.	Other	Bryant Street and Oak Glen Road	Environmental Assessment (SCH #2005121169) filed 7/31/06. (7/24/07)	C5
I-10 WESTBOUND LANE ADDITION PROJECT: Addition of one mixed-flow lane on westbound Interstate 10 from the Live Oak Canyon overcrossing in the city of Yucaipa to the Ford Street undercrossing in the city of Redlands. (SANBAG and Caltrans)	Transportation	I-10 from Live Oak Canyon Road in Yucaipa to Ford Street in Redlands	Project approval expected in August 2007. Construction schedule: January 2010 to June 2011. (8/7/07)	C6

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
30-INCH POTABLE WATER PIPELINE PROJECT: Installation of a new 30-inch potable water pipeline in the City of Yucaipa. Approximately two miles total distance.	Other	Eucalyptus Ave (north), Wildwood Canyon Road (south), 2nd Street (west), California Street (east)	Approved 8/16/05. (SCH #2005071042). (8/6/07)	C7
NEW POTABLE WATER PIPELINE: Installation of a new potable water pipeline in the cities of Yucaipa and Calimesa. Pipeline would start at Wildwood Canyon Road and travel south in 3rd Street, travel west in Myrtlewood Drive, and terminate at Calimesa Boulevard.	Other	Wildwood Canyon Road (north), Myrtlewood Drive (south), Calimesa Boulevard (west), California Street (east)	Approved 5/17/06 (SCH #2006031028). (8/6/07)	C8
CHERRYCROFT HEIGHTS PLANNED DEVELOPMENT PROJECT: Tentative Tract No. 17229. General Land Use District Change from RL-1 to PD; Preliminary Development Plan for 276 residential units (20,000 sq. ft. min. lot size), 63 acres of natural open space, and two underground water reservoirs; and a Tentative Tract Map and Final Development Plan for a 284 lot subdivision on 318 acres.	Residential	Carter Street and Jefferson Street. Township 1S, Range 1W, Section 29	MND (SCH #2005091028) filed 9/2/05. (8/7/07)	C9
HOUSING DEVELOPMENT: Tract No. 14625. 73 dwelling units on 44.1 acres and supporting infrastructure. (Century Vintage Homes)	Residential	North of Liberty Road, west of 8th Street	Under construction. (7/27/07)	C10
CRAFTON HILLS ESTATES HOUSING DEVELOPMENT: Tract No. 14429. 57 dwelling units.240 acres.	Residential	South of Mill Creek Road in northwest corner of City	Approved 12/30/04. Under construction. (7/27/07)	C11
HOUSING DEVELOPMENT: 05-075. 28 dwelling units.	Residential	East of 3rd Street, north of County Line.	Approved. (7/27/07)	C12
HOUSING DEVELOPMENT: Tract No. 17725. 210 dwelling units.	Residential	West of 3rd Street, north of County Line.	Approved. (7/27/07)	C13
HOUSING DEVELOPMENT: Tract No. 16030. 33 dwelling units.	Residential	West of 3rd Street, south of Avenue East.	Under construction. (7/27/07)	C14
HOUSING DEVELOPMENT: Tract No. 18114. 38 dwelling units.	Residential	East of 2nd Street, south of Avenue East	Approved. (7/27/07)	C15
HOUSING DEVELOPMENT: Tract No. 18063. 25 dwelling units.	Residential	West of 2nd Street, north of County Line	Approved. (7/27/07)	C16
HOUSING DEVELOPMENT: Tract No. 16268. 22 dwelling units.	Residential	Avenue G and Jefferson Street	Under construction. (7/27/07)	C17
HOUSING DEVELOPMENT: Tract No. 16293. 16 dwelling units.	Residential	East of Lynfall Street end.	Approved. (7/27/07)	C18
HOUSING DEVELOPMENT: Tract No. 18072. 6 dwelling units.	Residential	East of Fremont Street, north of Avenue East.	Approved. (7/27/07)	C19
HOUSING DEVELOPMENT: Tract No. 18062. 18 dwelling units.	Residential	East end of Panorama Drive.	Approved. (7/27/07)	C20

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
HOUSING DEVELOPMENT: Tract No. 15854. 14 dwelling units.	Residential	East of Fremont Street, south of Oak Glen Road.	Under construction. (7/27/07)	C21
HOUSING DEVELOPMENT: 06-073. 32 dwelling units.	Residential	North of Oak Glen Road, east of Sunnyside Drive.	Approved. (7/27/07)	C22
HOUSING DEVELOPMENT: Tract No. 17056. 7 dwelling units.	Residential	North of Oak Glen Road, west of Fremont Street.	Approved. (7/27/07)	C23
HOUSING DEVELOPMENT: Tract No. 13375. 10 lots.	Residential	North of Oak Glen Road, west of Cherrycroft.	Approved. (7/27/07)	C24
HOUSING DEVELOPMENT: Tract No. 16405. 10 dwelling units.	Residential	West of Bryant Street, south of Fir Avenue.	Under construction. (7/27/07)	C25
HOUSING DEVELOPMENT: Tract No. 16831. 18 dwelling units.	Residential	South of Fir Avenue, east of Fremont Street.	Approved. (7/27/07)	C26
HOUSING DEVELOPMENT: Tract No. 15967. 56 dwelling units.	Residential	South of Fir Avenue, west of Jefferson Street.	Under construction. (7/27/07)	C27
HOUSING DEVELOPMENT: Tract No. 17349. 24 dwelling units.	Residential	East end of Hollow Creek Drive.	Approved. (7/27/07)	C28
HOUSING DEVELOPMENT: Tract No. 17332. 5 dwelling units.	Residential	North of Fir Avenue, west of Jefferson Street.	Approved. (7/27/07)	C29
HOUSING DEVELOPMENT: Tract No. 17028. 24 dwelling units.	Residential	North of Fir Avenue, west of Jefferson Street.	Approved. (7/27/07)	C30
HOUSING DEVELOPMENT: Tract No. 15160. 14 dwelling units.	Residential	South of Carter Street, east of Bryant Street.	Approved. (7/27/07)	C31
HOUSING DEVELOPMENT: Tract No. 16785. 36 dwelling units.	Residential	South of Carter Street, east of Fremont Street.	Approved. (7/27/07)	C32
HOUSING DEVELOPMENT: Tract No. 16064. 36 dwelling units.	Residential	North and south of Holly Street, west of Bryant Street.	Approved. (7/27/07)	C33
HOUSING DEVELOPMENT: Tract No. 17335. 8 dwelling units.	Residential	East of Juniper Avenue, north of Carter Street.	Approved. (7/27/07)	C34
HOUSING DEVELOPMENT: Tract No. 14680. 13 dwelling units.	Residential	East of Juniper Avenue, north of Carter Street.	Under construction. (7/27/07)	C35
HOUSING DEVELOPMENT: Tract No. 14297. 33 dwelling units.	Residential	East end of Quartz Street.	Approved. (7/27/07)	C36
HOUSING DEVELOPMENT: Tract No. 17081. 32 dwelling units.	Residential	East end of Quartz Street.	Approved. (7/27/07)	C37

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
City of Calimesa				
ROUGH GRADING PERMIT: The proposed project consists of a Rough Grading Plan for an approximately 10-acre site. No development is planned at this time, though parcel is zoned for commercial development in the future.	Commercial	7th Street, north of Sandalwood Drive in Cities of Yucaipa and Calimesa. Approximately 0.8 mile south of proposed communications route.	NOD (SCH #2007031152) filed 7/10/07.(8/6/07)	D1
5-MG RESERVOIR PROJECT: Construction of a new five million gallon reservoir on five acres. Part of Tentative Tract 26811, a 135-acre residential subdivision.	Other	Singleton Road (south). Parcel #413-250-031. Township 2S, Range 2W, Section 24	Status unknown. (7/24/07)	D2
MESA VIEW SCHOOL ACCESS ROAD PROJECT: The proposed project consists of an extension of Sandalwood Drive at 7th Street west to connect with the constructed Mesa View School (not currently in operation). The project includes the installation of gutters, curbs, sidewalks, and streetlights.	Transportation	Sandalwood Drive and 7th Street	The lead agency (Yucaipa-Calimesa Joint Unified School District) certified a Final EIR for the Mesa View School Project Access Road and Conversion to High School in 2006. SEIR has been prepared to address alternative access. SEIR review period ends 8/13/2007. (8/6/07)	D3
MESA VERDE ESTATES PROJECT: Development of mixed-use residential and commercial on 1,493 acres with 571.6 acres of open space.	Residential, Commercial, Other	Calimesa Boulevard and Sandalwood Drive.	Specific Plan and Draft SEIR available. (8/6/07)	D4
DESERT LAWN CEMETERY ADDITION: Project consists of an addition of a 1,212 sq. ft. reception area, 2,245 sq. ft. office addition, and 462 sq. ft. niche chapel tower.	Commercial	Desert Lawn Drive and Brookside Avenue.	City approved zone change from Open Space to Community Commercial 1/2/2007. (8/6/07)	D5
SUNLIT MINI-STORAGE PROJECT: Construction of a 92,712 square foot mini-storage facility and manager's unit on a 15.3 acre site.	Commercial	Desert Lawn Drive and Brookside Avenue.	MND review period ended 9/7/06. (8/6/07)	D6
TENTATIVE TRACT MAP 34230: Subdivision of property to accommodate future development of 11 residential lots and 1 detention basin and existing church facility.	Residential, Other	County Line Road and 2nd Street	MND (SCH #2006111102) review period ended 12/19/2006. (7/24/07)	D7

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
TENTATIVE TRACT MAP NO. 30545: Subdivision of 177 acres of undeveloped land into 131 numbered single-family residential lots and two lettered lots for open-space purposes. A separate zone change for "Rural Residential" to "Planned Residential Development" is also proposed to accommodate the density increase that would result from the subdivision. Infrastructure elements would also be included as part of the project, including street, storm drainage, and sewer and water improvements.	Residential, Recreational	Eastern terminus of Weller Drive	DEIR (SCH #2003041169) review period ended 3/1/2005. (7/24/07)	D8
TENTATIVE TRACT NUMBERS 30386 AND 30387: Development of 694 single-family lots on approximately 320 acres, including a 7.27-acre retail site, 15-acre neighborhood park, and 75 acres of open space.	Residential, Commercial, Recreational	California Street, Bryant Street and Fremont Street, east of the Calimesa Country Club	EIR was prepared. NOD (SCH #2002011078) filed 11/4/2005. (7/24/07)	D9
CALIMESA LINE L FLOOD CONTROL PROJECT: Project consists of the construction, operation, and maintenance of a series of reinforced concrete pipe ranging from approximately 36 inches to 96 inches in diameter.	Other	Avenue L and Calimesa Boulevard	EIR/Negative Declaration was prepared. NOD (SCH #2006021009) filed 5/2/2006. (7/24/07)	D10
SUMMERWIND RANCH AT OAK VALLEY: Development of approximately 3,650 homes with commercial and open space areas.	Residential, Commercial, Open Space	San Timoteo Canyon Road and Singleton Road	EIR and Specific Plan. (7/25/07)	D11
City of Banning				
LIBERTY XXIII RENEWABLE ENERGY BIOMASS PROJECT: Construction of three 5 MW biomass waste-to-energy generators on 10 acres of land.	Industrial	Southeast City of Banning, just south of Westward Avenue and just west of the Banning City boundary.	Construction to start early 2009. Estimated date of completion for first generator: mid-2010. Full buildout estimated for 2013. (7/24/07)	E1
SUNSET SUBSTATION AND TRANSMISSION AND DISTRIBUTION PROJECT: Construction of a 3.5-acre electrical distribution substation (Sunset Substation) and not to exceed 1.5-acre stormwater facility area in the northwestern sector of the City; a 5.1-mile 33-kV double-circuit subtransmission line that would travel west and northerly from SCE Banning Substation to Midway Substation, and north and east from Midway Substation to the proposed Sunset Substation; and 12-kV distribution circuits that would travel east and south from the proposed Sunset Substation.	Industrial	See Figure F-1b	Estimated completion date: March 2008. (7/24/07)	E2
1A990 BARRIER PROJECT: Construction of a concrete barrier and Three beam guardrail in the median of I-10 (Caltrans District 8).	Transportation	Located along I-10 from Post Mile 6.9 to 24.2.	Construction to occur February 2007 through October 2008. (11/14/05).	E3

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
BLACK BENCH SPECIFIC PLAN: Construction of 1,488 plan area would include 1,500 single-family residential units on 492 acres, 13-acre elementary school site, seven-acre public neighborhood park, 62-acre linear nature park, and 869-acre open space area (City of Banning).	Residential, Educational Facilities, Public Facilities, Recreational	Located north of Highland Home Rd., east of Highland Springs Ave., and west of Bluff St.	EIR was conducted on project. Specific Plan approved 10/24/2006. (8/6/07)	E4
BANNING BENCH SPECIFIC PLAN: Construction of 600 acre plan area would include 944 residential units, an 18-hole golf course, a 10-acre commercial site, open space, and public/quasi-public uses.	Residencial, Recreational, Commercial	Sunset Avenue and Wilson Street	Specific Plan approved 9/27/05. (8/6/07)	E5
PARDEE HOMES GOLF COURSE: Construction of a golf course on 304 acres and grading of surrounding 876 acres, for a total of 1,180 acres.	Recreational	Highland Springs and Wilson Street	Status unknown. (7/24/07)	E6
FIVE BRIDGES SPECIFIC PLAN: Development of 548.4 acres as a master-planned community consisting of up to 2,160 residential units (single family homes, garden courts, and townhomes), a 51.6-acre commercial center, and open space.	Residential, Commercial, Recreational, Other	Sunset Avenue and Westward Avenue	Draft EIR review period ended 1/2/07. (8/6/07)	E7
RAMSEY PLAZA: Construction of retail commercial complex with 32,155 square feet of space, including up to three fast food restaurants and 24,155 square feet of general retail space.	Commercial	West Ramsey Street and Lori Way	Negative Declaration review period ended 12/21/06. (8/6/07)	E8
HOUSING DEVELOPMENT: TPM 35072 and TTM 33384. Specific Plan, Parcel Map, and Tract Map to allow development of 127 single family homes and 283 townhomes, as well as park/detention areas, open space, and roads on 63 acres.	Residential	Sunset Avenue and Bobcat Road	Negative Declaration review period ended 1/22/07. (8/6/07)	E9
LARRY D. SMITH CORRECTIONAL FACILITY PHASE III EXPANSION: Construction of three single-level with mezzanine units all having two-man cell/dayroom configurations capable of accommodating up to 582 inmates, increasing total capacity to 1,518 inmates. Expansion would require the addition of approximately 266 staff for a total of 555 staff. Project size would be 139,000 square feet.	Other	Hargrave Street and Porter Street	Negative Declaration review period ends 8/7/07. (8/6/07)	E10

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
RELOCATION OF 8TH STREET (TPM 32092, TTM 31924, GENERAL PLAN AMENDMENT TO CIRCULATION ELEMENT): The proposed project would modify the General Plan alignment of 8th Street from its current connection to Highway 243 at the southeastern boundary of the City. The revised alignment would relocate the roadway westerly, to connect to Bobcat Road at the western side of the property. The project would also modify the roadway designation of 8th Street from Major Highway to General Local Street. Tentative Parcel Map to subdivide a 452-acre holding into three parcels of 134 acres, 117 acres, and 111 acres with a remainder parcel of 90 acres. Tentative Tract Map to divide 362 acres into a total of 478 single family lots with a minimum lot size of 20,000 square feet.	Residential, Transportation	Westward Street and 8th Street	Project approved 5/10/05. Negative Declaration was prepared. (8/6/07)	E11
TENTATIVE TRACT MAP 33540: The proposed project would subdivide a 65-acre parcel into 171 residential lots, open space, cemetery, and flood control area. Access will be provided at two points on Gilman Street. The cemetery lot is to be conveyed to the Morongo Band of Mission Indians. The flood control parcel is to be conveyed to the Riverside County Flood Control District. The open space lots are proposed for dedication to the City. Lot sizes range from approximately 7,000 square feet to approximately 14,000 square feet. The majority of the lots are 7,000 to 9,000 square feet.	Residential	Gilman Street and Wyte Way	Negative Declaration review period ended 5/18/06. (8/6/07).	E12
PARDEE HOMES BUTTERFIELD DEVELOPMENT: Pardee Homes has an approved specific plan, development agreement, and environmental impact report to build a major new community on 1,552 acres of land. The approved development includes 5,400 dwelling units planned as follows: 878 estates at 2.5 units per acre; 1,068 single-family homes at 3.5 units per acre; 1,950 patio homes at 5.0 unites per acre; 1,184 townhomes at 13 to 15 units per acre; 160 apartments at 20 units per acre; 160 units of senior housing at 20 units per acre.	Residential	East of Highland Springs Road and north of Wilson Avenue	Pardee Homes is currently reexamining this plan and considering revisions that will change all housing to single-family dwellings. (7/24/07)	E13
BLACK BENCH RANCH DEVELOPMENT: Development of 1,488 acres with a maximum of 1,500 homes at a density of approximately 3 units per acre. The remainder of the site will include a new school site, 81 acres of parks and trails, and 869 acres of open space.	Residential, Recreational, Educational	Located north of Highland Home Rd., east of Highland Springs Ave., and west of Bluff St.	EIR is currently under legal challenge. (8/14/2007)	E14

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
LENNAR FIVE BRIDGES DEVELOPMENT: Development of 548 acres including 2,160 residences, mostly comprised of single-family dwellings with densities ranging from 3 units an acre to 8 units an acre. There are about 95 patio homes and 273 townhouses at a higher density, along with 51.6 acres of commercial retail space, 106.2 acres of parks and open space, and a site for a new fire station.	Residential, Commercial, Recreational	West of Sunset Avenue just south of Interstate 10 and the Union Pacific Railroad right-of-way	Draft Specific Plan and EIR are currently under public review. (8/14/2007).	E15
BANNING BENCH LOMA LINDA PROPERTY DEVELOPMENT: Development of approximately 600 acres including 844 single-family homes and 100 cluster homes, a 16.2 acre village center with commercial and quasi-public uses, and 325 acres of recreation and open space, including a new golf course with clubhouse and driving range.	Residential, Commercial, Recreational	North mountain bench east of Sunset Avenue	Challenges to the EIR have been settled with the agreement to redo the assessment of adequate water availability. (8/14/2007)	E16
FIESTA DEVELOPMENT (TRACT #30906): Development of 303 lots on 158.5 acres.	Residential	North of WilsonStreet, east of North Highland Home Road.	Under construction. (8/10/2007)	E17
NORDQUIST (TRACT #32370): Development of 19 lots on 6.3 acres.	Residential	North of Wilson Street, west of Mountain Avenue.	Approved. ((8/10/2007)	E18
MADRID (TRACT #32429): Development of 44 lots on 16.46 acres.	Residential	North of Wilson Street, east of Sunset Avenue	Approved. (8/10/2007)	E19
MADRID (TRACT #30642): Development of 53 lots on 19 acres.	Residential	North of Wilson Street, east of Sunset Avenue	Grading. (8/10/2007)	E20
ST. BONIFACE/GILMAN (TRACT #33540): Development of 186 lots on 73 acres.	Residential	North of West Gilman Street, west of Wyte Way.	Approved. (8/10/2007)	E21
CHARTER MGMT/GALLEHER (TRACT #30528): Development of 9 lots on 2.83 acres.	Residential	East of North 4th Street, south of East Indian School Lane.	Approved. (8/10/2007)	E22
VICSETH CONSTRUCTION (TRACT #32175): Development of 10 lots on 2.73 acres.	Residential	East of North san Gorgonio Avenue, north of Hoffer Street.	Approved. (8/10/2007)	E23
VICSETH CONSTRUCTION (TRACT #31417): Development of 21 lots on 5.25 acres.	Residential	East of North san Gorgonio Avenue, north of Hoffer Street.	Approved. (8/10/2007)	E24
HLCD (TRACT #32217): Development of 26 lots on 6.42 acres.	Residential	West of Hathaway Street, north of Hoffer Street.	Approved. (8/10/2007)	E25
ROCHELLE & OBERG (TRACT #29233): Development of 10 lots on 5.9 acres.	Residential	East of Hathaway Street, south of Charles Street.	Approved. (8/10/2007)	E26
CARRI CONSTRUCTION (TRACT #31748): Development of 13 lots on 7.42 acres.	Residential	North of Wesley Street and east of San Gorgonio Avenue.	Approved. (8/10/2007)	E27

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
C.W. TEFFT (TRACT #31924): Development of 484 lots on 452.51 acres.	Residential	West of San Gorgonio Avenue and south of Westward Avenue.	Approved. (8/10/2007)	E28
ROLLING HILLS RANCH (TRACT #30774): Development of 213 lots on 145 acres.	Residential	South of Westward Avenue, east of Lovell Street.	Approved. (8/10/2007)	E29
MARTIN (TRACT #33013): Development of 6 lots on 4.08 acres.	Residential	North of Westward Avenue, east of 22nd Street.	Approved. (8/10/2007)	E30
HALEM (TRAT #33255): Development of 17 lots on 10 acres.	Residential	West of San Gorgonio Avenue and south of Westward Avenue.	Approved. (8/10/2007)	E31
RIFAI (TRACT #33798): Development of 19 lots on 4.87 acres.	Residential	North of Repplier Road, east of San Gorgonio Avenue.	Approved. (8/10/2007)	E32
UNITED PENTACOSTAL CHURCH (TRACT #33886): Development of 4 lots on 2.19 acres.	Residential	East of Hathaway Street, south of Charles Street.	Approved. (8/10/2007)	E33
LABASTIDA (TRACT #34033): Development of 10 lots on 3.31 acres	Residential	South of George Street, west of Cherry Street.	Approved. (8/10/2007)	E34
TMS HOMES (TRACT #35363): Development of 23 lots on 7.083 acres.	Residential	South of Indian School Lane, west of Florida Street.	Approved. (8/10/2007)	E35
CTK, INC. (TRACT #33309): Development of 7 lots on 2.37 acres.	Residential	South of Nicolet Street, west of Cherry Street.	Approved. (8/10/2007)	E36
CITICOM/WILLIAM FOX HOMES (TRACT #33603): Development of 41lots on 40.5 acres	Residential	North of Wilson Street, west of North Florida Street.	Approved. (8/10/2007)	E37
SHADOW BROOKS APTS: Development of 49 lots on 2.03 acres.	Residential	North of Williams Street, west of Hargrave Street.	Approved. (8/10/2007)	E38
DRAG CITY RACE TRACK: Development of 59.1 acres.	Commercial / Industrial	Barbour and Hathaway	Approved. (8/10/2007)	E39
HAMPTON INN: Four-story development of 94 units on 2.06 acres.	Commercial / Industrial	6071 Joshua Palmer Way	Under construction. (8/10/2007)	E40
GH DEVELOPMENT BANNING SHOPPING CENTER: Development of 3.2 acres.	Commercial / Industrial	6108-6256 West Ramsey	Approved. (8/10/2007)	E41
SUNCAL-BLACK BENCH (TRACT #31614): Development of 30 lots on 32.62 acres.	Residential	Located north of Highland Home Rd., east of Highland Springs Ave., and west of Bluff St.	Approved. (8/10/2007)	E42
SAN GORGONIO MEMORIAL: Development of hospital expansion on 24.24 acres.	Commercial / Industrial	600 North Highland Springs Avenue	Approved. (8/10/2007)	E43

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
BANNING BUSINESS CENTER: Development of 107 units on 9.03 acres.	Commercial / Industrial	4th and Lincoln	Under construction. (8/10/2007)	E44
RAMSEY PLAZA: Development of 3 buildings on 3.52 acres.	Commercial / Industrial	West Ramsey and Lori Way	Approved. (8/10/2007)	E45
LINCOLN BUSINESS PARK: Development of 21 units on 4.38 acres.	Commercial / Industrial	12th and Lincoln	Approved. (8/10/2007)	E46
HOLIDAY INN EXPRESS: Three-story development of 70 units on 1.66 acres.	Commercial / Industrial	West Ramsey and Sunset	Approved. (8/10/2007)	E47
SUNSET PLAZA: Three-story development of 11,000 square feet on 1.97 acres.	Commercial / Industrial	West Ramsey and Sunset	Approved. (8/10/2007)	E48
VALLI ARCHITECTURE STORAGE FACILITY: Development of four buildings on 4 acres.	Commercial / Industrial	8th and Lincoln	Approved. (8/10/2007)	E49
LA QUINTA INN: Four-story development of 91 units on 1.43 acres.	Commercial / Industrial	Joshua Palmer Way	Approved. (8/10/2007)	E50
CAREAGE DEVELOPMENT ALZHEIMER'S FACILITY: Development of 17 rooms on 1.43 acres.	Commercial / Industrial	The Lakes – Sun Lakes SP	Approved. (8/10/2007)	E51
RITE-AID: Development of 17,272 feet on 1.9 acres.	Commercial / Industrial	8th and Ramsey	Approved. (8/10/2007)	E52
BARBOUR STREET INDUSTRIAL PARK: Development of 4 buildings over 158,662 square feet on 8.2 acres.	Commercial / Industrial	Hathaway and Barbour	Approved. (8/10/2007)	E53
O'DONNELL INDUSTRIAL PARK	Commercial / Industrial	Hathaway and Interstate 10	In review. (8/10/2007)	E54
MESSENGER/GORDON: Development of up to 1 million square feet on 56.04 acres.	Commercial / Industrial	Just south of I-10 east of terminus of East Ramsey Street.	In review. (8/10/2007)	E55
City of Beaumont				
SENECA SPRINGS: Construction of housing tracts 31519, 31520, 31521; 955 total homes planned (Empire homes).	Residential, Commercial/ Industrial	West of Manzanita and south of 1st Street	Specific Plan, homes under construction, 532 homes built. (2/26/07)	F1
SHADOW CREEK: Construction of housing tract 30891. 241 homes planned (Curtis Dev/Ryland Homes).	Industrial	North of San Timoteo Canyon Rd. and south of I-10	Homes under construction. (2/26/07)	F2
SOLERA AT OAK VALLEY GREENS: Construction of 447-acre residential development of 1,290 homes and 12-acre commercial/industrial development on 533 acres.	Residential, Commercial/ Industrial	Located east of I-10 and north of Oak Valley Pkwy.	Currently in building phase. (2/26/07)	F3

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
TRACT NO. 31462, FAIRWAY CANYON SCPGA: Construction of 678-acre residential development of 3,566 homes and 46-acre commercial/industrial development.	Residential, Commercial/ Industrial	Located north of San Timoteo Canyon Rd. and southwest of I-10.	Specific Plan approved by City of Beaumont. Project under development, 479 homes built. (2/26/07)	F4
TRACT NO. 32020, CANYON RIDGE: Construction of 16-acre residential development.	Residential	Located in the southwest and southeast corners of Cougar Way and Palm Ave.	Homes under construction. 33 built as of 2/26/2007.	F5
TRACT NO. 30748 & 31288, TOURNAMENT HILLS 1 & 2: Construction of a 263-acre residential development of 1,094 homes (Pardee Homes).	Residential	Located southwest of Desert Lawn Dr. and Champions Dr and north of San Timoteo Canyon Rd.	Tournament Hills 1 under construction (2/26/07). Amendment to Oak Valley Specific Plan and EIR Addendum approved 10/19/04. 475 homes built as of 2/26/07.	F6
COUGAR RANCH II: Construction of 40-acre residential development (City of Beaumont).	Residential	Located north of Cougar Way at Palm Ave.	Homes under construction; 56 homes built as of 2/26/07.	F7
TRACT NO. 29197-29201, OAK VALLEY ESTATES: Construction of a 100-acre residential development (City of Beaumont)	Residential	Located south of Brookside, north of Oak Valley Parkway, and west of Nancy.	Project under development. (2/26/07)	F8
SUNDANCE: Construction of 905-acre residential development of 4,716 homes and 15-acre commercial/industrial development on 1,162 acres (City of Beaumont).	Residential, Commercial/ Industrial	Located north of 8th St. and west of Highland Springs Ave.	Project under development; 835 homes built. Storm drain extension on Sixth Street also under construction. (2/26/07)	F9
TRACT NO. 31426, ASPEN CREEK: Construction of 31-acre residential development. 106 homes planned (Pacific Scene).	Residential	Located east of Manzanita Park Rd. and north of First St.	Homes under construction, 21 homes built. (2/26/07)	F10
HEARTLAND PROJECT: Construction of 208-acre residential development (922 homes) and 62-acre commercial/industrial development on 417 acres, and construction of the Potrero Boulevard Bridge spanning San Timoteo Creek. (City of Beaumont).	Residential, Commercial/ Industrial	Located north of SR 60 and west of Potrero Blvd.	Specific Plan, EIR (SCH #1993072031). Now grading. (2/26/07)	F11
TRACT NO. 32260 & 33096, FOUR SEASONS: Construction of a 242-acre residential development and a 9-acre commercial/industrial development on 571 acres. 2,041 homes planned. (K. Hovnanian).	Residential, Commercial/ Industrial	Located south of I-10 and west of Highland Springs Ave.	Homes under construction; 561 homes built. (2/26/07)	F12
ROLLING HILLS RANCH INDUSTRIAL: Construction of 155-acre industrial development (City of Beaumont).	Industrial	Located south of SR 60 and west of Viele Ave.	Specific Plan and Plot Plan approved. Now grading. (2/26/07)	F13
AIM ALL STORAGE: Construction of a commercial storage facility on 14.4 acres. (City of Beaumont)	Commercial/ Industrial	Located west of I-10 at terminus of Desert Lawn Drive, south of Oak Valley Parkway.	Under construction. (2/26/07)	F14

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
HOLIDAY INN EXPRESS: Construction of a hotel on 3.65 acres (City of Beaumont).	Commercial/ Industrial	Northwest corner of Oak Valley Parkway and Golf Club Drive.	Under construction. (2/26/07)	F15
HOME DEPOT PLAZA: Construction of a Home Depot, Wicks Furniture, Chili's Restaurant, Wells Fargo, El Pollo Loco, McDonald's, Dollar Tree, and 7,552 square feet of multi-tenant spaces.	Commercial	1480-1496 Second Street Marketplace, west of Highland Springs	Under construction. (8/16/07)	F16
OAK VALLEY PLAZA: Construction of a commercial development on approximately 15 acres. Project includes Rite Aid, gas stations, and 20,075 square feet of retail space.	Commercial	Northeast corner of Oak Valley Parkway and Golf Club Drive	Phase 1 under construction, Phase 2 subject to Public Hearing. (2/26/07)	F17
KIRKWOOD RANCH: Construction of 128-acre residential development of 403 units (City of Beaumont).	Residential	Located north of I-10 and south of Oak Valley Pkwy.	Specific Plan (1991) and tentative tract map 27357 approved. (2/26/07).	F18
TENTATIVE TRACT MAP 31162 AND ANNEXATION OF APPROXIMATELY 170 ACRES TO THE CITY OF BEAUMONT: The proposed project proposes to annex and subdivide an approximate 130-acre hillside site located south of the existing Beaumont city limits. Proposed development consists of the construction of 217 single-family residential lots, roadways, support infrastructure and related facilities, and nine open space lots. An additional approximated 40-acre parcel located north of the project site must also be annexed because it would become an unincorporated island, which is generally not permitted by the County.	Residential, Other	Located south of Fourth St. and west of Viele Ave. outside of Beaumont City limits.	Tentative tract map submitted; annexation, map, and EIR pending public hearing. (2/26/07)	F19
POTRERO CREEK ESTATES: Construction of 308-acre residential development on 737 acres (City of Beaumont).	Residential	Located south of I-10 and west of Highland Springs Ave.	Specific Plan approved (1989). (2/26/07)	F20
TRACT NO. 32850: Construction of 29-acre residential development. 95 total units planned (City of Beaumont).	Residential	Located east of Manzanita Park Rd. and north of First St.	Tract approved. (2/26/07)	F21
NOBLE CREEK: Construction of 223-acre residential development of 648 homes on 332 acres (City of Beaumont).	Residential	Located north of 14th St. and west of Beaumont Ave.	Specific plan/annexation approved. Annexation for tract pending. (2/26/07)	F22
JACK RABBIT TRAIL: Construction of 402-acre residential development (2,000 homes) and 5-acre commercial/industrial development on 542 acres (City of Beaumont).	Residential, Commercial/ Industrial	Located south of SR 60 and west of Jack Rabbit Trail.	Specific Plan and annexation pending General Plan update. (2/26/07)	F23
THE PRESERVE: Construction of 730-acre residential development and 100-acre commercial/industrial development on 1,600 acres (City of Beaumont).	Residential, Commercial/ Industrial	Located south of SR 60 and northwest of SR 79.	Specific Plan filed; annexation pending General Plan update. (2/26/07)	F24

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
TRACT NO. 31843 & 32747, HIDDEN CANYON: Construction of 160-acre residential development of 411 homes on 197 acres (City of Beaumont).	Residential	Located on southeast corner of SR 60 and Jack Rabbit Trail.	Specific Plan and EIR filed; annexation approved. In plan check process (2/26/07)	F25
SUNNY-CAL SPECIFIC PLAN: Specific Plan would allow 216-acre residential development and 10-acre commercial/industrial development on 324 acres. 571 homes proposed.	Residential, Commercial/ Industrial	Located north of Brookside Ave. and west of I-10.	Specific Plan/Annexation filed. Pending City Council hearing. (2/26/07)	F26
SUNNY CAL SPECIFIC PLAN/ANNEXATION/SPHERE OF INFLUENCE AMENDMENT: This project includes the Sunny Cal Specific Plan, Annexation, Sphere of Influence Amendment, North Brookside Community Plan approvals.	Residential	East of Interstate 10, Cherry Valley Boulevard	FIN (SCH #2004121092) filed 6/6/2007. (8/14/2007)	F27
SAN GORGONIO VILLAGE: Construction of a 225,000-square foot commercial development including Kohl's Department Store on 23 acres.	Commercial	Between 1st & 2nd Streets and Pennsylvania and Commerce Way	06-PP-19 filed pending public hearing on 3/13/07. Project now grading. (8/16/07)	F28
POPEYE'S CHICKEN RESTAURANT: Construction of restaurant on 0.32 acre.	Commercial	Southeast corner of Beaumont Ave. and 5th Street	06-PP-04 Plot Plan approved, in building plan check. (2/26/07)	F29
MARKETPLACE AT BEAUMONT: Construction of 194,569 square feet of mixed commercial/retail uses, including Best Buy, Ross, Bed Bath and Beyond, Petco, Staples, Bank of America, Starbuck's Drive Thru, and 73,160 square feet of restaurant and retail.	Commercial	Northwesterly of the intersection of East 2nd Street and Highland Springs Avenue	Specific Plan - Negative Declaration (SCH #2006081048). Plot Plan filed (05-PP-07). Approved. Realignment of 2nd Street under construction and now grading. (8/16/07)	F30
THE SHOPS AT NOBLE CREEK: Construction of 38-acre commercial development (City of Beaumont).	Commercial	Located south of Oak Valley Pkwy and east of I-10.	Plot plan filed (05-PP-04). Pending public hearing. (2/26/07).	F31
FIRST STREET RV & SELF STORAGE	Commercial	Located at 1422 E. First Street	Under construction. (8/16/07)	F32
BEAUMONT MOTORCYCLES: Relocation of Beaumont Motorcycles with five additional lots available for commercial/retail/food.	Commercial	Fourth Street east of Beaumont Ave.	Status unknown. (8/16/07)	F33
CHERRY VALLEY SEWER PROJECT: The proposed project would extend to the Cherry Valley Community of Interest (CVCOI) Sewer Service Area and transport the domestic wastewater to a wasterwater reclamation facility in the general area.	Other	Bellflower Avenue and Oak View Drive	NOP (SCH #2006101165) review period ended 11/28/2006. (8/14/2007)	F34
OAK VALLEY VILLAGE: Proposed 441,709 square feet of commercial development on 42.3 acres. Includes Lowe's Home Improvement.	Commercial	Southeast corner of Oak Valley Parkway and I-10	Draft EIR (SCH #2006011015) review period ended 6/4/2007. (8/14/2007)	F35

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
PROPOSED WATER PRODUCTION WELLS AND ASSOCIATED FACILITIES (WELL NOS. 22 REPLACEMENT, 24 AND FOUR PARDEE WELLS): New well #24 is one of six new wells within the Beaumont Cherry Valley Water District service area.	Other	Union & Brookside; 14th Street and Michigan; Highland Springs Avenue, Brookside Avenue, Cherry Avenue, 8th Street	NOD (SCH #2004011026) filed 2/24/2006. (8/14/2007)	F36
LAMB CANYON SANITARY LANDFILL: Proposal to expand the landfill disposal area by 66.3 acres and the total landfill area by 175.3 acres.	Other	Gilman Springs Road	A Negative Declaration was prepared. NOD (SCH #2003061074) filed 12/30/2005. (8/14/2007)	F37
SOUTHWEST PROPERTIES TRANSPORTATION SYSTEM: Grading and development of approximately 155 acres into an industrial park and supporting infrastructure.	Industrial	South of State Route 60, between Veile Avenue and Jackrabbit Trail	An EIR was prepared. NOD (SCH #1998101012) filed 9/6/2005. (8/16/07)	F38
OAK VALLEY AND SCPGA GOLF COURSE SPECIFIC PLAN (OAK VALLEY SP #318): Grading and development of approximately 177 acres into a residential development of 606 lots and supporting infrastructure.	Residential	San Timoteo Canyon Road and Interstate 10	An EIR was prepared. NOD (SCH #2000051126) filed 8/8/2005. (8/14/2007)	F39
PROPOSED CHERRY WATER TANK #3 PROJECT: Construction of a five million gallon potable water tank in the Cherry Valley community in order to meet projected water supply needs within the District's service area. Proposed facilities include one pre-stressed concrete water tank, one concrete vault and 400 feet of distribution pipeline.	Water Facilities	Cherry Avenue/Brookside Avenue	Negative Declaration (SCH #2005031176) review period ended 4/27/2005.(8/14/2007)	F40
DOWLING INDUSTRIAL PARK: Construction of industrial park on 26 acres.	Commercial/ Industrial	Northwest corner of 4th Street and Nicholas Road.	Building plans approved, close to grading. (2/26/07)	F41
LEGACY HIGHLANDS: The proposed project will implement residential, commercial, recreational, open spaces, and school uses. In general, areas of the Specific Plan proposed for development take advantage of favorable terrain and are located proximate to existing or proposed major roadways and infrastructure systems. 3,412 homes proposed.	Residential, Commercial, Recreational, Educational, Other	State Route 60 and Potrero Boulevard	Draft EIR for Specific Plan (SCH #2005031155) review period ended 6/15/2007. (8/14/2007)	F42
Norton Younglove Reserve				
No projects currently planned (RCRPOSD, 2007)				
Unincorporated Riverside County				
Development is ongoing and extensive; County does not provide information on specific projects (County of Riverside, 2007).				

Table F-2. El Casco System Project Cumulative Projects List

Project	Type	Location	Status	Map No.
Unincorporated San Bernardino County				
HAMPTON HEIGHTS PLANNED DEVELOPMENT PROJECT: Tract No. 15918 and 15923. Master-planned residential community located on approximately 465 acres in Crafton Hills area of unincorporated San Bernardino County. The proposed project site is within the Sphere of Influence of the City of Redlands and adjacent to the City of Yucaipa. Project includes 495 residential lots, a golf course, private roads, recreational trails, open space, utilities (water and waste water), and a 3,000-square foot retail center.	Residential, Commercial, Recreational	Bounded by Tennessee Street (south), 5th Avenue (north), Crafton Avenue and Overcrest Drive (west), and City of Yucaipa (east). Bisected by Sand Canyon Road.	Draft EIR, review period ended 7/3/06. (7/24/07)	G1

Plans and Projections

A number of plans and projections, such as those found in General Plans and other planning documents, were examined. These provide insight into longer-term expectations regarding development. These are informative to the cumulative analysis even though specific projects are not necessarily identified. Due to the ongoing and intense level of development in the region, General Plans and projections provide a particularly useful method of analyzing the cumulative impacts of a project because these types of planning documents provide the general outlook for development in a particular jurisdiction. This approach is the preferred method of Riverside County (County of Riverside, 2007). Table F-3 lists these documents.

Table F-3. Plans Consulted in Cumulative Analysis

Local Plans
City of Banning General Plan (2006)
City of Beaumont General Plan (2007)
City of Calimesa General Plan (1994)
City of Redlands 1995 General Plan (amended December 1997)
City of Yucaipa General Plan (2004)
County of Riverside General Plan (2003)
County of San Bernardino General Plan (2007)
Western Riverside County Multiple Species Habitat Conservation Plan

General Plans are the blueprints for development in a jurisdiction. They establish policies, goals, and direction for development and conservation within communities. Adopted General Plans have undergone environmental analysis under CEQA and contain policies intended to mitigate environmental impacts associated with the various types of development activities possible within the jurisdiction. The following is a brief summary of the applicable General Plans for the jurisdictions the Proposed Project and alternatives would traverse.

The Proposed Project and alternatives are located primarily within incorporated cities. In these areas, the individual cities' General Plans provide a description of the extent and patterns of development for these areas.

City of Banning

Within the City of Banning, the Proposed Project and alternatives primarily traverses areas designated in the General Plan as varying densities of residential land use. The study area covered in the City of Banning General Plan totals 23,555 acres, which includes the lands within the City limits, the City's Sphere of Influence, and additional planning area composed of adjacent lands. Buildout capacity of the Banning study area is projected as follows: 14,175.3 acres of residential development, 663.5 acres of commercial development, 425.3 acres of professional office and business park development, 772.8 acres of industrial uses, 6,575.3 acres of open space, and 942.8 acres of public facilities. Residential land uses alone are expected to increase dramatically; the Plan identifies 3,077.1 acres currently developed with residential uses, but 14,175.3 acres of residential land uses are expected at buildout.

Click here for Figure F-1a

Click here for Figure F-1b

City of Beaumont

A review of the City of Beaumont General Plan reveals that one goal of the City is to "promote the development of new housing in the City." In addition, the City will maintain and expand its commercial base, promote industrial development and other employment-generating land uses, and provide for the development and maintenance of infrastructure and public facilities to accommodate its projected growth. The City of Beaumont will also maintain and contribute to the development of the local and regional transportation and roadway systems. The General Plan states that the City is expected to be among the fastest growing areas in Southern California due to the availability of developable land, relatively low housing cost, and its desirability as a retirement community.

City of Calimesa

According to the City of Calimesa General Plan, Calimesa is "a rural area characterized by low density developments and large vacant areas." However, the central and northern portions of the City have relatively flat topography amenable to urban development. The General Plan places an emphasis on the City's rural character, and Policy 1.3 of the Land Use Element of the General Plan states that where urban development is proposed, low density residential and rural areas should be designated. The General Plan allows development that is contiguous or close to existing development, with the stipulation that appropriate infrastructure and public facilities should be available or provided to support that development. The total acreage considered in the General Plan is 9,490.25 acres. A total of 4,669.88 acres of residential land uses (20,236 dwelling units) are identified as the City's buildout capacity, along with 664.42 acres of commercial (15.8 million square feet), 95.09 acres of industrial (2.0 million square feet), 3,357.84 acres of resources, and 703.02 acres of streets.

City of Yucaipa

The City of Yucaipa General Plan sets as a goal the provision of diverse and affordable housing for all segments of society. Approximately 48% of the total City area was identified in the Plan as natural open space areas, agriculture, and parks. However the majority of this space is slated for development. The City of Yucaipa allows large-scale planned developments and cluster-type development to provide for more open space, as the City values a rural atmosphere. However, the Plan recognizes the need to balance a rural atmosphere with the rapid growth that characterizes the region, and the associated need for additional housing, employment opportunities, infrastructure, and City revenue.

City of Redlands

The City of Redlands General Plan indicates that the maximum number of housing units at buildout would be 36,414. As of 1994, there were 26,907 housing units. The General Plan describes the need to provide for expansion of housing and employment opportunities while avoiding deterioration in the quality of life associated with rapid and unchecked growth.

County of Riverside

The County of Riverside General Plan presents policies for development and conservation within unincorporated Riverside County. According to the Plan, the population of Riverside County is expected to nearly double between the years 2000 and 2020, growing by 1.4 million people. The majority of the growth pressure and anticipated development is concentrated in the western portion of the County, in areas in or adjacent to the Proposed Project area. Eleven percent of the acreage in

western Riverside County is developed or slated for development, and this development is mostly within and surrounding incorporated cities. County-wide, the Plan describes the need to focus future growth into developed or developing areas and "strategically located community centers" while preserving open space, agriculture, and rural communities as separations between and around communities. The Plan outlines a balanced mix of land uses, including residential, commercial, industrial, agriculture, and open space. The Norton Younglove Reserve, along with three other reserves, are designated as open space areas for the preservation of publicly-owned habitat and park land. The Plan accommodates a broad spectrum of housing types, from apartments to rural estates. A focus on transportation includes a multi-modal system that is interconnected on a regional and local level and includes vehicular, pedestrian, transit, and the Oasis concept.

County of San Bernardino

The County of San Bernardino General Plan provides policies and programs for development and conservation within unincorporated San Bernardino County. As with Riverside County, San Bernardino County is experiencing rapid growth, and housing, commercial, and infrastructure developments are ongoing to accommodate this growth. The Proposed Project falls within the Plan's Valley Planning Region, which covers 2.5 percent of the total County land, but contains approximately 75 percent of the County's population. Most of the land in this region is incorporated.

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

The MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan that is focused on the conservation of species and their associated habitats in Western Riverside County. The MSHCP has as its goal the maintenance of biological and ecological diversity within a rapidly urbanizing region. The MSHCP allows Riverside County and its cities to better control local land-use decisions and maintain a strong economic climate in the region while addressing the requirements of the state and federal Endangered Species Acts. The MSHCP serves as a Habitat Conservation Plan (HCP) pursuant to Section 10(a)(1)(B) of the federal Endangered Species Act of 1973 (FESA), and as a Natural Communities Conservation Plan (NCCP) under the NCCP Act of 2001. The MSHCP Plan Area includes approximately 1.26 million acres; or the entirety of Western Riverside County.

F.1.5 Cumulative Impact Analysis

For each issue area discussed in Section D, the appropriate projects and/or plans and projections were first defined. Next, the geographic scope for cumulative analysis was described, and existing conditions within the geographic analysis area were identified in order to characterize the cumulative baseline conditions. Significance criteria were then stated as the standards by which to measure the significance of cumulative impacts of the Proposed Project and alternatives. An analysis of the cumulative impacts follows, including impacts that could be classified as "cumulatively considerable" or might be able to combine with similar impacts of other identified projects in a substantial way. For impacts that are cumulatively considerable, a discussion is provided describing the significance of the combined effects of the Proposed Project or an Alternative and other projects. When applicable, mitigation measures are described to reduce significant cumulative effects.

F.1.5.1 Air Quality

Projects

Only those projects listed in Tables F-2 that have been identified within one mile of the Proposed Project (see Figures F-1a and F-1b) and that have the potential for temporally overlapping emissions with the Proposed Project are considered potentially cumulative projects. There are a large number of projects shown in Table F-2 that are within one mile of the Project construction areas. However, the construction schedule of many of these cumulative projects is uncertain or will be complete prior to the construction of the Proposed Project, so there is the potential that most of these projects will not have construction periods coincident with that of the Proposed Project, but there is also the likelihood of a number of additional projects not currently known or listed that would meet the cumulative project criteria for air quality.

Projections

The general area traversed by the Proposed Project is expected to experience dramatic residential and commercial development over the next twenty years. Such development will involve many large scale construction projects that would result in varying amounts of direct and indirect air quality emissions. In addition, population growth predicted for the area based on the list of planning documents contained in Table F-3, Plans Consulted in Cumulative Analysis, would result in an increase in the number of residential and vehicular emission sources in the project area. However, due to emission reduction measures, SCAQMD has projected an overall decrease in emissions in the South Coast Air Basin over time, and a reduction in associated criteria pollutant concentrations throughout the basin.

Geographic Scope

For air quality, the potential geographic extent of the cumulative impact area for the Proposed Project and alternatives covers the same air basin. Since the Proposed El Casco System Project has very minor operating emissions, the cumulative impact discussion is focused on construction impacts. Construction impacts are localized and of short duration. Therefore, only projects within one mile of the project route are considered projects that, when combined with the effects of the Proposed Project, could cause cumulative impacts. Additionally, only projects that are scheduled concurrently within this one-mile area of the Proposed Project are considered as projects that could contribute to cumulative impacts.

Significance Criteria

Cumulative impacts would be considered significant if, within the geographic scope of the impact analysis, the El Casco System Project and cumulative projects:

- Construction emissions would exceed the SCAQMD regional emission thresholds.
- Construction emissions would exceed SCAQMD localized significance thresholds.

There are no State or local air district criteria for assessing the cumulative climate change impacts of projects, but for this project, cumulative climate change impacts would be considered significant if:

- Activities associated with the Proposed Project would combine with future development to cumulatively result in greenhouse gas emissions substantially exceeding baseline greenhouse gas emissions. Consistent with the aim of AB32 to provide GHG reductions, the overall cumulative effect of the Proposed Project GHG emissions would "substantially exceed" baseline emissions if the total effect of all Proposed Project and cumulative activities causes a net increase of GHG emissions.

Analysis of Proposed Project

Construction emissions would cumulatively exceed regional emission thresholds (Impact A-1). Cumulative thresholds for air quality are the same as those used when considering a project-specific air quality impact because the thresholds are related to a project's contribution to the regional air quality baseline (as determined SCAQMD's modeling that considers general plan land use designations for the jurisdictions within its borders). If a project would result in exceedances of daily regional emission limits, then it can be considered to contribute to cumulatively considerable air quality impacts. Construction activities associated with the Proposed Project would result in air emissions that exceed the SCAQMD regional emission thresholds. Therefore, the combined effect of construction emissions from the Proposed Project and other projects construction and/or operating emissions would be cumulatively significant at various times during construction (Class I).

Construction emissions would cumulatively exceed localized emission thresholds (Impact A-2). Construction activities associated with the Project would expose sensitive receptors in the populated areas along the construction route. The SCAQMD Localized Significance Threshold (LST) lookup tables used to determine project significance do not apply to cumulative project evaluation; however, the significance criteria is based on downwind pollutant concentrations causing a new exceedance (NOx and CO) of an air quality standard, substantially increasing current exceedances (PM10 and PM2.5) of an air quality standard, or cause an unacceptable air toxic risk, and these general criteria are applicable standards for localized impact cumulative project analysis. For the emissions of any two projects to have the potential for significant cumulative downwind concentrations, they must both be in close proximity to limit the downwind dispersion from one site to the other and generally one of the projects must be able to cause an air quality standard exceedance on it own (conservation of mass principles dictate that two exhaust plumes of stable criteria pollutants do not add concentration, they mix concentration with the plume of highest concentration being diluted by the plume with the lower concentration). This would not be true for air toxic pollutants that may have synergistic effects; however, the air toxic emissions impacts from the project would be very low at any one given location and would not be of a magnitude to significantly contribute to cumulative impacts. Therefore, it can be assumed that the potential for cumulative impacts to sensitive receptors is the same as the project impacts to sensitive receptors, so the proposed Project would have cumulative significant impacts to sensitive receptors after mitigation (Class I).

Cumulatively contribute to climate change (Impact AQ-3). For the Proposed Project, a small amount of greenhouse gas emissions, as compared to statewide totals, would be emitted temporarily during the project's construction activities. However, an unquantifiable direct air quality impact of transmission system operation would be the potential escape of SF_6, a potent greenhouse gas, used in operation of the electrical switchgear equipment and circuit breakers. Because of the high global warming potential of SF_6 even small quantities of emissions are a concern. Any increase in SF_6 emissions would result in a net increase of GHG emissions and an adverse impact to climate change. Therefore, the direct impact of the Proposed Project on greenhouse gases would be adverse and result in a significant unavoidable cumulative contribution (Class I) to climate change when combined with the cumulative development in the project area which is also generating greenhouse gases.

Analysis of Alternatives

CPUC's Northerly Route Alternative Option 3

Construction emissions would cumulatively exceed regional emission thresholds (Impact A-1). Construction activities associated with Route Alternative Option 3 would result in similar air emissions

as those generated for the Proposed Project. While the Route Alternative Option 3 115 kV subtransmission line route would travel a different ROW than that of the Proposed Project, the amount and type of construction required would be similar to that of the Proposed Project, resulting in similar emissions within the same air basin. Route Alternative Option 3 construction emissions would exceed the SCAQMD regional emission thresholds. Therefore, the combined effect of construction emissions from Route Alternative Option 3 and projects identified within Table F-2, Cumulative Project List, would be cumulatively significant at various times during construction (Class I).

Construction emissions would cumulatively exceed localized emission thresholds (Impact A-2). The Route Alternative Option 3 115 kV subtransmission line route would be located within ROW adjacent to a variety of sensitive receptors. As shown in Figures F-1a and F-1b, a number of cumulative projects have been identified within one mile of the Route Alternative Option 3 115 kV subtransmission line route. Should construction of Route Alternative Option 3 occur simultaneously with those projects identified within one mile of the Route Alternative Option 3 115 kV subtransmission line route, a cumulative increase in air quality emissions would expose sensitive receptors in the populated areas along the construction route. As Route Alternative Option 3 construction emissions would be similar to those generated by Proposed Project construction, it can be assumed that the potential for Route Alternative Option 3 cumulative impacts to sensitive receptors is the same as the cumulative impacts for the Proposed Project. Thus, Route Alternative Option 3 would have a cumulatively significant contribution to exceedance of SCAQMD LST thresholds, and a significant cumulative impact on sensitive receptors during construction (Class I).

Contribution to Greenhouse Gases (Impact AQ-3). Air quality emissions during Route Alternative Option 3 construction and operation would be similar to the Proposed Project as described above. Therefore, because escape of SF_6, would occur with Route Alternative Option 3 operation, the direct impact of Route Alternative Option 3 on greenhouse gases would be adverse and result in a significant unavoidable cumulative contribution (Class I) to climate change when combined with cumulative development in the project area, which is also generating greenhouse gases.

Partial Underground Alternative

Construction emissions would cumulatively exceed regional emission thresholds (Impact A-1). Construction activities associated with the Partial Underground Alternative would result in greater air emissions than that of the Proposed Project. As shown in Table C-2, Construction Personnel and Equipment Summary for Underground Construction, the construction of a segment of 115 kV subtransmission line underground would increase the duration and intensity of construction activities (particularly due to the large amount of trenching required), resulting in an increase in air quality emissions associated with the Partial Underground Alternative over those calculated for the Proposed Project. Therefore, the combined effect of construction emissions from Partial Underground Alternative and projects identified within Table F-2, Cumulative Project List, would be cumulatively significant at various times during construction (Class I).

Construction emissions would cumulatively exceed localized emission thresholds (Impact A-2). As shown in Figures F-1a and F-1b, a number of cumulative projects have been identified within one mile of the Partial Underground Alternative 115 kV subtransmission line segment. Furthermore, a number of sensitive receptors are located along the remaining Partial Underground Alternative subtransmission line route identical to that of the Proposed Project. As Partial Underground Alternative construction emissions would be greater than those calculated for the Proposed Project, it can be assumed that Partial Underground Alternative would have a cumulatively significant contribution to exceeding

SCAQMD LST thresholds, and a significant cumulative on impact sensitive receptors during construction (Class I).

Contribution to Greenhouse Gases (Impact AQ-3). Air quality emissions during Partial Underground Alternative construction and operation would be similar to the Proposed Project as described above. Therefore, because escape of SF_6, would occur with Partial Underground Alternative operation, the direct impact of the Partial Underground Alternative on greenhouse gases would be adverse, and result in a significant unavoidable cumulative contribution (Class I) to climate change when combined with cumulative development in the project area, which is also generating greenhouse gases.

No Project Alternative

Without upgrades to the existing system, major construction activities associated with the Proposed Project or an alternative to the Proposed Project would not occur. However, to address the overload conditions in the Maraschino Substation service area, SCE would add a third 28 MVA transformer and two 12 kV distribution lines (each approximately 9 miles in length) at Maraschino Substation in 2007. In addition, switchrack rebuilds at Banning and Zanja Substations would need to be completed. These activities would generate short-term temporary construction air quality emissions to the area. It is assumed that APMs similar to those presented in Section D.9.3.2 (Applicant-Proposed Measures), to reduce air quality impacts during construction would be implemented by SCE with the No Project Alternative. However, due to the limited amount of construction associated with the No Project Alternative, and the minimal amount of grading required for the construction of the two 12 kV distribution lines, the implementation of both APMs and mitigation similar to that included for the Proposed Project would reduce daily air quality emissions during construction. While not all identified cumulative projects would occur at the same time, it can be assumed that one or more other projects will be in construction at the same time. However, the No Project Alternative's cumulative contribution to the combined effect of construction emissions impacting SCAQMD daily regional thresholds and LST thresholds to nearby sensitive receptors would be less-than-significant during construction (Class II). As the No Project Alternative would require the operation of new electrical switchgear equipment and circuit breakers, an increase in escape of SF_6, would occur with the No Project Alternative similar to the Proposed Project. Therefore, the direct impact of the No Project Alternative on greenhouse gases would be adverse and result in a significant unavoidable cumulative contribution (Class I) to climate change when combined with cumulative development also generating greenhouse gases.

F.1.5.2 Land Use

Projects

All of the projects listed in Table F-2 and shown in Figures F-1a and F-1b along with the Proposed Project would have the potential to contribute to cumulative land use, agricultural resource, and recreational resource impacts.

Projections

The plans and projections detailed in the majority of the documents listed in Table F-2 would apply to an analysis of cumulative land use, agricultural resource, and recreation resource impacts. The General Plans for the Cities of Banning, Beaumont, Calimesa, Redlands, and Yucaipa, and the Counties of Riverside and San Bernardino all provide plans for development that, along with the Proposed Project, could potentially result in cumulative impacts.

Geographic Scope

The geographic scope for the analysis of cumulative impacts associated with land use, agriculture, and recreation includes the Cities of Banning, Beaumont, Calimesa, Redlands, and Yucaipa, and portions of unincorporated Riverside and San Bernardino County in the immediate vicinity of the Proposed Project and alternatives. This is defined as the geographic scope or the cumulative impact area because rapid population growth continues to occur in these areas, resulting in the development of new residential, commercial, and industrial land uses. New development affects existing open space, agriculture, and low-density land uses within these portions of San Bernardino and Riverside Counties.

Significance Criteria

Cumulative impacts would be considered significant if, within the geographic scope of the impact analysis, the El Casco System Project:

- Conflict with applicable land use plans, policies, or regulations of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating environmental effects.
- Directly or indirectly disrupt an established or recently approved land use.
- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non–agricultural use.
- Conflict with existing zoning for agricultural use, or a Williamson Act contract.
- Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non–agricultural use.
- Increase the use of existing neighborhood and regional parks or recreational facilities such that substantial deterioration of the facility would occur or be accelerated.
- Disruption of recreational activities, which would adversely affect the recreational value of existing facilities.

Analysis of Proposed Project

Conflict with applicable land use plans, policies, or regulations (Impact LU-1). Projects in Table F-2 that are under construction or that have been approved by the planning agency responsible for their jurisdiction have, by nature of their approval, complied with the land use plans, policies and regulations applicable to the project. Projects listed in Table F-2 that have not been approved have the potential to conflict with applicable plans, policies, and regulations. However, in order for these projects to be approved, they would need to conform to these plans, policies, and regulations. The Proposed Project, similarly, would comply with all applicable land use plans, policies, and regulations and so would not contribute to any cumulative conflicts. No cumulative impact would occur.

Construction would temporarily disturb the land uses it traverses or adjacent land uses (Impact LU-2). Construction activities associated with the projects in Table F-2 would result in temporary impacts (i.e., traffic, noise, air quality) to land uses in their immediate vicinity. As shown in Figures F-1a (Cumulative Projects – Northwest) and F-1b (Cumulative Projects – Southeast), clusters of projects such as the Trammel Crow-California Palms Business Center (B23 and B24), Watson Distribution Center (B9), Commission Review and Approval Nos. 801 and 802 (B26 and B27) in the City of Redlands; housing tract developments in the City of Yucaipa (C22, C25, and C28); the Heartland Project, Aim All Storage, Oak Valley Plaza, and Kirkwood Ranch in the City of Beaumont (F11, F14, F17, and F18); and the Charter Management/Galleher, Vicseth Construction, HLCD, Halem, TMS

Homes, Citicom/William Fox Homes developments in the City of Banning (E22, E23, E24, E25, E32, E35, and E37) could all disturb adjacent land uses, if the projects in these clusters were to occur simultaneously. The combined construction effects of multiple projects could be cumulatively significant at various times during construction. The Proposed Project would have little contribution to this cumulative impact, however. The portion of the Proposed Project that would be in the vicinity of these clusters of projects would be the installation of the fiber optic cable, which would result in little to no disturbance of surrounding land uses. The two areas of the Proposed Project which would result in significant impacts to surrounding land uses would be in Norton Younglove Reserve and in the Sun Lakes Community. None of the projects listed in Table F-2 or plans listed in Table F-2 would combine with the Proposed Project's impacts in these areas. With the mitigation identified in Section D.3.3.3 for Impact LU-2, Mitigation Measure L-2a (Coordinate construction schedule with public and community facilities) and LU-2b (Prepare Construction Notification Plan), the overall Proposed Project would have a minimal contribution on any cumulative impacts and would be less than significant (Class II).

Operation would result in permanent preclusion of land uses it traverses or adjacent land uses (Impact LU-3). The projects listed in Table F-2 would ultimately result in the permanent preclusion of thousands of acres of land, much of which is currently open space or agricultural land. The Proposed Project, however, would result in little permanent preclusion of land. While the El Casco Substation would result in the preclusion of approximately 33 acres of land, the land transfer agreement between SCE and the Park District would ensure that similar land is preserved. Other components of the Proposed Project would permanently preclude very little land. Consequently, the contribution of the Proposed Project to the cumulative permanent preclusion of land in the area would be less than significant (Class III).

Construction or operation would convert Farmland to non-agricultural use (Impact LU-4). As described above for Impact LU-3, the projects listed in Table F-2 would permanently preclude thousands of acres of land, large portions of which have historically been used for agriculture. While some of these projects could potentially convert Farmland to non-agricultural uses, little Prime, Unique, and Farmland of Statewide Importance remains within the areas affected by the projects listed in Table F-2 and what is left would be largely avoided by these projects. The Proposed Project would also have little effect on Farmland. As described under Impact LU-4 of Section D.3.3.3, the Proposed Project would convert less than an acre of Farmland to non-agricultural uses. Consequently, the Proposed Project's overall contribution to the cumulative conversion of Farmland would be less than significant (Class III).

Construction or operation would interfere with agricultural operations (Impact LU-5). While the projects listed in Table F-2 would generally not convert Farmland to non-agricultural uses, they would have the potential to interfere with or permanently replace agricultural operations. Large portions of the area around the Proposed Project are listed as Farmland of Local Importance and are used for grazing and ranchland. The projects listed in Table F-2 could substantially reduce the amount of grazing land in the area. The Proposed Project, however, would interfere with less than an acre of agricultural land. As such, the Proposed Project's contribution to the cumulative interference of agricultural operations would be less than significant (Class III).

Construction or operation would conflict with a Williamson Act contract (Impact LU-6). While there is a potential for some of the projects listed in Table F-2 to conflict with Williamson Act contracts, the approval of these projects would generally require that they not conflict with Williamson Act contract lands. Because of the limited extent of agricultural land disturbance associated with

Proposed Project, the Proposed Project's contribution to cumulative conflicts with Williamson Act contracts would also be less than significant (Class III).

Construction or operation would result in the physical deterioration of a recreational facility due to increased use (Impact LU-7). The growth resulting from the projects listed in Table F-2, in particular the large number of housing and residential developments in the area, would result in an increased demand on recreation resources which could ultimately result in the physical deterioration of existing recreation facilities. The Proposed Project, however, would not result in population growth and would not result in an increased demand for recreation resources. The Proposed Project's contribution to an increased demand of recreation facilities and resultant cumulative deterioration would be less than significant (Class III).

Construction or operation would disrupt recreational activities such that recreational values would be reduced (Impact LU-8). While none of the projects listed in Table F-2 would permanently preclude or replace recreation facilities, the construction of projects in the vicinity of parks and other recreation areas could temporarily disrupt recreational activities and reduce the value of these resources. Completion of the projects would allow recreational activities to continue as normal. Similarly, the Proposed Project would result in temporary, but significant impacts to the recreational value of the Norton Younglove Reserve and the Sun Lakes Country Club golf course. Implementation of Mitigation Measures L-2a (Coordinate construction schedule with public and community facilities) and LU-2b (Prepare Construction Notification Plan) would reduce these impacts and would also reduce the Proposed Project's contribution to cumulative disruption of recreational activities to be less than significant (Class II).

Analysis of Alternatives

CPUC's Northerly Route Alternative Option 3

Conflict with applicable land use plans, policies, or regulations (Impact LU-1). As described above for the Proposed Project, projects in Table F-2 that are under construction or that have been approved by the planning agency responsible for their jurisdiction have, by nature of their approval, complied with the land use plans, policies and regulations applicable to the project. CPUC's Northerly Route Alternative Option 3 would also comply with all applicable land use plans, policies, and regulations and so would not contribute to any cumulative conflicts. No cumulative impact would occur.

Construction would temporarily disturb the land uses it traverses or adjacent land uses (Impact LU-2). Construction activities associated with the projects in Table F-2 would result in temporary traffic, noise, air quality impacts to land uses in their immediate vicinity. As shown in Figures F-1a (Cumulative Projects – Northwest) and F-1b (Cumulative Projects – Southeast), clusters of projects along the fiber optic installation route that could potentially result in cumulative impacts would be the same as described for the Proposed Project. These include the Trammel Crow-California Palms Business Center (B23 and B24), Watson Distribution Center (B9), Commission Review and Approval Nos. 801 and 802 (B26 and B27) in the City of Redlands; housing tract developments in the City of Yucaipa (C22, C25, and C28); the Heartland Project, Aim All Storage, Oak Valley Plaza, and Kirkwood Ranch in the City of Beaumont (F11, F14, F17, and F18). The fiber optic installation as well as a portion of the El Casco-Banning 115 kV subtransmission line would have the potential to contribute with the effects of the Charter Management/Galleher, Vicseth Construction, HLCD, Halem, TMS Homes, Citicom/William Fox Homes developments in the City of Banning (E22, E23, E24, E25, E32, E35, and E37). The combined construction effects of multiple projects could be cumulatively significant at various times during construction. The CPUC's Northerly Route Alternative Option 3

would have some contribution to this cumulative impact as this area would be affected by both the fiber optic installation as well as construction of the El Casco-Banning 115 kV subtransmission line. Impacts associated with this portion of the CPUC's Northerly Route Alternative Option 3 would be limited in duration and mitigated to be less than significant, and this alternative's contribution to the cumulative disturbance of surrounding land uses would also be less than significant. The CPUC's Northerly Route Alternative Option 3 would result in significant, but mitigable impacts in Norton Younglove Reserve. None of the projects listed in Table F-2 or plans listed in Table F-2 would combine with the CPUC's Northerly Route Alternative Option 3 impacts in these areas. With the mitigation identified in Section D.3.3.3 for Impact LU-2, Mitigation Measure L-2a (Coordinate construction schedule with public and community facilities) and LU-2b (Prepare Construction Notification Plan), the overall CPUC Northerly Route Alternative Option 3 would have a minimal contribution on any cumulative impacts and would be less than significant (Class II).

Operation would result in permanent preclusion of land uses it traverses or adjacent land uses (Impact LU-3). The projects listed in Table F-2 would ultimately result in the permanent preclusion of thousands of acres of land, much of which is currently open space or agricultural land. The CPUC's Northerly Route Alternative Option 3 would result in little permanent preclusion of land. While the El Casco Substation would result in the preclusion of approximately 33 acres of land, the land transfer agreement between SCE and the Park District would ensure that similar land is preserved. The construction of new poles for the El Casco-Banning 115 kV subtransmission line as it leaves El Casco Substation under CPUC's Northerly Route Alternative Option 3 would permanently preclude land in the Summerwind Ranch Specific Plan Area, but this land has been set aside as open space, in part, for the utility ROW. Consequently, the contribution of the CPUC's Northerly Route Alternative Option 3 to the cumulative permanent preclusion of land in the area would be less than significant (Class III).

Construction or operation would convert Farmland to non-agricultural use (Impact LU-4). The cumulative impacts of the CPUC's Northerly Route Alternative Option 3 on Farmland would be the same as described for the Proposed Project. The projects listed in Table F-2 would permanently preclude thousands of acres of land, but little Prime, Unique, and Farmland of Statewide Importance remains within the areas affected. The CPUC's Northerly Route Alternative Option 3 would also have little effect on Farmland. As described under Impact LU-4 of Section D.3.4.2, the CPUC's Northerly Route Alternative Option 3 would convert less than an acre of Farmland to non-agricultural uses. Consequently, the CPUC's Northerly Route Alternative Option 3 overall contribution to the cumulative conversion of Farmland would be less than significant (Class III).

Construction or operation would interfere with agricultural operations (Impact LU-5). The cumulative impacts of CPUC's Northerly Route Alternative Option 3 on agricultural operations would be similar to the Proposed Project, but would have a greater temporary impact on agricultural operations. While the projects listed in Table F-2 would generally not convert Farmland to non-agricultural uses, they would have the potential to interfere with or permanently replace agricultural operations. Large portions of the area along the CPUC's Northerly Route Alternative Option 3 are listed as Farmland of Local Importance and are used for grazing and ranchland. The projects listed in Table F-2 could substantially reduce the amount of grazing land in the area. The CPUC's Northerly Route Alternative Option 3 would temporarily interfere with a maximum of 7.2 acres of agricultural land, but would permanently convert less than an acre of Farmland. As such, the CPUC's Northerly Route Alternative Option 3 contribution to the cumulative interference of agricultural operations would be less than significant (Class III).

Construction or operation would conflict with a Williamson Act contract (Impact LU-6). There is a potential for some of the projects listed in Table F-2 to conflict with Williamson Act contracts, but the approval of these projects would generally require that they not conflict with Williamson Act contract lands. Because of the limited extent of agricultural land disturbance associated with CPUC's Northerly Route Alternative Option 3, this alternative's contribution to cumulative conflicts with Williamson Act contracts would also be less than significant (Class III).

Construction or operation would result in the physical deterioration of a recreational facility due to increased use (Impact LU-7). As described for the Proposed Project, the growth resulting from the projects listed in Table F-2 would result in an increased demand on recreation resources which could ultimately result in the physical deterioration of existing recreation facilities. The CPUC's Northerly Route Alternative Option 3, however, would not result in population growth and would not result in an increased demand for recreation resources. The CPUC's Northerly Route Alternative Option 3 contribution to an increased demand of recreation facilities and resultant cumulative deterioration would be less than significant (Class III).

Construction or operation would disrupt recreational activities such that recreational values would be reduced (Impact LU-8). Similar to the Proposed Project, the projects listed in Table F-2 would not permanently preclude or replace recreation facilities, but the construction of projects in the vicinity of parks and other recreation areas could temporarily disrupt recreational activities and reduce the value of these resources. Completion of the projects would allow recreational activities to continue as normal. Similarly, CPUC's Northerly Route Alternative Option 3 would result in temporary, but significant impacts to the recreational value of the Norton Younglove Reserve, Oak Valley Golf Course, and Noble Creek Regional Park. Implementation of Mitigation Measures L-2a (Coordinate construction schedule with public and community facilities) and LU-2b (Prepare Construction Notification Plan) would reduce these impacts and would also reduce the CPUC Northerly Route Alternative Option 3 contribution to cumulative disruption of recreational activities to be less than significant (Class II).

Partial Underground Alternative

Conflict with applicable land use plans, policies, or regulations (Impact LU-1). Cumulative impacts associated with conflicts with land use plans, policies, and regulations would be the same as described for the Proposed Project. Projects in Table F-2 that are under construction have been approved by the planning agency responsible for their jurisdiction and comply with the land use plans, policies and regulations applicable to the project. The Partial Underground Alternative would also comply with all applicable land use plans, policies, and regulations and so would not contribute to any cumulative conflicts. No cumulative impact would occur.

Construction would temporarily disturb the land uses it traverses or adjacent land uses (Impact LU-2). Construction disturbance of adjacent lands or lands traversed by the Partial Underground Alternative would be similar to the Proposed Project, although impacts to Sun Lakes Country Club golf course would be more severe. The projects that would contribute cumulatively to land use disturbance impacts in Table F-2 would be the same as for the Proposed Project. The combined construction effects of multiple projects could be cumulatively significant at various times during construction. The Partial Underground Alternative would have little contribution to this cumulative impact, however. The portion of the Partial Underground Alternative that would be in the vicinity of these clusters of projects would be the installation of the fiber optic cable, which would result in little to no disturbance of surrounding land uses. The two areas of the Partial Underground Alternative which would result in significant impacts to surrounding land uses would be in Norton Younglove Reserve and in the Sun Lakes Community. None of the projects listed in Table F-2 or plans listed in Table F-2 would combine with

the Partial Underground Alternative's impacts in these areas. With the mitigation identified in Section D.3.3.3 for Impact LU-2, Mitigation Measure L-2a (Coordinate construction schedule with public and community facilities) and LU-2b (Prepare Construction Notification Plan), the overall Partial Underground Alternative would have a minimal contribution on any cumulative impacts and would be less than significant (Class II).

Operation would result in permanent preclusion of land uses it traverses or adjacent land uses (Impact LU-3). The Partial Underground Alternative would result in the same cumulative impacts associated with the permanent preclusion of land uses as described for the Proposed Project. The projects listed in Table F-2 would result in the permanent preclusion of thousands of acres of land, much of which is currently open space or agricultural land. The Partial Underground Alternative would result in little permanent preclusion of land. The El Casco Substation would result in the preclusion of approximately 33 acres of land, but the land transfer agreement between SCE and the Park District would ensure that similar land is preserved. Consequently, the contribution of the Partial Underground Alternative to the cumulative permanent preclusion of land in the area would be less than significant (Class III).

Construction or operation would convert Farmland to non-agricultural use (Impact LU-4). The cumulative impacts to Farmland of the Partial Underground Alternative would be the same as described for the Proposed Project. The projects listed in Table F-2 would permanently preclude thousands of acres of land, but little Prime, Unique, and Farmland of Statewide Importance remains within the areas affected. The Partial Underground Alternative would also have little effect on Farmland. As described under Impact LU-4 of Section D.3.4.2, the Partial Underground Alternative would convert less than an acre of Farmland to non-agricultural uses. Consequently, the Partial Underground Alternative's overall contribution to the cumulative conversion of Farmland would be less than significant (Class III).

Construction or operation would interfere with agricultural operations (Impact LU-5). The cumulative impacts of Partial Underground Alternative on agricultural operations would be the same as for the Proposed Project. The projects listed in Table F-2 would have the potential to interfere with or permanently replace agricultural operations. Large portions of the area along the Partial Underground Alternative are listed as Farmland of Local Importance and are used for grazing and ranchland. The projects listed in Table F-2 could substantially reduce the amount of grazing land in the area. The Partial Underground Alternative, however, would interfere with less than an acre of agricultural land. As such, the Partial Underground Alternative's contribution to the cumulative interference of agricultural operations would be less than significant (Class III).

Construction or operation would conflict with a Williamson Act contract (Impact LU-6). There is a potential for some of the projects listed in Table F-2 to conflict with Williamson Act contracts, but the approval of these projects would generally require that they not conflict with Williamson Act contract lands. Because of the limited extent of agricultural land disturbance associated with the Partial Underground Alternative, this alternative's contribution to cumulative conflicts with Williamson Act contracts would also be less than significant (Class III).

Construction or operation would result in the physical deterioration of a recreational facility due to increased use (Impact LU-7). As described for the Proposed Project, the growth resulting from the projects listed in Table F-2 would cause an increased demand on recreation resources which could ultimately result in the physical deterioration of existing recreation facilities. The Partial Underground Alternative, however, would not result in population growth and would not result in an increased demand for recreation resources. The Partial Underground Alternative's contribution to an increased

demand of recreation facilities and resultant cumulative deterioration would be less than significant (Class III).

Construction or operation would disrupt recreational activities such that recreational values would be reduced (Impact LU-8). Similar to the Proposed Project, the projects listed in Table F-2 would not permanently preclude or replace recreation facilities, but the construction of projects in the vicinity of parks and other recreation areas could temporarily disrupt recreational activities and reduce the value of these resources. Completion of the projects would allow recreational activities to continue as normal. The Partial Underground Alternative would result in temporary, but significant impacts to the recreational value of the Norton Younglove Reserve and Sun Lakes Country Club golf course. Implementation of Mitigation Measures L-2a (Coordinate construction schedule with public and community facilities) and LU-2b (Prepare Construction Notification Plan) would reduce these impacts, but would not reduce the impacts to be less than significant at Sun Lakes Country Club golf course. However, as none of the other projects listed in Table F-2 would affect the Sun Lakes Country Club golf course, the Partial Underground Alternative's contribution to cumulative disruption of recreational activities to be less than significant (Class II).

No Project Alternative

Under the No Project Alternative, no land use impacts associated with the Proposed Project or alternatives would occur. While modifications would be made at existing SCE facilities and additional distribution lines would be constructed, it is not anticipated that these activities would contribute to any cumulative impacts associated with the projects listed in Table F-2 and the plans listed in Table F-2.

F.1.5.3 Biological Resources

Projects

Open space including native vegetation communities within Western Riverside County is rapidly being converted to other land uses through ongoing development and urbanization. Table F-2 indicates over 150 planned developments scheduled to occur within five miles of the Proposed Project. Many of these include large residential communities, golf courses, and commercial centers. In addition, other linear utility and transportation projects including electrical subtransmission line upgrades, water infrastructure, and highway expansion are proposed. Cumulatively these projects would result in the permanent conversion of land to over 25,000 acres. These projects will continue to result in the incremental loss of habitat, migratory pathways, and natal rearing grounds for both common and sensitive wildlife in the Proposed Project area.

Projections

The Proposed Project is located in northwestern Riverside County and southwestern San Bernardino County, with some elements in the incorporated Cities of Beaumont, Banning, Yucaipa, Redlands, and Loma Linda as well as unincorporated Riverside and San Bernardino Counties. This region is currently subject to rapid expansion of urbanized and industrial areas supporting large tracts of residential communities, business parks, and light industry. By 2030 population growth is expected to double for Riverside County (Table F-1).

The rapid population growth and associated development has resulted in the continued loss of open space and the degradation of riparian and natural areas that historically supported populations of unique or rare species. This section of Riverside County is located at the interface of desert and coastal

bioregions and supports populations of unique and rare species. Sensitive riparian, desert wash, and Riversidean coastal sage scrub habitats are gradually being displaced by development, wildlife movement corridors have been modified to the extent that the movement of wildlife is curtailed or limited, and expanding population centers are degrading the habitat values where urban and wilderness areas interface. Construction activities associated with the development of these and future projects will continue to adversely impact biological resources present in the project region and can be expected to continue and increase in the future.

To accommodate growth and ensure the long term persistence of biological resources in the County, Riverside County adopted the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on conservation of species and their associated habitats in western Riverside County. Federal and State wildlife agencies approved permits required to implement the MSHCP on June 22, 2004. Implementation of the plan will contribute to the overall goal of the MSHCP Conservation Area, approximately 500,000 acres of habitat, including land already in public or quasi-public ownership and about 153,000 acres of land in private ownership that will be purchased or conserved through other means. The money for purchasing private land will come from development mitigation fees as well as state and federal funds.

The goal of the MSHCP is to streamline development while directly support the identified conservation goals of the MSHCP. This includes the development of a comprehensive biological resources reserve system that provides conservation of biological resources in perpetuity.

Geographic Scope

The geographic scope for the analysis of cumulative impacts on biological resources is a five-mile wide corridor centered on the Proposed Project and alternative route alignments. Utilizing a five-mile wide corridor for cumulative projects is relevant based on the intense level of development currently occurring the Proposed Project area and Riverside County in general. The rapid urbanization and changing land use patterns in the region directly affects the ability of certain plant and wildlife species to successfully complete critical life functions including foraging, locating suitable breeding habitat, and rearing young.

Significance Criteria

Cumulative impacts would be considered significant if, within the geographic scope of the impact analysis, the El Casco System Project would:

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS.
- Have an adverse effect, either directly or through habitat modifications, on any species listed as endangered, threatened, or proposed or critical habitat for these species.
- Have a substantial adverse effect, either directly or through habitat modifications on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG, USFWS, or USDA Forest Service.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinances or conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Communities Conservation Plan (NCCP), or other approved local, regional, or state HCP.

Analysis of Proposed Project

The Project would cause temporary or permanent loss of native vegetation communities (Impact B-1). The Proposed Project will result in the loss of approximately 15 acres of vegetation primarily from the construction of the El Casco substation. While this loss constitutes a very minor loss compared to ongoing development (less than one percent Table F-2) impacts to vegetation from the ongoing land use conversion are rapidly reducing habitat occurring in and adjacent to the Proposed Project. As such, the permanent loss of vegetation from implementation of the Proposed Project would be considered a significant impact (Class II) absent mitigation. Impacts to jurisdictional habitat are minimal and would consist of minor impacts to San Timoteo and Montgomery Creeks. One of the primary concerns with ongoing impacts to jurisdictional habitat in the project region is the changing land uses of adjacent upland areas and the potential to alter hydrologic regimes within the watershed. Many sensitive plant and wildlife species occur in or adjacent to these waterways and the conversion of habitat adjacent to these resources continues to degrade both the existing and adjacent resource. The importance of riparian habitats and associated uplands can not be overstated. In California more than 95 percent of riparian habitats that were present prior to European settlement have been severely degraded or destroyed (Smith, 1977; Katibah, 1984). Although riparian zones naturally account for a low percentage of the total landscape (often less than 1 percent), they typically accommodate a disproportionately high number of species and provide a larger degree of ecological function than surrounding upland areas (Fischer and Fischenich, 2000). Many aquatic and semi-aquatic species rely on adjacent terrestrial habitats to complete their life cycles (Semlitsch and Bodie, 2003; Spinks et al., 2003, Burke and Gibbons, 1995) and riparian vegetation provides necessary foraging and nesting habitat for many bird species (Rottenborn, 1999; Bolger et al., 1997). Additionally, the quality of riparian habitats directly affects water quality (as reviewed in Fischer and Fischenich, 2000).

In arid regions such as Southern California, riparian habitats play a particularly crucial role in maintaining biodiversity because up to 80 percent of vertebrate species rely on them for at least part of their lifecycle (Knopf et al. 1988) and because of the central role riparian habitats play in a variety of ecological functions (Fischer and Fischenich, 2000; Rottenborn 1999).Although the loss of habitat for this Project would be mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) the impacts to native vegetation communities, when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

The Project would cause loss of foraging or breeding habitat for wildlife (Impact B-2). As described above for Impact B-1 sensitive vegetation communities are present in the Proposed Project area (Section D.3.1.4.3 Sensitive Vegetation Communities) and provide important foraging habitat for birds, small mammals, and reptiles. Some of the important foraging habitats present in the project area include non-native grasslands, coastal sage scrub, and riparian habitats habitat. Habitat in the region continues to be subject to loss from rapid urbanization. These habitats play important functional roles in the lifecycles of both common and sensitive plant and wildlife species. A major cause of decline for some species is the loss or modification of habitat, primarily through urbanization (Hays et al., 1999) and agriculture (Germano and Bury, 2001). Urbanization directly affects species by converting suitable habitat.

While the loss of habitat for this project would be mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) the impacts to biological resources associated with loss of foraging or breeding habitat for wildlife, when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

The Project would introduce non-native and invasive plant species (Impact B-3). Non-native plants pose a threat to the natural processes of plant community succession, fire frequency, biological diversity and species composition. The survival of some populations of special status species could be adversely affected by the success of an introduced plant species. The ongoing development and urbanization in the region posses a continued risk for the spread of noxious or invasive weeds form land disturbance, residential landscaping, and modified water regimes from urban run-off. This has the potential to result in the spread of invasive plants region wide and alter the general species composition of some native habitats. While the impacts from the spread of invasive plant species for this project would be mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) the impacts to biological resources associated with the introduction of non-native or invasive species, when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

The Project would result in a loss of nesting birds (Impact B-4). The Proposed Project contains suitable foraging and nesting habitat for both resident and migratory birds. The rapid population growth and associated development in the region will continue to result in the loss of open space and the degradation of riparian and natural areas that support populations of nesting birds. Historically this portion of Riverside County supported large open areas utilized by nesting birds. Construction activities associated with this project have the potential to impact nesting birds for limited periods of time and would be fully mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources). However, the continued loss of habitat region wide will likely result in continued adverse impacts to nesting birds. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in permanent disturbance to wildlife at the proposed El Casco Substation site due to noise and increased human presence (Impact B-5). Construction and operation of the El Casco Substation will create and maintain disturbance conditions that could degrade the function of habitat linkages associated with the San Timoteo Creek riparian corridor and existing open space within and around the Norton Younglove County Preserve. Impacts would be largely the same as described for Impact B-4. While the impacts from the use of the El Casco substation site would be mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) these impacts to biological resources, when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

Construction activities would result in indirect or direct loss of listed plants (Impact B 6). Construction activity associated with the Proposed Project has the potential to disturb either individual plants or populations of listed plant species should they be present in the project area. While listed plant species were not identified in the project area it is possible that the loss of listed plant species would occur from the Proposed Project if present in the project area. Coupled with the rapid growth experienced in the region it is expected that populations of listed plants in other areas would be lost through various projects including improvement s to existing flood control channels, housing, and commercial development. While construction activities associated with this project would be fully

mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) the continued loss of habitat region wide will likely result in continued adverse impacts to listed plants. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

Construction activities would result in indirect or direct loss of Quino Checkerspot habitat (Impact B 7). There is no indication that any rare or listed invertebrates occur within the Proposed Project area. However, region wide several listed species are known to occur. Because habitat for Quino Checkerspot butterfly is present within the Proposed Project area the MSHCP automatically assumes the species could be present and provides mitigation through the MSHCP fee structure. The Proposed Project would remove habitat potentially utilized by this species but the impacts would be small and fully mitigated. However, the continued loss of habitat region wide will likely result in continued adverse impacts to this species. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in habitat loss or disturbance to listed birds, including migratory birds and raptors (Impact B-8). The Proposed Project area and Western Riverside County support numerous listed birds including southwestern willow flycatchers, northwestern willow flycatchers, Western yellow-billed cuckoo, and least Bell's vireos. In addition, California gnatcatcher occurs in the region. Many of these species utilize the riparian communities that cross the region. Construction activities for this project would subject these species to the same types of impacts as described for nesting birds (Impact B-4). The continued loss of riparian and upland communities is expected to occur as development expands and populations grow. While impacts to listed birds would be fully mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) the continued loss of habitat region wide will likely result in continued adverse impacts to sensitive birds. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the electrocution of listed bird species (Impact B-9). Impacts to listed bird species from electrocution are not expected to occur from the Proposed Project with the implementation of standard Mitigation Measures and the utilizing APLIC construction standards. However, the continued development in the area will likely require an expansion of small distribution lines to support both residential and industrial development. The majority of raptor electrocutions are caused by lines that are energized at voltage levels less than 69 kV and large, aerial perching birds, such as hawks and eagles, are most susceptible to electrocution from these lines. The design of subtransmission poles will likely preclude this occurrence however ongoing development will likely result in increased electrocution risks over time. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in subtransmission line collisions by listed bird species (Impact B-10). Passerines and waterfowl are known to collide with wires particularly during nocturnal migrations or poor weather conditions (Avery et al., 1978). However, passerines and waterfowl have a lower potential for collisions than larger birds, such as raptors. Some behavioral factors contribute to a lower collision mortality rate for these birds. Passerines and waterfowl tend to fly under power lines, as opposed to larger species, which generally fly over the lines and risk colliding with the higher static lines, and many smaller birds tend to reduce their flight activity during poor weather conditions (Avery et al., 1978). Collision mortality would also be higher where the movements of susceptible species are

the greatest such as along waterways or over riparian areas. Collision rates generally increase in low light conditions, during inclement weather, such as rain or snow, during strong winds, and during panic flushes when birds are startled by a disturbance or are fleeing from danger. Collisions are more probable near wetlands, valleys that are bisected by power lines, and within narrow passes where power lines run perpendicular to flight paths. Collision impacts from the Proposed Project are not expected to result in significant impacts to birds in the project area. However, as the flight paths become more constrictive and larger numbers of transmission lines, towers, structures, and vehicles occur in the region the numbers of birds subject to collision will continue to rise. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of special-status plant species (Impact B-11). Construction related impacts to sensitive plant species would be the same as described for Impact B-6 for listed plant species and would be considered significant without mitigation. Ongoing development in the region identified in Table F-2 may be situated in areas that provide habitat for rare plants have the potential to result in mortality and/or disturbance to sensitive plant populations in the region. Construction of new housing and infrastructure projects will result in further loss to wild lands and riparian areas that support sensitive and large-scale housing projects can contribute to the fragmentation of habitat and the loss of genetic variability between populations by severing linkages and movement corridors. The continued encroachment of residential communities on undisturbed open space also reduces the buffers that minimize impacts to important edge communities and transition zones. While impacts to sensitive plant species would be fully mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) the continued loss of habitat region wide will likely result in continued adverse impacts to rare plants. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife (Impact B-12). Construction related impacts related to the loss of habitat for sensitive wildlife would be the same as described for Impact B-6 and B-12. Ongoing development in the region identified in Table F-2 will continue to result in the change of land use and loss of open space utilized by sensitive wildlife. Fragmentation of habitat and the loss of genetic variability between populations by severing linkages and movement corridors will continue to be degraded as development encroach on remaining habitat assemblages. While impacts would be fully mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) the continued loss of habitat region wide will result in continued adverse impacts to sensitive wildlife. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of special-status reptile species (Impact B-13). The Proposed Project area and Western Riverside County are known to support a variety of sensitive reptiles. Continued development would occur in or adjacent to habitat that may support populations of sensitive reptiles. Continued degradation of native plant communities and riparian habitat in the Beaumont and Banning area from ongoing development will continue to contribute to the decline of species or their habitat throughout the region. While impacts would be fully mitigated through the implementation of the MSHCP process and mitigation measures for this project, the increased construction related to the Proposed Project, including development of the El Casco substation may further increase the potential for impacts to sensitive reptiles. Therefore, the impacts to biological resources from this project have the potential to combine with similar impacts of other projects and would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of burrowing owls (Impact B-14). Statewide populations of burrowing owls continue to be subject to habitat loss from urbanization and agricultural process. Although owls were not observed in the project area during focused surveys this species is well documented in Western Riverside County. Impacts to this species from the Proposed Project are not expected to result in the significant loss of habitat or individual animals. However, important foraging habitat utilized by this species include non-native grasslands continues to be subject to loss from rapid urbanization. This habitat plays an important functional role of this species life history and the loss of usable habitat is a major cause of decline for burrowing owls. While the loss of habitat for this project would be mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) impacts to burrowing owls when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of foraging habitat or disruption of nesting for special-status raptor species (Impact B-15). Construction activities resulting in impacts to special status raptor species would be the same as described for nesting birds (Impact B-4) and listed bird species (Impact B-8). As previously described, the continued loss of habitat region wide will result in continued adverse impacts to these species. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in electrocution of special-status bird species (Impact B-16). Impacts to special status birds are the same as listed bird species (see Impact B-8). When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in subtransmission line collision by special-status bird species (Impact B-17). Potential cumulative impacts to birds from collisions with the electrical line are the same as Impact B-9. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of the American badger (Impact B-18). Habitat for the American badger is present throughout the Proposed Project area and across Riverside County. Because of the home range of the badger is hundreds of hectares is size ongoing development occurring in the region will likely result in the continued fragmentation of useable habitat and further restrict the range of this species. Construction of new housing and infrastructure projects will result in further loss to wild lands while the continued encroachment of residential communities on undisturbed open space reduces the buffers that minimize impacts species remaining in important edge communities and transition zones. While impacts badgers would be fully mitigated mitigation measures described in Section D.3 (Biological Resources) the continued loss of habitat region wide will likely result in continued adverse impacts to this species. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in loss of special-status rodent species (Impact B-19). Impacts to sensitive rodents would largely be the same as described for Impact B-18. Several sensitive rodent species are known to occur in the project region and include Los Angeles pocket mouse, San Diego pocket mouse, and San Diego desert wood rat. Some of these species including the two species of pocket mouse are known to occur in the wash habitats in the region. Urban development in the region will continue to reduce habitat available to these species. Alluvial fan communities where many sensitive rodents occur will be subject to increased foot traffic and as housing encroaches on the banks of the drainages

increased run off from residential areas. Small rodents will also be subject to increased predation risks from domestic animals, mesopredators, and subsidized predators that occur in higher numbers near urbanized areas.

Although impacts to small rodents would be fully mitigated through compliance with the MSHCP and mitigation measures described in Section D.3 (Biological Resources) the continued loss of habitat region wide will result in adverse impacts to these species. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of jurisdictional waters and wetlands (Impact B-20). Region wide Riverside County supports numerous creeks, small rivers, and intermittent blue line drainages subject to jurisdiction by the State and federal government. As described in Section D.3.1.4.7 Jurisdictional Waters, several waterways cross the Proposed Project area including San Timoteo Creek, Potrero Creek, Smith Creek, Montgomery Creek, and various unnamed blue-line streams and ephemeral drainages. In arid regions such as Southern California, riparian habitats play a particularly crucial role in maintaining biodiversity because up to 80 percent of vertebrate species rely on them for at least part of their lifecycle and because of the central role riparian habitats play in a variety of ecological functions. Widespread development in the region will continue to result in the degradation and loss of jurisdictional waterways through. Region wide these impacts would occur from the direct loss of habitat and indirectly through the colonization of exotic plant and animal species. Although the loss of jurisdictional habitat for the Proposed project is small and would be mitigated through the permit compliance and mitigation measures described in Section D.3 (Biological Resources) the impacts to jurisdictional waters, when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss or restriction of habitat connectivity in Constrained Linkage 22 (Impact B-21). This section of Western Riverside County is a major biogeographic transition zone for the eastern and western boundaries of coastal and desert ecoregions. The combination of unique geological, tectonic, and climatic conditions create and maintain contact zones between coastal-desert subspecies and species pairs that are of significant taxonomic and evolutionary value. In southern California, fragmentation of the landscape from urban development has reduced much of the remaining habitat available to native species. The amount and distribution of suitable habitat is an essential element to consider for the management of wildlife. The Proposed Project area is located in the Constrained Linkage Area 22, which identifies San Timoteo Creek as a critical corridor for wildlife movement in the region. The San Timoteo riparian corridor and adjacent uplands allow the movement of wildlife within specific areas but movement is constrained by Highway 60, San Timoteo Canyon Road, the existing railroad line, and Interstate 10. However, ongoing development in this area including the proposed substation site continues to degrade the functionality of this constrained linkage. As urbanization continues and housing developments or road expansion continues in the region it will become progressively more difficult to maintain critical landscape features required for the passage of native wildlife. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would conflict with the MSHCP (Impact B-22). Based on a review of the MSHCP the Proposed Project would not be in conflict with the existing plan provided SCE complies with the provisions identified in the EIR. However, it is now known whether or not the various projects identified in Table F-2 would be, or remain in, compliance with the provisions identified in the plan. As the Project is in compliance with the MSHCP it is unlikely that it would cumulative combine with

other projects and conflict with the plan. Therefore when combined with impacts from past, present, or reasonable future projects, these impacts would not be considered cumulatively significant (Class II).

Analysis of Alternatives

CPUC's Northerly Route Alternative Option 3

The Project would cause temporary or permanent loss of native vegetation communities (Impact B-1). This alternative would result in the same types of impacts as the Proposed Project and will result in the loss of approximately 15 acres of vegetation primarily from the construction of the El Casco substation. Impacts to other sensitive habitats would also occur including minor impacts to San Timoteo and Montgomery Creeks. Similar to the Proposed Project the loss of habitat for this alternative would be mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources), however, when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

The Project would cause loss of foraging or breeding habitat for wildlife (Impact B-2). This alternative would result in the same impacts as the Proposed Project. Important foraging habitat for birds, small mammals, and reptiles would be lost. Coupled with the loss of habitat through urbanization the impacts to biological resources when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

The Project would introduce non-native and invasive plant species (Impact B-3). This alternative has the same has the potential to result in the spread of invasive plants region wide and alter the general species composition of some native habitats as the Proposed Project. While the impacts from the spread of invasive plant species would be mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) the impacts when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

The Project would result in a loss of nesting birds (Impact B-4). This alternative contains the same suitable foraging and nesting habitat for both resident and migratory birds as the Proposed Project. Therefore, the continued loss of habitat region wide will likely result in continued adverse impacts to nesting birds. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in permanent disturbance to wildlife at the proposed El Casco Substation site due to noise and increased human presence (Impact B-5). This alternative would include the construction and operation of the El Casco Substation. Similar to the Proposed Project this will create and maintain disturbance conditions that could degrade the function of habitat linkages associated with the San Timoteo Creek riparian corridor and existing open space within and around the Norton Younglove County Preserve. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

Construction activities would result in indirect or direct loss of listed plants (Impact B 6). Construction activity associated with this alternative would also have the potential to disturb listed plant species should they be present in the project area. While listed plant species were not identified in the project area it is possible that the loss of listed plant species would occur. It is also likely that urbanization in the region will impact populations of listed plants in other areas. While construction activities associated with this alternative would be fully mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) the continued

loss of habitat region wide will likely result in continued adverse impacts to listed plants. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

Construction activities would result in indirect or direct loss of Quino Checkerspot habitat (Impact B 7). This alternative has the same potential to impact Quino Checkerspot butterfly as the Proposed Project. Although known to occur habitat for this species is present in the alternative alignment. Similar to the Proposed Project the continued loss of habitat region wide will result in adverse impacts to this species. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in habitat loss or disturbance to listed birds, including migratory birds and raptors (Impact B-8). This alternative has the same potential to impact listed birds as the Proposed Project. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the electrocution of listed bird species (Impact B-9). Impacts to listed bird species from electrocution from this alternative are the same as the Proposed Project and would be considered less than significant with mitigation. Ongoing development in the area will continue to pose an electrocution hazard form distribution lines in the project region. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in subtransmission line collisions by listed bird species (Impact B-10). The same types of potential impacts to listed bird species are likely to occur from this alternative. As the lines occur in the same region collision mortality would be the same. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of special-status plant species (Impact B-11). Construction related impacts to sensitive plant species would be the same as described for Impact B-6 for listed plant species as the Proposed Project and would be considered significant without mitigation. Ongoing development in the region identified in Table F-2 would still occur and would affect the rare plants in the same way as the Proposed Project. While impacts to sensitive plant species would be fully mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) the continued loss of habitat region wide will likely result in continued adverse impacts to rare plants. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife (Impact B-12). Construction related impacts from this alternative related to the loss of habitat for sensitive wildlife would be the same as described for Impact B-6 and B-12. Ongoing development in the region identified in Table F-2 will continue to result in the change of land use and loss of open space utilized by sensitive wildlife. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of special-status reptile species (Impact B-13). This alternative occurs in the same region and would subject small reptiles to the same impacts as the Proposed Project. Continued development would occur and the loss or degradation of native plant communities and

riparian habitat in the Beaumont and Banning area from ongoing development will continue to contribute to the decline of species or their habitat throughout the region. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of burrowing owls (Impact B-14). Impacts to burrowing owl would be that same as the Proposed Project are not expected to result in the significant loss of habitat or individual animals. However, foraging habitat utilized by this species will continue to decline from the projects identified in Table F-2. While the loss of habitat for this alternative would be mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) impacts to burrowing owls when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of foraging habitat or disruption of nesting for special-status raptor species (Impact B-15). Construction activities resulting in impacts to special status raptor species would be the same as described for nesting birds (Impact B-4) and listed bird species (Impact B-8) for the Proposed Project. The continued loss of habitat region wide will result in continued adverse impacts to these species. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in electrocution of special-status bird species (Impact B-16). Impacts to special status birds are the same as listed bird species (see Impact B-8). When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in subtransmission line collision by special-status bird species (Impact B-17). Potential cumulative impacts to birds from collisions with the electrical line are the same as Impact B-9. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of the American badger (Impact B-18). This alternative has the same potential to impact badgers as the Proposed Project. As open space utilized by this species continues to decline from urbanization impacts to this species will likely increase. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in loss of special-status rodent species (Impact B-19). This alternative has the same potential to impact sensitive rodents as the Proposed Project. Several sensitive rodent species are known to occur in the project region and include Los Angeles pocket mouse, San Diego pocket mouse, and San Diego desert wood rat. Urban development in the region will continue to reduce habitat available to these species. Although impacts to small rodents would be fully mitigated through compliance with the MSHCP and mitigation measures described in Section D.3 (Biological Resources) the continued loss of habitat region wide will result in adverse impacts to these species. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of jurisdictional waters and wetlands (Impact B-20). This alternative would impact the same general watercourse as the Proposed Project. As the proposed development projects identified in Table F-2 occur they will likely result in the degradation and loss of jurisdictional waterways. Although the loss of jurisdictional habitat for this alternative is small and

would be mitigated through the permit compliance and mitigation measures described in Section D.3 (Biological Resources) impacts to jurisdictional waters, when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss or restriction of habitat connectivity in Constrained Linkage 22 (Impact B-21). This alternative is also located in the Constrained Linkage Area 22, which identifies San Timoteo Creek as a critical corridor for wildlife movement in the region. The San Timoteo riparian corridor and adjacent uplands allow the movement of wildlife within specific areas but movement is constrained by Highway 60, San Timoteo Canyon Road, the existing railroad line, and Interstate 10. Impacts would be the same as the Proposed Project to this linkage and wildlife movement in general. As ongoing development in this area continues to degrade the functionality of this constrained linkage it will become progressively more difficult to maintain critical landscape features required for the passage of native wildlife. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would conflict with the MSHCP (Impact B-22). This alternative would not be in conflict with the MSHCP provided SCE complies with the provisions identified in the EIR. As the alternative is in compliance with the MSHCP it is unlikely to combine with impacts from past, present, or reasonable future projects. Therefore, these impacts would not be considered cumulatively significant (Class II).

Partial Underground Alternative

The Project would cause temporary or permanent loss of native vegetation communities (Impact B-1). This alternative is exactly the same as the Proposed Project with the exception of a one mile underground segment crossing a landscaped golf course. Impacts would be the same as the Proposed Project. Similar to the Proposed Project the loss of habitat for this alternative would be mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources), however, when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

The Project would cause loss of foraging or breeding habitat for wildlife (Impact B-2). This alternative would result in the same impacts as the Proposed Project. Important foraging habitat for birds, small mammals, and reptiles would be lost. Coupled with the loss of habitat through urbanization the impacts to biological resources when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

The Project would introduce non-native and invasive plant species (Impact B-3). This alternative is exactly the same as the Proposed Project with the exception of a one mile underground segment crossing a landscaped golf course. While the impacts from the spread of invasive plant species would be mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) the impacts when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

The Project would result in a loss of nesting birds (Impact B-4). This alternative is exactly the same as the Proposed Project with the exception of a one mile underground segment crossing a landscaped golf course and contains the same foraging and nesting habitat for both resident and migratory birds. Therefore, the continued loss of habitat region wide will likely result in continued adverse impacts to nesting birds. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in permanent disturbance to wildlife at the proposed El Casco Substation site due to noise and increased human presence (Impact B-5). This alternative is exactly the same as the Proposed Project with the exception of a one mile underground segment crossing a landscaped golf course. This alternative would create and maintain disturbance conditions that could degrade the function of habitat linkages associated with the San Timoteo Creek riparian corridor and existing open space within and around the Norton Younglove County Preserve. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

Construction activities would result in indirect or direct loss of listed plants (Impact B 6). This alternative is exactly the same as the Proposed Project with the exception of a one mile underground segment crossing a landscaped golf course. Construction activity associated with this alternative would also have the potential to disturb listed plant species should they be present in the project area. While construction activities associated with this alternative would be fully mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) the continued loss of habitat region wide will likely result in continued adverse impacts to listed plants. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

Construction activities would result in indirect or direct loss of Quino Checkerspot habitat (Impact B 7). This alternative has the same potential to impact Quino Checkerspot butterfly as the Proposed Project. There would not be any loss of habitat from the underground segment of this alternative. Although this species is not known to occur in the project area habitat for this species is present in the alignment. Similar to the Proposed Project the continued loss of habitat region wide will result in adverse impacts to this species. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in habitat loss or disturbance to listed birds, including migratory birds and raptors (Impact B-8). This alternative has the same potential to impact listed birds as the Proposed Project. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the electrocution of listed bird species (Impact B-9). Impacts to listed bird species from electrocution from this alternative are the same as the Proposed Project and would be considered less than significant with mitigation. Ongoing development in the area will continue to pose an electrocution hazard form distribution lines in the project region. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in subtransmission line collisions by listed bird species (Impact B-10). The same types of potential impacts to listed bird species are likely to occur from this alternative. As the lines occur in the same region collision mortality would be the same. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of special-status plant species (Impact B-11). C This alternative is exactly the same as the Proposed Project with the exception of a one mile underground segment crossing a landscaped golf course and impacts to sensitive plant species would be the same as the Proposed Project. Ongoing development in the region would affect the rare plants in the same way as the Proposed Project. While impacts to sensitive plant species would be fully mitigated through the

implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) the continued loss of habitat region wide will likely result in continued adverse impacts to rare plants. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife (Impact B-12). Construction related impacts from this alternative would be the same as described for Impact B-6 and B-12 of the Proposed Project. Ongoing development in the region identified in Table F-2 will continue to result in the change of land use and loss of open space utilized by sensitive wildlife. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of special-status reptile species (Impact B-13). This alternative is exactly the same as the Proposed Project with the exception of a one mile underground segment crossing a landscaped golf course. Continued development would occur and the loss or degradation of native plant communities and riparian habitat in the Beaumont and Banning area will continue to contribute to the decline of species or their habitat throughout the region. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of burrowing owls (Impact B-14). Impacts to burrowing owl would be that same as the Proposed Project. As previously described, foraging habitat utilized by this species will continue to decline from the projects identified in Table F-2. While the loss of habitat for this alternative would be mitigated through the implementation of the MSHCP process and mitigation measures described in Section D.3 (Biological Resources) impacts to burrowing owls when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of foraging habitat or disruption of nesting for special-status raptor species (Impact B-15). This alternative is exactly the same as the Proposed Project with the exception of a one mile underground segment crossing a landscaped golf course. Construction activities resulting in impacts to special status raptor species would be the same as described for the Proposed Project. The continued loss of habitat region wide will result in continued adverse impacts to these species. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in electrocution of special-status bird species (Impact B-16). Impacts to special status birds are the same the Proposed Project. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in subtransmission line collision by special-status bird species (Impact B-17). Potential cumulative impacts to birds from collisions with the electrical line are the same as Impact B-9. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of the American badger (Impact B-18). This alternative is exactly the same as the Proposed Project with the exception of a one mile underground segment crossing a landscaped golf course and has the same potential to impact badgers as the Proposed Project. As open space utilized by this species continues to decline from urbanization impacts to this species will

likely increase. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in loss of special-status rodent species (Impact B-19). This alternative has the same potential to impact sensitive rodents as the Proposed Project. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss of jurisdictional waters and wetlands (Impact B-20). This alternative is exactly the same as the Proposed Project with the exception of a one mile underground segment crossing a landscaped golf course. This alternative would impact the same jurisdictional waters as the Proposed Project. Although the loss of jurisdictional habitat for this alternative is small and would be mitigated through the permit compliance and mitigation measures described in Section D.3 (Biological Resources) impacts to jurisdictional waters, when combined with impacts from past, present, or reasonable future projects, would be considered cumulatively significant and unavoidable (Class I).

The Project would result in the loss or restriction of habitat connectivity in Constrained Linkage 22 (Impact B-21). This alternative is exactly the same as the Proposed Project with the exception of a one mile underground segment crossing a landscaped golf course. Therefore this alternative is also located in the Constrained Linkage Area 22, which identifies San Timoteo Creek as a critical corridor for wildlife movement in the region. As ongoing development in this area continues to degrade the functionality of this constrained linkage it will become progressively more difficult to maintain critical landscape features required for the passage of native wildlife. When combined with impacts from past, present, or reasonable future projects, these impacts would be considered cumulatively significant and unavoidable (Class I).

The Project would conflict with the MSHCP (Impact B-22). This alternative would not be in conflict with the MSHCP provided SCE complies with the provisions identified in the EIR. As the alternative is in compliance with the MSHCP it is unlikely to combine with impacts from past, present, or reasonable future projects. Therefore, these impacts would not be considered cumulatively significant (Class II).

No Project Alternative

To address the overload conditions in the Maraschino service area, SCE would require the addition of a third transformer at the sub-station and construction of two new 12 kV distribution lines (each about nine miles in length). It is unknown what types of impacts would occur from the No Action Alternative. It is conceivable that impacts would be similar to the Proposed Project. Based on the types of construction required to construct the new 12 kV lines the impacts to biological resources would be similar to the Proposed Project. Furthermore, it is also possible that the required 12 kV route would cross through areas supporting sensitive habitat. Therefore it is likely that the impacts of the No Project Alternative, when combined with impacts from past, present, or reasonable future projects, would result in cumulatively significant and unavoidable biological impacts (Class I).

F.1.5.4 Cultural Resources

Projects

Within two miles of the Proposed Project, there are currently at least 180 other planned or ongoing projects that will disturb more than 25,000 acres. In addition, other linear utility and transportation projects within two miles of the Proposed Project are anticipated to have impacts along more than 300

miles. Table F-2 provides a list of specific projects by jurisdiction and their location with respect to the Proposed Project. The Proposed Project will disturb approximately 30 acres and less than 75 miles comprising less than one percent of the known ground disturbing developments anticipated within two miles of the Proposed Project. Furthermore, nearly all of the Project mileage will consist of replacing existing towers within established ROWs, and installing fiber optic cables in existing conduits located within public streets, thus limiting new ground disturbance.

Projections

Impacts to cultural and paleontological resources are directly related to the extent of earth-disturbing activities in the Proposed Project region, which, in turn, is the result of infrastructure projects required to support increasing population. With population in-migration and growth in the region comes the need for residential, commercial, educational, and recreational development, with concomitant industrial and transportation support. All of these result in earth-disturbing activities, and therefore, have the potential to affect cultural and paleontological resources adversely.

Table F-2 lists the plans examined for the cumulative analysis. The rapid rate of growth and concomitant ground-disturbing activity in the region is aptly demonstrated by the list of ongoing or proposed projects within two miles of the Proposed Project (Table F-2). These projects, and a host of similar developments along corridors and in pockets throughout the region have been projected in the regional, county, and local general plans.

Geographic Scope

The geographic scope for the analysis of cumulative impacts on cultural and paleontological resources is a two-mile wide corridor centered on the Proposed Project and alternative route alignments. This is conservative because most impacts to cultural and paleontological resources occur on the site of the resource itself through physical disturbance or encroachment. The proximity of these resources to the Proposed Project and alternatives would be of interest only to the extent that proximity would considerably affect the context or integrity of the resource.

Significance Criteria

Cumulative impacts would be considered significant if, within the geographic scope of the impact analysis, the El Casco System Project would:

- Cause a substantial adverse change in the characteristics of a significant cultural resource or unique archaeological site as defined by State of California guidelines
- Cause a substantial adverse change in the characteristics of a cultural resource included in a local register of historical resources
- Uncover, expose, and/or damage Native American human remains
- Cause a substantial adverse change in the characteristics of a significant paleontologic resource

Analysis of Proposed Project

Project Construction Has the Potential to Affect Known Archaeological Resources (Impact CR-1). As described in Table F-2, there are approximately 180 projects in the planning or construction phases within a two-mile-wide corridor surrounding the Proposed Project that have the potential to adversely affect cultural resources. As discussed in Section D.5.3, inadvertent impacts may occur to known archaeological resources within and in the vicinity of the project area during construction. This impact is

potentially significant, but is mitigable to less than significant levels with implementation of required APMs and mitigation measures. Therefore, the Proposed Project would result in less than significant (Class II) cumulative impacts on significant cultural sites within the geographic scope area.

Unanticipated Archaeological Discoveries May Be Damaged or Destroyed During Project Construction (Impact CR-2). Unknown and potentially significant cultural resources could exist within areas of ground disturbance during construction of subtransmission lines, substations, and other project facilities for the Proposed Project. The procedures and provisions in Mitigation Measures CR-1b, CR-1c, and CR-2 would ensure that the Proposed Project's cumulative contribution to previously undetected cultural resources would be less than significant (Class II).

Project Construction Would Affect Significant Paleontological Resources (Impact CR-3). SCE commits to fossil collection, salvage, and curation in APMs PALEO-1 through PALEO-6 to reduce the impacts of construction on significant paleontological resources. In addition, mitigation measures CR-3a through CR-3e would ensure that impacts are mitigated to less than significant levels. Therefore, the Proposed Project would result in less than significant (Class II) cumulative impacts to significant paleontological resources within the geographic scope area.

Analysis of Alternatives

CPUC's Northerly Route Alternative Option 3

Project Construction Has the Potential to Affect Known Archaeological Resources (Impact CR-1). Inadvertent impacts may occur to known archaeological resources within and in the vicinity of the Route Alternative Option 3 subtransmission line route during construction similar to that described above for the Proposed Project. This impact is potentially significant, but is mitigable to less than significant levels with implementation of required APMs and mitigation measures. Therefore, Route Alternative Option 3 would result in less than significant (Class II) cumulative impacts on significant cultural sites within the geographic scope area.

Unanticipated Archaeological Discoveries May Be Damaged or Destroyed During Project Construction (Impact CR-2). Unknown and potentially significant cultural resources could exist within areas of ground disturbance during construction of subtransmission lines, substations, and other project facilities for Route Alternative Option 3. The procedures and provisions in Mitigation Measures CR-1a, CR-1c, and CR-2 would ensure that the cumulative contribution to previously undetected cultural resources would be less than significant (Class II).

Project Construction Would Affect Significant Paleontological Resources (Impact CR-3). Route Alternative Option 3 would have similar impacts to paleaontological resources similar to that described above for the Proposed Project. Because SCE commits to implementing APMs PALEO-1 through PALEO-6 to reduce the impacts of construction on significant paleontological resources, and with implementation of Mitigation Measures CR-3a through CR-3e, Route Alternative Option 3 would result in less than significant (Class II) cumulative impacts to significant paleontological localities within the geographic scope area.

Pole Replacement Has the Potential to Indirectly Affect Historical Resources (Impact CR-4). The siting of new steel poles for the 115 kV subtransmission line associated with this alternative along Summit Drive in the City of Banning would result in a significant impact (Class I) resulting from the removal of, or damage to, elements (i.e., street lights and existing mature trees) that could contribute to the integrity of a potential historic district. It is likely that any other project in the same area as the

alternative also would have significant impacts to the historic resources of the potential district. The implementation of this alternative along with other projects in the area would have a significant cumulative impact on historic resources (Class I).

Partial Underground Alternative

Project Construction Has the Potential to Affect Known Archaeological (Impact CR-1). As the Partial Underground Alternatives subtransmission line route and project features would be located identical to that analyzed above for the Proposed Project, the Partial Underground Alternative would result in a less than significant (Class II) cumulative contribution to impacts to significant cultural sites within the geographic scope area with mitigation incorporated.

Unanticipated Archaeological Discoveries May Be Damaged or Destroyed During Project Construction (Impact CR-2). As the Partial Underground Alternatives subtransmission line route and project features would be located identical to that analyzed above for the Proposed Project, the procedures and provisions in Mitigation Measure CR-2 would ensure that the cumulative contribution to previously undetected cultural resources of the Partial Underground Alternative would be less than significant (Class II).

Project Construction Would Affect Significant Paleontological Resources (Impact CR-3). As the Partial Underground Alternatives subtransmission line route and project features would be located identical to that analyzed above for the Proposed Project, Mitigation Measures CR-3a through CR-3e would ensure the Partial Underground Alternative would result in a less than significant (Class II) cumulative impacts to significant paleontological localities within the geographic scope area.

No Project Alternative

Cumulative cultural and paleontological resource impacts are the same for the No Project Alternative as for the Proposed Project, because the No Project Alternative would result in the eventual development of improved subtransmission line systems within the project area. The analysis provided in Section F.1.5.4 for the Proposed Project applies equally to this alternative. Therefore, cumulative impacts from the No Project Alternative would be less than significant with mitigation incorporated (Class II).

F.1.5.5 Geology and Soils

Projects

Geology and Soils impacts are limited to the areas within and adjacent to the boundaries of individual projects. The only projects identified in Table F-2 that may occur within the boundaries of the Proposed Project are the Rolling Hills Ranch Development (E29) and the Halem Development (E31).

Projections

All of the municipalities traversed by the Proposed Project are expected to experience dramatic residential and commercial development over the next twenty years. Such development will involve many large scale construction projects that will result in excavation and grading activities as well as construction of buildings, homes, and other structures. Impacts to geology and soils would be minimized through measures required by federal, State, regional, and local laws, codes, and other regulations. This is especially true for impacts related to seismic hazards. As such cumulative impacts related to geology and soils are unlikely to occur or be significant if they do occur.

Geographic Scope

The geographic extent for considering cumulative impacts to geology and soils is limited to the immediate vicinity of the ROW which is occupied by the Proposed Project and alternatives alignments. The "immediate vicinity" includes the area physically within the ROW, as well as any area outside the ROW which is occupied during construction or operation of the Proposed Project and alternatives for project-related uses. For instance, staging areas, marshalling yards, and spur roads that would be established and utilized for the purposes of the Proposed Project and alternatives are included in the cumulative analysis area. This geographic extent is appropriate for the issue area of geology, soils, and paleontology because any potential impacts of the Proposed Project and alternatives would be site-specific.

Significance Criteria

Cumulative impacts would be considered significant if, within the geographic scope of the impact analysis, the El Casco System Project:

- Construction activities would cause slope instability.
- Construction activities would accelerate erosion.
- Project structures would be damaged by corrosive soils.
- Project structures would be located on a geologic unit or soil that is or could become unstable and would result in landslides, earthflows, and/or debris flows.
- Project structures would be damaged by seismically induced groundshaking and ground failure, including liquefaction and lateral spreading.
- Project structures would be damaged by surface fault rupture at crossings of active and potentially active faults.
- Expansive, soft, loose and/or compressible soils would damage project structures.

Analysis of Proposed Project

Construction activities would cause slope instability (Impact GEO-1). The potential for this impact to combine with similar effects of other projects would only occur if other projects were implemented on the same slopes at the same time as the Proposed Project. However, construction of the Proposed Project would preclude other projects from being implemented concurrently on the same slopes. Furthermore measures would be implemented to reduce or prevent erosion impacts during construction. Therefore Proposed Project impacts would not have the potential to combine with similar effects from other projects and would not be cumulatively considerable. Therefore, less than significant impacts (Class III) would occur.

Construction activities would accelerate erosion (Impact GEO-2). The potential for this impact to combine with similar effects of other projects would only occur if other projects were implemented in the same area at the same time as the Proposed Project. However, construction of the Proposed Project would preclude other projects from being implemented concurrently in the same location. Furthermore measures would be implemented to reduce or prevent erosion impacts during construction. Therefore Proposed Project impacts would not have the potential to combine with similar effects from other projects and would not be cumulatively considerable. Therefore, less than significant impacts (Class III) would occur.

Project structures would be damaged by corrosive soils (Impact GEO-3). This impact describes the effect of the localized environment on Proposed Project structures, rather than the effect of the project

on the natural environment. Therefore, the effect of this impact would not have the potential to combine with similar effects of other projects and is not cumulatively considerable. Therefore, no impacts would occur.

Project structures would be damaged by unstable soils, landslides, earthflows, and/or debris flows (Impact GEO-4). This impact describes the effect of the localized environment on Proposed Project structures, rather than the effect of the project on the natural environment. Therefore, the effect of this impact would not have the potential to combine with similar effects of other projects and is not cumulatively considerable. Therefore, no impacts would occur.

Project structures would be damaged by seismically induced groundshaking and ground failure, including liquefaction and lateral spreading (Impact GEO-5). This impact describes the effect of the localized environment on Proposed Project structures, rather than the effect of the project on the natural environment. Therefore, the effect of this impact would not have the potential to combine with similar effects of other projects and is not cumulatively considerable. Therefore, no impacts would occur.

Project structures would be damaged by surface fault rupture at crossings of active and potentially active faults (Impact GEO-6). This impact describes the effect of the localized environment on Proposed Project structures, rather than the effect of the project on the natural environment. Therefore, the effect of this impact would not have the potential to combine with similar effects of other projects and is not cumulatively considerable. Therefore, no impacts would occur.

Expansive, Soft, Loose and/or Compressible Soils would damage project structures (Impact GEO-7). This impact describes the effect of the localized environment on Proposed Project structures, rather than the effect of the project on the natural environment. Therefore, the effect of this impact would not have the potential to combine with similar effects of other projects and is not cumulatively considerable. Therefore, no impacts would occur.

Analysis of Alternatives

CPUC's Northerly Route Alternative Option 3

Construction activities would cause slope instability (Impact GEO-1). The potential for this impact to be cumulatively significant would be identical to the Proposed Project. As construction of the Route Alternative Option 3 would preclude other projects from being implemented concurrently on the same slopes, the Route Alternative Option 3 impacts would not have the potential to combine with other projects to cause cumulatively considerable slope instability. Less than significant impacts (Class III) would occur.

Construction activities would accelerate erosion (Impact GEO-2). The potential for this impact to be cumulatively significant would be identical to the Proposed Project. As the potential for this impact to combine with similar effects of other projects would only occur if other projects were implemented in the same area at the same time as the alternative route, construction of the Route Alternative Option 3 would preclude other projects from being implemented concurrently in the same location. Therefore, the Northerly Route Alternative Option 3 impacts would not have the potential to combine with similar effects from other projects and would not be cumulatively considerable. Less than significant impacts (Class III) would occur.

Project structures would be damaged by corrosive soils (Impact GEO-3). The potential for this impact would be identical to the Proposed Project, as Route Alternative Option 3 would introduce

similar structures as the Proposed Project. The effect of Route Alternative Option 3 components would not have the potential to combine with identified cumulative projects to result in cumulatively considerable damage by corrosive soils. Less than significant impacts (Class III) would occur.

Project structures would be damaged by unstable soils, landslides, earthflows, and/or debris flows (Impact GEO-4). The potential for this impact would be identical to the Proposed Project, as Route Alternative Option 3 would introduce similar structures as the Proposed Project. Route Alternative Option 3 components would not have the potential to combine with identified cumulative projects to result in cumulatively considerable damage by unstable soils. Therefore, no impacts would occur.

Project structures would be damaged by seismically induced groundshaking and ground failure, including liquefaction and lateral spreading (Impact GEO-5). As shown in Figures F-1a and F-1b, no projects would be built within proximity of Route Alternative Option 3 components that could have the potential to be impacted in the event of structure impact from seismic induced groundshaking or ground failure. Therefore, Route Alternative Option 3 would result in no cumulative impacts to damage by seismic induced groundshaking or ground failure.

Project structures would be damaged by surface fault rupture at crossings of active and potentially active faults (Impact GEO-6). As shown in Figures F-1a (Cumulative Projects – Northwest) and F-1b (Cumulative Projects – Southeast), no projects would be built within proximity of Route Alternative Option 3 components that could have the potential to be impacted in the event of structure impact from fault rupture. The effect of this impact would not have the potential to combine with similar effects of other projects and is not cumulatively considerable. Therefore, no impacts would occur.

Expansive, Soft, Loose and/or Compressible Soils would damage project structures (Impact GEO-7). As shown in Figures F-1a (Cumulative Projects – Northwest) and F-1b (Cumulative Projects – Southeast), no projects would be built within proximity of Route Alternative Option 3 components that could have the potential to be impacted in the event of soil failure. The effect of this impact would not have the potential to combine with similar effects of other projects and is not cumulatively considerable. Therefore, no impacts would occur.

Partial Underground Alternative

Construction activities would cause slope instability (Impact GEO-1). The potential for this impact to combine with similar effects of other projects would only occur if other projects were implemented on the same slopes at the same time as the Partial Underground Alternative. As shown in Figures F-1a (Cumulative Projects – Northwest) and F-1b (Cumulative Projects – Southeast), no projects would be built within proximity of Partial Underground Alternative components that could have the potential to be impacted by slope instability. Therefore the Partial Underground Alternative's impacts would not have the potential to combine with similar effects from other projects and would not be cumulatively considerable. Less than significant impacts (Class III) would occur.

Construction activities would accelerate erosion (Impact GEO-2). The potential for this impact to combine with similar effects of other projects would only occur if other projects were implemented in the same area at the same time as the alternative route. However, construction of the Partial Underground Alternative would preclude other projects from being implemented concurrently in the same location. Therefore, the Partial Underground Alternative's impacts would not have the potential to combine with similar effects from other projects and would not be cumulatively considerable. Less than significant impacts (Class III) would occur.

Project structures would be damaged by corrosive soils (Impact GEO-3). As the potential for this impact to combine with similar effects of other projects would only occur if other projects were implemented in the same area at the same time as the alternative route, construction of the Partial Underground Alternative would preclude other projects from being implemented concurrently in the same location. Therefore, Partial Underground Alternative impacts would not have the potential to combine with similar effects from other projects and would not be cumulatively considerable. Less than significant impacts (Class III) would occur.

Project structures would be damaged by unstable soils, landslides, earthflows, and/or debris flows (Impact GEO-4). While a segment of the proposed 115 kV subtransmission line would be located underground, as shown in Figures F-1a and F-1b, no projects would be built within proximity of any Partial Underground Alternative components that could have the potential to be impacted by unstable soil conditions. Therefore, the Partial Underground Alternative would result in no impacts through structure damage by unstable soil conditions.

Project structures would be damaged by seismically induced groundshaking and ground failure, including liquefaction and lateral spreading (Impact GEO-5). While a segment of the proposed 115 kV subtransmission line would be located underground, as shown in Figures F-1a and F-1b, no projects would be built within proximity of any Partial Underground Alternative component. As this impact describes the effect of the localized environment on project structures, rather than the effect of the project on the natural environment, the effect of this impact would not have the potential to combine with similar effects of other projects and is not cumulatively considerable. Therefore, no impacts would occur.

Project structures would be damaged by surface fault rupture at crossings of active and potentially active faults (Impact GEO-6). This impact describes the effect of the localized environment on project structures, rather than the effect of the project on the natural environment. Therefore, the effect of this impact would not have the potential to combine with similar effects of other projects and is not cumulatively considerable. Therefore, no impacts would occur.

Expansive, Soft, Loose and/or Compressible Soils would damage project structures (Impact GEO-7). This impact describes the effect of the localized environment on project structures, rather than the effect of the project on the natural environment. Therefore, the effect of this impact would not have the potential to combine with similar effects of other projects and is not cumulatively considerable. Therefore, no impacts would occur.

No Project Alternative

Although it is currently unknown where the 12 kV distribution lines would be constructed, it can be reasonably assumed that construction of these lines would result in similar impacts as the Proposed Project, and therefore would not contribute to potentially significant cumulative impacts. Less than significant (Class III) impacts would occur.

F.1.5.6 Hazards and Hazardous Materials

Projects

As discussed below, the geographic extent for the analysis of cumulative impacts related to hazards and hazardous materials is limited to the areas of active construction as well as a 0.25 mile area on either side of the subtransmission line ROW and a 0.25 mile radius around the substation sites. Therefore, all

of the projects located within 0.25 mile of the El Casco, Maraschino, and, Banning Substations, as well as within 0.25 mile of the subtransmission line ROW between El Casco and Banning Substations, as identified in Figures F-1a and F-1b will be considered in this analysis.

Projections

All of the municipalities traversed by the Proposed Project and alternatives are expected to experience dramatic residential and commercial development over the next twenty years. Such development will involve many large scale construction projects that would utilize varying amounts of hazardous materials as well as the transport of hazardous materials.

Geographic Scope

The geographic extent for the analysis of cumulative impacts related to hazards and hazardous materials, including environmental contamination, is limited to the areas of active construction as well as a 0.25 mile area on either side of the subtransmission line ROW and a 0.25 mile radius around the substation sites. This is because any potential release of hazardous materials associated with project activities or from other sites that could combine with a release from the Proposed Project or alternative routes would not likely be able to migrate more than 0.25 mile from the location of the actual release.

Significance Criteria

Cumulative impacts would be considered significant if, within the geographic scope of the impact analysis, the El Casco System Project:

- Creates a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Creates a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emits hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Is located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- Would result in a safety hazard for people residing or working in the project area, for a project located within two miles of a public airport or public use airport.
- Would result in a safety hazard for people residing or working in the project area, for a project within the vicinity of a private airstrip.
- Impairs implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Exposes people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Analysis of Proposed Project

The Project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (Impact HAZ-1). Most of the projects identified in Table F-2 (Cumulative Project List), which occur within 0.25 mile of the Proposed Project route would also involve the use of hazardous materials and would have the potential to result in similar impacts as the Proposed Project. However, the Proposed Project includes BMPs and Mitigation

Measures HAZ-1a, HAZ-1b, and HAZ-1c to reduce the potential for an accidental release of hazardous materials to occur and would include procedures for cleaning up hazardous materials in the unlikely event of a release. Therefore, the Proposed Project's contribution to a potential cumulative hazardous material impact would be less than significant after mitigation (Class II).

The Project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (Impact HAZ-2). As described above, the Proposed Project includes BMPs and Mitigation Measures HAZ-1a, HAZ-1b, and HAZ-1c to reduce the potential for an accidental release of hazardous materials to occur and would include procedures for cleaning up hazardous materials in the unlikely event of a release. Therefore, the Proposed Project's contribution to a potential cumulative hazardous material impact would be less than significant after mitigation (Class II).

The Project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (Impact HAZ-3). Projects identified in Table F-2(Cumulative Project List), that occur within 0.25 mile of the Proposed Project and any existing school facility would also involve the use of hazardous materials and would have the potential to result in similar impacts as the Proposed Project. However, the Proposed Project includes BMPs and Mitigation Measures HAZ-1a, HAZ-1b, and HAZ-1c to reduce the potential for an accidental release of hazardous materials to occur and would include procedures for cleaning up hazardous materials in the unlikely event of a release. Therefore, the Proposed Project's contribution to a potential cumulative hazardous material impact would be less than significant after mitigation (Class II).

The Project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment (Impact HAZ-4). As discussed in Section D.7.3.3, the Proposed Project was not identified on a list of hazardous materials sites and is not at risk of being affected by any of the three adjacent sites that were identified on such lists. Therefore, impacts of the Proposed Project would not have the potential to combine with impacts of other past, present and reasonably foreseeable projects resulting in cumulatively considerable impacts. Therefore, no impacts would occur.

For a project located within two miles of a public airport, would the project result in a safety hazard for people residing or working in the project area (Impact HAZ-5). A portion of the 115 kV subtransmission line would be located approximately 4,000 west of Banning's Municipal Airport runway and within the Banning Municipal Airport Land Use Plan. As shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), many approved or pending projects are located within proximity of the Banning Municipal Airport. As Banning Municipal Airport Land Use Plan and Federal Aviation Administration (FAA) regulations would require SCE to submit FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the Manager of the FAA Air Traffic Division for review and approval of the Project, no cumulative contribution regarding aviation safety impacts would occur. Furthermore, all cumulative projects within proximity of Banning Municipal Airport would be subject to the same FAA regulations as the Proposed Project. Therefore, even if construction of these projects occur at the same time as the Proposed Project, compliance with FAA guidelines would ensure that cumulative impacts to airport safety would be less than significant (Class III).

The Project would result in a safety hazard related to a private airstrip for people residing or working in the project area (Impact HAZ-6). As no private airstrips are located within the Proposed Project area, the Proposed Project would have no impact with regard to safety hazards at private airstrips and therefore would not have the potential to combine with similar impacts of other projects to result in a cumulative impact. Therefore, no impacts would occur.

The Project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (Impact HAZ-7). The Proposed Project has the potential to restrict emergency access through temporary road closures associated with subtransmission line stringing activities. It is possible that one or more of the projects identified in Table F-2 (Cumulative Project List), would require temporary traffic lane closures, which could also impede or obstruct emergency access. A significant impact would occur if lane closures associated with the Proposed Project were to occur along the same emergency route at the same time lane closures associated with any of the projects listed in Table F-2 (Cumulative Project List), that are within the immediate vicinity of the Proposed Project. However, Mitigation Measure T-3 would reduce the Proposed Project's contribution to this impact by ensuring emergency response access throughout construction. Therefore, the Proposed Project's contribution to a potential cumulative emergency response route impact would be less than significant after mitigation (Class II).

The Project would expose people or structures to a significant risk of loss, injury, or death involving wildland fires (HAZ-8). A notable portion of the Proposed Project lies within the high fire probability zone. Although measures would be implemented during project construction and operation to reduce the risk of causing a wildfire, the Proposed Project would increase risk of fire ignition. The proposed development projects identified in Table F-2 (Cumulative Project List) would also increase the potential for a fire to occur within the project area. Therefore, the Proposed Project, when combined with the effects of other past and reasonably foreseeable project, would considerably contribute to a cumulative impact (Class I). No additional mitigation measures are available to reduce the Proposed Project's contribution to this impact.

Analysis of Alternatives

CPUC's Northerly Route Alternative Option 3

The Project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (Impact HAZ-1). As shown in Figures F-1a (Cumulative Projects – Northwest) and F-1b (Cumulative Projects – Southeast), a number of cumulative projects are located along the Route Alternative Option 3 proposed 115 kV route. It is likely that construction of these projects would also involve the use of hazardous materials and would have the potential to combine with Route Alternative Option 3 construction to create cumulative hazardous materials transport impacts. However, as Route Alternative Option 3 would include BMPs and Mitigation Measures HAZ-1a, HAZ-1b, and HAZ-1c to reduce the potential for an accidental release of hazardous materials to occur, the Route Alternative Option 3 contribution to a potential cumulative hazardous material impact would be less than significant after mitigation (Class II).

The Project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (Impact HAZ-2). As described above, construction of Route Alternative Option 3 includes BMPs and Mitigation Measures HAZ-1a, HAZ-1b, and HAZ-1c to reduce the potential for an accidental release of hazardous materials to occur and would include procedures for cleaning up hazardous materials in the unlikely event of a release. Therefore, the Route Alternative Option 3

contribution to cumulative hazardous material impacts from upset conditions would be less than significant after mitigation (Class II).

The Project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (Impact HAZ-3). As shown in Figures F-1a (Cumulative Projects – Northwest) and F-1b (Cumulative Projects – Southeast), a number of cumulative projects are located within 0.25 miles of the Route Alternative Option 3 proposed 115 kV route. These projects could combine to result in potential cumulative hazardous materials impacts to any existing schools within proximity of multiple construction projects. However, as described above, construction of Route Alternative Option 3 includes BMPs and Mitigation Measures HAZ-1a, HAZ-1b, and HAZ-1c to reduce the potential for an accidental release of hazardous materials to occur and would include procedures for cleaning up hazardous materials in the unlikely event of a release. Therefore, the Route Alternative Option 3 contribution to cumulative hazardous material impacts from upset conditions would be less than significant after mitigation (Class II).

The Project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment (Impact HAZ-4). As discussed in Section D.7.3.3, the Northerly Route Alternative Option 3 was not identified on a list of hazardous materials sites and not found to be at risk of being affected by any nearby sites that were identified on such lists. Therefore, impacts of the Northerly Route Alternative Option 3 would not have the potential to combine with impacts of other past, present and reasonably foreseeable projects. No impacts would occur.

For a project located within two miles of a public airport, would the project result in a safety hazard for people residing or working in the project area (Impact HAZ-5). As described above for the Proposed Project, a portion of the Route Alternative Option 3 subtransmission line route and several identified cumulative projects would be located within proximity of Banning Municipal Airport. As both the Route Alternative Option 3 and all cumulative projects within proximity of Banning Municipal Airport would be subject to the same FAA regulations, even if construction of these projects was to occur at the same time, compliance with FAA guidelines would ensure that cumulative impacts to airport safety would be less than significant (Class III).

The Project would result in a safety hazard related to a private airstrip for people residing or working in the project area (Impact HAZ-6). As no private airstrips are located within the Route Alternative Option 3 area, no cumulative impact would occur with regard to safety hazards at private airstrips.

The Project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (Impact HAZ-7). The Northerly Route Alternative Option 3 has the potential to restrict emergency access through temporary road closures associated with subtransmission line stringing activities. A significant impact would occur if lane closures associated with the Northerly Route Alternative Option 3 were to occur along the same emergency route at the same time lane closures associated with any of the projects listed in Table F-2 (Cumulative Projects List). However, Mitigation Measure T-3 would reduce Route Alternative Option 3's cumulative contribution to this impact to less than significant by ensuring emergency response access throughout construction (Class II).

The Project would expose people or structures to a significant risk of loss, injury or death involving wildland fires (HAZ-8). Portions of the proposed Route Alternative Option 3 subtransmission line route lie within the high fire probability zone. Although measures would be implemented during construction and operation to reduce the risk of causing a wildfire, Route Alternative Option 3 would increase risk of fire ignition. As a number of cumulative projects identified in Table F-2 (Cumulative Project List) would also increase the potential for a fire to occur within the project area, Route Alternative Option 3 would contribute to a significant cumulative fire risk impact (Class I). No additional mitigation measures are available to reduce this alternative's contribution to this impact.

Partial Underground Alternative

The Project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (Impact HAZ-1). As shown in Figures F-1a (Cumulative Projects – Northwest) and F-1b (Cumulative Projects – Southeast), while no projects would be located immediately adjacent to the proposed underground segment of 115 kV subtransmission line, a number of cumulative projects are located along the entire Partial Underground Alternative proposed 115 kV route. Identical to the Proposed Project analysis above, as construction of the Partial Underground Alternative would include BMPs and Mitigation Measures HAZ-1a, HAZ-1b, and HAZ-1c to reduce the potential for an accidental release of hazardous materials to occur, the Partial Underground Alternatives contribution to a potential cumulative hazardous material impact would be less than significant after mitigation (Class II).

The Project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (Impact HAZ-2). As described above, construction of the Partial Underground Alternative would include BMPs and Mitigation Measures HAZ-1a, HAZ-1b, and HAZ-1c to reduce the potential for an accidental release of hazardous materials to occur and would include procedures for cleaning up hazardous materials in the unlikely event of a release. Therefore, the Partial Underground Alternative contribution to cumulative hazardous material impacts from upset conditions would be less than significant after mitigation (Class II).

The Project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (Impact HAZ-3). As the Partial Underground Alternative route is identical to that of the Proposed Project, as described above for the Proposed Project, the implementation of BMPs and Mitigation Measures HAZ-1a, HAZ-1b, and HAZ-1c during construction would reduce the Partial Underground Alternatives contribution to a potential cumulative hazardous material impacts to any nearby schools to a less than significant level after mitigation (Class II).

The Project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment (Impact HAZ-4). As discussed in Section D.7.3.3, the Partial Underground Alternative was not identified on a list of hazardous materials sites and is not at risk of being affected by any of the three adjacent sites that were identified on such lists. Therefore, impacts of the Partial Underground Alternative would not have the potential to combine with impacts of other past, present and reasonably foreseeable projects (No Impact).

For a project located within two miles of a public airport, would the project result in a safety hazard for people residing or working in the project area (Impact HAZ-5). As the Partial Underground Alternative route is identical to that of the Proposed Project, as described above for the

Proposed Project, as both the Partial Underground Alternative and all cumulative projects within proximity of Banning Municipal Airport would be subject to the same FAA regulations, even if construction of these projects was to occur at the same time, compliance with FAA guidelines would ensure that cumulative impacts to airport safety would be less than significant (Class III).

The Project would result in a safety hazard related to a private airstrip for people residing or working in the project area (Impact HAZ-6). As no private airstrips are located within the Partial Underground Alternative area, no cumulative impact would occur with regard to safety hazards at private airstrips.

The Project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (Impact HAZ-7). As the Partial Underground Alternative route is identical to that of the Proposed Project, as described above for the Proposed Project, Mitigation Measure T-3 would reduce the Partial Underground Alternatives cumulative contribution to this impact to less than significant by ensuring emergency response access throughout construction (Class II).

The Project would expose people or structures to a significant risk of loss, injury or death involving wildland fires (HAZ-8). As both the Partial Underground Alternative and the proposed development projects identified in Table F-2 (Cumulative Project List) would increase the potential for a fire to occur within the project area, the Partial Underground Alternative when combined with the effects of other past and reasonably foreseeable project would considerably contribute to a cumulative significant unavoidable impact (Class I). No additional mitigation measures are available to reduce this alternative's contribution to this impact.

No Project Alternative

Although it is currently unknown where the required No Project Alternative 12 kV distribution lines would be constructed, it can be reasonably assumed that construction of these lines would result in similar impacts as the Proposed Project, and therefore would result in the same contribution to a significant cumulative impact for Impact HAZ-8 as described above for the Proposed Project. However, since construction activities associated with this alternative would likely be less intensive and of shorter duration than those of the Proposed Project, the No Project Alternative's contribution to a cumulative impact would be incrementally reduced. Additionally, like the Proposed Project, construction of 12 kV distribution lines would result in the same less than significant impacts for Impacts HAZ-1 through HAZ-3 (Class III). This alternative would also likely have no contribution to Impacts HAZ-4 through HAZ-6 (No Impact), and would likely require similar mitigation measures as the Proposed Project to reduce its contribution to Impact HAZ-7 (Class II).

F.1.5.7 Hydrology and Water Quality

Projects

As described below, the geographic scope of cumulative effects for hydrology and water quality includes the area encompassed by the combined boundaries of the Hydrologic Units traversed by the Proposed Project, which includes all of the projects identified in Table F-2.

Projections

All of the municipalities traversed by the Proposed Project and alternatives are expected to experience dramatic residential and commercial development over the next twenty years. Such development will involve many large scale construction projects that will result in increased impervious surfaces, increased population (and therefore need for drinking water),excavation and grading activities as well as construction of buildings, homes, and other structures. Impacts to hydrology and water quality would be minimized through measures required by federal, state, regional, and local laws, codes, and other regulations.

Geographic Scope

The geographic scope of cumulative effects for hydrology and water quality includes the area encompassed by the combined boundaries of the Hydrologic Units traversed by the Proposed Project and alternative routes. As described in Table D.8-1 (Hydrologic Divisions in the Project Area), this Hydrologic Units traversed by the Proposed Project include the Santa Ana River, the San Jacinto Valley, and the Whitewater Hydrologic Unit. Hydrologic Unit boundaries are appropriate to represent the geographic extent of this cumulative effects analysis because their combined area includes all major hydrologic features that would be directly affected by the Proposed Project and alternatives.

Significance Criteria

Cumulative impacts would be considered significant if, within the geographic scope of the impact analysis, the El Casco System Project:

- Violates any water quality standard or waste discharge requirement, or otherwise degrades water quality, including through providing substantial additional sources of polluted runoff.
- Substantially depletes groundwater supplies or interferes with groundwater recharge, such that there would be a net deficit in aquifer volume or a significant lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
- Substantially alters the existing drainage pattern of the site or area, which includes the redirection of existing watercourses, creation of new discharge concentration points, or increasing the amount, frequency and rate of runoff, such that a substantial increase in downstream flooding, erosion, or siltation will occur.
- Creates or contributes runoff water that would exceed the capacity of existing or planned stormwater drainage systems.
- Places housing or structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map, or within a watercourse, which would impede or redirect flood flows to the detriment of adjacent property through flooding, erosion, or sedimentation.
- Results in or is subject to damage from inundation by seiche, tsunami, or mudflow.
- Exposes people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

Analysis of Proposed Project

Soil erosion and sedimentation caused by construction activities would degrade water quality (Impact HYD-1). Surface waters throughout the project area have experienced varying amounts of sedimentation as a result of erosion from past projects and are likely to experience similar impacts from other proposed projects that would require substantial grading (such as F1, F10, F23, and F25

identified above in Figures F-1a and F-1b). Construction projects that involve ground disturbance are required to comply with various permits and regulatory requirements that require implementation of specific measures to prevent soil erosion and sedimentation from entering local waterways. Although these measures would reduce the impact of individual projects to less than significant levels, it is likely that minor amounts of sedimentation would occur. Over time sediment from multiple projects would be expected to eventually accumulate in downstream water bodies such as, San Timoteo Creek, the Santa Ana River, Potrero Creek, the San Jacinto River, Canyon Lake, Lake Elsinore, the San Gorgonio River, Whitewater River, and the Salton Sea. Therefore, the Proposed Project, when combined with the effects of other past and reasonably foreseeable project, would contribute to significant cumulative impacts (Class I). No mitigation measures are available to reduce this impact.

Degradation of surface water or groundwater quality would occur from the accidental release of potentially harmful materials during construction activities (Impact HYD-2). Water Quality APMs HYDRO-2a through HYDRO-2d, HYDRO-3, HYDRO-6, and HYDRO-8, would be implemented as part of the Proposed Project to decrease the potential for accidental releases of hazardous materials used during construction to occur and to clean up potentially harmful materials in the event of a release. However, Horizontal Directional Drilling (HDD) activities would still have the potential to impact surface and groundwater during construction. Many of the development projects identified in Table F-2 (Cumulative Project List), including the Sineca Springs Jack Rabbit Trail, and Shadow Creek developments, would be implemented within close proximity of San Timoteo Creek. An accidental release of pollutants at any of these future projects located near San Timoteo Creek and as a result of HDD activities of the Proposed Project would combine to result in a significant cumulative impact to surface water quality (Class I). Mitigation Measures HYD-2a through HYD-2d, GEO-1, GEO-2a, and GEO-2b included as part of the Proposed Project would minimize the project's contribution to this cumulative impact, but not to a less than significant level.

Degradation of surface water or groundwater quality would result from the accidental release of potentially harmful materials during operational activities (Impact HYD-3). Many of the development projects identified in Table F-2 (Cumulative Project List), including the Sineca Springs Jack Rabbit Trail, and Shadow Creek developments, would be implemented within close proximity of San Timoteo Creek. An accidental release of pollutants at any of these future projects located near San Timoteo Creek and as a result of operation and maintenance activities of the Proposed Project would combine to result in a significant unavoidable impact to surface water quality (Class I). No mitigation measures are available that would completely reduce the risk of accidental release of harmful materials.

Disturbance of existing groundwater resources (Impact HYD-4). The Proposed Project could disturb groundwater resources at the El Casco Substation site through grading, excavation and HDD activities. However, APMs HYDRO-1, HYDRO-2a, HYDRO-2c, HYDRO-2d, HYDRO-4, and HYDRO-8 would be implemented as part of the Proposed Project and would minimize the potential for such disturbance to occur. Additionally, there are no other past or reasonably foreseeable projects in the immediate vicinity of the El Casco Substation that would have similar impacts. Therefore, project impacts would not have the potential to combine with impacts of other past, present and future projects to result in a significant impact. No impact would occur.

Increased runoff from the creation of new impervious areas (Impact HYD-5). The amount of new impervious surface created by the Proposed Project would be negligible in comparison to the amount of permeable surface throughout the watersheds as well as in comparison to that created by future development. Therefore, even if impacts from past and future projects combined to create a significant impact, the Proposed Project's cumulative contribution would be less than significant (Class III).

Runoff introduced as a result of permanent Project features would cause the overloading of a local stormwater drainage system (Impact HYD-6). Since the majority of cumulative projects identified in Table F-2 (Cumulative Project List) are characterized as residential or community developments, it is reasonably assumed that ongoing and future cumulative projects would be constructed with stormwater drainage systems in place and such systems would be designed with sufficient capacity to accommodate stormwater runoff caused by those particular projects. As discussed in Section D.8.3.3, the Proposed Project would not significantly alter existing stormwater drainage patterns. Therefore, the cumulative impact to stormwater drainage facilities would be less than significant (Class III).

Flood or erosion hazards created through the placement of permanent aboveground structures in a flood hazard area, a floodplain, or a watercourse (Impact HYD-7). Portions of the subtransmission line route are in locations that are susceptible to flooding when heavy rains occur within steep mountainous areas. Although the proposed route does span drainage areas and does have features in close proximity to San Timoteo Creek, towers would be located on nearby hillsides and other land areas, and engineered to withstand any stresses associated with their proximity to drainages. Therefore, since project structures would not affect flood flows, the Proposed Project would not contribute to a cumulative effect to flood hazards. No impact would occur.

Result in damage from inundation by tsunami, seiche, or mudflow (Impact HYD-8). The Proposed Project would have no impacts with regard to tsunamis, seiches, or mudflows and therefore would not have the potential to combine with impacts of other projects to result in a cumulative impact. No impact would occur.

Expose people or structures to flooding as a result of failure of a levee or dam (Impact HYD-9). The Proposed Project would have no impacts with regard to dam inundation, and therefore would not have the potential to combine with impacts of other projects to result in a cumulative impact. No impact would occur.

Analysis of Alternatives

CPUC's Northerly Route Alternative Option 3

Soil erosion and sedimentation caused by construction activities would degrade water quality (Impact HYD-1). As shown in Figures F-1a and F-1b, developments located along the Route Alternative Option 3 subtransmission line (such as E9, E25, and F3, F23, and F25) would require substantial grading. Sedimentation flowing off-site during periods of extended rainfall from these projects could combine with Route Alternative Option 3 construction and eventually accumulate in downstream water bodies such as, San Timoteo Creek, the Santa Ana River, Potrero Creek, the San Jacinto River, Canyon Lake, Lake Elsinore, the San Gorgonio River, Whitewater River, and the Salton Sea. Therefore, the Northerly Route Alternative Option 3, when combined with the effects of other past and reasonably foreseeable project, would contribute to significant cumulative impacts (Class I). No mitigation measures are available to reduce this impact.

Degradation of surface water or groundwater quality would occur from the accidental release of potentially harmful materials during construction activities (Impact HYD-2). Identical to the analysis presented above for the Proposed Project, many of the development projects identified in Table F-2 (Cumulative Project List), including the Sineca Springs Jack Rabbit Trail, and Shadow Creek developments, would be implemented within close proximity of San Timoteo Creek. An accidental release of pollutants at any of these future projects located near San Timoteo Creek and as a result of

HDD activities of the Northerly Route Alternative Option 3 would combine to result in cumulative impacts to surface water quality. Mitigation Measures HYD-2a through HYD-2d, GEO-1, GEO-2a, and GEO-2b would minimize the Route Alternative Option 3 contribution to this cumulative impact, however impacts would remain cumulatively significant and unavoidable (Class I).

Degradation of surface water or groundwater quality would result from the accidental release of potentially harmful materials during operational activities (Impact HYD-3). A release of hazardous materials during operation or maintenance of Route Alternative Option 3 could combine with projects identified in Table F-2 (Cumulative Project List) and impact San Timoteo Creek. Therefore, when combined with impacts of past, present, and future projects, Route Alternative Option 3 cumulative contribution to surface water quality as a result of an accidental release of potentially harmful materials during operation and maintenance activities (should a release occur) would be significant and unavoidable (Class I). No mitigation measures are available that would completely reduce the risk of accidental release of harmful materials.

Disturbance of existing groundwater resources (Impact HYD-4). Identical to the Proposed Project, Route Alternative Option 3 could disturb groundwater resources only at the El Casco Substation site through grading, excavation and HDD activities. As APMs would be implemented to minimize the potential for such disturbance to occur, and as there are no identified cumulative projects in the immediate vicinity of the El Casco Substation, Route Alternative Option 3 would have no cumulative impact on existing groundwater resources.

Increased runoff from the creation of new impervious areas (Impact HYD-5). The amount of new impervious surface created by the Northerly Route Alternative Option 3 would be negligible in comparison to the amount of permeable surface throughout the watersheds as well as in comparison to that created by future development. Therefore, the incremental impact of the Northerly Route Alternative Option 3, when combined with similar impacts of other past, current, and reasonably foreseeable projects would be less than significant (Class III).

Runoff introduced as a result of permanent Project features would cause the overloading of a local stormwater drainage system (Impact HYD-6). Identical to the analysis presented above for the Proposed Project, the Northerly Route Alternative Option 3 components would not significantly alter existing stormwater drainage patterns. Therefore, the cumulative impact to stormwater drainage facilities would be less than significant (Class III).

Flood or erosion hazards created through the placement of permanent aboveground structures in a flood hazard area, a floodplain, or a watercourse (Impact HYD-7). As the subtransmission line facilities proposed would be similar, identical to the analysis presented above for the Proposed Project, the Northerly Route Alternative Option 3 would result in no cumulative impact to flood or erosion hazards as a result of proposed structures.

Result in damage from inundation by tsunami, seiche, or mudflow (Impact HYD-8). The Northerly Route Alternative Option 3 would have no impacts with regard to tsunamis, seiches, or mudflows and therefore would not have the potential to combine with impacts of other projects to result in a cumulative impact. No impact would occur.

Expose people or structures to flooding as a result of failure of a levee or dam (Impact HYD-9). The Northerly Route Alternative Option 3 would have no impacts with regard dam inundation and therefore would not have the potential to combine with impacts of other projects to result in a cumulative impact. No impact would occur.

Partial Underground Alternative

Soil erosion and sedimentation caused by construction activities would degrade water quality (Impact HYD-1). Construction activities of the Partial Underground Alternative would include extensive excavation activities that could degrade water quality due to soil erosion and sedimentation during periods of extended rainfall while such activities are ongoing. Similar impacts from other proposed projects that would require substantial grading (such as F1, F10, F21, F23, F25 and F28 from Figures F-1a and F-1b) could occur. Therefore, the Partial Underground Alternative, when combined with the effects of other past and reasonably foreseeable project, would contribute to significant cumulative impact (Class I). No mitigation measures are available to reduce this impact.

Degradation of surface water or groundwater quality would occur from the accidental release of potentially harmful materials during construction activities (Impact HYD-2). While an increase in the amount and duration of construction would occur with the Partial Underground Alternative, the risk of an accidental release of hazardous materials would be identical to that analyzed above for the Proposed Project. Therefore, when combined with the risk for accidental release with the cumulative projects identified in Table F-2 (Cumulative Projects List) within proximity of the proposed subtransmission line and facilities, the Partial Underground Alterantives cumulative contribution to surface water quality as a result of an accidental release of potentially harmful materials during operation and maintenance activities (should a release occur) would be significant and unavoidable (Class I). No mitigation measures are available that would completely reduce the risk of accidental release of harmful materials

Degradation of surface water or groundwater quality would result from the accidental release of potentially harmful materials during operational activities (Impact HYD-3). Once operational, the Partial Underground Alternative could degrade surface or groundwater quality through accidental releases of hazardous materials used during operation identical to that presented above for the Proposed Project. Therefore, the Partial Underground Alternative's cumulative impact to surface water quality as a result of an accidental release of potentially harmful materials during operation and maintenance activities (should a release occur) would be significant and unavoidable (Class I). No mitigation measures are available that would completely reduce the risk of accidental release of harmful materials.

Disturbance of existing groundwater resources (Impact HYD-4). The Partial Underground Alternative could disturb groundwater resources only at the El Casco Substation site through grading, excavation and HDD activities. As presented in Section D.9.3.3, no groundwater resources are located within the underground segment of the proposed subtransmission line. As APMs would be implemented to minimize the potential for such disturbance to occur, and as there are no identified cumulative projects in the immediate vicinity of the El Casco Substation, the Partial Underground Alternative would have no cumulative impact on existing groundwater resources.

Increased runoff from the creation of new impervious areas (Impact HYD-5). The amount of new impervious surface created by the Partial Underground Alternative would be negligible. Therefore, the incremental impact of the Partial Underground Alternative, when combined with cumulative projects identified in Table F-2 (Cumulative Project List) would be less than significant (Class III).

Runoff introduced as a result of permanent Project features would cause the overloading of a local stormwater drainage system (Impact HYD-6). As the subtransmission line facilities proposed for the Partial Underground Alternative would be similar to those of the Proposed Project, identical to the analysis presented above for the Proposed Project, the Partial Underground Alternative would not

significantly alter existing stormwater drainage patterns. Therefore, the cumulative impact to stormwater drainage facilities would be less than significant (Class III).

Flood or erosion hazards created through the placement of permanent aboveground structures in a flood hazard area, a floodplain, or a watercourse (Impact HYD-7). None of the infrastructure associated with the Partial Underground Alternative would be situated in a watercourse. Since project structures would not affect flood flows, the Partial Underground Alternative would have no impact or contribute to a cumulative effect to flood or erosion from proposed facilities.

Result in damage from inundation by tsunami, seiche, or mudflow (Impact HYD-8). The Partial Underground Alternative would have no impacts with regard to tsunamis, seiches, or mudflows and therefore would not have the potential to combine with impacts of other projects to result in a cumulative impact.

Expose people or structures to flooding as a result of failure of a levee or dam (Impact HYD-9). The Partial Underground Alternative would have no impacts with regard dam inundation and therefore would not have the potential to combine with impacts of other projects to result in a cumulative impact.

No Project Alternative

Although it is currently unknown where the 12 kV distribution lines would be constructed, it can be reasonably assumed that construction of these lines would result in similar impacts as the Proposed Project, and therefore would result in similar contributions to cumulative impacts for Impacts HYD-1 through HYD-3 as described above for the Proposed Project. However, since construction activities associated with this alternative would likely be less intensive and of shorter duration than those of the Proposed Project, the No Project Alternative's contribution to cumulative impacts would be incrementally reduced. Additionally, like the Proposed Project, construction of 12 kV distribution lines would result in the same less than significant contribution to Impacts HYD-5 and HYD-6, and would have no contribution to Impacts HYD-4, HYD-7, and HYD-8.

F.1.5.8 Noise

Projects

As discussed below, the geographic extent for the analysis of cumulative impacts related to noise is limited to the areas of simultaneous active construction and would generally be localized, mainly within approximately 600 feet from any noise source and rarely more than one-quarter mile away. Therefore, all of the projects located within 0.25 mile of the El Casco, Maraschino, and, Banning Substations, as well as within 0.25 mile of the Proposed Project ROW between El Casco and Banning Substations, as identified in Table F-2, El Casco System Project Cumulative Project List, and Figures F-1a and F1b (Cumulative Projects – Northeast and Southeast Figures) are considered in this analysis.

Projections

All of the municipalities traversed by the Proposed Project are expected to experience dramatic residential and commercial development over the next twenty years. Such development will involve many large-scale construction projects that would result in varying amounts of construction noise and new permanent noise sources on neighboring receptors. In addition, population growth predicted for the area based on the list of planning documents contained in Table F-3, Plans Consulted in Cumulative

Analysis, would result in an increase to overall vehicle noise within the jurisdictions and areas determined below as the geographic extent for the cumulative noise analysis.

Geographic Scope

The geographic extent for the analysis of cumulative impacts related to noise is generally limited to areas within approximately 600 feet of the Proposed Project route and substation locations. The route traverses both rural and medium-density residential areas of both incorporated cities and unincorporated land within San Bernardino and Riverside Counties. This area is defined as the geographic extent of the cumulative noise impact area because noise impacts would generally be localized, mainly within approximately 600 feet from any noise source and rarely more than one-quarter mile away.

Significance Criteria

Cumulative noise impacts would be considered significant if, within the geographic scope of the impact analysis, the El Casco System Project would:

- Expose persons to noise levels, or generation of noise levels in excess of, standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- Cause a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project
- Generate excessive groundborne vibration or groundborne noise levels
- Cause a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project

Analysis of Proposed Project

Noise levels would cumulatively violate local standards (Impact N-1). Residents and other sensitive receptors located near Proposed Project construction activities could be subjected to intermittent construction noise levels that could be considered significant if left unmitigated. Similarly, construction activities associated with other projects located within 0.25 mile of the El Casco, Maraschino, and, Banning Substations, as well as within 0.25 mile of the Proposed Project ROW between El Casco and Banning Substations, as identified in Table F-2, El Casco System Project Cumulative Project List, and Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), that could potentially occur at the same time as the Proposed Project could possibly violate local noise standards. Therefore, the combined effect of construction noise could be cumulatively significant at various times during construction.

For the Proposed Project, SCE has committed to implementing the three APMs presented in Table D.9-3 to reduce noise impacts associated with construction. The implementation of these APMs would reduce temporary construction noise impacts associated with the Proposed Project. Although it would not be necessary to consider further mitigation, a potential additional mitigation measure to reduce cumulative noise impacts would be to coordinate with San Bernardino and Riverside Counties to stagger construction schedules to the extent feasible for construction projects occurring within 600 feet of the Proposed Project. While such a mitigation measure would reduce the potential for cumulative increases in ambient noise levels during construction, it would result in potentially longer periods of construction noise nuisance, which may in effect be considered by the communities to be worse than higher noise levels over a shorter duration. Therefore, such a mitigation measure for cumulative noise impacts is not recommended. Therefore, the Proposed Project would result in a less-than-significant (Class III) cumulative contribution to noise impacts within the geographic scope area.

Construction noise could cumulatively result in a substantial temporary or periodic increase in ambient noise levels (Impact N-2). Receptors located directly adjacent to multiple construction sites would experience temporary noise impacts from construction activities. Furthermore, construction related traffic would result in temporary intermittent noise impacts along vehicle routes. However, as presented in Table D.9-3, SCE has committed to implementing three APMs to reduce noise impacts associated with construction. The implementation of these APMs would reduce temporary construction noise impacts associated with the Proposed Project, thus reducing the Proposed Projects cumulative contribution to substantial temporary or periodic increase in ambient noise levels to a less-than-significant (Class III) level.

Construction noise could cumulatively generate excessive groundborne vibration or groundborne noise levels (Impact N-3). Receptors located directly adjacent to multiple construction sites would experience temporary vibration impacts from construction activities. Furthermore, construction related traffic would result in temporary intermittent vibration impacts to receptors along vehicle routes. However, as presented in Table D.9-3, SCE has committed to implementing three APMs to reduce noise impacts associated with construction. The implementation of these APMs would reduce temporary construction vibration impacts associated with the Proposed Project, thus reducing the Proposed Projects cumulative contribution to substantial temporary or periodic increase in vibration or vibration noise levels to a less-than-significant (Class III) level.

Cumulatively result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project (Impact N-4). The proposed El Casco Substation would generate low level noise to the immediate area of the substation. However, no sensitive receptors are located immediately adjacent to the proposed El Casco Substation site. While this noise generated by the proposed new El Casco Substation is not significant, the addition of further development within 600 feet of these receptors could combine with this impact to further increase ambient noise levels. However, as shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), no approved or pending projects are listed to be located within approximately 600 feet of the proposed El Casco Substation site. While there are several cumulative projects identified in Table F-2 (Cumulative Project List), and Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), that could generate permanent noise in the Banning and Zanja Substation areas, as substation facilities already exist at these locations, the improvements at these substation sites associated with the Proposed Project would not result in a significant cumulative contribution to permanent noise levels in the area. Therefore, the operational cumulative noise impact at the Substations would be less than significant (Class III).

Permanent noise levels along the ROW would increase due to corona noise from operation of the subtransmission lines. Residential receptors located directly adjacent to the Proposed Project would be impacted by operational noise from the subtransmission ROW. Because the operational noise generated by the Proposed Project alone would result in an increase to the ambient noise levels at sensitive receptor locations along the lines, additional further development within 600 feet of these receptors, as shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), no approved or pending projects are listed to be located within approximately 600 feet of the proposed El Casco Substation site. While there are several cumulative projects identified in Table F-2, El Casco System Project Cumulative Project List, and Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), would combine with this impact to further increase ambient noise levels. Therefore, the combined effect of operational corona noise combined with other proposed development projects located within close proximity to the proposed subtransmission line would be cumulatively significant (Class I)

Routine inspection and maintenance of the subtransmission lines, substation facilities, and fiber optic communication facilities would cause short-term or intermittent increases in noise along the routes and within substation boundaries. Any noise associated with inspections and maintenance would be temporary and short term, and conducted in accordance with all applicable noise regulations. Therefore, the temporary noise associated with Proposed Project maintenance in conjunction with cumulative projects in the immediate area of the Proposed Project as shown in Figures F-1a and F-1b (Cumulative Projects – Northwest and Southeast Figures), would result in a less than significant (Class III) permanent increase in ambient noise levels to the area.

Analysis of Alternatives

CPUC's Northerly Route Alternative Option 3

Noise levels would cumulatively violate local standards (Impact N-1). As identified in Table F-2, El Casco System Project Cumulative Project List, and Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), a number of projects are located near Route Alternative Option 3 proposed subtransmission line routes that could potentially result in construction occuring at the same time as Route Alternative Option 3. It is assumed that construction of Route Alternative Option 3 would include the three APMs presented in Table D.9-3 SCE has committed to implementing for the Proposed Project to reduce noise impacts associated with construction. Therefore, with the implementation of proposed APM's, Route Alternative Option 3 would result in a less-than-significant (Class III) cumulative contribution to construction noise impacts within the geographic scope area.

Construction noise could cumulatively result in a substantial temporary or periodic increase in ambient noise levels (Impact N-2). Should construction of Route Alternative Option 3 and any identified cumulative project within 0.25 mile of the Route Alternative Option 3 occur simultaneously, residents and other sensitive receptors located in close proximity would experience temporary cumulative noise impacts from construction activities. However, the implementation of APMs would reduce temporary construction noise impacts associated with Route Alternative Option 3, thus reducing the cumulative contribution to substantial temporary or periodic increase in ambient noise levels to a less-than-significant (Class III) level.

Construction noise could cumulatively generate excessive groundborne vibration or groundborne noise levels (Impact N-3). Should construction of Route Alternative Option 3 and any identified cumulative project within 0.25 mile of the Route Alternative Option 3 occur simultaneously, residents and other sensitive receptors located in close proximity would experience temporary cumulative vibration impacts from construction activities. However, the implementation of APMs would reduce temporary construction vibration impacts associated with Route Alternative 3, thus reducing the cumulative contribution to substantial temporary or periodic increase in vibration or vibration noise levels to a less-than-significant (Class III) level.

Cumulatively result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project (Impact N-4). The new El Casco to Banning subtransmission line Segment 2 (Grey Line shown on Figures C-1 and C-3), existing Banning to Maraschino subtransmission line (Yellow Line shown on Figures C-1 and C-3), and the existing Banning to Maraschino subtransmission line (Green Line shown on Figures C-1) segments of Route Alternative Option 3 would be exposed to an increase in corona noise over existing conditions. The addition of approved or pending projects as shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures) within 600 feet of these Route Alternative Option 3 segments could combine with this impact to further increase ambient noise levels to immediately located receptors. Therefore, the combined

effect of operational corona noise combined with other proposed development projects located within close proximity to these segments of Route Alternative Option 3 proposed subtransmission line would be cumulatively significant (Class I).

Any noise associated with inspections and maintenance of Route Alternative Option 3 would be identical to that analyzed for the Proposed Project and would result in a less than significant (Class III) cumulative impact to permanent increase in ambient noise levels to the area.

Partial Underground Alternative

Noise levels would cumulatively violate local standards (Impact N-1). Due to the large amount of trenching required in the underground segment of the proposed 115 kV line, heavy equipment use and an extended duration of construction would result in heavy construction noise to receptors located adjacent to the underground segment. As shown in Table F-2, El Casco System Project Cumulative Project List, and Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), the nearest identified cumulative project to the proposed underground segment is located over 0.5 mile south. Therefore, construction noise at the underground segment would not combine with other construction projects in the area and would not subject receptors within the Sun Lakes Community near the proposed Partial Underground Alternative segment to cumulatively significant construction noise impacts (Class III).

Construction noise could cumulatively result in a substantial temporary or periodic increase in ambient noise levels (Impact N-2). As stated above, the nearest identified cumulative project to the proposed underground segment is located over 0.5 miles south. However, any receptors located directly adjacent to the remainder of the Partial Underground Alternative construction sites and within 0.25 mile of any identified cumulative project would experience temporary cumulative construction noise impacts should construction activities occur simultaneously. The implementation of APMs would reduce temporary construction noise impacts associated with the Partial Underground Alternative, thus reducing the cumulative contribution to substantial temporary or periodic increase in ambient noise levels to a less-than-significant (Class III) level.

Construction noise could cumulatively generate excessive groundborne vibration or groundborne noise levels (Impact N-3). As stated above, the nearest identified cumulative project to the proposed underground segment is located over 0.5 mile south. However, any receptors located directly adjacent to the remainder of the Partial Underground Alternative construction sites and within 0.25 mile of any identified cumulative project would experience temporary cumulative construction vibration impacts should construction activities occur simultaneously. The implementation of APMs would reduce temporary construction vibration impacts associated with the Partial Underground Alternative, thus reducing the cumulative contribution to substantial temporary or periodic increase in vibration or vibration noise levels to a less-than-significant (Class III) level.

Cumulatively result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project (Impact N-4). The permanent noise sources that would occur with operation of the Partial Underground Alternative are limited to the corona effect of the overhead subtransmission line and routine inspection and maintenance of the line. Operation of the Partial Underground Alternative would limit the amount of corona discharge noise from the proposed 115 kV subtransmission line to those segments located above ground. For the segment of proposed new 115 kV subtransmission line to be located underground, residential receptors located along the one-mile portion of the alignment through the Sun Lakes community beginning just east of Highland Springs Avenue and ending just east of S. Riviera Avenue and west of S. Highland Home Road would not experience any

operational corona discharge noise. However, because the remaining portion of the proposed 115 kV subtransmission line east of the underground location would introduce a permanent load-carrying line and regular corona discharge noise to adjacent residential receptors not currently exposed to regular corona noise, corona noise would be a significant unavoidable impact of the Partial Underground Alternative. The addition of approved or pending projects as shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures) within 600 feet of this Route Alternative Option 3 segment area could combine with this impact to further increase ambient noise levels to immediately located receptors. Therefore, the combined effect of operational corona noise combined with other proposed development projects located within close proximity to the proposed subtransmission line would be cumulatively significant (Class I)

Any noise associated with inspections and maintenance of the Partial Underground Alternative would be identical to that analyzed for the Proposed Project and would result in a less than significant (Class III) cumulative impact to permanent increase in ambient noise levels to the area.

No Project Alternative

Without upgrades to the existing system, to address the overload conditions in the Maraschino Substation service area, SCE would add a third 28 MVA transformer and two 12 kV distribution lines (each approximately 9 miles in length) at Maraschino Substation in 2007. In addition, switchrack rebuilds at Banning and Zanja Substations would need to be completed. These activities would generate short-term temporary construction noise impacts to surrounding receptors. As the location of the required new 12 kV ROWs is unknown, it is possible that construction noise associated with these new 12 kV lines could occur in close proximity to other construction projects and result in cumulative construction impacts to sensitive receptors. However, it is assumed that APMs presented in Section D.9.3.2 (Applicant-Proposed Measures), to reduce noise impacts associated with construction would be implemented by SCE during construction of these required upgrades. The implementation of these APMs would reduce the No Project Alternatives contribution to cumulative construction noise to a less-than-significant (Class III) level.

The No Project Alternative would require the construction of two 12 kV distribution lines (each approximately 9 miles in length) at Maraschino Substation. As the location of these ROWs is unknown, it is possible that corona noise associated with these new 12 kV lines could impact sensitive receptors. While the corona noise associated with a 12 kV line would be minimal, it would be a permanent noise source over existing conditions. Furthermore, as the line between Maraschino and Banning Substations is used as the emergency line to Maraschino Substation, current only flows through the line when it is needed to serve loads. In the event the Proposed Project or an alternative to the Proposed Project would not occur, the existing single-circuit 115 kV line along this segment would have to carry load at all times. Therefore, the No Project Alternative would introduce a permanently load carrying line and regular corona discharge noise to residential receptors along this segment not currently exposed to regular corona noise. Therefore, the No Project Alternative would result in a new permanent source of corona noise to receptors and is considered a significant unavoidable impact of the No Project Alternative. The addition of approved or pending projects that could occur within 600 feet of these required new 12 kV ROWs could combine with this impact to further increase ambient noise levels to immediately located receptors. Therefore, the combined effect of operational corona noise combined with other proposed development projects located within close proximity to the proposed subtransmission line would be cumulatively significant (Class I)

F.1.5.9 Public Services and Utilities

Projects

As discussed below, the geographic extent for the analysis of cumulative impacts related to public services and utilities is the Counties of Riverside and San Bernardino as a whole. Therefore, as the projects listed in Table F-2, El Casco System Project Cumulative Project List, and Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures) would likely share the same public services and utility providers, all of those identified cumulative projects could impact the same public services and utility providers as the Proposed Project and alternatives, and are included cumulatively in this analysis.

Projections

All of the municipalities traversed by the Proposed Project and alternatives are expected to experience dramatic residential and commercial development over the next twenty years. Such development will involve many large-scale projects that would result in varying amounts of new demands to existing public services and utility capacities currently serving the area. In addition, population growth predicted for the area based on the list of planning documents contained in Table F-2, Plans Consulted in Cumulative Analysis, would result in an increase to public services and utility capacities within both San Bernardino and Riverside Counties determined below as the geographic extent for the cumulative public services and utilities analysis.

Geographic Scope

The geographic scope for the analysis of cumulative impacts on public services and utilities would be for both Riverside and San Bernardino Counties as a whole. This is defined as the geographic scope or the cumulative impact area because public services are provided by county fire and police services to both incorporated and unincorporated areas of the County and because utilities and service systems are provided predominantly by service providers to both incorporated and unincorporated areas of the Counties.

Significance Criteria

Cumulative impacts would be considered significant if, within the geographic scope of the impact analysis, the El Casco System Project would:

- Disrupt the existing utility systems or would cause a collocation accident through the crossing or shared location with another utility line
- Require the need for new or physically altered public service facilities in order to maintain acceptable service ratios, response times, or other performance objectives
- Require water, generate solid waste or wastewater that exceeds the ability of existing facilities to accommodate the new capacities, or generate a need for public services requiring the expansion of existing facilities

Analysis of Proposed Project

Cumulatively disrupt the existing utility systems or cause a collocation accident through the crossing or shared location with another utility line (Impact U-1). All Proposed Project construction activities would occur within existing SCE ROWs. Collocated utilities such as natural gas or water pipelines may be within the utility easement underneath the existing 115 kV subtransmission line. SCE is required by State law to contact Underground Service Alert and manually probe for existing buried utilities in the

Proposed Project corridor prior to any powered-equipment drilling or excavation. In addition, construction of all cumulative projects identified in Table F-2 (Cumulative Project List) would be subject to identical State law to contact Underground Service Alert and manually probe for existing buried utilities prior to any subsurface drilling or excavation activities. Therefore, less-than-significant (Class III) cumulative impacts to utility systems disruption or collocation accident through the crossing or shared location with any utility line would occur with Proposed Project implementation.

Cumulatively require the need for new or physically altered public service facilities in order to maintain acceptable service ratios, response times, or other performance objectives (Impact U-2). During construction, should construction activities from projects identified in Table F-2 (Cumulative Project List) occur at the same time as Proposed Project construction, cumulative impacts could occur to public services as a result of an influx of construction workers if a local workforce is unavailable to supply the need. However, no construction workers are expected to temporarily relocate to the area and no new workers would be required for operation of the new subtransmission line and substations. Therefore, while the development of all the projects identified in Table F-2 (Cumulative Project List) would require expansion of the public services in the area, this expansion is included within the projects of the area. The Proposed Project's incremental contribution to the overall demand for fire and police protection services is considered less-than-significant (Class III).

During construction, should construction activities from projects identified in Table F-2 (Cumulative Project List) occur at the same time as Proposed Project construction, cumulative impacts could occur to public services as a result of combined construction areas limiting emergency service access. However, the inclusion of Mitigation Measure T-3, Ensure Emergency Response Access, (as identified in Section D.11, Transportation and Traffic) would be implemented during Proposed Project construction ensuring that the Proposed Project's cumulative contribution to limiting emergency access increasing emergency response times would be reduced to a less-than-significant level (Class II).

Activities would require water, generate solid waste or wastewater that cumulatively exceeds the ability of existing facilities to accommodate the new capacities, or generate a need for expansion of existing facilities (Impact U-3). Because Proposed Project construction would be temporary and short-term, the Proposed Project's incremental contribution to the overall water, wastewater, and stormwater facility capacities and needs of the Riverside and San Bernardino County providers would not be significant. While development of all projects identified within Table F-2 (Cumulative Project List), would increase the demands being placed on these utility service providers, the Proposed Project cumulative contribution to this demand is considered less-than-significant (Class III).

Solid waste generated during Proposed Project construction would be within the capacities of local landfills. Therefore, the Project's incremental contribution to the capacities of solid waste utilities and infrastructure is not significant. While development of all projects identified within Table F-2 (Cumulative Project List) would increase the demands being placed on landfills serving the Cumulative Project Area, the Proposed Project contribution to this demand is considered cumulatively less-than-significant (Class III).

Analysis of Alternatives

CPUC's Northerly Route Alternative Option 3

Cumulatively disrupt the existing utility systems or cause a collocation accident through the crossing or shared location with another utility line (Impact U-1). Route Alternative Option 3 activities within the new El Casco to Banning subtransmission line Segment 2 would result in 5.6 miles of new single-circuit 115 kV line would be overbuilt on existing City of Banning distribution poles containing active

electrical line. However, as shown on Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), no cumulative projects would occur within this specific segment of ROW, therefore no cumulative impacts would occur from this collocated segment of utility infrastructure.

Cumulatively require the need for new or physically altered public service facilities in order to maintain acceptable service ratios, response times, or other performance objectives (Impact U-2). As the required workforce for Route Alternative Option 3 would be similar to the Proposed Project, the overall demand for fire and police protection services is considered less-than-significant as described above (Class III). Furthermore, the inclusion of Mitigation Measure T-3, Ensure Emergency Response Access, (as identified in Section D.11, Transportation and Traffic) would be implemented during Route Alternative Option 3 construction ensuring that the cumulative contribution to limiting emergency access and increasing emergency response times would be reduced to a less-than-significant level (Class II).

Activities would require water, generate solid waste or wastewater that cumulatively exceeds the ability of existing facilities to accommodate the new capacities, or generate a need for expansion of existing facilities (Impact U-3). As the amount of public utility use would be similar for Route Alternative Option 3 to that described above for the Proposed Project, the Route Alternative Option 3 incremental contribution to the capacities of utility providers serving the area is considered cumulatively less-than-significant (Class III).

Partial Underground Alternative

Cumulatively disrupt the existing utility systems or cause a collocation accident through the crossing or shared location with another utility line (Impact U-1). Within the underground segment of the proposed Partial Underground Alternative, there is a high-pressure natural gas line co-located with SCE's existing 115 kV subtransmission line through the Sun Lakes community. However, the distances between facilities would provide adequate separation between the existing high-pressure gas line and any proposed underground electric facilities. Proposed mitigation is recommended for the Partial Underground Alternative to ensure no impacts would occur within the underground segment. Furthermore, as shown on Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), no cumulative projects would occur within this specific segment of ROW, therefore no cumulative impacts would occur from this collocated segment of utility infrastructure.

Cumulatively require the need for new or physically altered public service facilities in order to maintain acceptable service ratios, response times, or other performance objectives (Impact U-2). As the required workforce for the Partial Underground Alternative would only be slightly greater than that of the Proposed Project, the overall demand for fire and police protection services is considered less-than-significant as described above (Class III). Furthermore, the inclusion of Mitigation Measure T-3, Ensure Emergency Response Access, (as identified in Section D.11, Transportation and Traffic) would be implemented during Partial Underground construction ensuring that the cumulative contribution to limiting emergency access and increasing emergency response times would be reduced to a less-than-significant level (Class II).

Activities would require water, generate solid waste or wastewater that cumulatively exceeds the ability of existing facilities to accommodate the new capacities, or generate a need for expansion of existing facilities (Impact U-1). As the amount of public utility use would be similar for the Partial Underground Alternative to that described above for the Proposed Project, the Partial Underground Alternative incremental contribution to the capacities of utility providers serving the area is considered cumulatively less-than-significant (Class III).

No Project Alternative

As the location of required new 12 kV subtransmission line of the No Project Alternative is unknown, it is possible that project specific collocation impacts could occur, and projects as shown on Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), could be located within the ROW resulting in cumulative collocation impacts. However, as SCE is required by State law to contact Underground Service Alert and manually probe for existing buried utilities in the entire Partial Underground Alternative corridor prior to any powered-equipment drilling or excavation, less-than-significant (Class III) cumulative impacts to utility systems disruption or collocation accident through the crossing or shared location with any utility line would occur with the Partial Underground Alternative implementation. Furthermore, the amount of utility use and solid waste would be less than that of the Proposed Project, resulting in less than significant (Class III) demands being placed on utility providers serving the Cumulative Project Area.

F.1.5.10 Transportation and Traffic

Projects

As discussed below, the geographic extent for the analysis of cumulative impacts related to traffic and transportation is the Counties of Riverside and San Bernardino as a whole. As the projects listed in Table F-2, El Casco System Project Cumulative Project List, would generate traffic during construction from workers and material delivery from all directions potentially utilizing all roadways, and development and residential projects would generate daily vehicle trips potentially utilizing all roadways, all of those identified cumulative projects could impact traffic and transportation facilities and are included cumulatively in this analysis.

Projections

All of the municipalities traversed by the Proposed Project and alternatives are expected to experience dramatic residential and commercial development over the next twenty years. Such development will involve an increase in vehicle trips during both construction and operation of future development. In addition, population growth predicted for the area based on the list of planning documents contained in Table F-2, Plans Consulted in Cumulative Analysis, would result in an increase to overall vehicle trips within the jurisdictions and areas determined below as the geographic extent for the cumulative traffic and transportation analysis.

Geographic Scope

The geographic scope for the analysis of cumulative impacts to traffic and transportation facilities would be both Riverside and San Bernardino Counties as a whole. This is defined as the geographic scope or the cumulative impact area cumulative growth and the associated increase in vehicle trips have the potential to impact roadway capacity levels of the traffic and transportation facilities located within both Counties. Development of the area would result in an overall increase in vehicle trips across the entire County, and therefore, both Riverside and San Bernardino Counties are considered the geographic scope area for this traffic and transportation cumulative analysis.

Significance Criteria

Cumulative traffic and transportation impacts would be considered significant if, within the geographic scope of the impact analysis, the El Casco System Project would:

- Reduce the number of, or the available width of, one or more travel lanes during the peak traffic periods, resulting in a temporary disruption to traffic flow and/or increased traffic congestion
- Result in an increase in vehicle trips associated with construction workers or equipment that would result in an unacceptable reduction in level of service on the roadways in the geographic scope area
- Restrict the movements of emergency vehicles (police cars, fire trucks, ambulances, and paramedic units) and there would be no reasonable alternative access routes available
- Restrict access to or from adjacent land uses and there would be no suitable alternative access
- Increase the demand for and/or reduce the supply of parking spaces and there would be no provisions for accommodating the resulting parking deficiencies
- Disrupt public transport service and there would be no suitable alternative routes or stops
- Disrupt rail service
- Impede pedestrian movements or bike trails in the construction area and there would be no suitable alternative pedestrian/bicycle access routes
- Increase roadway wear resulting in noticeable deterioration of roadway surface
- Result in safety problems for aviation facilities

Analysis of Proposed Project

Cumulatively reduce the number of, or the available width of, one or more travel lanes during the peak traffic periods, resulting in a temporary disruption to traffic flow and/or increased traffic congestion (Impact T-1). Continued development of the Riverside and San Bernardino County areas has contributed to congestion on area roadways that would be crossed by the routes of the Proposed Project. As shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), many approved or pending projects are listed to be located along the Proposed Project subtransmission and fiber optic routes. In the event construction of the Proposed Project and these projects were to occur simultaneously, cumulative impacts resulting in temporary lane closures and disruption of traffic flows would occur. Furthermore, traffic associated with future residential and commercial developments would further contribute to congestion on these affected roadways. Therefore, temporary roadway congestion resulting from lane closures associated with construction of the Proposed Project could combine with other construction projects along the subtransmission and fiber optic ROW's and congestion resulting from future development to create a temporary cumulative significant impact. However, Mitigation Measures T-1a through T-1d are recommended to ensure that potentially significant impacts associated with short-term lane closures during Proposed Project construction are reduced to less-than-significant levels. Therefore, the Proposed Project's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively result in an increase in vehicle trips associated with construction workers or equipment that would result in an unacceptable reduction in level of service on the roadways in the geographic scope area (Impact T-2). Development in the Riverside and San Bernardino County areas has contributed to congestion on area roadways that would likely be traveled by construction-related traffic associated with the Proposed Project. As all Project-related commute traffic and construction truck/equipment activity on local roadways would be dispersed over the entire Project area and dispersed over time, this traffic would only create short-term delays and account for minimal additional traffic volumes on study area roadways. Therefore, the Proposed Project cumulative contribution to impacts related to construction traffic reducing area roadway capacity or level of service would be temporary and would be considered less than significant (Class III).

Cumulatively restrict the movements of emergency vehicles (police cars, fire trucks, ambulances, and paramedic units) and there would be no reasonable alternative access routes available (Impact T-3). Temporary road and lane closures resulting during Proposed Project construction could interfere with emergency response vehicles by lengthening the response time required for emergency vehicles passing through the construction zone. As shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), many approved or pending projects are listed to be located along the Proposed Project subtransmission and fiber optic routes. In the event construction of the Proposed Project and these projects were to occur simultaneously, cumulative impacts to emergency vehicle access and response time resulting from temporary lane closures and disruption of traffic flows would occur. Furthermore, traffic associated with future residential and commercial developments would further contribute to congestion on these affected roadways. Therefore, temporary roadway congestion resulting from lane closures associated with construction of the Proposed Project could combine with other construction projects along the subtransmission and fiber optic ROW's and congestion resulting from future development to create a temporary cumulative significant impact to emergency vehicle access. However, Mitigation Measures T-3 is recommended to ensure that potentially significant impacts associated with short-term lane closures during Proposed Project construction are reduced to less-than-significant levels. Therefore, the Proposed Project's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively restrict access to or from adjacent land uses and there would be no suitable alternative access (Impact T-4). Temporary road and lane closures resulting during Proposed Project construction could interfere with residential and business access adjacent to the construction zone. As shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), many approved or pending projects are listed to be located along the Proposed Project subtransmission and fiber optic routes. Should construction of these projects occur at the same time as the Proposed Project, potential cumulative access impacts to adjacent properties may occur. However, it is likely the regulatory agency responsible for issuing the encroachment permit would ensure that work within a public road would not occur simultaneously with the Proposed Project to avoid significant cumulative impacts. Furthermore, Mitigation Measure T-4 is recommended to reduce Proposed Project impacts associated with loss of residential or business access. Therefore, the Proposed Project's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively increase the demand for and/or reduce the supply of parking spaces and there would be no provisions for accommodating the resulting parking deficiencies (Impact T-5). Temporary road and lane closures resulting during Proposed Project construction could interfere with street parking within the ROW adjacent to the construction zone. As shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), many approved or pending projects are listed to be located along the Proposed Project subtransmission and fiber optic routes. Should construction of these projects occur at the same time as the Proposed Project, potential cumulative loss of parking impacts may occur. Mitigation Measure T-5 is recommended to reduce Proposed Project impacts associated with loss of street parking. Therefore, the Proposed Project's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively disrupt public transport service and there would be no suitable alternative routes or stops (Impact T-6). Temporary road and lane closures resulting during Proposed Project construction could interfere with public transportation routes and stops adjacent to the construction zone. As shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), many approved or pending projects are listed to be located along the Proposed Project subtransmission and fiber optic routes. Should construction of these projects occur at the same time as the Proposed Project, potential

cumulative public transportation access and route impacts may occur. Mitigation Measure T-6 is recommended to reduce Proposed Project impacts to public and school bus routes and stops. Therefore, the Proposed Project's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively disrupt rail service (Impact T-7). Adjacent to San Timoteo Canyon Road at the proposed El Casco Substation site, the Union Pacific Railroad utilizes a railroad line for multiple freight train operations on a daily basis. This rail line extends southeast, and as shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), cumulative projects F23 (Jack Rabbit Trail Residential Project) and F25 (Hidden Canyon Residential Project) would be located adjacent to the Union Pacific Railroad line. Should construction of these projects occur at the same time as the Proposed Project, potential cumulative disruption impacts to rail service along this line may occur. Mitigation Measure T-7 is recommended to reduce Proposed Project impacts associated with any temporary disruption to rail service. Therefore, the Proposed Project's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively impede pedestrian movements or bike trails in the construction area and there would be no suitable alternative pedestrian/bicycle access routes (Impact T-8). Temporary road and lane closures resulting during Proposed Project construction could interfere with public sidewalks and bicycle routes adjacent to the construction zone. As shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), many approved or pending projects are listed to be located along the Proposed Project subtransmission and fiber optic routes. Should construction of these projects occur at the same time as the Proposed Project, potential cumulative pedestrian and bicycle route impacts may occur. Mitigation Measure T-8 is recommended to reduce Proposed Project impacts to public and school bus routes and stops. Therefore, the Proposed Project's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively increase roadway wear resulting in noticeable deterioration of roadway surface (Impact T-9). Unexpected physical damage to roads, sidewalks, medians, etc., within public roads or sidewalks to occur as a result of construction-related vehicle and equipment use could occur during construction of the Proposed Project. As shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), many approved or pending projects are listed to be located along the Proposed Project subtransmission and fiber optic routes. Should construction of these projects occur at the same time as the Proposed Project, potential cumulative roadway damage impacts may occur. Mitigation Measure T-9 is recommended to reduce Proposed Project impacts and ensure any damage to area road ROWs caused by construction of the Proposed Project would be repaired upon completion of construction activities. Therefore, the Proposed Project's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively result in safety problems for aviation facilities (Impact T-10). A portion of the 115 kV subtransmission line would be located approximately 4,000 west of Banning's Municipal Airport runway and within the Banning Municipal Airport Land Use Plan. Construction of subtransmission line poles exceeding the maximum permitted height of the Banning Municipal Airport Land Use Plan or Federal Aviation Administration (FAA) regulations would require SCE to submit FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the Manager of the FAA Air Traffic Division for review and approval of the Project. As shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), many approved or pending projects are located along this segment of the Proposed Project subtransmission route and within proximity of the Banning Municipal Airport. However, these projects would all be subject to the same FAA regulations as the Proposed Project.

Therefore, even if construction of these projects occur at the same time as the Proposed Project, compliance with FAA guidelines would ensure that cumulative impacts to aviation activities would be less than significant and no mitigation measures would be required (Class III).

Helicopters would be used at SCE's existing Mill Creek Communications Site within the San Bernardino National Forest (SBNF) for construction of the microwave tower, and during installation of fiber optic cable at locations between the Cities of Redlands and Banning. As shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), many approved or pending projects are listed to be located within the Cities of Redlands and Banning. Should construction of these projects require helicopter use and occur at the same time as the Proposed Project, potential cumulative aviation impacts may occur. Mitigation Measure T-10 is recommended to reduce Proposed Project impacts associated with helicopter use during construction. Therefore, the Proposed Project's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Analysis of Alternatives

CPUC's Northerly Route Alternative Option 3

Cumulatively reduce the number of, or the available width of, one or more travel lanes during the peak traffic periods, resulting in a temporary disruption to traffic flow and/or increased traffic congestion (Impact T-1). As shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), many approved or pending projects are listed to be located along the Route Alternative Option 3 subtransmission and fiber optic routes. Identical to the analysis presented above for the Proposed Project, Mitigation Measures T-1a through T-1d are recommended to ensure that potentially significant impacts associated with short-term lane closures during Route Alternative Option 3 construction are reduced to less-than-significant levels. Therefore, while impacts could occur, Route Alternative Option 3 cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively result in an increase in vehicle trips associated with construction workers or equipment that would result in an unacceptable reduction in level of service on the roadways in the geographic scope area (Impact T-2). Projects listed in Table F-2, El Casco System Project Cumulative Project List, would generate traffic during construction from workers and material delivery from all directions potentially utilizing all roadways. Because Route Alternative Option 3 related commute traffic and construction truck/equipment activity on local roadways would be dispersed over a number of vehicle routes and for a short-term duration, the cumulative contribution of Route Alternative Option 3 to impacts related to construction traffic reducing area roadway capacity or level of service would be temporary and would be considered less than significant (Class III).

Cumulatively restrict the movements of emergency vehicles (police cars, fire trucks, ambulances, and paramedic units) and there would be no reasonable alternative access routes available (Impact T-3). In the event construction of Route Alternative Option 3 and cumulative projects identified in Table F-2 (Cumulative Project List) were to occur simultaneously, cumulative impacts to emergency vehicle access and response time resulting from temporary lane closures and disruption of traffic flows would occur. However, Mitigation Measures T-3 would reduce the cumulative contribution of Route Alternative Option 3 to this impact to a less-than-significant level (Class II).

Cumulatively restrict access to or from adjacent land uses and there would be no suitable alternative access (Impact T-4). Should construction of cumulative projects occur at the same time as Route Alternative Option 3, potential cumulative access impacts to adjacent properties may occur.

However, Mitigation Measure T-4 is recommended to reduce Route Alternative Option 3 impacts associated with loss of residential or business access. Therefore, the Route Alternative Option 3 cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively increase the demand for and/or reduce the supply of parking spaces and there would be no provisions for accommodating the resulting parking deficiencies (Impact T-5). Should construction of cumulative projects occur at the same time as Route Alternative Option 3, potential cumulative loss of parking impacts may occur. Mitigation Measure T-5 is recommended to reduce Route Alternative Option 3 impacts associated with loss of street parking. Therefore, the Route Alternative Option 3 cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively disrupt public transport service and there would be no suitable alternative routes or stops (Impact T-6). Temporary road and lane closures resulting during Route Alternative Option 3 construction could interfere with public transportation routes and stops adjacent to the construction zone. Mitigation Measure T-6 is recommended to reduce Route Alternative Option 3 impacts to public and school bus routes and stops. Therefore, the Route Alternative Option 3's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively disrupt rail service (Impact T-7). Upgrades to the Existing Vista to Maraschino to San Bernardino 115 kV Subtransmission Lines (Blue Line shown on Figure C-1), would cross over the Union Pacific Railroad line. In addition, adjacent to San Timoteo Canyon Road at the proposed El Casco Substation site, the Union Pacific Railroad utilizes a railroad line for multiple freight train operations on a daily basis. As the Northerly Route Alternative Option 3 would include the construction of the El Casco Substation, proposed duct banks would continue to be installed underground adjacent Union Pacific Railroad tracks. This rail line extends southeast, and as shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), cumulative projects F23 (Jack Rabbit Trail Residential Project) and F25 (Hidden Canyon Residential Project) would be located adjacent to the Union Pacific Railroad line. Should construction of these projects occur at the same time as the Route Alternative Option 3, potential cumulative disruption impacts to rail service along this line may occur. Mitigation Measure T-7 is recommended to reduce Route Alternative Option 3 impacts associated with any temporary disruption to rail service. Therefore, the Route Alternative Option 3's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively impede pedestrian movements or bike trails in the construction area and there would be no suitable alternative pedestrian/bicycle access routes (Impact T-8). Should construction of cumulative projects occur at the same time as the Route Alternative Option 3, potential cumulative pedestrian and bicycle route impacts may occur. Mitigation Measure T-8 is recommended to reduce Route Alternative Option 3 impacts to pedestrian and bicycle routes. Therefore, the Route Alternative Option 3's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively increase roadway wear resulting in noticeable deterioration of roadway surface (Impact T-9). Mitigation Measure T-9 is recommended to reduce Route Alternative Option 3 impacts and ensure any damage to area road ROWs caused by construction of the Route Alternative Option 3 would be repaired upon completion of construction activities. Therefore, the Route Alternative Option 3's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively result in safety problems for airspace (Impact T-10). Identical to the analysis presented above for the Proposed Project, should construction of cumulative projects require helicopter use and occur at the same time as the Route Alternative Option 3, potential cumulative aviation impacts may occur. Mitigation Measure T-10 is recommended to reduce Route Alternative Option 3 impacts associated with helicopter use during construction. Therefore, the Route Alternative Option 3's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively result in safety problems for airport facilities (Impact T-11). A portion of the 115 kV subtransmission line reroute associated with Northerly Route Alternative Option 3 and projects shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures) would occur within proximity of the Banning Municipal Airport. However, these projects, as well as Route Alternative Option 3 would all be subject to submit FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the Manager of the FAA Air Traffic Division for review and approval. Therefore, even if construction of these projects occur at the same time as the Route Alternative Option 3, compliance with FAA guidelines would ensure that cumulative impacts to aviation activities would be less than significant and no mitigation measures would be required (Class III).

Partial Underground Alternative

Cumulatively reduce the number of, or the available width of, one or more travel lanes during the peak traffic periods, resulting in a temporary disruption to traffic flow and/or increased traffic congestion (Impact T-1). Identical to the analysis presented above for the Proposed Project, Mitigation Measures T-1a through T-1d are recommended to ensure that potentially significant impacts associated with short-term lane closures during Partial Underground Alternative construction are reduced to less-than-significant levels. Therefore, while impacts could occur, the Partial Underground Alternative cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively result in an increase in vehicle trips associated with construction workers or equipment that would result in an unacceptable reduction in level of service on the roadways in the geographic scope area (Impact T-2). As Partial Underground Alternative related traffic would be short-term and temporary dispersed over a large region, the cumulative contribution of the Partial Underground Alternative to impacts related to construction traffic reducing area roadway capacity or level of service would be temporary and would be considered less than significant (Class III).

Cumulatively restrict the movements of emergency vehicles (police cars, fire trucks, ambulances, and paramedic units) and there would be no reasonable alternative access routes available (Impact T-3). Identical to the analysis presented above for the Proposed Project, Mitigation Measures T-3 is recommended to ensure that project-specific potentially significant impacts associated with short-term lane closures during Partial Underground Alternative construction are reduced to less-than-significant levels. Therefore, the cumulative contribution of the Partial Underground Alternative to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively restrict access to or from adjacent land uses and there would be no suitable alternative access (Impact T-4). Identical to the analysis presented above for the Proposed Project, Mitigation Measure T-4 is recommended to reduce Partial Underground Alternative impacts associated with loss of residential or business access. Therefore, the Partial Underground Alternative cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively increase the demand for and/or reduce the supply of parking spaces and there would be no provisions for accommodating the resulting parking deficiencies (Impact T-5).

Identical to the analysis presented above for the Proposed Project, Mitigation Measure T-5 is recommended to reduce Partial Underground Alternative impacts associated with loss of street parking. Therefore, the Partial Underground Alternative cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively disrupt public transport service and there would be no suitable alternative routes or stops (Impact T-6). Identical to the analysis presented above for the Proposed Project, Mitigation Measure T-6 is recommended to reduce Partial Underground Alternative impacts to public and school bus routes and stops. Therefore, the Partial Underground Alternative's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively disrupt rail service (Impact T-7). As the Partial Underground Alternative construction would be isolated within an approximately one-mile portion of the alignment through the Sun Lakes community beginning just east of Highland Springs Avenue and ending just east of S. Riviera Avenue and west of S. Highland Home Road, this segment contains no rail lines. However, as the remaining segments of the Partial Underground Alternative would be identical to that of the Proposed Project, potential conflicts with the Union Pacific Railroad tracks adjacent to the proposed El Casco Substation would still occur. As shown in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures), cumulative projects F23 (Jack Rabbit Trail Residential Project) and F25 (Hidden Canyon Residential Project) would be located adjacent to the Union Pacific Railroad line. Should construction of these projects occur at the same time as the Partial Underground Alternative, potential cumulative disruption impacts to rail service along this line may occur. Mitigation Measure T-7 is recommended to reduce Partial Underground Alternative impacts associated with any temporary disruption to rail service. Therefore, the Partial Underground Alternative's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively impede pedestrian movements or bike trails in the construction area and there would be no suitable alternative pedestrian/bicycle access routes (Impact T-8). Identical to the analysis presented above for the Proposed Project, Mitigation Measure T-8 is recommended to reduce Partial Underground Alternative impacts to public and school bus routes and stops. Therefore, the Partial Underground Alternative's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively increase roadway wear resulting in noticeable deterioration of roadway surface (Impact T-9). Identical to the analysis presented above for the Proposed Project, Mitigation Measure T-9 is recommended to reduce Partial Underground Alternative impacts and ensure any damage to area road ROWs caused by construction of the Partial Underground Alternative would be repaired upon completion of construction activities. Therefore, the Partial Underground Alternative's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively result in safety problems for airspace (Impact T-10). Identical to the analysis presented above for the Proposed Project, Mitigation Measure T-10 is recommended to reduce Partial Underground Alternative impacts associated with helicopter use during construction. Therefore, the Partial Underground Alternative's cumulative contribution to this impact is considered reduced to a less-than-significant level (Class II).

Cumulatively result in safety problems for airport facilities (Impact T-11). Identical to the analysis presented above for the Proposed Project, compliance with FAA guidelines would ensure that

cumulative impacts to aviation activities would occur as a result of the Partial Underground Alternative are less than significant (Class III).

No Project Alternative

The No Project Alternative would require the construction of two 12 kV distribution lines (each approximately 9 miles in length) at Maraschino Substation. As the location of these ROWs is unknown, it is possible that these new 12 kV lines could cross existing roadways and result in short-term temporary road or lane closures during construction. The No Project Alternative could combine with construction impacts from projects identified in Figures F-1a and F-1b (Cumulative Projects – Northeast and Southeast Figures) to result in cumulative traffic and disruption impacts from temporary lane closures. Therefore, the No Project Alternative would require mitigation similar or identical to that described in Section D.11, Transportation and Traffic as Mitigation Measures T-1a through T-1d to reduce the No Project Alternative cumulative contribution to this impact to a less-than-significant level (Class II).

F.1.5.11 Visual Resources

As discussed below, the geographic extent for the analysis of cumulative impacts related to visual resources is typically limited to areas of common visibility (within the same field of view), which could extend up to two miles from the taller project components (subtransmission towers) or even further if either the project component or viewpoint are elevated. Therefore, projects within two miles of the proposed subtransmission line and existing and proposed substation (as identified in Table F-2 and Figures F-1a and F-1b) are considered in the visual resources cumulative analysis. However, for the fiber-optic line, only projects located on the same street or in the immediate vicinity to the right of way are considered for the visual resources cumulative analysis because of the limited viewshed and minimal noticeability associated with the addition of a single cable to existing utility poles.

Projections

All of the municipalities traversed by the Proposed Project are expected to experience dramatic residential and commercial development over the next twenty years. Such development will involve many large scale construction projects that would result in varying amounts of visible construction activities and materials and new permanent structures and landscape changes that could be visible to the general public and private residences within the geographic scope described below.

Geographic Scope

Cumulative impacts to visual resources would occur where project facilities occupy the same field of view as other built facilities or impacted landscapes. In some cases, a cumulative impact could also occur if a viewer perceives that the general visual quality of a localized area is diminished by the proliferation of visible structures or construction effects (such as disturbed vegetation), even if the changes are not within the same field of view as existing structures or facilities, but are nearby. Most cumulative impacts would occur within two miles of the Proposed Project and within developed urban and suburban areas, the geographic scope could be limited to 0.25 mile or less due to the blockage of sightlines by structures and trees. Beyond two miles, structures become less distinct or even not visible if they blend sufficiently with background forms, colors, and textures. Also, beyond two miles it is likely that sightlines will become impaired or blocked by intervening terrain, vegetation, or structures. In some cases, the expansiveness or openness of a landscape or the availability of vista viewpoints and overlooks greatly expand the viewshed for a portion of the project to distances of five miles or more.

From these locations, the geographic scope of the cumulative analysis would increase commensurately. For the El Casco Project, the residential area north of San Timoteo Canyon Road is slightly elevated, which allows more distant sightlines and visibility of more landscape in the vicinity of the proposed El Casco Substation site. Also, the ridgeline location of the Mill Creek communication creates a substantial viewshed of several square miles from which the tower and cumulative project(s) could be seen.

Significance Criteria

The criteria used to assess the significance of visual impacts resulting from two or more projects taken cumulatively are the same as those used to assess a single project and include such considerations as:

- Project construction or the long-term presence of project components would cause a substantial effect on a scenic vista.
- Project construction or the long-term presence of project components would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within view of a State Scenic Highway.
- Project construction or the long-term presence of project components would substantially degrade the existing visual character or quality of the site and its surrounding landscape. [Note: Substantial degradation results from higher levels of visual contrast, project dominance, and view blockage. Visual contrast relates to spatial characteristics, visual scale, texture, form, line, and color.]
- Project construction or the long-term presence of the project components would create a new source of substantial light or glare that would adversely affect day or nighttime views in the area or be hazardous to motorists or pedestrians.

Two additional criteria that can lead to a determination of significant visual impact include:

- Project construction or the long-term presence of project components would result in an inconsistency with local regulations, plans, and standards applicable to the protection of visual resources.
- The presence of the Proposed Project would add to a cumulative visual alteration.

To the extent that the Proposed Project in conjunction with one or more cumulative projects results in a significant, cumulative visual resources impact, the significance of that cumulative visual impact would depend on the degree to which (1) the viewshed is altered; (2) visual access to scenic resources is impaired (view blockage); (3) scenic character or visual quality is diminished; or (4) the project's visual contrast is increased.

Analysis of Proposed Project

Project construction activities would cause a cumulative visual impact (Impact V-1). To the extent that the Proposed Project during construction would be visible within the same field of view as one or more of the cumulative projects, which are also under construction, adverse visual impacts would occur with the visible presence of construction equipment, vehicles, materials, and personnel. However, these visual impacts would be temporary and would not create significant cumulative effects, particularly along the linear components of the project where construction activities are transient. This would be the case for the following 56 projects identified in Table F-2 and Figures F-1a and F-1b: A3, A4, B1, B4, B7, B9, B15, B24, B26, B27, C2, C4-C8, C11, C13, C15, C22, C25, C28, C31, C33, D11, E7, E11, E15, E24, E25, E28, E29, E31, E32, E34, E35, E37, E38, E44, E49, E52, F2, F4, F6, F11-F14, F16, F21, F28, F30, F33, F38, F39, and F41. No additional mitigation measures are recommended beyond Measures V-1 (reduce visibility of construction activities and equipment) and V-2 (reduce

visibility of land scarring). Therefore, because construction related visual impacts are short-term and temporary, the Proposed Project cumulative contribution would be less than significant after mitigation (Class II).

Cumulative impacts to a perceived increase in industrialization of the landscape (Impact V-2). Even though some of the above-referenced projects would be visible within the same field of view as the Proposed Project once constructed, those projects would contribute to the on-going urbanization of the study area and transformation of the landscape in a way that the Proposed Project would not. The referenced cumulative projects (in conjunction with the other cumulative projects identified in Table F-2) would continue to change the character of the existing landscape, which is gradually transitioning from a more rural and in some areas, undeveloped character, to a developed suburban and urban character. The Proposed Project consists of features (subtransmission line, cable, even substation) that are not uncommon in less developed landscapes and typically do not cause the landscape character shifts that occur with regional land use transformations. Therefore, the Proposed Project would not result in cumulative visual impacts with the above-referenced projects. With respect to construction, this conclusion would also apply to the projects referenced in the following paragraphs.

There are six residential cumulative projects (Nos. F1, F10, F11, F19, F23, and F25) that, when constructed, would be visible within the same field of view as the Proposed Project. All six of these residential development projects would (a) be consistent with other residential uses in the immediate area and region; (b) not appreciably change the character of the existing, rapidly developing suburban/urban landscape; and (c) not share the same or similar industrial character as the Proposed Project. On that basis, the Proposed Project would not result in cumulative visual impacts with the six residential projects. However, in all six cases, substantial view blockage of background hills and sky would occur when seen from viewpoints north of the developments. On its own, view blockage impacts caused by the Proposed Project would be adverse but less than significant. However, in conjunction with the substantial view blockage that would occur in combination with the residential projects, the resulting cumulative visual impact would be significant (Class I).

There are also three energy infrastructure projects that would share many of the same characteristics of the Proposed Project, and would either be within the same field of view as or the vicinity of the Proposed Project once constructed. These projects would exhibit similar complex structural form and industrial character compared to the Proposed Project. The three projects include:

- Devers-Palo Verde No. 2 (DPV2) Transmission Line Project (No. A2)
- Liberty XXIII Renewable Energy Biomass Project (No. E1)
- Sunset Substation and Transmission and Distribution Project (No. E2)

Although the Proposed Project is replacing existing wood-pole structures along the subtransmission line ROW, the new steel-pole structures would have a stronger industrial character. On its own, the increase in industrial character and view blockage caused by the proposed subtransmission line would result in adverse but less than significant (Class III) impacts. However, in conjunction with the highly industrial character of the DPV2 500 kV Project (No. A2) structures that would be placed in the nearby Devers-Valley corridor to the south, the combined increase in industrial character and view blockage would result in a significant (Class I) cumulative visual impact.

The increase in industrial character associated with the Proposed Project's new steel-pole subtransmission towers connecting to Banning Substation and the required modifications to the substation would result in adverse but less than significant (Class III) visual impacts. The Liberty Project (No. E1) would be located approximately 1.75 miles east-southeast of Banning Substation and

would exhibit considerable industrial character similar to the concentration of industrial features at Banning Substation, only more extensive. Although the two projects are sufficiently separated to not appear in the same field of view, viewers in the area may perceive the addition of the Proposed Project and the Liberty Project as an increase in industrialization of the existing landscape. However, given the separation distance between these two projects and the slight increase in industrial character associated with the Proposed Project, it is likely that few people would make such a connection between the two projects. Therefore, the resulting cumulative visual impact would be adverse but less than significant (Class III).

A similar situation would exist between the Proposed Project and the Sunset Project (No. E2) except that the Sunset Project would be located slightly closer to Banning Substation at a distance of just over one mile. Again, the industrial character associated with the Sunset Project would be similar to that of Banning Substation and the steel-pole line that would connect to the substation. While the two projects would not appear in the same field of view, it is possible that some viewers may perceive an increase in landscape industrialization as a result of the two projects. However, given the distance between the two projects, it is likely that few people would make such a connection and the resulting cumulative visual impact would be adverse but less than significant (Class III).

Analysis of Alternatives

Cumulative visual impacts for the Route Alternative Option 3 would similar to those described above for the Proposed Project (Section F.1.4.12) in terms of approach, geographic scope, and significance criteria. The results of the analysis would also be similar because of the commonality of project components. However, because of the additional project component, there are more projects that cumulatively interact with the Route Alternative Option 3 compared to the Proposed Project. Therefore, the analysis presented below reflects the additional projects that would cumulatively interact with the northerly route component of the Route Alternative Option 3.

CPUC's Northerly Route Alternative Option 3

Project construction activities would cause a cumulative visual impact (Impact V-1). As construction of Route Alternative Option 3 would result in temporary and short-term visual impacts similar to that described above for the Proposed Project, the inclusion of Mitigation Measures V-1 (reduce visibility of construction activities and equipment) and V-2 (reduce visibility of land scarring) would reduce the Route Alternative Option 3 cumulative contribution to visual construction impacts to a less than significant level after mitigation (Class II).

Cumulative impacts to a perceived increase in industrialization of the landscape (Impact V-2). There are three types of Route Alternative Option 3-cumulative project interactions that are particularly relevant to this analysis: (1) the project construction activities are jointly visible, (2) the constructed projects jointly reduce visibility of some valued landscape feature, and (3) the constructed projects jointly contribute to a perceived increase in industrialization of the landscape.

To the extent that the Route Alternative Option 3 during construction would be visible within the same field of view as one or more of the cumulative projects, which are also under construction, adverse visual impacts would occur with the visible presence of construction equipment, vehicles, materials, and personnel. However, these visual impacts would be temporary and would not create significant cumulative effects, particularly along the linear components of the project where construction activities are transient. This would be the case for the following 65 projects identified in Table F-2 and Figures F-1a and F-1b: A3, A4, B1, B4, B7, B9, B15, B24, B26, B27, C2, C4-C8, C11, C13, C15, C22,

C25, C28, C31, C33, D5, D6, D11, E7, E11, E15, E22-E25, E28, E29, E31, E32, E34, E35, E37, E38, E44, E49, E52, E54, E55, F2, F4, F6, F12-F16, F21, F28, F30, F31, F33, F35, F36, F38, F39, and F41. No additional mitigation measures are recommended beyond Measures V-1 (reduce visibility of construction activities and equipment) and V-2 (reduce visibility of land scarring). Even though some of the above-referenced projects would be visible within the same field of view as the Route Alternative Option 3 once constructed, those projects would contribute to the on-going urbanization of the study area and transformation of the landscape in a way that the Route Alternative Option 3 would not. The referenced cumulative projects (in conjunction with the other cumulative projects identified in Table F-2) would continue to change the character of the existing landscape, which is gradually transitioning from a more rural and in some areas, undeveloped character, to a developed suburban and urban character. The Route Alternative Option 3 consists of features (subtransmission line, cable, and substation) that are not uncommon in less developed landscapes and do not typically cause the landscape character shifts that occur with regional land use transformations. Therefore, the Route Alternative Option 3 would not result in cumulative visual impacts with the above-referenced projects.

There are 16 residential cumulative projects (Nos. A1, E4, E9, E14, E16, E17, E21, E36, F3, F5, F7, F8, F11, F19, F22, and F26) that, when constructed, would be visible within the same field of view as the Route Alternative Option 3. All 16 of these residential development projects would (a) be consistent with other residential uses in the immediate area and region; (b) not appreciably change the character of the existing, rapidly developing suburban/urban landscape; and (c) not share the same or similar industrial character as the Route Alternative Option 3. On that basis, the Route Alternative Option 3 would not result in cumulative visual impacts with the 16 residential projects. However, in all 16 cases, substantial view blockage of background hills and sky would occur when viewed with a backdrop of the mountains to the north or south. On its own, view blockage impacts caused by the Route Alternative Option 3 would be adverse but less than significant. However, in conjunction with the substantial view blockage that would occur in combination with the residential projects, the resulting cumulative visual impact would be significant (Class I).

There are also three energy infrastructure projects that would share many of the same characteristics of the Route Alternative Option 3, and would either be within the same field of view as or the vicinity of the Route Alternative Option 3 once constructed. These projects would exhibit similar complex structural form and industrial character compared to the Route Alternative Option 3. The three projects include:

- Devers-Palo Verde No. 2 (DPV2) Transmission Line Project (No. A2)
- Liberty XXIII Renewable Energy Biomass Project (No. E1)
- Sunset Substation and Transmission and Distribution Project (No. E2)

Although the CPUC's Northerly Route Alternative Option 3 would replace existing wood-pole structures along the subtransmission ROW, the new steel-pole structures would have a stronger industrial character. On its own, the increase in industrial character and view blockage caused by the proposed subtransmission line would result in adverse but less than significant impacts. However, in conjunction with the highly industrial character of the DPV2 500 kV Project (No. A2) structures that would be placed in the nearby Devers-Valley corridor to the south, the combined increase in industrial character and view blockage would result in a significant (Class I) cumulative visual impact.

The increase in industrial character associated with the alternative's new steel-pole subtransmission towers connecting to Banning Substation and the required modifications to the substation would result in adverse but less than significant (Class III) visual impacts. The Liberty Project (No. E1) would be

located approximately 1.75 miles east-southeast of Banning Substation and would exhibit considerable industrial character similar to the concentration of industrial features at Banning Substation, only more extensive. Although the two projects are sufficiently separated to not appear in the same field of view, viewers in the area may perceive the addition of the Route Alternative Option 3 and the Liberty Project as an increase in industrialization of the existing landscape. However, given the separation distance between these two projects and the slight increase in industrial character associated with the Route Alternative Option 3, it is likely that few people would make such a connection between the two projects. Therefore, the resulting cumulative visual impact would be adverse but less than significant (Class III).

A similar situation would exist between the Route Alternative Option 3 and the Sunset Project (No. E2) except that the Sunset Project would be located slightly closer to Banning Substation at a distance of just over one mile. Again, the industrial character associated with the Sunset Project would be similar to that of Banning Substation and the steel-pole line that would connect to the substation. While the two projects would not appear in the same field of view, it is possible that some viewers may perceive an increase in landscape industrialization as a result of the two projects. However, given the distance between the two projects, it is likely that few people would make such a connection and the resulting cumulative visual impact would be adverse but less than significant (Class III).

Partial Underground Alternative

Project construction activities would cause a cumulative visual impact (Impact V-1). While construction activities would be increased with the Partial Underground Alternative, the duration of construction would continue to be temporary and short-term in nature similar to that described above for the Proposed Project. Therefore, the inclusion of Mitigation Measures V-1 (reduce visibility of construction activities and equipment) and V-2 (reduce visibility of land scarring) would reduce the Partial Underground Alternative cumulative contribution to visual construction impacts to a less than significant level after mitigation (Class II).

Cumulative impacts to a perceived increase in industrialization of the landscape (Impact V-2). The cumulative impacts associated with the Partial Underground Alternative would be identical to those of the Proposed Project. The reader is therefore, referred to the discussion of the Proposed Project cumulative impacts above. The one slight variation is the cumulative interaction between the transition structures of the underground segment and the 500 kV lattice structures associated with the Devers-Valley segment of the Devers-Palo Verde No. 2 Transmission Line Project (No. A2). As for the Proposed Project (and CPUC's Northerly Route Alternative Option 3), the increase in industrial character and view blockage caused by the proposed subtransmission line (and in this case, the transition structures) would result in adverse but less than significant (Class III) impacts. However, in conjunction with the highly industrial character of the DPV2 500 kV Project (No. A2) structures that would be placed in the nearby Devers-Valley corridor to the immediate south of the Sun Lakes development, the combined increase in industrial character and view blockage would result in a significant (Class I) cumulative visual impact.

No Project Alternative

The cumulative impacts associated with the No Project Alternative would be similar to those of the Proposed Project though at a substantially reduced scale given the substantially reduced scale of the project under this alternative. The modifications of the substations would be sufficiently limited such that cumulative visual impacts associated with the substations are not anticipated. However, specific cumulative projects associated with the distribution lines cannot be identified at this time because the

distribution routes are not known. Yet, the resulting cumulative visual impacts would certainly be less than would occur with either the Proposed Project or the other alternatives (Class III).

F.2 OTHER IMPORTANT CONSIDERATIONS

There are a number of other important concerns associated with the environmental assessment of projects that have recently come to light, or that are not specifically required by CEQA to be included in EIRs. However, in an effort to provide information to the public and decision makers, CPUC has provided a brief assessment of such issues in this section. Other issues of concern that are important, but do not necessarily have specific regulatory or policy guidance available to guide their analysis, include:

- The effects of Proposed Project on greenhouse gases in light of recent concerns associated with global warming Note that this issue is discussed in detail in Section D.2 (Air Quality), and above in Section F.1.5 (Cumulative Impact Analysis);
- The effects of the Proposed Project on property values due to siting of a subtransmisison line and associated facilities;
- The potential for the Proposed Project to be vulnerable to terrorist attacks, and thereby expose people and property to damage or destruction; and
- The electric and magnetic fields (EMF) issues associated with the project. Note that this issue is discussed in detail in Section D.7 (Hazards and Hazardous Materials), and Appendix 5 (Electric and Magnetic Fields – Field Management Reports), which includes the EMF field management reports specific to the Proposed Project and alternatives.

F.2.1 Greenhouse Gases

Greenhouse gases (GHGs) are defined as any gas that absorbs infrared radiation in the atmosphere. Common GHGs include water vapor, carbon dioxide (CO2), methane, nitrous oxide (N2O), chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF6), ozone, and aerosols. GHGs are emitted by both natural processes and human activities, and lead to the trapping and buildup of heat in the atmosphere near the earth's surface, commonly known as the "Greenhouse Effect." As discussed in detail within Section D. (Air Quality), an unquantifiable direct air quality impact of transmission system operation would be the potential escape of SF_6, a potent greenhouse gas, used in operation of the electrical switchgear equipment and circuit breakers. Because of the high global warming potential of SF_6 even small quantities of emissions are a concern. Any increase in SF_6 emissions would result in a net increase of GHG emissions and a significant impact. Therefore, the Proposed Project and alternatives were found to have significant unavoidable (Class I) to greenhouse gas impacts toward climate change. In addition, this direct increase to greenhouse gas production would result in a significant unavoidable (Class I) contribution to cumulative impacts to greenhouse gas emissions when combined with cumulative development in the project area, which is also generating greenhouse gases. Issues related to greenhouse gases are discussed in detail in Section D.2 (Air Quality), and above in Section F.1.5 (Cumulative Impact Analysis).

F.2.2 Property Values

During the public scoping process for the Proposed Project, the public expressed a great deal of interest and concern regarding the potential impacts of subtransmission lines on property values. Also during other recent projects, the CPUC has noted a high level of public concern associated with the siting of power lines and potential effects on property values. As the primary impacts of both subtransmission and transmission line projects that can decrease property values are visual impacts, EMF health issues, and Corona noise discharge, the reader is directed to Sections D.12 (Visual Resources), D.7 (Hazards

and Hazardous Materials for EMF) and D.9 (Noise) for a complete Proposed Project analysis of these issue areas. As the effects of both subtransmission and transmission line facilities generate similar visual, EMF, and noise effects, studies performed on the effect of transmission line projects are deemed pertinent to determining the potential effects of subtransmission line projects to property values.

The California Energy Commission (CEC), in its review and licensing of several power plant projects between 2000 and 2003, received similar public input regarding concerns over power plant siting and property values. As a result, CEC staff researched the literature on proximity impacts analysis for property values. The CEC cited "A Primer on Proximity Impact Research: Residential Property Values Near High-Voltage Transmission Lines" (Kinnard and Dickey, 1995), as a comprehensive study on this topic. The CPUC used this literature-review approach in addressing concerns regarding property values in four recent transmission line EIRs. Claims of diminished property value through decreased marketability are based on the reported concern about hazards to human health and safety; and increased noise, traffic, and visual impacts associated with living in proximity to unwanted land uses such as power plants, freeways, high voltage transmission lines, landfills, and hazardous waste sites.

The Kinnard and Dicky paper cites studies that utilize three procedures useful in measuring the differences in terms of sales prices, marketing periods, and/or sales volume between properties in proximity to transmission or distribution lines and equivalent properties that are not. The three procedures cited in the Kinnard and Dickey paper are: Paired Sales Analysis;[1] Survey Research/Opinion[2]; and Market Impact Studies Using Multiple Regression Analysis (MRA) in the Hedonic Pricing Model Format[3]. The paper concludes that the MRA approach is preferred in the current professional and academic literature, because it reflects what buyers and sellers actually do as opposed to what potential buyers say they might do under specified hypothetical circumstances. Further, the use of large sets of sales data indicates that the results are more representative of the market than those of the paired sales studies.

Under the general rubric of diminution in the market value of residential properties, three possible effects have been claimed, singly or in combination, in the Kinnard and Dickey paper:

- **Diminished Price,** which is identified by comparing prices of units that are proximate to power lines with prices of similar and competitive properties more distant from power lines.
- **Increased Marketing Time –** Even when proximate properties sell at or near the same price as more distant properties, claimants argue that proximate properties take longer to sell. Such increased marketing time can represent a loss to the seller by deferring receipt, availability, and use of sale proceeds.
- **Decreased Sales Volume –** A more subtle indicator of diminished property value is whether potential buyers decide not to buy in the impact area. A measurable decrease in sales volume in the impact area compared with

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1 Paired Sales Analysis involves finding sales of properties within the impact area and comparing them with sales of similar, competitive properties in the control area. Any price differentials are noted, and any pattern of such differences is identified and statistical testing procedures are applied to the results. There are two possible shortcomings of this market procedure. First, identifying what constitutes a pair of virtually identical properties is often a matter of subjective judgment on the part of the analyst-appraiser. Different analysts studying the same market frequently produce different pairs. Secondly, the relative paucity of appropriate pairs can render the entire procedure (and its results) questionable in terms of its representing the market.

2 Survey Research/Opinion method is used as either a supplement or substitute for analysis of market sales transaction data, because it reflects responses to hypothetical situations by interviewees who are not necessarily prospective buyers. Potential purchasers either will or will not buy; they either will or will not pay the same or similar prices for proximate properties.

3 MRA in the Hedonic Pricing Model Format involves gathering data on many market sales transactions within the impact area and within one or more similar control areas over a specified period (usually a few years prior to public knowledge of the Project). The extended time period is used to identify and measure any price/value impacts that occur within the impact area after an awareness of the project occurs. This type of "before and after" analysis supplements the comparison of levels and trends and prices, marketing time, and sales volume within the impact and control area. The post-announcement sales information also provides a basis for testing the likely duration of any value impact that might be identified.

sales volume in the control area where otherwise similar properties purportedly still are selling can represent evidence of decreased market value from proximity to the high voltage transmission lines (or claimed hazard).

A 2003 Electric Power Research Institute (EPRI) study, "Transmission Lines and Property Values: State of the Science," stated that differences in location and time of data collection, as well as research design, make direct comparisons of results from the various studies very difficult. Although quantitative generalizations from studies cannot be reliably made, the following conclusions from studies seem to be similar across the board (EPRI, 2003):

- There is evidence that transmission lines have the potential to decrease nearby property values, but this decrease is usually small (6.3 percent or lower).
- Lots adjacent to the ROW often benefit; lots next to adjacent lots often have value reduction.
- Higher-end properties are more likely to experience a reduction in selling price than lower-end properties.
- The degree of opposition to an upgrade project may affect size and duration of the sales-price effects.
- Setback distance, ROW landscaping, shielding of visual and aural effects, and integration of the ROW into the neighborhood can significantly reduce or eliminate the impact of transmission structures on sales prices.
- Although appreciation of property does not appear to be affected, proximity to a transmission line can sometimes result in increased selling times for adjacent properties.
- Sales-price effects are more complex than they have been portrayed in many studies. Even grouping adjacent properties may obscure results.
- Effects of a transmission line on sales prices of properties diminish over time and all but disappear in five years.
- Opinion surveys of property values and transmission lines may not necessarily overstate negative attitudes, but they understate or ignore positive attitudes.

The EPRI (2003) study points out that one of the difficulties in determining the impact on property values is the wide range of methodologies used to measure impacts. It is difficult, if not impossible, to predict the likely impacts on property values of the Proposed Project, let alone differences between alternative routes and/or with tower removal/consolidation. No specific studies have been completed for the area traversed by the proposed El Casco System Project; however, a Pacific Consulting Services (1991) study of the area around Vallejo, CA is cited as a likely scenario for determining potential property value impacts. This study found that overall the presence of a transmission line within a neighborhood has less than a one percent effect on the sales prices of most properties in the neighborhood. Under some conditions, however, there can be as much as a 12 percent adverse effect or a 10 percent positive effect on selling price.

The six neighborhoods with lines selected for analysis in the PCS study reflected a variety of transmission line and ROW conditions. Two of the neighborhoods were crossed by 115 kV lines. One neighborhood was crossed by a 230 kV line. Three of the neighborhoods were crossed by a ROW that originally contained a 115 kV line and at the time of the study contained both the 115 kV and 230 kV lines. Two additional areas were considered comparison areas and were not crossed by transmission lines. In addition, some of the neighborhoods were located on hilly terrain, affording more pronounced views of nearby lines and towers, while other neighborhoods were flat. Access to the ROWs varied from locked gates to integrated walkways, and maintenance quality/landscaping also varied as well.

Factors linked with adverse price impacts include ROW passage through adjacent property and modification to (upgrading) the line after development of the neighborhood. Factors linked with favorable price impacts are integration of the ROW design into the neighborhood with unobstructed

access and planned landscaping of the ROW. Visibility of lines outside of the neighborhood appear to have no effect on selling prices in the neighborhood (Pacific Consulting Services, 1991).

Like the aforementioned studies, the Pacific Consulting Services study also found that adverse impacts associated with line upgrading diminish over time, all but disappearing within five years of reconstruction. It may be that both the size of these effects and the amount of time until they dissipate depend on the level of community opposition to construction and how the utility handles the opposition.

In addition to a literature search on proximity impact analysis, the CEC staff reviewed the Analysis of Property Value Impacts of the Crockett Cogeneration Project, submitted by the Applicant for the Crockett Cogeneration Project. The Crockett analysis cites several studies that examine the impacts on property values of very large industrial facilities.[4] Such facilities include nuclear power plants, industrial waste incinerators, and landfills. The findings of previous studies in the Crockett analysis "yield an equivocal conclusion. Under some conditions facilities result in negative economic impacts and under other conditions they do not. Thus, even for very large facilities that are extreme in terms of their potential health, safety, and aesthetic impacts, there is no clear association with diminished economic impacts. Indeed, economic impacts are not clearly and reliably observed even for nuclear power generation facilities near residential properties" (Analysis of Property Value Impacts of the Crockett Cogeneration Project, Appendix X, Crockett Cogeneration Project, 1992). Further, the Crockett analysis states that "there are many factors involved in purchasing a new home: affordability; age; size; schools; location; and so on, and it has simply not been demonstrated that a view obstruction would be a major factor in a property value decline" (Analysis of Property Value Impacts of the Crockett Cogeneration Project, Appendix X, Crockett Cogeneration Project, 1992).

The Kinnard and Dickey paper and the Crockett analysis cite several examples of proximity impact analyses, methodologies used to measure impacts, and types of possible proximity impacts on residential property values. Both studies conclude that differing, sometimes conflicting, findings have emerged from market studies. While it is possible that property owners near the Proposed Project may believe that their homes will diminish in value because of project implementation, the actual loss of property value and potential effects can only be tested through data from home sales. The MRA method, as supported by the Kinnard and Dickey paper, requires that data be collected on as many market sales transactions as possible within the impact area and within one or more similar control areas over a few years prior to an awareness of a project to accurately reflect what buyers and sellers actually do as opposed to what potential buyers say they might do under specified hypothetical circumstances.

The studies cited in this section and multiple regression analyses have shown that there is evidence that transmission lines have affected property values in some cases, though the effects are generally smaller than anticipated and difficult to quantify. In one study, about half of the estimated reduction in value was due to non-EMF effects (e.g., visual impacts), and the other half due to health and safety concerns such as EMF for homes within 100 meters of the line (von Winterfeldt, et al., 2004).

As noted in Section B, Project Description, the Proposed Project would be constructed within and adjacent to existing corridors where transmission lines already exist. Therefore, the incremental effects on property values that may result from the changes within the corridor resulting from this Project

[4] As stated in the Crockett analysis, one or more of the following three methods were used to study impacts on property values: hedonic pricing; contingent valuation; and regression analysis of market sales data. Hedonic pricing techniques analyze how the attributes of a good affect its price, and have been used in several of the studies to estimate the losses in sale price of homes due to possible exposure to technological or natural risks.

would be minimal. As discussed above, impacts on property values result primarily from visual impacts, or health and safety concerns such as EMF. These issues and potential impacts are analyzed in Sections D.12 (Visual Resources) and Section D.7 (Hazards and Hazardous Materials for EMF). Implementation of mitigation measures in the Visual Resources section, such as V-2a (Reduce In-Line Views of Land Scars), V-2b (Reduce Visual Contrast from Unnatural Vegetation Lines), V-3a (Reduce Visibility of the El Casco Substation Site), V-3b (Reduce Operation Night Lighting Impacts), and V-10 (Reduce Visibility of the Zanja Substation Modifications) would reduce the visual impacts of the Project.

As discussed in Section F.2.4, Electric and Magnetic Fields, there remains a lack of consensus in the scientific community with regard to public health impacts due to EMF at the levels expected from electric power facilities. Mitigation proposed within the EMF analysis for reducing magnetic fields for the Proposed Project is consistent with the CPUC's Interim EMF Opinion Decision No. 93-11-013 ("1993 CPUC Decision") and also with recommendations made by the U.S. National Institute of Environmental Health Sciences. Furthermore, the recommendations above meet CPUC-approved EMF Design Guidelines as well as all national and State safety standards for new electric facilities. Furthermore, the EMF Analysis presents mitigation to reduce potential high frequency radio and television interference and induced currents and voltages on conducting objects near the proposed transmission lines impacts to a less-than-significant (Class II) level. EMF impacts to the operation of cardiac pacemakers was found to be less-than-significant (Class III). These measures for mitigation of magnetic fields would be incorporated into the Proposed Project and may help to reduce perceived health effects of transmission lines that could adversely affect property values.

Where Proposed Project impacts in other issue areas that can contribute to reduction in property values are less than significant or have been mitigated to less-than-significant levels, they would not cause considerable property value changes. Therefore, any associated property value impacts would also be less than significant and no mitigation is recommended (Class III). It is concluded, then, that the project would not generate effects that would significantly impact property values in these circumstances.

Moreover, even in areas where there could be significant impacts in other issue areas (e.g., visual resources) coupled with other line and/or property characteristics described in the studies that could contribute to property values impacts, the numerous studies discussed above conclude that these effects are usually smaller than anticipated and essentially impossible to quantify due to the individuality of properties/neighborhoods, differences in personal preferences of individual buyers/sellers, and the weight of other factors that contribute to a person's decision to purchase a property. Other factors (e.g., neighborhood factors, square footage, size of lot, irrigation potential) are much more likely than overhead transmission lines to be major determinants of the sales price of a property (Kroll and Priestley, 1992). In addition, across the board, studies have generally concluded that over time any adverse property value impacts diminish and within five years the change is negligible, most likely due to increased screening as trees and shrubbery grow and/or diminished sensitivity to the line proximity in the absence of adverse publicity. As a result, any changes in property values would not be substantial and this impact is considered to be less than significant.

CEQA Guidelines §15131(a) states that economic or social effects of a project shall not be treated as significant effects on the environment, and these effects only need to be considered in a chain of cause and effect if they would result in a physical change to the environment that was caused in turn by the economic or social changes. As concluded above, no adverse decreases in property values are expected by any resulting physical changes to the environment associated with the proposed El Casco System Project.

F.2.3 Terrorism

F.2.3.1 Introduction

The number and high profile of international and domestic terrorist attacks during the last decade presents a new and realistic threat to the safety and security of America's people, infrastructure, and resources. Extremist organizations have proven to be innovative, opportunistic, and flexible, learning from experience and modifying tactics and targets to exploit perceived vulnerabilities. Current analysis of terrorist goals and motivations points to domestic and international critical infrastructure and key resources (CI/KR) as potentially prime targets for terrorist attacks (DHS, 2006).

In a recent decision, the U.S. Court of Appeals for the 9th Circuit (*San Luis Obispo Mothers for Peace, et. al v. Nuclear Regulatory Commission*) held that failure to address the environmental impacts of a terrorist attack on a nuclear power facility in an Environmental Impact Statement (EIS) prepared under the National Environmental Policy Act (NEPA) was not reasonable (9th Circuit, 2006). In this ruling, the Court held that the numeric probability of a terrorist attack need not be precisely quantifiable in order for its potential environmental impacts to be considered. Rather, the Court found, the proper inquiry is whether the risk of an attack is significant. If so, then NEPA requires taking a "hard look" at the environmental consequences of a terrorist attack. While the CEQA guidelines do not specifically address the issue of terrorism, CEQA was developed as a California counterpart to NEPA. Therefore, given recent court rulings and public concern regarding terrorist attacks on local infrastructure, this section has been developed to qualitatively address environmental consequences that could result from a potential terrorist attack.

It should be noted that given the uncertain nature of terrorist attacks (i.e., location, timing, and other factors), there are challenges in determining reasonable thresholds for the likelihood of an attack and the associated environmental consequences. However, the following discussion attempts to present the potential scenarios and associated consequences as they relate to the likelihood of the El Casco System Project becoming the target of a terrorist attack.

F.2.3.2 Background

The United States Department of Homeland Security (DHS) has developed the National Infrastructure Protection Plan (NIPP) to provide an approach for integrating the Nation's many CI/KR protection initiatives into a single national effort. The NIPP does not provide or recommend specific measures to protect individual resources; however it does establish national priorities, goals, and requirements for CI/KR protection to direct federal funding and resource application.

The NIPP considers a broad range of terrorist objectives, intentions, and capabilities to assess the threat to various components of the Nation's CI/KR. Based on that assessment, terrorists may contemplate attacks against the Nation's CI/KR to achieve three general types of effects:

- **Direct Infrastructure Effects**: Disruption or arrest of critical functions through direct attacks on an asset, system or network, such as an attack on a substation or transmission tower.
- **Indirect Infrastructure Effects**: Cascading disruption and financial consequences for the government, society, and economy through public and private sector reactions to an attack. An operation could reflect an appreciation of interdependencies between different elements of CI/KR. This type of effect could occur if the disruption of electrical service resulting from an attack on the El Casco System consequently resulted in adverse impacts to a sensitive facility such as a hospital, airport, security facility, etc.

- **Exploitation of Infrastructure**: Exploitation of elements of a particular infrastructure to disrupt or destroy another target or produce cascading consequences. Attacks using CI/KR elements as a weapon to strike other targets, allowing terrorist organizations to magnify their capabilities far beyond what could be achieved using their own limited resources.

The NIPP delineates domestic infrastructure and resources into specific sectors such as Agriculture, Defense, Energy, etc. The Energy Sector includes the "production, refining, storage, and distribution of oil, gas, and electric power, except for commercial nuclear power facilities" (NIPP, 2006). While electrical transmission and subtransmission lines are not specifically referred to in this plan, they would generally fall into the category of distribution of electric power and are therefore considered a potential target of terrorist attack. Potential consequences of a terrorist attack on the proposed El Casco System could include:

- Disruption of electrical service,
- Physical damage to system features and surrounding facilities, and
- Personal injury or loss of human life.

F.2.3.3 Potential Environmental Consequences

The Proposed Project would involve the following: 1) construction of a new substation, improvements to existing substations, and development of a new subtransmission line that would serve forecasted electricity demand in Calimesa, Beaumont, and areas of unincorporated northern Riverside County; 2) serve to maintain safe and reliable service to customers in this area by providing looped subtransmission circuits and increasing the capacity of the overall power grid; and 3) upgrades at existing substations to support the new electrical system, as well as installation of fiber optic cables on existing utility poles.

The substations serving the El Casco System would serve looped subtransmission lines. A system with substations in this configuration permits loads to flow across various paths from the source substation at all times. This allows for an alternate path to immediately absorb the entire load of a substation in the event that another path is interrupted. A terrorist attack on the El Casco System would likely result in disrupted electricity service. As is common practice when a line is down, the utility would have to re-route power around the affected substation or transmission line to serve southern California load, and an outage could occur for some period of time while the system was modified to provide service from other substations. Additionally, one major substation (Devers Substation) and three other major transmission line systems are either located in or serve the general project area, the Vista and Devers Systems (both of which are 220 kV transmission lines), and the Devers-Valley 500 kV transmission line. Therefore, the regional transmission system is interconnected in such a way that it is not possible to say that a single line outage would cause an outage at a specific sensitive facility, such as a hospital, airport, security facility, etc. In addition, although most facilities of this type may receive electric power from SCE's proposed El Casco System, major facilities would also have back up power/generators to prevent electricity interruptions in the event of an outage, such as would occur with a terrorist attack on a transmission line.

The substations serving the El Casco System would not require permanent onsite staff to operate, although work crews of one to five persons would periodically visit the stations to perform routine maintenance and inspection activities. Therefore the likelihood that people would be onsite in the event of a terrorist attack is low, and an attack on one or all of the project substations is unlikely to result in human injury or mortality.

A terrorist attack on the subtransmission line could also result downed towers. Subtransmission line towers would range in height from 65 to 85 feet and would be located in the center of an approximately 50-foot wide ROW. Portions of the proposed subtransmission line route would be located in residential areas with residential structures as close as 25 feet from the 115 kV subtransmission line and towers. It is possible that subtransmission line towers could fall and strike a residential structure as a result of a terrorist attack, resulting in property damage and potential injury or mortality to occupants. However, towers associated with the Proposed Project would replace existing wood poles (which range in height from 60 to 65 feet). Therefore placement of new towers would not present a new risk with regard to using subtransmission towers as weapons to cause property damage and human injury.

By nature the purpose of terrorism is to create and promote fear among populations, as well as (and through) death, destruction, and disruption of a targeted population's or facility's ability to effectively carry out its intended function and/or to eliminate or limit peaceful living and commerce. While the possibility of a terrorist attack on the El Casco System exists, given the purpose of terrorism and the relatively limited effect of an attack on the El Casco System, the Proposed Project is not considered to be a high level or likely target for attack, since the subtransmission system is only intended to serve a relatively small and localized area. Consequences of a potential attack, while serious and adverse, would be localized and temporary with respect to system function. Any human injury or death resulting from a terrorist attack would be serious, tragic, and difficult to prevent; however, the overall risk of an attack on the El Casco System is not considered likely. Moreover, since other electrical distribution system infrastructure is located in the same general area, development of the Proposed Project is unlikely to inherently increase the likelihood of a terrorist attack on local electrical infrastructure.

F.2.4 Electric and Magnetic Fields (EMF)

Recognizing that there is a great deal of public interest and concern regarding potential health effects from exposure to electric and magnetic fields (EMFs) from power lines, Section D.7.7 of this EIR provides information regarding EMF associated with electric utility facilities and the potential effects of the Proposed Project related to public health and safety. Potential health effects from exposure to electric fields from power lines is typically not of concern since electric fields are effectively shielded by materials such as trees, walls, etc.; therefore, the majority of the information related to EMF presented in Section D.7.7 focuses primarily on exposure to magnetic fields from power lines. However, this EIR does not consider magnetic fields in the context of CEQA and determination of environmental impacts, first because there is no agreement among scientists that EMF does create a potential health risk, and second because there are no defined or adopted CEQA standards for defining health risk from EMF. As a result, EMF information is presented for the benefit of the public and decision makers. For further information, please see Appendix 5 of this EIR for SCE's EMF Field Management Reports, which provide detailed analyses and recommendations for magnetic field reduction for the Proposed Project and Alternatives.