5. Updated Cumulative Scenario and Revised Biological Resources Sections

This chapter presents the revisions made to the Cumulative Scenario and Biological Resources sections of the Draft Environmental Impact Report (EIR) in response to comments (Section B.7 and Section D.4, respectively). In addition, the cumulative analyses for several of the resource sections in Chapter D, Environmental Analysis, of the Draft EIR were updated. The updated analyses for the resource sections are also presented in this chapter.

Although there were a number of changes, the changes and additions to these Draft EIR sections are not considered "significant new information" as defined in Section 15088.5 of the California Environmental Quality Act (CEQA). For readability, ~~strikethroughs~~ and underlines are not shown in this chapter. Track-changes versions of the Cumulative Scenario and Biological Resources sections are available on request.

B.7 Cumulative Scenario (Updated)

Southern California (Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties) is expected to grow by 6.26 million people from 2000 to 2030, resulting in the addition of 2.26 million households. Along with the increase in population, it is expected that a shift in employment opportunities from west to east would result in increased growth in the eastern counties of Riverside and San Bernardino (SCAG 2004). This population shift is expected to require the development of critical infrastructure such as roads, pipelines, and transmission lines. Growth in western Riverside County has resulted in projects across the residential, commercial, and industrial sectors.

As required by CEQA (Section 15130 et seq. of the CEQA Guidelines), the Draft EIR includes an analysis of cumulative impacts. A cumulative scenario has been developed to identify projects that are reasonably foreseeable and that would be constructed or operated during the life of the Project. The projects in the cumulative scenario include a range of project types from single-family housing developments and infrastructure improvements to larger commercial developments. To characterize the scope and nature of development in Riverside County, this scenario incorporates lists of planned projects within the vicinity of the Project and references to land use policies that regulate (and encourage) development within Riverside County.

Table B.7-1 lists projects that are part of the cumulative scenario. The table lists residential, commercial, and industrial development projects within Riverside County, the City of Lake Elsinore, and the City of Perris, including but not limited to single family homes, residential lots, condominium complexes, and mixed use developments near the Project. Additionally, large-scale residential development is typically accompanied by infrastructure improvements as well as commercial and industrial developments, so the table lists a number of utility projects proposed by the Applicant. This table does not include all projects that would contribute to cumulative impacts along with the Project; rather, it includes a number of concurrent projects in the area to demonstrate the scope and nature of development in Riverside County.

Table B.7-1 Cumulative Projects (Updated)

Project Number	Name/Type	Location	Description/ County/City Reference Number	Status
1	Reconductor Valley–Newcomb (Southern California Edison [SCE])	Valley Substation to Newcomb Substation	Valley–Newcomb leg of Valley–Newcomb–Skylark 115 kV subtransmission line***	Construction in 2010
2	Nevada Hydro Company Lake Elsinore Advanced Pump Storage (LEAPS)	Western side of Lake Elsinore and San Juan Creek with an upper reservoir located in the headwaters of San Juan Creek Watershed (City of Lake Elsinore)	500 MW hydroelectric facility, 180-foot-high main dam), and approximately 32 miles of transmission lines between the pump storage facility and SCE's Valley Serrano 500 kV transmission line and SDG&E's Talega–Escondido 220 kV transmission line.***	Application withdrawn, resubmission expected, date unknown
3	Alberhill System Project (SCE)	Unincorporated Riverside County, City of Lake Elsinore, City of Wildomar, City of Menifee	New 1,120 MVA 500/115 kV Alberhill Substation (34 acres). Other project components include two 500 kV transmission lines (approximately 1 mile each) to connect Alberhill Substation to existing 500 kV Serrano–Valley transmission line, and approximately 20 miles of new or modified 115 kV subtransmission lines.*	Planned in-service date 6/2014; construction estimated 2012–2014
4	Central I-215 Project	Scott Road Interchange north of Murrieta to Nuevo Road Interchange in Perris	Central section of Riverside County Transportation Commission's 29.25-mile freeway widening project between I-15 and State Route 60. The project will add one general purpose lane to both northbound and southbound I-215, resulting in a six-lane freeway.	Currently in preliminary engineering
5	Riverside Energy Resource Center Power Plant	5590 Acorn Street, City of Riverside	An expansion of the Riverside Energy Center, an existing 96-MW peaking facility, by constructing units 3 & 4 to create a 95-MW gas-fired peaking project.	Construction started; estimated online date of 8/2010
6	Toscana Marketplace/ Toscana Business Center	North of Indian Truck Trail Road on the east frontage of Highway 15 and Temescal Canyon Road (Riverside County)	Mixed use development, 1,000,000 square feet. Closest to subtransmission line segment W-10. 65 acres. Specific Plan 374.	In development review since 9/2007
7	Commercial Center within Green Valley Specific Plan	Northeast corner of intersection of Ethanac Road and Case Road, west of I-215 (City of Perris)	650,000-square-foot retail and office space, 21 lots including 4 lots for condominium purposes.*** #04-0621.	Approved 6/15/2005
8	Mixed Use Project	Northwest corner of Illinois Avenue and Trumble Road intersection, north of Ethanac Road (City of Perris)	387,993 square feet of mixed use including 10,843 square feet of retail, 202,618 square feet for warehouse/distribution, 170,268 square feet for multiuse and appurtenances. 27 acres. #05-0335.	Approved 4/25/2006
9	Commercial Retail Shopping Center	Southeast corner of I-215 and Ethanac Road intersection (City of Perris)	484,300-square-foot commercial retail shopping center. #06-0337. 59 acres.***	Approved 4/16/2008
10	Sun Valley Energy Project (SVEP)	29500 Rouse Road, Romoland	An Edison Mission Energy 500-MW simple-cycle power plant, consisting of five General Electric LMS100 natural gas-fired turbine-generators and associated equipment.	Currently in review by CEC with an unknown construction start date
11	Ivyglen Substation	Riverside County	Increase transformer capacity from 28 MVA to 56 MVA and add two 12 kV circuits	Approved 2008
12	Tract Map	Northwest corner of intersection of Ethanac and Goetz roads (City of Perris)	Subdivide 10 lots. 313 acres.*** #31925.	Final map recorded on 2/14/2005

Table B.7-1 Cumulative Projects (Updated)

Project Number	Name/Type	Location	Description/ County/City Reference Number	Status
13	Riverwoods Specific Plan	Located between Mapes Road and Ethanac Road, west of River Road and east of McPherson Road (City of Perris)	Specific Plan allowing for the development of 696–750 dwelling units. 227 acres.***	Approved 7/13/2004
14	Tentative Tract Map	North of San Jacinto River, west of McPherson Road, south of Ethanac Road, east of Sophie Street (City of Perris)	Detached single family homes, 384 residential lots. Minimum 6,000 square feet. Average 8,298 square feet. 12 lettered lots for San Jacinto River migration land, passive park facilities, and open space. 154 acres.* #33973.	Tentative map approved 5/27/2008
15	Residential Tentative Tract Map	Southeastern corner of Ethanac and McPherson Road (City of Perris)	Detached single family homes, 198 residential lots, 7,200 square feet minimum lot size. 116 acres.* #33900.	Tentative map approved 5/27/2008
16	Residential Tract Map	Northwest corner of Ethanac and Goetz Roads (City of Perris)	Subdivide into 337 residential lots. 313 acres*** #31926.	Final map recorded on 3/27/2007
N/A	Tract Map	Riverside County	265-lot subdivision. 127.4 acres. #TR 32022.	In development review (as of 2/2010)
N/A	Tract Map	Riverside County	38 tracts filed in the county within 0.5 miles of the proposed subtransmission line route, totaling 7,370 new residential units including one project detailed above 3702.4 acres.*	Unknown
N/A	Design Review	Within the Alberhill Ranch Specific Plan Area (City of Lake Elsinore)	52 single family detached dwelling units and a model home complex. #2004-13. CRS 779.	Construction complete
N/A	Design Review	Within the Alberhill Ranch Specific Plan Area, near Lake Street and Nichols Road (City of Lake Elsinore)	127 single family homes including a model home complex #2005-17. CRS 995.	Approved but not constructed
N/A	Alberhill Ranch Specific Plan, Phase One	Within the Alberhill Ranch Specific Plan Area (City of Lake Elsinore)	335,412 square feet of commercial development; 1,011 single family dwelling units; 550 multifamily dwelling units.**	Approved; 250 units constructed
N/A	Alberhill Ranch Specific Plan, Phase Two	Within the Alberhill Ranch Specific Plan Area (City of Lake Elsinore)	258 single family dwelling units.**	Approved but not constructed
N/A	Lakeside Palms	Unknown (City of Lake Elsinore)	369 single family dwelling units.** #TM 32768.	Approved but not constructed
N/A	Design Review	Within the Ramsgate Special Plan (City of Lake Elsinore)	164 acres.***	Construction complete
N/A	Tentative Tract Map	Within the Alberhill Ranch Specific Plan Area (City of Lake Elsinore)	1,042 lots for future residential and commercial. # TTM 28214. CRS 444.	Approved; 250 units constructed
N/A	Tentative Parcel Map	Off Nichols Road and east of I-15 (City of Lake Elsinore)	A division of 200.55 acres into 12 parcels. 201 acres.* #TPM 30739. CRS 560.	Approved but not constructed
N/A	Specific Plan	Outlet Center Specific Plan (City of Lake Elsinore)	90-1 and 3.*	Construction complete
N/A	Elsinore West Business Park	Collier & Minthorn (City of Lake Elsinore)	Five industrial buildings. #-2006-0002. 41,439 square feet	Approved but not constructed

Table B.7-1 Cumulative Projects (Updated)

Project Number	Name/Type	Location	Description/ County/City Reference Number	Status
N/A	Flagstaff 12 kV from Elsinore Substation	City of Lake Elsinore	N/A	Approved 2007
N/A	Valley–Auld–Pauba 115 kV Subtransmission Line	N/A	Reconductor the Valley-Auld 115 kV, Valley-Sun City 115 kV and Valley leg of the Valley-Auld-Pauba 115 kV line from 653 ACSR to 954 SAC	Approved 2008
N/A	I-215 Corridor Redevelopment Project Area	Old Elsinore Road and San Jacinto Avenue in Riverside County	Abate conditions of blight in each of the sub-areas and facilitate the continued elimination of blight in the existing I-215 Corridor Redevelopment Area.	Draft EIR

Notes:
* Bisected by/adjacent to proposed subtransmission route.
** Within 0.5 miles of proposed Fogarty Substation.
*** Within 0.5 miles of proposed subtransmission line.

After the Draft EIR was published, the Applicant submitted an application to the CPUC to construct and operate the Alberhill System Project. Therefore, the Alberhill System project is a reasonably foreseeable project that, if constructed, would contribute to cumulative impacts in combination with the proposed Project, and it is evaluated within the cumulative scenario. The list of cumulative projects has been updated to include projects proposed since the Draft EIR was published and project details that were not available at the time the Draft EIR was prepared, including updated information on project construction schedules and approval status.

The cumulative scenario considers residential, commercial and industrial. Riverside County's General Plan contains policies to promote the growth of commercial and industrial development within the county and encourage commercial and industrial relocation to the county. These include policies to promote the development of employment centers, create practical incentives for business development, and stimulate industrial and business clusters to foster a competitive marketplace. These and other policies are likely to facilitate commercial and industrial growth to ensure adequate employment opportunities.

A number of specific projects concurrent with the Project are located adjacent to or cross the proposed route. These projects are described individually in the following sections because they may contribute to cumulative impacts due to their proximity to the Project and potentially simultaneous construction schedules. Additionally, these projects help in presenting the cumulative scenario by demonstrating the scale and types of development in the county. The approximate locations of these projects are shown in Figure B.7-1.

Toscana Marketplace. The proposed Toscana Marketplace and proposed Toscana Business Center would be located north of Indian Truck Trail Road on the east frontage of Highway 15 and Temescal Canyon Road, closest to subtransmission line segment W-10. The Toscana development projects would blend hotels, commercial space, restaurants, office buildings, research and development facilities, and light industrial facilities for a combined 1,000,000 square feet on the 65-acre parcel.

Lake Elsinore Advanced Pump Storage Project (LEAPS). The proposed LEAPS project would be located adjacent to the north side of Highway 15 near subtransmission line segments W-4 and W-10. The LEAPS project, which includes a 500 kV substation, is not a Southern California Edison Project. The LEAPS project would not require any upgrades to the Project, though it could cause a slight subtransmission line route adjustment depending on the exact location of the "Lee Lake/Corona Lake" Substation as described in the LEAPS application submitted to the CPUC in October 2007 by the Nevada Hydro Company. Since the circulation of the Draft EIR, the LEAPS application has been temporarily withdrawn, but resubmission is expected in the future.

Pacific Clay Products, Inc. Pacific Clay owns and operates a 1,374-acre active mining site south of Highway 15. Additionally, Pacific Clay owns the following within the geographic scope of the Project:

- Castle & Cooke Alberhill Ranch, LLC
- Castle & Cooke Lake Elsinore West, Inc.
- Castle & Cooke California, Inc.
- Castle & Cooke Lake Elsinore Outlet Centers, Inc.
- Harbor Lounge, Inc.
- Castle & Cooke, Inc., and Castle & Cooke Commercial CA, Inc.

Alberhill System Project. The Applicant proposes to construct the Alberhill System project on a 34-acre site located north of Interstate 15 (I-15) and the intersection of Temescal Canyon Road and Concordia

Ranch Road in unincorporated western Riverside County (Figure 2-1). The project comprises a new 500/115 kV substation (Alberhill Substation), two 500 kV transmission lines that would each extend approximately 1 mile northeast to connect to the existing Serrano–Valley 500 kV transmission line, and one new and four modified 115 kV subtransmission lines to transfer the load of five substations that are currently served by the Valley South 500/115 kV Substation to the new Alberhill 500/115-kV Substation. The two 500 kV lines would be constructed in unincorporated Riverside County, along the northwestern boundary of the City of Lake Elsinore. Construction is expected to begin in 2012 and be completed by 2014.

Reconductor Valley–Newcomb Subtransmission Line. The Applicant proposes to reconductor the portion of an existing 115 kV subtransmission line between Valley and Newcomb substations, connecting through the Newcomb Substation with an existing line proposed for conversion from single to double circuit as part of the Alberhill System Project (Figure B.7-1). The portion of line to be reconductored is approximately 6 miles long. Construction is proposed to start in 2010.

The cumulative impacts from all projects within western Riverside County must be considered together in order to determine their combined effect on environmental resources. This cumulative scenario demonstrates growth in Riverside County across all sectors—residential, commercial, industrial, and mixed use. The scenario also shows the infrastructure developments and upgrades necessary to support the population growth and economic development.

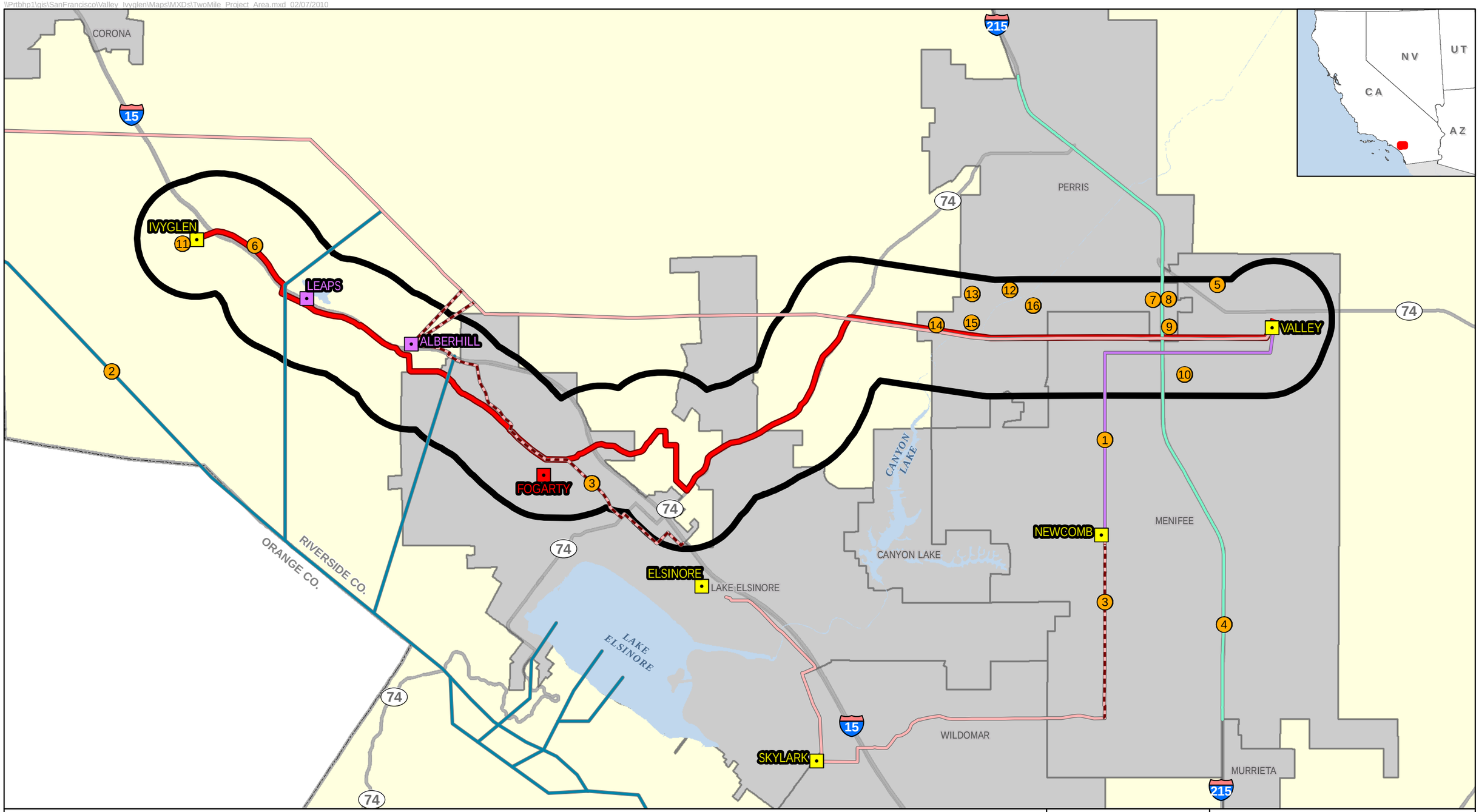
A cumulative impact analysis that includes the proposed Alberhill System Project, proposed Reconductor Valley–Newcomb Subtransmission Line, and other projects is presented for each resource issue within Chapter D, Environmental Analysis. These analyses briefly discuss the impacts of combined development—recent, current, and planned—on each resource area. They define a geographic scope for the cumulative analysis specific to the resource area and analyze potentially significant impacts in conjunction with other projects within the geographic scope that may similarly affect the resource area. The analyses from the Draft EIR that were updated for the Final EIR are presented in the following sections.

D.2.4 Land Use Cumulative Analysis

The overall character of the Project route is constantly evolving because of residential and commercial development occurring in southwestern Riverside County. Residential developments, ranging from 200 to 1,500 homes, are either currently under construction or planned for development at numerous locations along the Project route.

The geographic scope for the analysis of cumulative impacts associated with land use includes the area in the immediate vicinity of the Project within the cities of Lake Elsinore and Perris, and in Riverside County. This is defined as the cumulative impact area because of population growth and the development of new residential, commercial, and industrial land uses. New development affects existing open space and land use in this portion of southwestern Riverside County. A cumulative impact would occur if the Project substantially contributed to the inconsistency of local and regional land use plans and designations.

\\Prtbhp1\gis\SanFrancisco\Valley_Ivyglen\Maps\MXDs\TwoMile_Project_Area.mxd 02/07/2010



LEGEND

- Proposed Project
- Existing Substation
- Proposed Substation
- Study Area
- County Boundary
- Riverside County Incorporated Areas
- Riverside County Unincorporated Areas
- Major Road
- 1 SCE Reconductor Valley-Newcomb
- 2 Nevada Hydro Company LEAPS
- 3 Proposed Alberhill Transmission Lines
- Existing Alberhill Transmission Lines
- 4 Central I-215 Project
- 5 Riverside Energy Resource Center Power Plant
- 6 Toscana Marketplace/Toscana Business Center
- 7 Perris Crossing
- 8 Mixed Use Project
- 9 Towne Center
- 10 Sun Valley Energy Project (SVEP)
- 11 Ivyglen Substation
- 12 Tract Map
- 13 Riverwoods Specific Plan
- 14 Residential Tentative Tract Map
- 15 Residential Tentative Tract Map
- 16 Residential Tract Map

N

1:100,000

Miles

0 1 2

Figure 1

Updated Cumulative Projects
Valley Ivyglen
Subtransmission Line
and Fogarty Substation Project
March 2010

*Locations are approximate.

This page intentionally left blank

Alberhill System Project, Reconductor Valley–Newcomb Subtransmission Line, and Other Projects

The Project would have a significant visual impact on scenic highways because the subtransmission line would not with the County's land use policy (LU 13.5), under which new or relocated electric or communication distribution lines that would be visible from Designated and Eligible State and County Scenic Highways must be placed underground. Mitigation of this impact through location of the transmission line underground is not feasible due to prohibitively high cost. This impact would therefore be significant and unavoidable.

The Alberhill System Project and the Reconductor Valley–Newcomb Subtransmission Line Project (Table B.7-1 and Figure B.7-1), if constructed, would also result in significant and unavoidable impacts because of aboveground construction because the projects also would be visible from Designated and Eligible State and County Scenic Highways and would therefore conflict with the county's land use policy (LU 13.5). The construction of these aboveground lines, together with the project subtransmission line, would result in significant cumulative impacts, and the Project would make a cumulatively considerable contribution to cumulative land use impacts.

Past projects that were part of the county's development have substantially and adversely changed the aesthetic character of the cumulative impact study area (Figure B.7-1), and that character would continue to change as more projects are implemented. The Project would contribute to the substantial cumulative degradation of visual resources in the area and therefore the Project would substantially contribute to cumulative land use impacts (Class I). The contribution of the Project to this impact would also be cumulatively considerable.

The Project would have less than significant impacts with respect to compliance with a Habitat Conservation Plan or Community Conservation Plan. It would be located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) boundary. The overall goal of the MSHCP is to maintain biological diversity within an urbanizing region. The Project would be implemented in compliance with the MSHCP, which would mitigate any biological impacts to less than significant levels by implementing measures as prescribed by the plan. The Alberhill System Project would also be expected to be implemented in compliance with the MSHCP. The Project would not contribute to cumulative impacts on a Habitat or Community Conservation Plan. Cumulative impacts on biological resources are further discussed in Section 4.5.4 of the Final EIR.

D.3.4 Updated Visual Resources Cumulative Analysis

The County of Riverside and the cities within Riverside County have experienced growth within the recent past and are projected to continue to experience growth. As demonstrated in Tables D.15-1 and D.15-2 in Section D.15, Population and Housing, from the years 1990 to 2000, the population grew by 58.2 percent in Lake Elsinore, 68.6 percent in the City of Perris, and 32 percent in all of Riverside County. Between the years 2010 and 2020, the population of Lake Elsinore is projected to increase by 34.7 percent; over the same time period the populations of Perris and Riverside County are projected to increase 20.6 percent and 26.8 percent, respectively. This growth has been and is expected to continue to be accompanied by residential and commercial development. Construction activities and new permanent structures would significantly alter the aesthetics of the existing landscape in the County.

A cumulative visual impact would occur if the Project is within an area with existing or potential future diminished visual quality due to development. For the purpose of this analysis, the cumulative resource area constitutes all areas within viewshed of the Project including recent development, current

development, and projected development. Portions of the proposed subtransmission line run alongside and cross eligible scenic highways. Viewsheds along SR-74 and I-15 are considered sensitive and the subject of policies that encourage maintaining existing views. This analysis will dedicate particular attention to cumulative impacts to visual resources within view of these scenic highways. A cumulative impact to visual resources within view of these highways would occur if the Project substantially contributed to a cumulative visual alteration.

To the extent that the 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.

Construction of the Project would include the removal of vegetation, grading, temporary signage, temporary storage of materials, and temporary fencing. These elements would detract from the visual character, alter the viewshed, and block visual access to scenic resources, particularly as observed from the scenic highways. Further, they would create contrast in areas of distinct natural resources, particularly in the large expanses of line planned to traverse rural, undeveloped land. In a growing county, construction of a 25 mile line and the Fogarty Substation (within viewshed of planned Alberhill Ranch, among other developments) would likely overlap with other construction and recent or planned development projects. Construction of the Project would temporarily but significantly contribute to cumulative visual impacts in the area (Class I).

A portion of the proposed 25 mile 115 kV subtransmission route would run alongside an existing 500 kV subtransmission line; the portion along SR-74 would require the replacement of wood poles with LDS poles and TSPs; and portions of the route through Temescal Canyon would constitute new construction where there are no existing utility lines. Portions of the route running alongside pre-existing larger lines would further contribute to diminished scenic character and altered viewsheds although the viewshed has already been substantially degraded. The segment of the proposed route along SR-74 would block views of scenic resources and with the introduction of TSPs and LDS poles as opposed to wood poles, increase contrast with natural settings while substantially diminishing visual character. Similarly but to a greater degree, portions of the route constituting new construction would block views of scenic resources, diminish scenic character, and increase contrast. The proposed line passes through a growing county and the cities of Lake Elsinore and Perris, both of which are experiencing population growth with commercial and residential projects in various stages of completion and planning. The entirety of Fogarty Substation would constitute new construction. The Fogarty Substation site lies in the Northwestern portion of the City of Lake Elsinore, already noted for its recent and projected increase in population and accompanying structural development. In conjunction with this project and others, the substation would diminish visual quality, obstruct views, and provide contrast with the annual grassland terrain. The Project would substantially impact the cumulative visual resource area, contributing to cumulative visual alteration (Class I).

A significant impact to visual resources can occur if Project construction or the long term presence of the Project would result in an inconsistency with local policies applicable to the preservation of natural resources. The Land Use Element of the Riverside County General Plan (County of Riverside 2003) includes policies to preserve and protect outstanding scenic vistas and visual features for the enjoyment of the traveling public (Policy LU 13.1). The Circulation Element identifies I-15 (Corona Freeway) and Highway 74 as Eligible State and County Scenic Highway corridors and, in policy C.19.1, requires the preservation of scenic routes that have exceptional or unique visual features in accordance with Caltrans' Scenic Highways Plan (AI 79). Within view of a Designated or Eligible State Scenic Highway, Land Use policies LU 13.3 and LU 13.5 ensure that the design and appearance of new landscaping structures,

equipment, signs, or grading are compatible with the surrounding scenic setting or environment and require new electric or communication distribution lines to be placed underground. The City of Lake Elsinore, similarly, stipulates in zoning code Section 17.04.040.D.1 that all utilities, where practical, be installed underground. The Applicant intends to erect power lines and telecommunications equipment along Eligible State Scenic Highways. In conjunction with other development in the area, both planned and projected, the Project would clutter the viewshed and diminish the scenic quality within view of an Eligible State Scenic Highway and would be inconsistent with local policies (Class I).

Alberhill System Project, Reconductor Valley–Newcomb Subtransmission Line, and Other Projects

Table B.7-1 lists projects that are part of the cumulative scenario, including the Alberhill System Project and Reconductor Valley–Newcomb Subtransmission Line Project. Several of the projects may be under construction at the same time as the proposed Project. Similar to the proposed Project, construction of the Alberhill System project, Reconductor Valley–Newcomb Subtransmission Line project, and other projects would include the removal of vegetation, grading, temporary signage, establishment of construction access roads and staging yards, temporary storage of materials, and temporary fencing. These elements would detract from the visual character, alter the viewshed, and block visual access to scenic resources, particularly as observed from eligible scenic highways. Further, they would create contrast in areas of distinct natural resources, particularly in the large expanses of line planned to traverse rural, undeveloped land. This would result in significant but temporary cumulative impacts on visual resources in the cumulative impact study area (Figure B.7-1). These impacts would be limited to the duration of construction and disturbed areas would be restored to original conditions once construction was completed. The Project would contribute to such impacts, but the impacts would be temporary and not cumulatively considerable.

During operation, visual impacts of the Project would affect viewsheds that would also be affected by other projects in the cumulative scenario. Important viewsheds for the Project comprise the scenic highways (I-15 and SR-74) and the high value northwest portion of the City of Lake Elsinore (within the vicinity of the Fogarty Substation). The portion of the Alberhill System Project between the new Alberhill Substation and the existing Skylark Substation, a section approximately 10 miles in length, could also be visible from portions of SR-74 and I-15 that are Designated and Eligible State and County Scenic Highways and therefore would conflict with the county's land use policy (LU 13.5). This line could also be visible from the northwest portion of the City of Lake Elsinore, impacting a high value viewshed in this area. In combination with other projects, the Project would substantially impact the cumulative visual resource area, making a cumulatively considerable contribution to visual alteration (Class I).

A number of projects within the cumulative impact study area would be visible from SR-74, including the Reconductor Valley–Newcomb Subtransmission Line Project, the Central I-215 project, the Riverside Energy Resource Center Power Plant, the Sun Valley Energy project, and several other development projects (Table B.7-1 and Figure B.7-1), further impairing visual character in conjunction with the proposed Project. The viewshed of I-15, which would be visually affected by the Toscana Marketplace project (Toscana Business Center 2010), is immediately adjacent to I-15 and the Nevada Hydro Company LEAPS project. Toscana Marketplace would be partly screened by landscaping but would still be visible from I-15. The aesthetic character of the cumulative impact study area has been and would be in the foreseeable future substantially and adversely changed. The Project would contribute to the substantial cumulative degradation of visual resources in the area, and therefore the Project would have a cumulatively considerable contribution to visual impacts.

D.4.4 Biological Resources Cumulative Analysis

Riverside County is expected to experience residential and commercial development over the next 20 years. Such development would involve construction projects that may encroach on biological resources and impact sensitive communities, special status species, and biological diversity. Urbanization and development in the area impact the ability of certain plant and animal species to forage, breed, and develop in their natural habitat. A cumulative impact would occur if the Project substantially contributed to the cumulative degradation of biological resources or migratory corridors caused by recent, current, and planned development.

The Project is located within the coverage area of the Western Riverside County MSHCP, which is a conservation planning effort with the overall goal of maintaining biological diversity in urbanizing areas and which provides a conservation area for 146 special status species. There are seven distinct bioregions in Western Riverside County as identified by the MSHCP (County of Riverside 2003). The Project occurs within the Riverside Lowlands Bioregion (approximately 695,600 acres), which has an overall goal of 24.2 percent acres conserved. Within this bioregion, the MSHCP has set aside core and linkage conservation areas as well as areas being evaluated for conservation. As discussed in Impact BIO-5 above, portions of the Project fall within the boundaries of seven proposed conservation zones (i.e., proposed cores/linkages). The total area of these conservation areas is 21,560 acres. Although the Project is not entirely located within these zones, one can make a conservation calculation that would indicate impacts from the Project on these areas. Less than 0.001 percent (215 acres temporary and permanent impact/21,560 acres conservation lands) of the area proposed for conservation would be impacted by the Project. For the purpose of this cumulative analysis, the geographic scope comprises the biological resources affected by development projects within the boundaries of these seven proposed core and linkage areas. See Section 3.2.3, Figure 3-2 of the MSHCP (County of Riverside 2003).

The Project would have a construction schedule of 24 months, in which the bulk of biological impacts would occur. Construction for the linear subtransmission line would be phased into two distinct sections, Phase I from Valley Substation to Collier Avenue/Third Street, and Phase II from Collier Avenue/Third Street to Ivyglen Substation. Operational activities (such as maintenance and repair) would be sporadic along the subtransmission routes and more frequent at the substation sites. Cumulative analysis considers impacts from both one-time construction and ongoing operations of planned development projects.

Construction and operation of the Project would result in the permanent loss of or temporary disturbance to sensitive habitats and special status plant and wildlife communities through clearing, grading, trenching, or other construction and maintenance activities. To protect sensitive biological resources, mitigation measures (MMs) BIO-1a through BIO-1h recommend measures to be taken to protect special status plant species, special status wildlife species, sensitive habitats such as coastal sage scrub, and avian species. Additionally, monitoring of these areas would continue for a year following the completion of the Project; should any significant impacts occur, the MMs include provisions for relocation of certain disturbed species (such as burrowing owl) and restoration and/or compensation for other impacted species. With the implementation of MMs BIO-1a through 1h, construction of the Project would not substantially contribute, either directly or through habitat modification, to adverse cumulative effects on candidate, sensitive, or special status species (Class II).

Construction and operation of the Project may damage wetlands and riparian habitats through clearing vegetation, grading, exposing topsoil to weathering, impacting drainage, introducing invasive plant species, and impeding plant growth. Additionally, the placement of Project components may permanently damage wetlands and riparian habitats. In developing areas, these impacts would contribute to the cumulative degradation of these habitats. MM BIO-2a minimizes the impact of construction and operation

of the Project on wetlands by avoiding sensitive areas and requiring the restoration of disturbed areas. When sensitive areas cannot be avoided during construction, pursuant to MM BIO-2b, the Applicant will minimize the effects of erosion and the hydrologic impacts through BMPs. Because wetlands and riparian habitats will be avoided where possible and prevention and preservation measures will be employed when necessary, the Project would not substantially contribute to cumulative damage to these habitats (Class II).

The Project falls under the jurisdiction of local policies and ordinances including the Roadside Tree Ordinance. To install TSPs and LDS poles, access roads must be constructed and vegetation must be removed at construction sites; this will permanently and directly damage trees. The Draft EIR requires the Applicant to adopt MM BIO-4a and obtain a permit for removal prior to construction. By complying with the permit process, the Applicant would ensure that the Project will not significantly contribute to the cumulative impact on local tree populations.

Composite development has the potential to interfere with the movement of migratory animals by physically interfering with the migratory corridor. New roadways, construction activities, and introduced structures can act as barriers to migration. The Project would require the installation of roadways for maintenance and emergency repair purposes. These roadways would be infrequently used and therefore would not interfere significantly in migration patterns. Construction activities would impact migration patterns but impacts are considered temporary. Given the distribution of the structures and the low volume of traffic required to maintain the Project, the Project would not significantly contribute to cumulative obstacles to migratory wildlife.

Alberhill System Project, Reconductor Valley–Newcomb Subtransmission Line, and Other Projects

Several projects and developments would affect biological resources in the cumulative study area (Figure B.7-1 and Table B.7-1). These projects would include those that are under construction at the same time as the proposed Project or that affect the same geographic area. Although the exact construction schedule of all other cumulative projects is not known, it is likely that several would be undertaken during the late 2010 to mid 2012 construction schedule proposed for the Project. These include the Alberhill System project and the Reconductor Valley–Newcomb Subtransmission Line project. It is possible that at least one or more of the other listed cumulative projects would also be under construction during this time period.

Construction and operation of the proposed Alberhill System project, the proposed Reconductor Valley–Newcomb Subtransmission Line project, the LEAPS project, and several large mixed-use commercial, retail, and residential projects would occur within the cumulative project area. Impacts to biological resources such as the permanent loss of or temporary disturbance to sensitive habitats such as wetlands and riparian systems and/or special status plant and wildlife communities would occur due to clearing, grading, trenching, exposing topsoil, or other construction or maintenance activities for these projects. Construction also would introduce invasive plant species, alter natural surface drainage in the area, and permanently remove trees and shrubs. Additionally, composite development has the potential to interfere with the movement of migratory animals by physically interfering with migratory corridors. Direct and indirect impacts to biological resources at the cumulative level would severely limit the conservation value and function of the MSHCP proposed core and linkages. Portions of the Alberhill, LEAPS, and Toscana Business Center projects are located within Proposed Core 1 and Proposed Extension of Existing Core 2, and, in conjunction with the Project, would impact conservation values associated with these areas. On the east side of the cumulative impact study area, there are numerous large-scale residential and commercial projects planned, which would impact biological resources associated with Proposed Linkage 7 and 19 (Figure B.7-1).

The Project would contribute significantly to loss of biological resources in the cumulative study area if the construction schedule were the same as for other projects. As the construction schedule for the Project would be conducted in two phases, construction disturbance would not be constant over the 24-month period in every location. Many of the other projects in the area, the Alberhill System project, the Reconductor Valley–Newcomb Subtransmission Line, the LEAPS project, and the central I-215 freeway project are also linear projects for which the majority of construction impacts would be disbursed over a larger area. The overall area of temporary and permanent disturbance from the Project would be less than 0.001 percent of the cumulative study area. While an exact determination of the acreage potentially disturbed by other regional projects is not possible at this time, it is likely somewhere in the range of 15 miles of linear features and approximately 6,000 acres within the cumulative impact study area [calculated using available acreage data for projects listed in Table B.7-1; includes an additional contingency amount of 1,000 acres to account for those projects listed in the table for which data are not available]. Additionally, cumulative impacts resulting from the Project would be reduced overall with the implementation of mitigation measures BIO-1a through -1h, and BIO-2a and -2b. It is anticipated that the other projects would likewise implement appropriate measures to avoid and reduce impacts. Thus, the Project would not considerably contribute to cumulative impacts, and would have a less than significant cumulative impact on biological resources within the MSHCP proposed conservation areas.

D.6.4 Geology, Soils, and Mineral Resources Cumulative Analysis

Riverside County is expected to experience residential and commercial growth in the next 20 years. Construction activities would include excavation and grading. Among other issues, such activities can cause slope instability and accelerate erosion. The proliferation of structures presents a potential hazard as structures can be damaged by corrosive soils, landslides, and seismic activity.

Cumulative impacts related to geology would likely be site-specific. For the purpose of this analysis, the geographic scope would constitute the areas in the immediate vicinity of the Project, including those areas around the subtransmission line ROW, the Fogarty Substation site, the Valley and Ivyglen stations, areas temporarily used for construction activities, and all access roads used for construction and maintenance. A cumulative geological impact would occur if the construction activities contributed to damage to soils in conjunction with recent, concurrent, and planned development in the area or if the structural elements of the Project, in conjunction with the structural elements of nearby development, were unsound due to seismic activity or soil instability.

Construction activities include grading of pole sites and access roads, which has the potential to cause erosion and sedimentation. This would contribute to the geological impacts of recent, concurrent, and projected construction projects in the area. To minimize the effect of construction on top soil, the Applicant will employ BMPs and implement APM GEO-SCE-3, which mandates the adoption of a Storm Water Pollution Prevention Plan (SWPPP) including soil erosion, sediment containment, and water quality protection measures. In conjunction with the SWPPP, this document recommends mitigation measure Geo-2a, which requires an erosion and sediment control plan including site maps, identification of construction activities, and measures for providing erosion and sediment control. With these measures, the Project would not substantially contribute to cumulative impacts through soil erosion and sedimentation (Class II).

Structural elements of the Project are susceptible to damage from both seismic activity and soil instability, which can lead to liquefaction or landslides. Unstable structures pose a danger to both construction workers and the public, as seismic activity and soil instability can lead to partial or total collapse. The Applicant has proposed GEO-SCE-1 and GEO-SCE-2 to prevent accidents related to earthquake or soil

instability. These APMs require design elements to adhere to the Institute of Electrical and Electronics Engineers provisions set forth in its "Recommended Practices for Seismic Design of Substations" and to conduct a geotechnical study to identify site-specific geologic conditions in enough detail to support final engineering and requirements of reviewing agencies. All of the Project components are located in a region of several active and potentially active earthquake faults. As such, this document outlines a number of additional mitigation measure designed to minimize the risks of structural instability during a potential earthquake. Mitigation measures 1a through 1d require site-specific plans be submitted to the CPUC 60 days prior to construction outlining worker safety plans and offering seismic analyses. The Applicant must conduct surveys to ensure that pole locations avoid all sites deemed susceptible to fault surface ruptures, and all designs must be in compliance with CBC earthquake standards. Mitigation measure GEO-3a requires a similar geotechnical investigation to ensure that engineering design avoids geological hazards to include liquefaction, unstable slopes, landslides, earth flows, debris flows, and expansive soils. With the implementation of the APMs and mitigation measures, the Project would not substantially contribute to cumulative impacts by constructing structures on land susceptible to seismic hazards or hazards relating to soil instability.

Alberhill System Project, Reconductor Valley–Newcomb Subtransmission Line, and Other Projects

The potential for the proposed Project to contribute to cumulative impacts would be limited to the proposed locations of the Project components and would only occur if the Project were constructed in close proximity to and during the same timeframe as other projects in the cumulative scenario (Table B.7-1 and Figure B.7-1), or if multiple projects individually impacted the same type of mining operation, resulting in cumulatively significant permanent impacts. As described in Section D.6.3 of the Draft EIR, the proposed Project would have significant and unavoidable impacts on the Pacific Clay mining operation. With the exception of the Alberhill System project, none of the other cumulative projects would affect the Pacific Clay mining operations because they are not in the same location. The Alberhill System project would be constructed within the vicinity of the Pacific Clay mining operation. The Applicant proposes to add a second circuit to the Valley–Ivyglen existing single-circuit 115 kV subtransmission line (SCE 2009). This would comprise the installation of the second circuit on existing structures and would not require installation of any additional structures. Impacts from this installation would be temporary and limited to the duration of construction.

No permanent cumulative impacts would occur to the Pacific Clay mining operations. Furthermore, no other clay mining operations in the Project area would be impacted by the construction or operation of any of the cumulative projects; the only other clay-producing facility in the vicinity is northwest of the Fogarty Substation, between I-15 and the existing subtransmission line, and is outside of the Project area. Cumulative impacts from the proposed Project would similarly be limited to temporary construction impacts and would not be cumulatively considerable.

D.7.4 Hydrology and Water Quality Cumulative Analysis

Riverside County is projected to experience residential and commercial development over the next 20 years. This projected and recent development has required and is expected to continue to involve construction projects that would result in increased impervious surfaces, increased population (and need for drinking water), excavation and grading activities, and construction of buildings, homes, and other structures. Cumulative impacts to hydrology and water quality would be minimized through measures required by federal, state, regional, and local laws, codes, and other regulations.

The Project traverses the San Jacinto Valley and the Santa Ana watersheds. Surface waters located in the vicinity of the Project include San Jacinto River, Canyon River, and Corona Lake (a reservoir on the

Temescal Wash). Additionally, Segments E-1, C-6, W-3, and W-6 pass through 100-year flood zones. For the purpose of this analysis, the geographic scope for the cumulative effect on hydrology and water quality encompasses the boundaries of the aforementioned watersheds, bodies of water, and flood zones. This combined area includes all major hydrological features that could be impacted by the Project. Destruction of or degradation to this area would constitute a significant cumulative impact.

Construction of the Project would require the grading and excavating of access roads, installation of poles and underground conduits, and removal of vegetation to lay foundations and meet safety codes; these activities would impact water quality through drainage and erosion, to deplete groundwater sources and increase wastewater through the creation of impervious surfaces, and to damage drainage systems though sediment runoff. The Applicant has proposed measures HYDRO-SCE-1 through -4 to prevent a cumulatively significant impact to water quality, groundwater, and drainage systems. In the proposed measures, the Applicant takes preventative steps and will prepare response plans in the case of accidental contamination of hydrological features including adopting a SWPPP, minimizing erosion and sedimentation during construction, preparing an environmental education and monitoring program, regulating high spill risk activities, and drafting dewatering plans with measures such as sediment traps and sediment basins. To ensure that the APMs meet regulations, the Draft EIR recommends the implementation of MMs HYD-5a and HYD-5b. Compliance with HYD-5a and -5b requires the Applicant to submit the environmental training program and the SWPPP to the Santa Ana RWQCB for review and approval 60 days before the start of construction. Given both the APMs and the MMs outlined in this section, the Project would not substantially contribute to cumulative impacts to water quality, groundwater, or drainage systems (Class II).

Some of the poles required for the Project would be located in federally designated 100-year flood zones; the Valley Substation is located entirely within a 100-year floodplain. Adverse effects of construction to floodplains include displacement, and underground portions of the Project that pass through floodplains must be engineered to withstand potential flooding. MMs HYD-7a and -7b outline steps to minimize the impacts of the Project so as not to impede or re-direct flood flow. These require that, 60 days prior to construction, the Applicant submit to the CPUC an engineering plan that either avoids the flow path or, where avoidance is not practicable, employs appropriate measures such as raised foundations. Additionally, the MMs stipulate that all National Flood Insurance Regulations are followed. By implementing HYD-7a and -7b, the Project would not substantially contribute to cumulative impacts to flood paths within a 100-year floodplain.

Alberhill System Project, Reconductor Valley–Newcomb Subtransmission Line, and Other Projects

Several projects and developments, if constructed, would affect hydrology and water quality in the cumulative impact study area (Figure B.7-1 and Table B.7-1). As the Project would be located within two watersheds (Santa Ana River and San Jacinto Valley), shown in Figure D.7-1 in the Draft EIR, it is possible that projects constructed anywhere within each watershed would contribute to cumulative impacts on water quality and hydrology. These projects would include those that are under construction at the same time as the proposed Project or that affect the same geographic area. Although the exact construction schedule of all other cumulative projects is not known, it is likely that several would be undertaken during the late-2010 to mid-2012 construction schedule proposed for the Project. These include the Alberhill System project and the Reconductor Valley–Newcomb Subtransmission Line project. It is possible that at least one or more of the other listed cumulative projects would also be under construction during this time period.

Projects that would be spatially combined with the Project, and thus cause cumulative impacts, include those within the cumulative impact study area as well as numerous other projects that are proposed and

would be constructed throughout each of the watersheds. These projects are too numerous and varied in nature to describe individually but are described collectively in Section 5.3.2 in descriptions of previous and anticipated development in Riverside County and each of the cities surrounding the cumulative impact study area.

Cumulative impacts to hydrology and water quality associated with other projects would be minimized through measures required by federal, state, regional, and local laws, codes, and other regulations. Similar to the proposed Project, it is anticipated that other construction projects in the Santa Ana and San Jacinto watersheds would also implement appropriate BMPs and mitigation measures to minimize impacts on water quality and hydrology. Assuming the implementation of such measures, it is not likely that significant cumulative impacts to water quality and hydrology would occur, or that the proposed Project would make a considerable contribution to such impacts.

D.8.4 Hazards and Public Safety Cumulative Analysis

Riverside County is expected to experience residential and commercial development over the next 20 years. Such development would involve construction projects that would use varying amounts of hazardous materials as well as the transport of hazardous materials.

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 those within the immediate area of the subtransmission line ROW and the substation sites. The limited geographic scope is due to the fact that there is low risk of hazardous materials spills or release of hazardous materials as a result of this Project. The greatest risk includes spillage of gasoline, diesel fuel, oil, and lubricants during construction and the release of gas from a natural gas line during TSP and LDS pole installation. In the event of accident, none of the aforementioned substances are expected to be released in large quantities or to travel long distances.

Construction and operation of the proposed Project would require the use of hazardous materials that could be released into the environment in the event of an accident. These include gasoline, diesel fuel, oil, and lubricants. Additionally, the installation of LDS poles and TSPs involves boring holes in areas where underground natural gas lines are present; this raises the potential of striking a line and releasing natural gas into the environment. The Applicant has proposed measures HAZ-SCE-I and HAZ-SCE-4 to reduce the risk of spills and to ensure proper response measures are in place for clean-up in the event of accidental release. Furthermore, this document has imposed MM D.8-2, requiring the applicant to precisely locate all natural gas lines as part of the siting and engineering process, to avoid hitting natural gas lines when installing powerline poles. The likelihood of release of hazardous materials as a result of construction and operation of this project is low; therefore, the Project contribution to a cumulative, hazardous material impact would be less than significant after mitigation.

The subtransmission line traverses a high risk fire area, and the Fogarty Substation Site sits within a high fire risk area as well. The Project, particularly during construction, presents the risk of both starting fires and slowing emergency response times. APMs HAZ-SCE-2 and HAZ-SCE-3 lessen the risk of fire by regulating construction activities and ensuring response systems are in place. The cumulative impact to fire risk and emergency response time would be less than significant. For these reasons, the Project would not contribute substantially to hazardous materials or public safety cumulative impacts (Class II).

Alberhill System Project, Reconductor Valley–Newcomb Subtransmission Line, and Other Projects

Numerous future projects are proposed for construction in the cumulative impact study area (Figure B.7-1 and Table B.7-1). However, as any potential for impacts associated with public safety and hazards would primarily occur during construction of the proposed Project, the potential for the Project to contribute to cumulative impacts would only occur where other proposed projects would be under construction during the same time period. Although the exact construction schedule of all other cumulative projects is not known, it is likely that several would be undertaken during the late-2010 to mid-2012 construction schedule proposed for the Project. These include the Alberhill System project and the Reconductor Valley–Newcomb Subtransmission Line project. The Alberhill System project would be constructed within the cumulative impact study area and would also be under construction during the same time period as the proposed Project. However, the Alberhill project would be expected to be constructed with hazardous materials management and control plans and BMPS similar to those of the proposed Project, and would not result in any significant impacts with respect to hazards and public safety (SCE 2009). Therefore, impacts from the proposed Project would not combine with impacts of other projects, and there would not be a considerable cumulative impact.

With respect to cumulative impacts that could affect a school, the only school within a quarter of a mile of the proposed Project, Temescal Canyon High School, is more than a quarter of a mile from the closest other project in the cumulative scenario, which is the Alberhill System project. The high school would not be affected by the Alberhill project. Therefore, impacts from the proposed Project would not combine with impacts of Alberhill or other cumulative projects, and there would not be a considerable cumulative impact. With respect to an airport or airstrip, the Project would have less than significant impacts and would not contribute to cumulative impacts on such facilities.

Concurrent construction of multiple projects would increase traffic congestion and flow; therefore, there would be cumulative impacts on access to and use of emergency routes. Similar to the proposed Project, other cumulative projects would be assumed to be constructed in cooperation with local jurisdictions and agencies to develop and implement appropriate traffic management plans to minimize congestion and ensure no impacts would occur on emergency response times and evacuation routes. Overall, a considerable increase in traffic congestion would result in a cumulative impact; however, traffic management plans would likely reduce this impact so that it would not be considerable.

Concurrent construction of multiple projects would increase fire risks. However, it is assumed that each project would implement BMPs and fire management measures similar to those of the proposed Project in order to reduce the potential risk of fires. Therefore, there would not be any significant cumulative impacts associated with fires and/or public safety.

D.8.4 Air Quality Cumulative Analysis

As discussed in Impact AIR-1, total daily emissions of NO_x, VOCs, PM_{10}, and $PM_{2.5}$ from construction activities exceed SCAQMD thresholds. The result is a cumulatively considerable net increase of criteria pollutants for which the region would be in nonattainment status under an applicable federal or state ambient air quality standard. As discussed in Impacts AIR-5 and AIR-6, project construction and operational emissions would also exceed the “net zero” threshold for GHG; this would also result in significant cumulative impacts. Although these air quality impacts can be reduced, impacts would not be mitigated to less than significant. Therefore, the Project would contribute substantially to significant cumulative air quality impacts (Class I).

Alberhill System Project, Reconductor Valley–Newcomb Subtransmission Line, and Other Projects

The construction of other projects in the cumulative impact study area would also contribute to cumulative impacts on air quality (Table B.7-1 and Figure B.7-1). As air quality impacts would primarily occur during construction of the proposed Project, cumulative impacts would be greatest when other proposed projects would be under construction during the same time period. Although the exact construction schedule of all other cumulative projects is not known, it is likely that several would be undertaken during the late 2010 to mid 2012 construction schedule proposed for the Project. These include the Alberhill System project and the Reconductor Valley–Newcomb Subtransmission Line project. It is possible that at least one or more of the other listed cumulative projects would also be under construction during this time period. However, irrespective of the contribution of other projects, as the air basin is already in non-attainment status, the Project would cause a cumulatively considerable net increase of criteria pollutants for which the region would be in nonattainment status under an applicable federal or state ambient air quality standard.

With respect to local temporary air quality threshold exceedances during construction, significant cumulative impacts would occur if another cumulative project were under construction at the same time and in close proximity to the proposed Project. The maximum volume of local emissions associated with the proposed Project would likely occur during the construction of the Fogarty Substation (see Table D.10-6 in the Draft EIR). Cumulative local air quality impacts could occur if the Fogarty Substation and the portion of the Alberhill System project located just to the north of the Fogarty Substation were being constructed at the same time. However, the maximum volume of emissions is based on a conservative estimate that assumes a worst-case construction activity scenario for the purposes of the analysis. It is considered unlikely that this scenario would occur, and even more unlikely that a similar worst-case scenario would occur simultaneously during the construction of the portion of the Alberhill System project. In the unlikely event that this worst-case construction scenario for both projects did occur at the same time, impacts would be extremely short in duration, temporary, and not cumulatively significant.

Project construction and operational emissions would also exceed the “net zero” threshold for GHGs; this would also result in significant cumulative impacts. Although these air quality impacts can be reduced, impacts would not be mitigated to less than significant. Therefore, the Project would contribute considerably to significant cumulative air quality impacts.

D.11.4 Noise Cumulative Analysis

The County of Riverside is expected to grow, with residential and commercial developments continuing in the next 20 years. Such development would involve construction projects that would result in varying amounts of construction noise and the introduction of new permanent noise sources.

The Project traverses a number of different types of land uses. Local ordinances and county regulations outline acceptable levels of noise that differ depending on land use designation. Construction equipment is the primary source of noise. Construction activities are temporary and localized, and the amount of noise generated by construction activity varies depending primarily on the machine. Therefore, the geographic scope for the analysis of the Project’s contribution to cumulative noise impacts varies depending on the type of activity and the land use designation at the specific location of the activity. The Project would contribute to cumulative noise impacts if it exceeded construction noise limits as outlined in local policies and ordinances or if it resulted in a permanent source of noise that exceeded the limits set by local policies and ordinances.

The Applicant has proposed a number of measures to reduce noise impacts due to construction. APMs NOISE-SCE-1 through -6 mandate that the Applicant limit construction hours, be mindful of potentially affected residents and schools in the vicinity, and use sound reduction features including mufflers, engine shrouds, sound walls, and noise blankets. MM NOISE-1a requires the Applicant's construction activities to comply with county as well as city regulations. With these measures in place and given the primarily remote locations of construction sites, construction of the Project would not generate noise in excess of local policies and ordinances. Therefore, construction of the Project would not substantially contribute to cumulative noise impacts (Class II).

Operation of the Project would not create noise or vibration levels in excess of standards. The noise and vibrations generated by the operation of the subtransmission line, the telecommunication system, Fogarty Substation, or the Valley or Ivyglen Substations are below city and county standards, often at negligible or non-existent levels. Additionally, the remote location of many of the subtransmission line poles and of Fogarty Substation ensures that no residences are located close enough to be affected by noise. Operation of the Project would not substantially contribute to cumulative noise impacts (Class III).

Alberhill System Project, Reconductor Valley–Newcomb Subtransmission Line, and Other Projects

The construction of other projects in the cumulative impact study area could result in significant cumulative impacts with respect to noise. As noise would primarily occur during construction of the proposed Project, the Project's contribution to cumulative impacts would only occur when other projects are being constructed during the same time period and within the vicinity of the same noise receptors. Noise impacts are a reflection of distance between noise source and noise receptors, and are therefore project-specific and localized. Although the exact construction schedule of all other cumulative projects is not known, it is likely that several would be undertaken during the late-2010 to mid-2012 construction schedule proposed for the Project. These include the Alberhill System project and the Reconductor Valley–Newcomb Subtransmission Line project. It is possible that at least one or more of the other listed projects in the cumulative scenario would also be under construction during this time period.

The Alberhill System project, the Reconductor Valley–Newcomb Subtransmission Line project, and other projects in the cumulative scenario would be expected to be constructed with similar construction noise management measures mitigation as the proposed Project, and would not result in any significant impacts with respect to noise (SCE 2009). It is possible that temporary noise levels during construction would increase as a result of simultaneous construction activities, but these impacts would be temporary and not significant. Cumulative noise impacts would be less than significant and the contribution of the proposed Project to these impacts would not be cumulatively considerable.

References [1]

Southern California Edison (SCE). 2009. Proponent's Environmental Assessment: Alberhill System Project. September 30.

Toscana Business Center. 2010. http://www.toscana-business-center.com. Accessed March 12, 2010.

[1] References cited in the revised Cumulative Scenario section of the Final EIR but not cited in the Cumulative Scenario section of the Draft EIR.

D.4 Biological Resources (Revised)

This chapter identifies biological resources within and adjacent to the Project as well as impacts to these resources. In addition, this chapter includes information from the following documents: *Final Biological Technical Report for the Valley-Ivyglen Transmission Line Project Riverside County, California* (AMEC 2006a), the *Proponent's Environmental Assessment (PEA), Draft Biological Resources Report Valley-Ivyglen Transmission Project (*Entrix 2006), *Final Biological Technical Report for the Fogarty Substation Project* (AMEC 2006b), *Draft Burrowing Owl Survey Report for the Valley-Ivyglen Transmission Line Project* (AMEC 2007a), *Draft Focused Surveys for the Least Bell's Vireo, Southwestern Willow Flycatcher, and Western Yellow-Billed Cuckoo for the Valley-Ivyglen Transmission Line Project* (AMEC 2007b), *2009 Focused Surveys for the Least Bell's Vireo and Southwestern Willow Flycatcher Valley-Ivyglen Subtransmission Line Project* (AMEC 2009), *Draft Results of Focused Surveys for Listed Fairy Shrimp Species for the Proposed Valley-Ivyglen Subtransmission Line Project* (AMEC 2010), and the *Draft MSHCP Narrow Endemic and Criteria Area Plant Species Surveys for the Valley-Ivyglen Transmission Line Project* (AMEC 2008). Data from additional field studies conducted by the Applicant in 2008 and 2009 was also reviewed for this document (Donohue 2010). Although some of the 2008 and 2009 data is currently not published, GIS data is available and was used in this analysis. As the third-party contractor to the CPUC, Ecology and Environment, Inc., (E & E) conducted a third-party review of these reports, consulted the United States Fish and Wildlife Service (USFWS), queried the California Department of Fish and Game's California Natural Diversity Database (CNDDB), and reviewed other relevant literature on biological resources within the region.

D.4.1 Environmental Setting (Revised)

The Project site is located in western Riverside County and contains a combination of agricultural, municipal, private, and reserve land, most with previous disturbance. The region has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. In summer, temperatures often reach 100 degrees Fahrenheit and winter temperatures fall to the 30's, with an occasional freeze. Average annual temperature ranges are moderate for the area, ranging from 49.3 to 79.5 degrees Fahrenheit. Average precipitation for the area is approximately 10 to 15 inches per year.

D.4.1.1 Vegetation Mapping Methods

Vegetation communities have been classified and mapped according to the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Conservation Area descriptions (County of Riverside 2003). The MSHCP was used in place of *A Manual of California Vegetation* to maintain consistency between this report and the local habitat conservation plan, which is consistent with the protocols of the California Native Plant Society (CNPS 2001). Vegetation communities and dominant plant species were identified visually and mapped on orthorectified aerial photographs of the Project area. Dominant plant species and community structure were also recorded, and the acreages of all vegetation communities in the study corridor were delineated.

A disturbed qualifier was placed on any native habitat where there was evidence of habitat impacts by mechanical disturbance (e.g., brushing or clearing and off-road vehicle activity). For example, coastal sage scrub was mapped as disturbed coastal sage scrub only when there was evidence of disturbance such as soil compaction, firebreak clearing, repeated burns, or other activities that left a sparse, scattered cover of shrubs or introduced a cover of nonnative species that have become established as part of the community.

D.4.1.2 Special Status Plant Species Survey Methods

Biological surveys and habitat suitability assessments were conducted within the Project sites, including the sites of alternatives and the proposed Fogarty Substation site. Ten parcels were surveyed as the potential location for the Fogarty Substation; only results from surveys for the final parcel chosen (identified as Parcel 1) are included in this analysis (AMEC 2006a). Biologists walked all areas of potential disturbance. Surveys determined the presence and likelihood of special status plant species and included mapping of vegetation communities within the Project area.

Botanical surveys of the subtransmission line segments and the Fogarty Substation were conducted following the California Department of Fish and Game (CDFG) *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities* (CDFG 2006) and the CNPS *Botanical Survey Guidelines* (CNPS 2001).

Field surveys were scheduled to coincide with the season when observations of special status plant species were most likely to occur. Return field visits were necessary to provide survey coverage during all appropriate blooming seasons. All vascular plant species observed during surveys of the segments were documented. Special status plant species encountered were mapped and added to the Project's GIS database. Surveys from 2006 and 2007 were conducted during a dry precipitation year (AMEC 2008) and thus some species may not have bloomed during that time period. However, follow-up surveys were conducted in wetter precipitation years in 2008 and 2009 (both years were wetter, but still below normal [NOAA 2010]) by the Applicant along the proposed and alternative routes in preparation for application to the Riverside Conservation Authority (RCA) to participate in the Western Riverside County MSHCP (Donohue 2010).

D.4.1.3 Special Status Wildlife Habitat Assessment Methods

Reconnaissance-level surveys were conducted to characterize wildlife habitat types and to evaluate the potential for occurrence of special status wildlife species in the Project area. The proposed subtransmission line route was traversed by foot and vehicle to survey each vegetation community for evidence of wildlife presence. All wildlife and wildlife signs, including tracks, fecal material, nests, and vocalizations were noted. All special status wildlife species encountered were mapped and added to the Project's GIS database. Follow-up wildlife surveys were conducted in 2008 and 2009 by the Applicant along the proposed and alternative routes in preparation for application to the RCA to participate in the MSHCP (Donohue 2010).

Additionally, habitat on each segment of the subtransmission line was specifically assessed for burrowing owl presence, use, and potential use in compliance with the MSHCP. Burrowing owl habitat assessment surveys were conducted according to the CDFG *Burrowing Owl Consortium Guidelines* (CDFG 1993) and the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (County of Riverside 2006). Areas with potential burrowing owl habitat, including grasslands, sage scrub, and low growing vegetation, were surveyed for potential owl burrows and owls. These surveys included ground squirrel and ground squirrel burrow surveys. Biologists walked areas of potential habitat while searching for burrowing owls, potential and active burrows, and owl signs such as feathers, pellets, and prey items. Surveys were conducted to allow 100 percent visual coverage of potential habitat of the Project footprint (500-foot buffer area from the centerline of each segment). The guidelines require that, if the Project site contains burrows that could be used by burrowing owls, survey efforts should be directed towards determining owl presence. Protocol-level presence/absence surveys for burrowing owl were conducted in 2007 in areas where suitable potential burrows were located (AMEC 2007a).

Protocol-level surveys were conducted in 2007 and 2009 for riparian-dependent birds (e.g., least Bell's vireo, western yellow-billed cuckoo, and the southwestern willow flycatcher). These surveys were conducted along the proposed route in locations that are characterized by extensive riparian habitat (AMEC 2007b, AMEC 2009). The four areas surveyed in 2007 were at the San Jacinto River (Segment E-1) and along Temescal Wash at Nichols Road (Segment W-1/C-6 intersection), Lake Street (Segment W-1, W-13, and W-14), and Hostettler Road (Segment W-1, W-4, W-13, and W-14). In 2009, additional surveys were performed at the San Jacinto River, at three riparian patches to the east and west of the San Jacinto River along Segment E-1, and at a riparian patch located on Segment C-1 just below Rosetta Canyon Road (AMEC 2009).

D.4.1.4 Wetland and Riparian Habitat Assessment Methods

The potential for wetland and riparian habitat to occur within the Project area was assessed during field surveys conducted for plants and wildlife. Seasonal wetlands, open water, marsh, riparian habitats, and drainages along both proposed and alternative routes were noted and added to the Project's GIS database when encountered. Acreages for these communities were mapped as a part of the vegetation community survey. Additionally, surveys to identify and map vernal pools within the proposed route ROW were conducted in 2009 by the Applicant (Donohue 2010). Protocol-level surveys for listed vernal pool invertebrates (e.g., fairy shrimp) were conducted in 2009 along the central and eastern portions of the proposed route within 120 pools where potential suitable habitat for the invertebrates exists (AMEC 2010). The protocol for special status vernal pool invertebrates calls for two years of consecutive surveys to confirm absence of these species.

D.4.1.5 Existing Biological Resources Along the Proposed Subtransmission Line Route

Valley-Ivyglen 115 kV Subtransmission Line

The proposed subtransmission line route would run through areas of unincorporated Riverside County and the Cities of Lake Elsinore and Perris, California. The Project area contains a combination of agricultural, municipal, private, and reserve land, most with previous disturbance. Topography along the proposed subtransmission line route is generally gentle rolling hills.

Dominant vegetation communities include coastal sage scrub, grasslands, agriculture, and developed disturbed land (ruderal habitat). Additional communities found within the study area include woodlands and forest, Riversidean alluvial fan sage scrub, riparian scrub/woodland/forest, vernal pools, and open water. Previous agriculture, grazing, fire suppression, and invasion of common nonnative plant species have contributed to the disturbed condition of many vegetation communities in the study area.

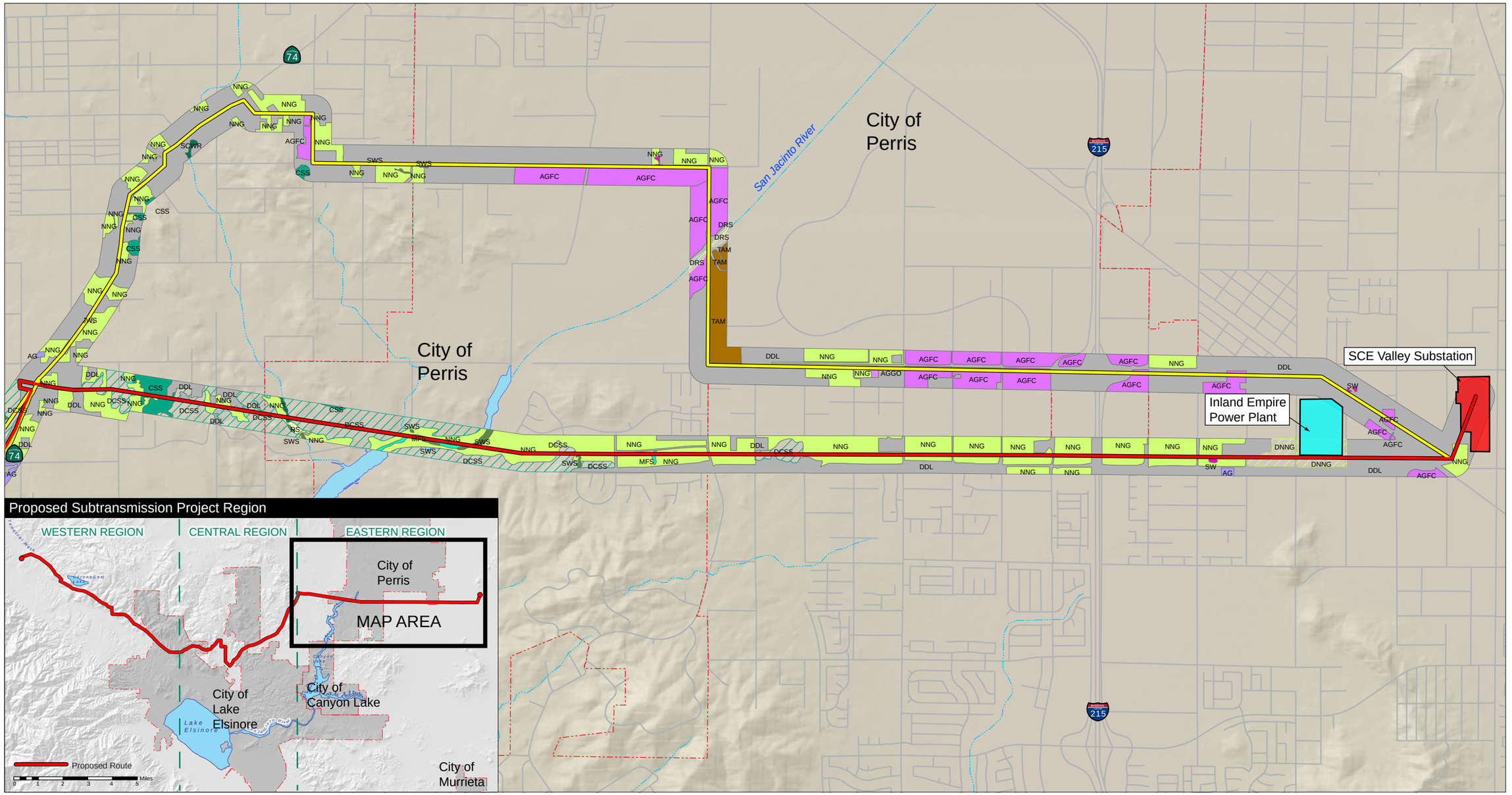
Table D.4-1 summarizes the vegetation communities that are present along each of the proposed segments and associated acreages of those communities, while Figures D.4-1 to D.4-3 illustrate the vegetation communities that are present along the Proposed and Alternative route segments.

Table D.4-1 Valley-Ivyglen Subtransmission Line Project Vegetation Communities and Acreage By Proposed Route Segment

Vegetation Community		Proposed Route Segments (Acres)										
		E-1	C-1	C-3	C-4	C-6	W-1A	W-1B	W-4	W-8	W-10	Total
Coastal Sage Scrub	Undisturbed	1.7245	—	0.5432	—	—	—	0.8575	2.5680	0.0152	1.2272	6.9356
	Disturbed	16.6251	0.8315	1.0002	2.4271	0.8533	—	7.9871	13.1540	0.2778	16.9087	59.7770
Agriculture	Agriculture	—	—	—	—	—	—	0.0665	—	—	—	0.0665
	Grove/Orchard	—	0.0898	—	—	—	—	—	—	—	—	0.0898
Nonnative Grassland	Undisturbed	50.2597	4.7130	0.4830	4.7490	7.1414	9.3561	0.7576	1.1576	—	0.8373	78.8826
	Disturbed	5.6304	—	—	—	—	—	—	—	—	—	5.6303
Oak Woodland		—	—	—	—	—	—	0.1860	—	—	—	0.1860
Coast Live Oak Woodland		—	—	—	—	—	—	—	0.3951	—	0.9240	1.3190
Riversidean Alluvial Sage Scrub	Undisturbed	—	—	—	—	—	—	—	1.6350	—	1.0585	2.6935
	Disturbed	—	—	—	—	—	—	—	—	—	—	—
Seasonal Wetland/Vernal Pools		0.5097	0.066	0.001	—	—	—	—	—	—	—	0.5767
Southern Willow Scrub		0.7987	0.2153	—	—	0.3172	—	—	—	—	—	1.3312
Riparian Scrub, Woodland, Forest	Southern Cottonwood/Willow Riparian Forest	0.2084	—	—	—	—	—	0.3472	0.5145	—	—	0.9119
	Southern Sycamore/Alder Riparian Woodland	—	—	—	—	—	—	—	—	—	0.6836	0.6835
	Mule Fat Scrub	1.5057	—	0.0143	—	—	—	—	0.5192	—	—	2.0392
Developed Land (*not a vegetation community*)		14.8135	48.1029	14.9872	5.0795	2.6589	4.9606	16.7896	9.4512	0.9194	3.6863	120.7422

Note: Vegetation acreages were calculated by applying disturbance buffers of 50 feet on either side of the centerline of the proposed transmission lines. Vernal pools were calculated with a 100 foot disturbance buffer. It should be noted that where contiguous segments of transmission lines meet (e.g., E-1 and C-1), a small area of the same patch of vegetation was assigned to each of the segments due to buffer overlap.

Reference: Figure 4.5-1 – Vegetation Communities and Sensitive Species Occurrences (from January 9, 2009 submittal)



SOURCE: AMEC 2008, Southern California Edison 2008, MHA|RMT Environmental Consulting 2008

LEGEND

N, W, E, S

- Proposed Route
- Alternative Routes
- Existing Substation Area Boundary
- Power Plant Area Boundary
- Interstate Highway
- State Route
- City Area Boundary
- Mile (0, 0.5, 1)

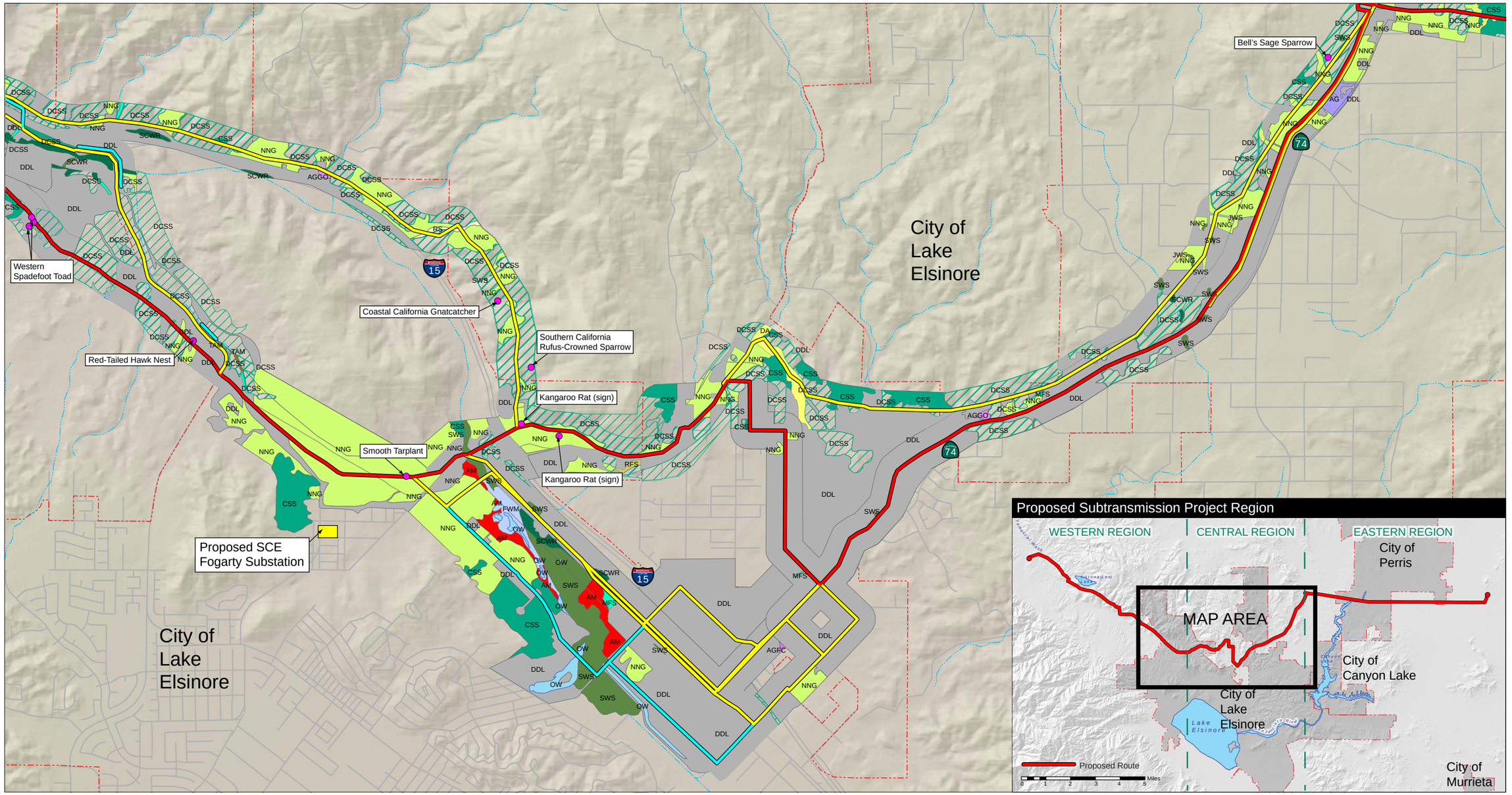
*Vegetation Communities Legend on back of map

Figure D.4-1

Vegetation Communities and Sensitive Species Occurrences

This page intentionally left blank

Reference: Fig. 4.5-2, Vegetation Communities and Sensitive Species Occurrences (from January 9, 2009 submittal)



SOURCE: AMEC 2008, Southern California Edison 2008, MHA|RMT Environmental Consulting 2008

LEGEND

- Proposed Route
- Alternative Routes
- Alternative Relocated Valley-Elsinore-Ivyglen Route Segments
- Sensitive Species Location
- Proposed Substation Site
- Interstate Highway
- State Route
- City Area Boundary

*Vegetation Communities Legend on back of map

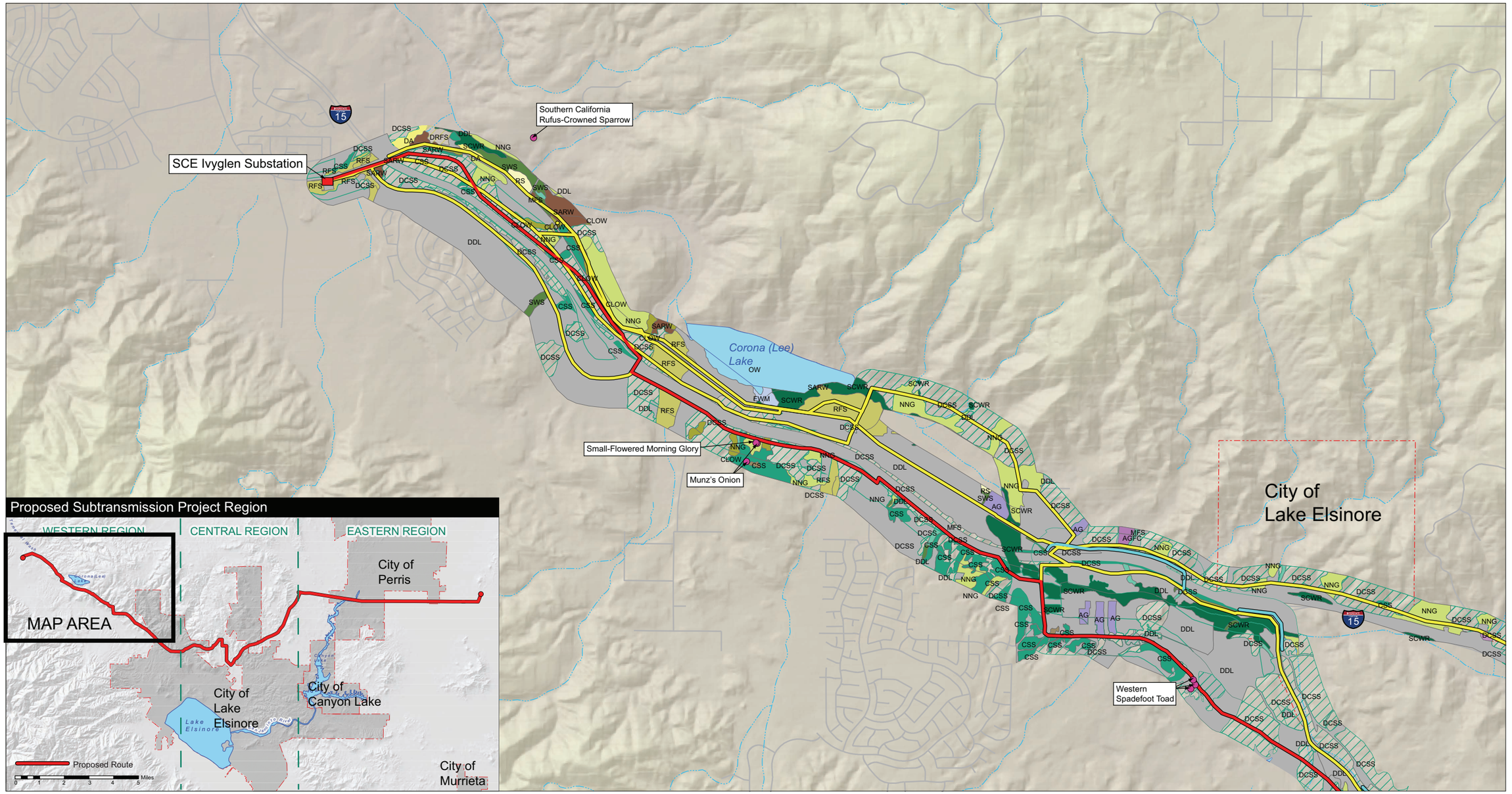
0 0.5 1 Mile

Figure D.4-2

Vegetation Communities and Sensitive Species Occurrences

This page intentionally left blank

Reference: Figure 4.5-3: Vegetation Communities and Sensitive Species Occurrences (from January 9, 2009 submittal)



SOURCE: AMEC 2008, Southern California Edison 2008, and MHA|RMT Environmental Consulting 2008

LEGEND

- Proposed Route
- Alternative Routes
- Alternative Relocated Valley-Elsinore-Ivyglen Route Segments
- Existing Substation Area Boundary
- Sensitive Species Location
- Interstate Highway
- City Area Boundary

*Vegetation Communities Legend on back of map

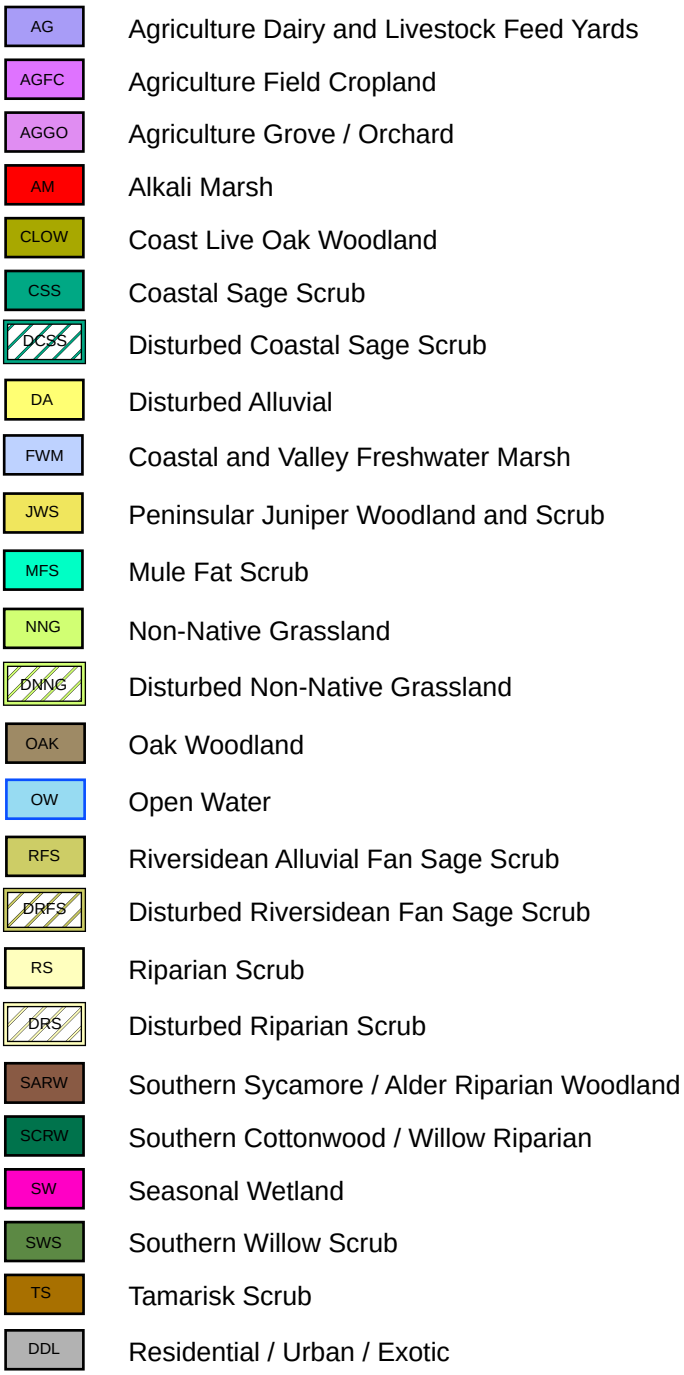
Mile
0 0.5 1

Figure D.4-3

Vegetation Communities and Sensitive Species Occurrences

This page intentionally left blank

Reference: Figure 4.5-3 (continued): Vegetation Communities Legend (from January 9, 2009 submittal)



SOURCE: AMEC 2008, Southern California Edison 2008, and MHA|RMT Environmental Consulting 2008

002453.PU06.04_ADEIR#2_veg legend (Ivyglen 2009 Archives) 05/26/2009

Map Legend for Figures D.4-1, D.4-2, and D.4-3

This page intentionally left blank

The Project would cross numerous wetland and riparian habitats (Figures D.4-1 to D.4-8). Seasonal wetlands, including vernal pools, are predominantly located in the central and eastern half of the Project area from segments C-8 and C-9 out to the Valley Substation within the ROW corridor along both the proposed and alternative routes. The Project would also cross numerous streams, drainages, and riparian corridors throughout the segments. Major rivers and streams crossed by the route include the San Jacinto River and Temescal Wash.

Several special status plant and wildlife species were identified as occurring or potentially occurring along the proposed route as summarized in Tables D.4-2 and D.4-3. Additional information about these species is included in the technical studies for the Project (Appendicies A though H in the Final EIR).

Telecommunications System

The telecommunications system would be installed above ground with the subtransmission line with the exception of approximately 2,700 feet of underground line running to the Ivyglen and Fogarty Substations. Trenching into the Ivyglen Substation would occur 300 feet along the shoulder of Temescal Canyon Road into the substation property. Trenching at the Fogarty Substation would begin at the substation and run along the north of the property 1,200 feet to the east and 1,200 feet to the west in underground conduit. Biological resources along the telecommunications system route would be the same as those occurring along the subtransmission line route and those occurring in the vicinity of the substations.

Vegetation communities in the vicinity of the underground segment running to Ivyglen Substation include Riversidean alluvial fan sage scrub and coastal sage scrub. Vegetation communities at the proposed Fogarty site are described in the following section.

Fogarty Substation

The proposed substation would be constructed within the City of Lake Elsinore, California. The topography in the general vicinity is generally flat or gently to moderately sloped, and contains the following vegetation communities (AMEC 2006b):

- ***Nonnative grasslands*** (6 acres) with wild oat (*Avena* spp.),[2] wild barley (*Hordeum murinum*), and soft chess (*Bromus hordeaceus*)
- ***Developed disturbed land*** (0.53 acres) (ruderal habitat) in the northeastern portion of the parcel
- ***Stream habitat*** (0.22 acres) on the eastern half of the Project area, with a drainage running the width of the site and exiting near the northeast corner. There is no wetland vegetation associated with this drainage.

The site also includes some interspersed remnant coastal sage scrub.

Existing Valley and Ivyglen Substations

Upgrades to the existing Valley and Ivyglen Substations would take place within the footprint of the existing structure.

[2] The abbreviation *spp*. refers to the plural form of the term *species*. The singular form is *sp*.

D.4.1.6 Special Status Species

A review of the relevant literature and a CNDDB query identified 91 special status species as occurring or potentially occurring along the proposed subtransmission line route, including in proximity to the proposed site of the Fogarty Substation. These species are listed in the next section along with their status, habitat requirements, conservation status, and probability of occurring (Tables D.4-2 and D.4-3). Of these, 62 were eliminated from further consideration because they are generally recognized not to occur in the vicinity, because the proposed subtransmission line route is not within the species' known tolerances (e.g., elevation, etc.), or because of a lack of suitable habitat or microhabitat features. Additional information about these species is included in the technical studies for the Project (Appendicies A though H in the Final EIR). Expanded species descriptions are provided for species known to inhabit the Project site and those for which reviewing agencies are known to have particular concern.

Special Status Wildlife Species

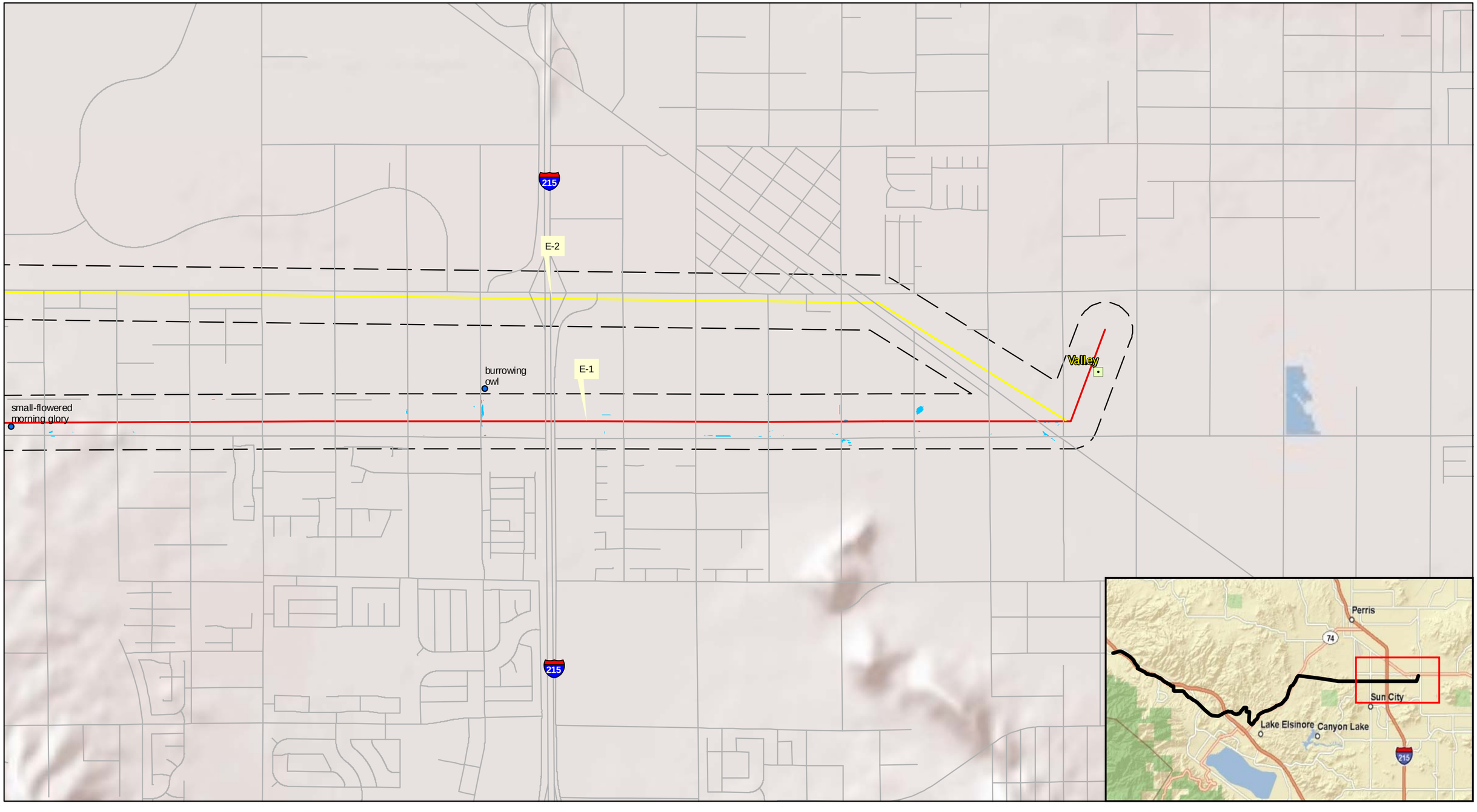
Stephens' kangaroo rat (*Dipodomys stephensi*)
Stephens' kangaroo rat is listed as a federally endangered and state threatened species as well as an MSHCP Covered Species. The CNDDB identifies a historic occurrence of this species along Segments E-1, C-6, C-1, and W-10 within nonnative grassland habitat. Field surveyors identified sign for the Stephen's kangaroo rat in Segment C-6 (AMEC 2006A). Additionally, most of the proposed and alternative routes fall within an area designated in the Habitat Conservation Plan for the Stephen's Kangaroo Rat as a Stephens' Kangaroo Rat Fee Area (Riverside County Habitat Conservation Agency 2010). A majority of the Project areas are occupied by open grasslands or sparse scrublands on gentle slopes that fit the habitat suitability criteria for this species.

Orange-throated whiptail (Aspidoscelis *(Cnemidophorus) hyperythra beldingi)*
Orange-throated whiptail is a federally and state listed species of special concern and MSCHP Covered Species. Two historic CNDDB records were found for this species along Segments E-1, C-1, C-6, W-4, and W-10 within disturbed habitat.

Western spadefoot toad (*Scaphiopus hammondii*)
The western spadefoot toad is a state listed species of special concern and a MSCHP Covered Species. Juvenile western spadefoot toads were identified along Segment W-1 within three artificial pools located within Pacific Clay Products, Inc. property. Other areas along this segment containing ponded or pooled areas void of fish, bullfrogs, and crayfish may support breeding habitat for this species (AMEC 2006a).

Northern red diamond rattlesnake (*Crotalus ruber ruber*)
Northern red diamond rattlesnake is a state listed species of special concern and MSCHP Covered Species. One historic CNDDB occurrence was found for this species within proximity to the northern section of Segment C-1.

San Diego Coast horned lizard (*Phrynosoma coronatum (blainvillii)*)
San Diego Coast horned lizard is a state listed species of special concern and MSCHP Covered Species. Two historic CNDDB occurrences were found for this species within proximity to the southern section of Segment C-1.



Legend

- Special Status Species (AMEC 2006)
- Fogarty Special Status Species (AMEC 2006)
- Special Status Species (Entrix 2006)
- Least Bell's Vireo (AMEC 2007)
- Special Status Species (AMEC 2008 / 2009)
- Vernal Pools (AMEC 2009)
- Tarplant (AMEC 2009)
- Proposed Route Segment
- Alternative Route Segment
- Transmission Nodes
- Substations
- 500-ft Buffer

1:20,000

0.25 0.5 1

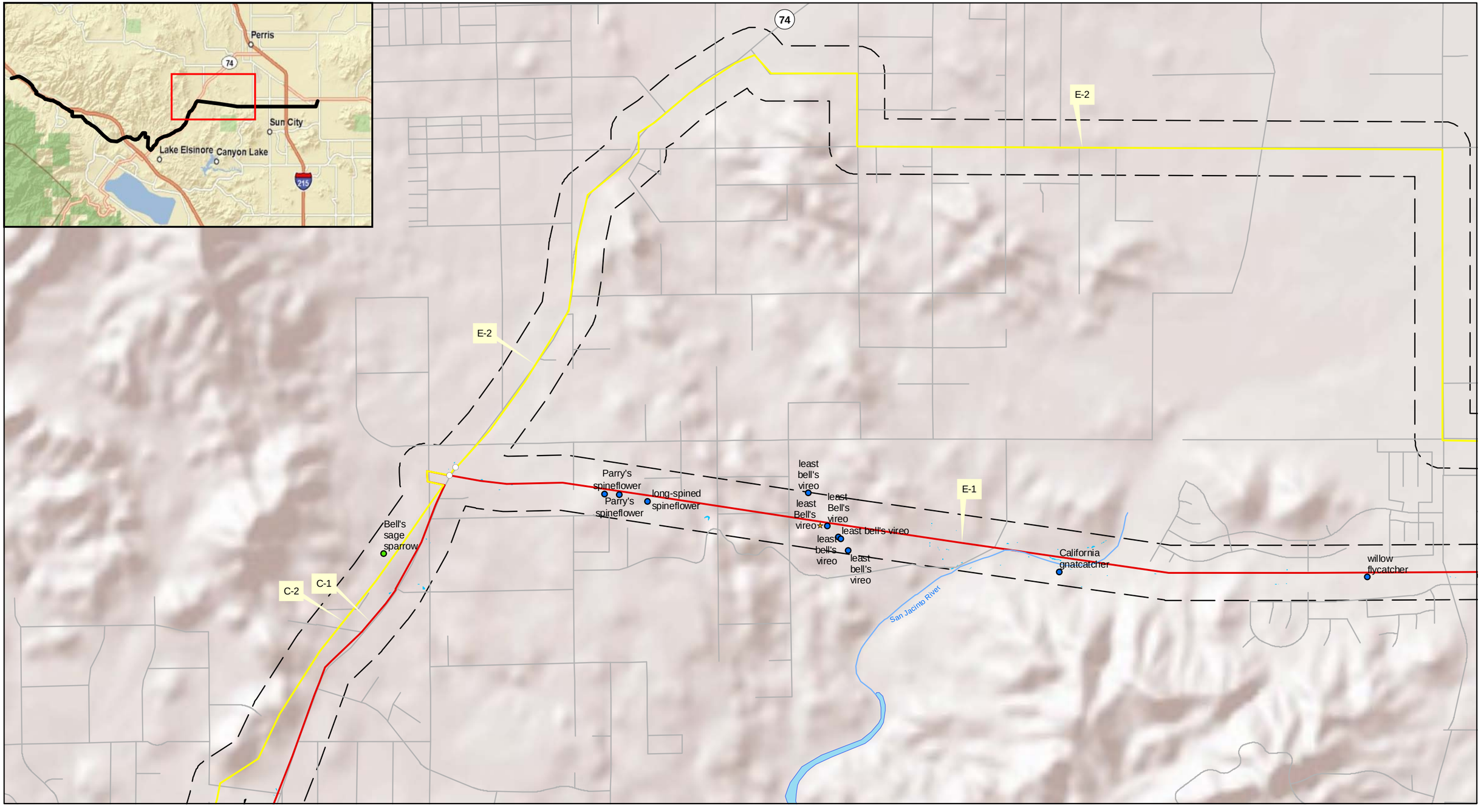
Miles

Figure D.4-4

Sensitive Habitats and Special Status Species Occurrences (Surveys)

Map 1 of 5

This page intentionally left blank



Legend

- Special Status Species (AMEC 2006)
- Fogarty Special Status Species (AMEC 2006)
- Special Status Species (Entrix 2006)
- Least Bell's Vireo (AMEC 2007)
- Special Status Species (AMEC 2008 / 2009)
- Vernal Pools (AMEC 2009)
- Tarplant (AMEC 2009)
- Proposed Route Segment
- Alternative Route Segment
- Transmission Nodes
- Substations
- 500-ft Buffer

1:20,000

0.25 0.5 1

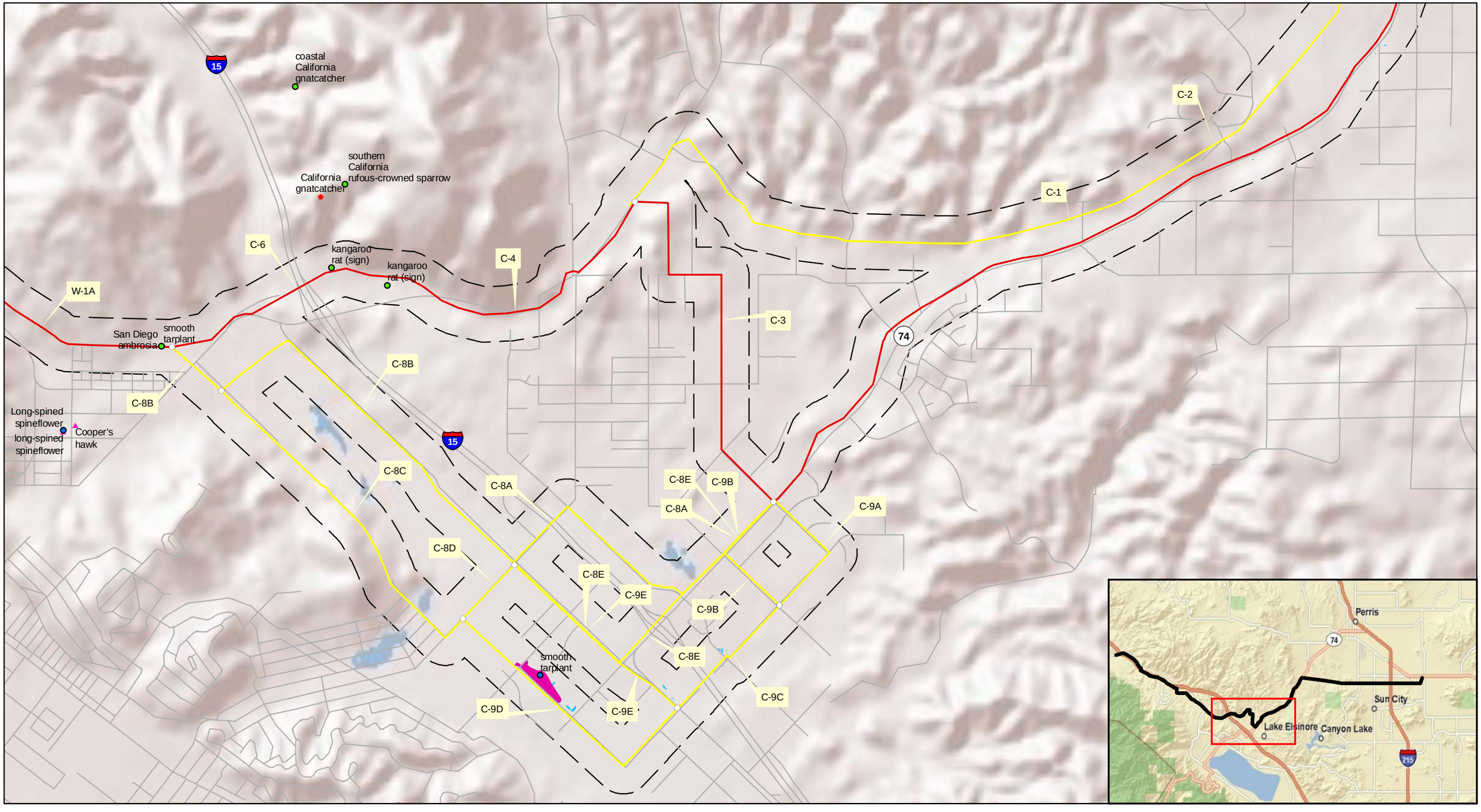
Miles

Figure D.4-5

Sensitive Habitats and Special Status Species Occurrences (Surveys)

Map 2 of 5

This page intentionally left blank



Legend

- Special Status Species (AMEC 2006)
- Fogarty Special Status Species (AMEC 2006)
- Special Status Species (Entrix 2006)
- Least Bell's Vireo (AMEC 2007)
- Special Status Species (AMEC 2008 / 2009)
- Vernal Pools (AMEC 2009)
- Tarplant (AMEC 2009)
- Proposed Route Segment
- Alternative Route Segment
- Transmission Nodes
- Substations
- 500-ft Buffer

1:20,000

0.25 0.5 1

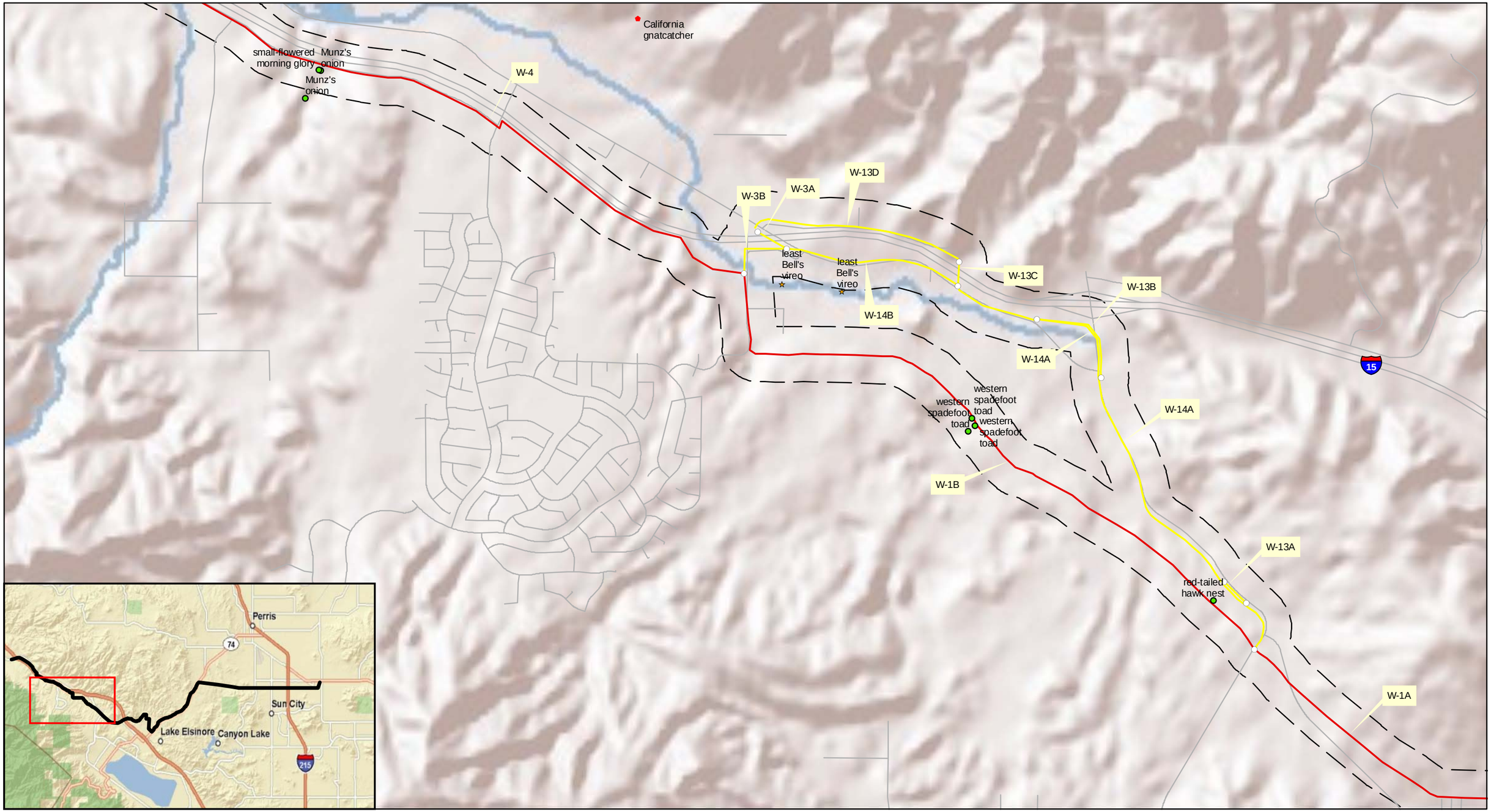
Miles

Figure D.4-6

Sensitive Habitats and Special Status Species Occurrences (Surveys)

Map 3 of 5

This page intentionally left blank



Legend

- Special Status Species (AMEC 2006)
- Fogarty Special Status Species (AMEC 2006)
- Special Status Species (Entrix 2006)
- Least Bell's Vireo (AMEC 2007)
- Special Status Species (AMEC 2008 / 2009)
- Vernal Pools (AMEC 2009)
- Tarplant (AMEC 2009)
- Proposed Route Segment
- Alternative Route Segment
- Transmission Nodes
- Substations
- 500-ft Buffer

1:20,000

0.25 0.5 1

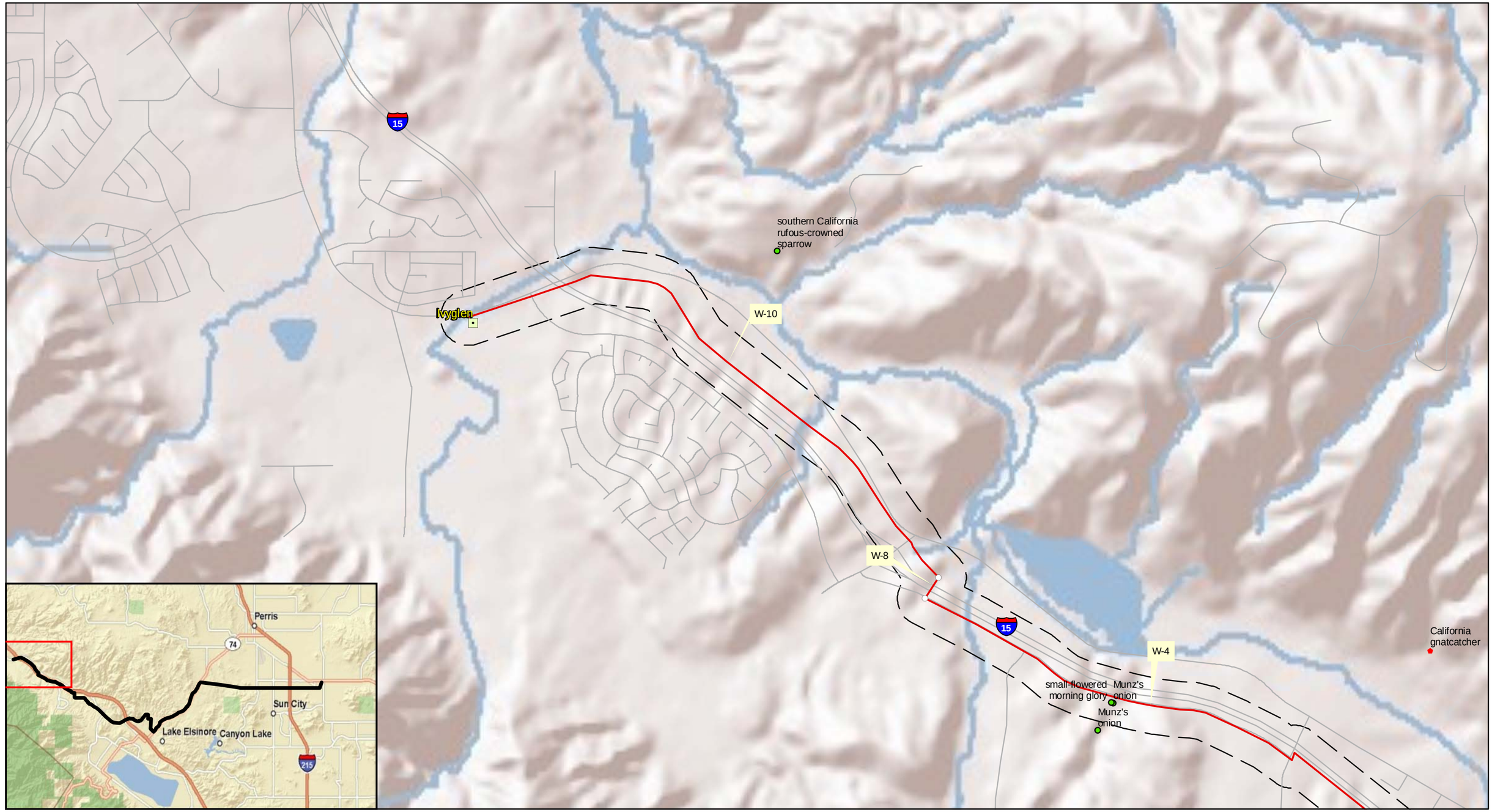
Miles

Figure D.4-7

Sensitive Habitat and Special Status Species Occurrences (Surveys)

Map 4 of 5

This page intentionally left blank



Legend

- Special Status Species (AMEC 2006)
- Fogarty Special Status Species (AMEC 2006)
- Special Status Species (Entrix 2006)
- Least Bell's Vireo (AMEC 2007)
- Special Status Species (AMEC 2008 / 2009)
- Vernal Pools (AMEC 2009)
- Tarplant (AMEC 2009)
- Proposed Route Segment
- Alternative Route Segment
- Transmission Nodes
- Substations
- 500-ft Buffer

1:20,000

0.25 0.5 1

Miles

Figure D.4-8

Sensitive Habitat and Special Status Species Occurrences (Surveys)

Map 5 of 5

This page intentionally left blank

Table D.4-2 Special Status Wildlife Species Known to Occur or with the Potential to Occur within the Project Area

Scientific Name	Common Name	Status			Habitat	Potential to Occur	
		Federal	State	MSHCP		Valley-Ivyglen	Fogarty
Mammals							
Antrozous pallidus	Pallid bat		SSC		Grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests; most common in open, dry habitats with rocky areas for roosting	High foraging, low roosting	High foraging, low roosting
Chaetodipus californicus femoralis	Dulzura California pocket mouse		SSC		Scrub/grassland interface; also woodlands and chaparral	Moderate	Moderate
Chaetodipus fallax fallax	Northwestern San Diego Pocket Mouse		SSC	Covered Species	Sage scrub, grassland, desert scrub	Moderate	Moderate
Dipodomys stephensi	*Stephens' Kangaroo Rat*	*E*	*T*	*Covered Species*	*Grasslands with sparse to no shrub cover*	*Present (Surveys)*	Low
Eumops perotis	Western Mastiff Bat		SSC		Areas of chaparral or live oaks and in more arid, rocky regions.	Moderate	Low
Lasiurus blossevillii	Western red bat		SSC		Roosts in forests and woodlands from sea level up through mixed conifer forests; feeds in grasslands, shrublands, open woodlands and forests, and croplands	High foraging, low roosting	High foraging, low roosting
Lasiurus xanthinus	Western yellow bat		SSC* CNDDB		Valley foothill riparian, desert riparian, desert wash, and palm oasis	Moderate foraging	Low
Lepus californicus bennettii	San Diego Black-Tailed Jackrabbit		SSC	Covered Species	Scrub/grassland interface	Moderate	High
Myotis yumanensis	Yuma myotis		CNDDB		Various habitats from sea level to 11,000 feet; roosts in buildings, mines, caves, or crevices	High foraging, low roosting	High foraging, low roosting
Neotoma lepida intermedia	San Diego Desert Woodrat		SSC	Covered Species	Cactus thickets, chaparral, sage scrub	High	Low

Table D.4-2 Special Status Wildlife Species Known to Occur or with the Potential to Occur within the Project Area

Scientific Name	Common Name	Status			Habitat	Potential to Occur	
		Federal	State	MSHCP		Valley-Ivyglen	Fogarty
Nyctinomops femorosaccus	Pocketed free-tailed bat		SSC		Pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis	Low	Low
Onychomys torridus ramona	Southern Grasshopper Mouse		SSC		Abandoned rodent burrows in low to moderate shrub cover	High, CNDDB occurrence within one mile	Moderate
Perognathus longimembris brevinasus	Los Angeles Pocket Mouse		SSC	Covered Species	Narrow coastal plains	Moderate	Low
Taxidea taxus	American badger		SSC		Drier open stages of most shrub, forest, and herbaceous habitats, with friable soils	Low	Low
Birds							
Accipiter cooperii	*Cooper's Hawk (nesting)*		*SSC*	*Covered Species*	*Oak woodland, eucalyptus, mature riparian forest*	*Present (Surveys) potential nesting*	*Present (Surveys)*
Accipiter striatus	Sharp-Shinned Hawk (nesting)		SSC	Covered Species	Grasslands, coastal sage scrub	Moderate (foraging winter migrant)	Moderate (foraging winter migrant)
Agelaius tricolor	Tri-Colored Blackbird (Nesting Colony)	FBCC	SSC	Covered Species	Marshes, fields	High, CNDDB occurrence within one mile	Low foraging, no nesting
Aimophila ruficeps canescens	*Southern California Rufous-Crowned Sparrow*		*SSC*	*Covered Species*	*Open coastal sage scrub*	*Present (Surveys) potential nesting*	High
Amphispiza belli belli	*Bell's Sage Sparrow (nesting)*	*FBCC*	*SSC*	*Covered Species*	*Coastal sage scrub, chaparral*	*Present (Surveys) potential nesting*	Moderate
Aquila chrysaetos	Golden Eagle (nesting and wintering)	FBCC BEPA	SSC CFP	Covered Species	Grasslands, trees, cliffs, scrub featuring suitable prey species such as ground squirrels, rabbits, and jackrabbits.	Moderate (foraging)	Moderate (foraging)

Table D.4-2 Special Status Wildlife Species Known to Occur or with the Potential to Occur within the Project Area

Scientific Name	Common Name	Status			Habitat	Potential to Occur	
		Federal	State	MSHCP		Valley-Ivyglen	Fogarty
Athene cunicularia	Western Burrowing Owl (burrowing sites and some wintering sites)	FBCC	SSC	Covered Species	Open, grasslands with sparse shrub and tree cover, and featuring burrowing mammals such as ground squirrels, badgers, or coyotes.	Present (CNDDB and 2009 Surveys) potential nesting (e.g., ground squirrel burrows present)	High, potential nesting (ground squirrel burrows present)
Buteo regalis	Ferruginous Hawk (wintering)	FBCC	SSC	Covered Species	Grasslands, shrublands, and savannahs featuring suitable prey including small mammals, ground squirrels, rabbits, and jackrabbits.	Moderate, uncommon winter visitor could forage in study area	Moderate, uncommon winter visitor could forage in study area
Circus cyaneus	Northern Harrier (nesting)	MBTA	SSC	Covered Species	Grasslands, marshes, open habitats	Moderate, potential nesting	Moderate
Elanus leucurus	White-Tailed Kite (nesting)		CFP	Covered Species	Grasslands, marshlands, shrublands, and sparse forests; forages and nests in open habitats with perches often in clearings and at edges of open fields.	High, CNDDB occurrence within one mile, potential nesting	Moderate foraging, potential nesting
Empidonax traillii extimus	Southwestern Willow Flycatcher (nesting)	*E*	*E*	Covered Species	Well developed riparian woodland, willow meadows	High/Present (Surveys) – Likely observed during surveys	Low, potential nesting
Eremophila alpestris actia	California Horned Lark		SSC	Covered Species	Open habitats including grasslands, agricultural areas (crops and rangelands), and bare ground	High, CNDDB occurrence within one mile	Low, potential limited by high weedy growth
Icteria virens	Yellow-Breasted Chat (nesting)		SSC	Covered Species	Mature riparian woodland	Present (CNDDB)	Low
Lanius ludovicianus	Loggerhead Shrike (nesting)	FBCC	SSC	Covered Species	Open habitats, scrub	High, potential nesting	High, potential nesting
Plegadis chihi	White-Faced Ibis (rookery site)		SSC	Covered Species	Freshwater lagoons, rivers, lakes, wet agricultural fields, and occasionally salt marshes	Moderate	Low
Polioptila californica californica	*Coastal California Gnatcatcher*	*T*	*SSC*	*Covered Species*	*Coastal sage scrub*	*Present (Surveys) potential nesting*	High, potential nesting

Table D.4-2 Special Status Wildlife Species Known to Occur or with the Potential to Occur within the Project Area

Scientific Name	Common Name	Status			Habitat	Potential to Occur	
		Federal	State	MSHCP		Valley-Ivyglen	Fogarty
Vireo bellii pusillus	Least Bell's Vireo	E FBCC	E	Covered Species	Riparian scrub and low woodland	Present (Surveys) potential nesting	Low
Reptiles							
Aspidoscelis (Cnemidophorus) hyperythra beldingi	Belding's Orange-Throated Whiptail		SSC	Covered Species	Open sage scrub, chaparral, sandy wash, woodland	Present (CNDDB)	High, CNDDB occurrence within one mile
Aspidoscelis (Cnemidophorus) tigris stejnegeri	Coastal Western Whiptail		CNDDB	Covered Species	Dense chaparral and sage scrub, especially around sandy washes and streambeds	Moderate	Low
Charina (Lichanura) trivirgata roseofusca	Coastal Rosy Boa		CNDDB		Dry, rocky brushlands and arid habitats; prefers rock outcrops	High, CNDDB occurrence within one mile	Moderate
Actinemys (*Clemmys*) *marmorata pallida*	Southwestern Pond Turtle		SSC	Covered Species	Streams, ponds, upland within 400 meters of ponds	Moderate (in the vicinity of ponded water)	Low
Coleonyx variegatus abbottii	San Diego Banded Gecko		CNDDB	Covered Species	Coastal sage scrub and chaparral, prefers rock outcrops	Moderate	Low
Crotalus ruber ruber	Northern Red Diamond Rattlesnake		SSC	Covered Species	Scrub, chaparral, riparian	Present (CNDDB)	Low
Phrynosoma coronatum (blainvillii)	Coast (San Diego) Horned Lizard		SSC	Covered Species	Sage scrub, chaparral, forests	Present (CNDDB)	High
Salvadora hexalepis virgultea	Coast Patch-Nosed Snake		SSC		Open habitats, brush	Moderate	Moderate
Thamnophis hammondi	Two-Striped Garter Snake		SSC		Creeks and ponds, nearby upland habitats	Moderate	Low
Amphibians							
Bufo californicus	Arroyo Toad	E	SSC	Covered Species	Open, sandy or gravelly, riparian breeding areas and adjacent upland habitat within approximately 1 kilometer of breeding areas	Moderate	Low
Spea (Scaphiopus) hammondii	*Western Spadefoot Toad*		*SSC*	*Covered Species*	*Ephemeral pools, grassland, scrub, chaparral*	*Present (Surveys)*	Low

Table D.4-2 Special Status Wildlife Species Known to Occur or with the Potential to Occur within the Project Area

Scientific Name	Common Name	Status			Habitat	Potential to Occur	
		Federal	State	MSHCP		Valley-Ivyglen	Fogarty
Taricha torosa torosa	Coast Range Newt		SSC	Covered Species	Wet forests, oak forests, chaparral, and rolling grasslands	Moderate	Moderate
Invertebrates							
Branchinecta lynchi	Vernal Pool Fairy Shrimp	T		Covered Species	Seasonal, shallow depressions and vernal pools; cool-water pools needed.	Moderate	Low
Carolella busckana	Busck's Gallmoth		CNDDB		Unknown	Unknown	Unknown
Ceratochrysis longimala	A cuckoo wasp – no common name		CNDDB		Unknown	Unknown	Unknown
Euphydryas editha quino	Quino Checkerspot Butterfly	E		Covered Species	Grasslands, sage scrub, chaparral with open areas	Moderate	Low
Streptocephalus woottoni	Riverside Fairy Shrimp	E		Covered Species	Seasonal, deeper depressions and vernal pools; minimum size of habitat is 30 centimeters deep and 750 square meters in size.	Moderate	Low

Sources: CDFG 2005, 2008, 2008b, and 2008c, AMEC 2006A, County of Riverside 2003

E = Endangered
T = Threatened
var. = variety
sp. = species
spp. = species (plural)
ssp. = subspecies
SSC = California Species of Special Concern
CFP = California Fully Protected
FBCC = Federal Bird of Conservation Concern
BEPA = Bald and Golden Eagle Protection Act
CNDDB = California Natural Diversity Database species

MSHCP = Riverside County Multiple Species Habitat Conservation Plan
covered Species = Species considered for conservation in the MSHCP which may be subject to conservation requirements and objectives outlined in the MSHCP

*Designation is based on the draft updated Mammalian Species of Special Concern report

Bold Text = CNDDB Occurrence
Bold Italics = Observed During Biological Survey

Table D.4-3 Special Status Plant Species Known to Occur or with the Potential to Occur within the Project Area

Scientific Name	Common Name	Status				Bloom Period	Habitat	Potential to occur	
		Federal	State	CNPS	MSHCP			Ivyglen	Fogarty
Abronia villosa var. aurita	Chaparral sand-verbena			1B.1		Jan-Sept	Chaparral, coastal scrub, desert dunes/sandy	Present (CNDDB)	Moderate, habitat present
Allium munzii	*Munz's onion*	*E*	*T*	*1B.1*	*Narrow Endemic*	*Mar-May*	*Chaparral, cismontane, woodland coastal scrub, pinyon/juniper woodland, valley and foothill grassland/mesic, clay*	*Present (Surveys)*	Moderate, habitat present
Ambrosia pumila	*San Diego ambrosia*	*E*		*1B.1*	*Narrow Endemic*	*May-Sept*	*Chaparral, coastal scrub, valley and foothill grassland, vernal pools. often in disturbed areas*	*Present (Surveys)*	High, CNDDB occurrence within one mile
Arctostaphylos rainbowensis	Rainbow manzanita			1B.1	Covered Species	Jan-Feb	Chaparral	Low	Low
Astragalus pachypus var. jaegeri	Jaeger's milk-vetch			1B.1	Covered Species	Dec-Apr	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/sandy or rocky.	Moderate, habitat present	Moderate, habitat present
Atriplex coronata var. notatior	San Jacinto Valley crownscale	*E*		1B.1	Criteria Species	Apr-Aug	Playas, valley and foothill grassland (mesic), vernal pools/alkaline	Present (CNDDB)	High, CNDDB occurrence within one mile
Atriplex coulteri	Coulter's saltbush			1B.2		Mar-Oct	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland/alkaline or clay	High, alkaline soils present	High, alkaline soils present
Atriplex pacifica	South Coast saltscale			1B.2		Mar-Oct	Coastal bluff scrub, coastal dunes, coastal scrub, playas	Moderate, habitat present	Moderate, habitat present
Atriplex parishii	Parish's brittlescale			1B.1	Criteria Species	Jun-Oct	Coastal scrub, playas, vernal pools	Moderate, habitat present	Moderate, habitat present
Atriplex serenana var. davidsonii	Davidson's saltscale			1B.2	Criteria Species	Apr-Oct	Coastal bluff scrub, coastal scrub/alkaline	High, alkaline soils present	High, alkaline soils present

Table D.4-3 Special Status Plant Species Known to Occur or with the Potential to Occur within the Project Area

Scientific Name	Common Name	Status				Bloom Period	Habitat	Potential to occur	
		Federal	State	CNPS	MSHCP			Ivyglen	Fogarty
Brodiaea filifolia	Thread-leaved brodiaea	T	E	1B.1	Criteria Species	Mar-Jun	Chaparral, cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools/often clay	Present (CNDDB)	Moderate, habitat present
Brodiaea orcuttii	Orcutt's brodiaea			1B.1	Covered Species	May-July	Closed cone coniferous forest, chaparral, cismontane woodland, meadows, valley and foothill grassland, vernal pools/mesic, clay, sometimes serpentine	Moderate, habitat present	Moderate, habitat present
California macrophylla	Round-leaved filaree			1B.1	Criteria Species	Mar-May	Cismontane woodland, valley and foothill grassland/clay	Present (CNDDB)	Moderate, habitat present
Calochortus plummerae	Plummer's mariposa lily			1B.2	Covered Species	May-July	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland/granitic, rocky	Moderate, habitat present	Moderate, habitat present
Calochortus weedii var. intermedius	Intermediate mariposa lily			1B.2	Covered Species	May-July	Chaparral, coastal scrub, valley and foothill grassland/rocky	Moderate, suitable habitat exists	Moderate, habitat present
Centromadia pungens ssp. Laevis	*Smooth tarplant*			*1B.1*	*Criteria Species*	*Apr-Sept*	*Chenopod scrub, meadows, playas, riparian woodland, valley and foothill grassland*	*Present (Surveys)*	Moderate, habitat present
Chorizanthe parryi var. parryi	Parry's spineflower			3.2	Covered Species	Apr-Jun	Chaparral, coastal scrub/sandy or rocky openings	Present (CNDDB and 2009 Surveys)	Moderate, habitat present
Chorizanthe polygonoides var. longispina	*Long-spined spineflower*			*1B.2*	*Covered Species*	*April-July*	*Chaparral, coastal scrub, meadows, valley and foothill grassland/often clay*	*Present (Surveys)*	*Present (Surveys)*
Comarostaphylis diversifolia ssp. diversifolia	Summer holly			1B.2		April-June	Chaparral at 100–550 m	Low	Low

Table D.4-3 Special Status Plant Species Known to Occur or with the Potential to Occur within the Project Area

Scientific Name	Common Name	Status				Bloom Period	Habitat	Potential to occur	
		Federal	State	CNPS	MSHCP			Ivyglen	Fogarty
Convolvulus simulans	*Small-flowered morning glory*			*4.2*	*Covered Species*	*Mar-July*	*Chaparral (openings), coastal scrub, valley and foothill grassland/clay, serpentine seeps*	*Present (Surveys)*	Moderate, habitat present
Cupressus forbesii	Tecate cypress			1B.2		n/a	Chaparral, closed-cone pine forest at 450–1500 meters	Low	Low
Dodecahema leptoceras	Slender-horned spineflower	E	E	1B.1	Narrow Endemic	Apr-Jun	Chaparral, cismontane woodland, coastal scrub/(alluvial fan)/sandy	Present (CNDDB)	Moderate, habitat present
Dudleya cymosa ssp. ovatifolia	Santa Monica Mountains dudleya	T		1B.2		Mar-Jun	Chaparral, coastal scrub	Moderate, habitat present	Moderate, habitat present
Dudleya multicaulis	Many-stemmed dudleya			1B.2	Narrow Endemic	Apr-Jul	Chaparral, coastal scrub, valley and foothill grassland/often clay	Present (CNDDB)	Moderate, habitat present
Dudleya viscida	Sticky dudleya			1B.2	Covered Species	May-Jun	Coastal bluff scrub, chaparral, coastal scrub/rocky	Low, no habitat present	Low, no habitat present
Eryngium aristulatum var. parishii	San Diego button-celery	E	E	1B.1	Covered Species	Apr-Jun	Coastal scrub, valley and foothill grassland, vernal pools/mesic	Moderate, habitat present	Low, no habitat present
Harpagonella palmeri	Palmer's grapplinghook			4.2	Covered Species	Mar-May	Chaparral, coastal scrub, valley and foothill grassland/clay	Present (CNDDB)	Moderate, habitat present
Hordeum intercedens	Vernal barley			3.2	Covered Species	Mar-Jun	Coastal dunes, coastal scrub, valley and foothill grassland, vernal pools	Moderate, habitat present	Moderate, habitat present
Horkelia cuneata ssp. Puberula	Mesa horkelia			1B.1		Feb-Sept	Chaparral, cismontane woodland, coastal scrub/sand, gravelly	Moderate, habitat present	Moderate, habitat present
Lasthenia glabrata ssp. coulteri	Coulter's goldfields			1B.1	Criteria Species	Feb-Jun	Marsh and swamp (coastal salt), playas, vernal pools	Present (CNDDB)	High, CNDDB occurrence within one mile
Lepidium virginicum var. robinsonii	Robinson's pepper-grass			1B.2	Covered Species	Jan-July	Chaparral, coastal scrub	Moderate, habitat present	Moderate, habitat present

Table D.4-3 Special Status Plant Species Known to Occur or with the Potential to Occur within the Project Area

Scientific Name	Common Name	Status				Bloom Period	Habitat	Potential to occur	
		Federal	State	CNPS	MSHCP			Ivyglen	Fogarty
Monardella macrantha spp. hallii	Hall's monardella			1B.3	Covered Species	Jun-Aug	Broad-leafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland	Moderate, habitat present	Low, no habitat present
Myosurus minimus ssp. Apus	Little mousetail			3.1	Criteria Species	Mar-Jun	Valley and foothill grassland, vernal pools (alkaline)	Moderate, mesic alkaline soils present	Moderate, habitat present
Navarretia fossalis	Spreading navarretia	T		1B.1	Narrow Endemic	Apr-Jun	Chenopod scrub, marsh and swamp (shallow fresh water), alkali playas, vernal pools	Moderate, mesic alkaline soils present	Moderate, habitat present
Navarretia prostrata	Prostrate navarretia			1B.1	Criteria Species	Apr-July	Coastal scrub, meadows, valley and foothill grassland, (alkaline), vernal pools/mesic	Moderate, mesic alkaline soils present	Moderate, mesic alkaline soils present nearby
Nolina cismontana	Chaparral nolina			1B.2		May-July	Chaparral, coastal scrub/sandstone or gabbro	Moderate, habitat present	Moderate, habitat present
Satureja chandleri	San Miguel savory			1B.2	Narrow Endemic	Mar-July	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland/rocky, gabbroic or metavolcanic	Moderate, habitat present	Moderate, habitat present
Senecio aphanactis	Rayless ragwort			2.2		Jan-Apr	Chaparral, cismontane woodland, coastal scrub/alkaline	Moderate, habitat present	Moderate, habitat present
Sibaropsis hammittii	Hammitt's clay-cress			1B.2		Mar-Apr	Chaparral, valley and foothill grassland	Moderate, habitat present	Low, no habitat present
Sidalcea neomexicana	Salt spring checkerbloom			2.2	Covered Species	Mar-Jun	Chaparral, coastal scrub, lower montane coniferous forest, Mojave desert scrub, playas/alkaline, mesic	High, alkaline soils present	High, alkaline soils present
Sphaerocarpos drewei	Bottle liverwort			1B.1		n/a	Chaparral, coastal scrub/opening, soil	Moderate, habitat present	Moderate, habitat present

Table D.4-3 Special Status Plant Species Known to Occur or with the Potential to Occur within the Project Area

Scientific Name	Common Name	Status				Bloom Period	Habitat	Potential to occur	
		Federal	State	CNPS	MSHCP			Ivyglen	Fogarty
Symphyotrichum defoliatum	San Bernardino aster			1B.2		Jul-Nov	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows, marsh and swamp, valley and foothill grassland (vernally mesic)/near ditches, streams, springs	Moderate, habitat present	Moderate, habitat present
Tetracoccus dioicus	Parry's tetracoccus			1B.2		Apr-May	Chaparral, coastal scrub	Moderate, habitat present	Moderate, habitat present
Tortula californica	California screw moss			1B.2		n/a	Chenopod scrub, valley and foothill grassland/sandy soil	Moderate, habitat present	Low, no habitat present
Trichocoronis wrightii var. wrightii	Wright's trichocoronis			2.1	Narrow Endemic	May-Sept	Meadows, marsh and swamp riparian forest, vernal pools/alkaline	High, alkaline soils present	High, alkaline soils present

Sources: CNPS 2006, CDFG 2005, 2008a and 2008b, AMEC 2006A, County of Riverside 2003, EDAW 2001

E = Endangered
T = Threatened
var. = variety
sp. = species
spp. = species (plural)
ssp. = subspecies

MSHCP = Riverside County Multiple Species Habitat Conservation Plan
Criteria Species = Species which need to be surveyed for in MSHCP criteria areas
Narrow Endemic = Species that is confined to a specific geographic region, soil type, and/or habitat
Covered Species = Species considered for conservation in the MSHCP which may be subject to conservation requirements and objectives outlined in the MSHCP
CNDDB = California Natural Diversity Database species

CNPS Status
1B = Rare or endangered in California and elsewhere
2 = Rare or endangered in California, but more common elsewhere
3 = Review list-plant for which we need more information
4 = Plants with limited Distribution- Watch List
.1 = Seriously endangered in California
.2 = Fairly endangered in California
.3 = Not very endangered in California

Bold Text = CNDDB Occurrence
Bold Italics = Observed During Biological Survey

Bells' sage sparrow (*Amphispiza belli belli*)
The CNDDB identifies an occurrence of this species adjacent to Segment E-1 within disturbed coastal sage scrub habitat. AMEC (2006a) found this species during field surveys on the northwestern edge of the C-1 segment. Other areas within the Project boundary that are occupied by semi-open coastal sage scrub habitat may also support this species.

Coastal California gnatcatcher *(Polioptila californica californica)*
The Coastal California gnatcatcher is a federally listed threatened, state listed species of special concern, MSHCP Covered Species. The CNDDB identifies numerous historic occurrences of coastal California gnatcatcher within disturbed habitat along and adjacent to Segments E-1, C-1, C-3, and W-10. Gnatcatchers were also identified during field surveys north of Segment C-4 and W-4, and near the San Jacinto River at Segment E-1 (AMEC 2006a; Donohue 2010). Areas along these segments that are occupied by various stages of coastal sage scrub may support nesting and foraging habitat for this species.

Cooper's hawk *(Accipiter cooperii)*
The Cooper's hawk is a state listed species of special concern and MSCHP Covered Species. Two historic CNDDB occurrences were found for this species within proximity to the southern section of Segment C-1. This species was also found in proximity to the Fogarty Substation during field surveys (AMEC 2006b).

Burrowing owl *(Athene cunicularia)*
The CNDDB recognizes historic occurrences of this species along Segments E-1 and C-1 within disturbed/developed and nonnative grassland habitats. Burrowing owl was observed during biological surveys on Segment E-1 (Figure D.4-4), and potential suitable burrows were observed throughout the western portions of the Project area, Segments E-1 and C-1 (AMEC 2007a, Donohue 2010, and Entrix 2006) Many areas within the route segments and at the Fogarty Substation that are occupied by open, nonnative grassland and agricultural fields may additionally support this species.

Southwestern willow flycatcher (*Empidonax traillii extimus*)
Southwestern willow flycatcher prefers well-developed, intact patches of riparian forest and sheltered wet meadows for foraging and nesting. Willow flycatchers were observed during field surveys of select riparian areas along the proposed route, although confirmation was not made that these were the species *Empidonax traillii extimus* (AMEC 2007b, AMEC 2009). Although confirmation of the species is not certain based on survey results, presence of the species is assumed in the San Jacinto River and Hostettler Road survey areas.

Yellow-breasted chat (*Icteria virens*)
Several CNDDB historic occurrences of this species are located north of Segment W-10 within riparian scrub. Other areas along this segment that are occupied by dense, riparian brush may also support this species.

Least Bell's vireo (*Vireo bellii pusillus*)
Several CNDDB historic occurrences of this species are located in close proximity to Segments E-1, C-1, W-8, and W-10 within riparian scrub. Additionally, this species was found during field surveys at the San Jacinto River and Hostettler Road riparian areas (AMEC 2007b, AMEC 2009).

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
A CNDDB historic occurrence of this species is located adjacent to Segment E-1 within disturbed coastal sage scrub habitat. This species was found during field surveys north of Segment C-4 and W-10 (AMEC

2006a). Other areas along this segment that are occupied by open coastal scrub on medium to steep slopes may also support this species.

Vernal Pool Fairy Shrimp (*Branchinecta lynchi*)
This species is endemic to California and has been found sporadically in a limited number of vernal pools in Western Riverside County in the Skunk Hollow, Santa Rosa Plateau, and San Jacinto-Hemet areas (USFWS 2007). There are no CNDDB records of this species occurring within the Project area, and the species was not located during first year protocol-level vernal pool surveys (AMEC 2010). While vernal pools within the Project area may provide suitable habitat, the chance of occurrence is considered moderate and absence in the Project Area cannot be assumed until second year surveys have been completed.

Riverside Fairy Shrimp (*Streptocephalus woottoni*)
There are no CNDDB records of this species occurring within the Project area, and the species was not located during first year protocol-level vernal pool surveys (AMEC 2010). While vernal pools within the Project area may provide suitable habitat, the chance of occurrence is considered moderate and absence in the Project Area cannot be assumed until second year surveys have been completed.

Special Status Vegetation

Many of the special status plants found within the Project area have specific and narrow habitat requirements, such as associations with specific soils or vegetation communities. This is true for those plants designated as Narrow Endemic and Criteria Area Survey Species by the MSHCP. Additionally, many of these species have specific physiological requirements, such as a need for certain amounts of rainfall and dry periods in order to bloom. Because one-time surveys often miss these species, the MSHCP advocates multiple-year surveys to adequately characterize presence/absence. Therefore, multi-year surveys were conducted for the Project; this analysis is based on those results.

Chaparral sand-verbena (*Abronia villosa var. aurita*)
The CNDDB identifies historic occurrences of this species adjacent to Segment W-4 and W-8 within disturbed coastal sage scrub. This species is commonly found in chaparral and coastal sage scrub and prefers sandy soils.

Thread-leaved brodiaea (*Brodiaea filifolia*)
This plant can be found on clay and alkaline-clay soils in low-slope hillsides, valleys, and floodplains, and is commonly associated with vernal pools, coastal sage scrub, mixed native-nonnative grassland, and alkali grassland. Historic occurrences of this species occur in proximity to Segments E-1 and E-2.

Parry's spineflower (*Chorizanthe parryi var. parryi*)
The CNDDB identifies a historic occurrence of this species adjacent to Segment E-1 within open disturbed coastal sage scrub habitat. Surveys conducted in 2009 also found this species on the western end of Segment E-1 (Figure D.4-5) (Donohue 2010).

Palmer's grapplinghook (*Harpagonella palmeri*)
Several CNDDB occurrences of this species were located on clay soils along Segments W-1 and W-4 in proximity to disturbed coastal sage scrub and nonnative grasslands.

Coulter's goldfields (*Lasthenia glabrata ssp. coulteri*)[3]
This species is commonly found in scrub, playas, vernal pools, and grasslands in association with alkali soils. The CNDDB identifies a historic occurrence of this species adjacent to Segment C-6 and C-8 within alkali marsh habitat.

Long-spined spineflower (*Chorizanthe polygonoides var. longispina*)
The CNDDB identifies a historic occurrence of this species adjacent to Segment W-1 within fairly open disturbed habitat. Other areas within and adjacent to this segment contain clay soils, a known habitat for this species. A population of this species was identified on the Fogarty Substation site, occupying approximately 0.25 acres on the eastern portion of the site (AMEC 2006b). The spineflower was also observed on the western end of Segment E-1 (Figure D.4-5) (Donohue 2010). Threats to the long-spined spineflower are mostly due to construction associated with urban sprawl (Skinner and Pavlik 1994).

Slender-horned spineflower (*Dodecahema leptoceras*)
Slender-horned spineflower is a small, spreading annual herb in the buckwheat family (*Polygonaceae*). This federally and state listed endangered species is endemic to California and occurs only in Los Angeles, Riverside, and San Bernardino Counties (CNPS 2006). It is also an MSHCP Narrow Endemic plant. A CNDDB historic occurrence of this species is located adjacent to Segment W-4. This species is commonly found in Riversidean alluvial fan sage scrub habitat as well as other areas occupied by sandy or gravelly alluvium.

Small-flowered morning glory (*Convolvulus simulans*)
Small-flowered morning glory is a CNPS listed and MSHCP Covered Species in the morning glory family (*Convolvulaceae*) that is restricted to clay soils and serpentine seeps and ridges, occurring below elevations of 700 meters (2296 feet) in southern valley needlegrass grassland, mixed native and nonnative grasslands, and open coastal sage scrub (County of Riverside 2003). Biologists identified populations of this species within clay soils associated with nonnative grassland along Segment W-4 and E-1 (AMEC 2008, Donohue 2010). Other areas along this segment associated with heavy clay soils may support this species.

Many-stemmed dudleya (*Dudleya multicaulis*)
Many-stemmed dudleya is a perennial herb in the stonecrop family (*Crassulaceae*) that is a CNPS listed and MSHCP Narrow Endemic species. The CNDDB identifies a historic occurrence of this species within nonnative grassland habitat that is underlain by clay soils. Other areas along Segment W-4 that are occupied by thinly vegetated lenses of clay soils may support this species. Riverside County has preserved a sizable population of the species within the Lake Mathews-Estelle Mountain Reserve. However, other populations are threatened by urban and transportation development as well as landfill expansion (Lab 2001).

Munz's onion (*Allium munzii*)
Munz's onion is a federally listed endangered and state listed threatened bulbforming perennial herb in the lily family (*Liliaceae*). Biologists identified two populations of Munz's onion along Segment W-4 within clay soils associated with coastal sage scrub and nonnative grassland habitat (AMEC 2006a and 2008). Several CNDDB historic occurrences are also located along this segment near these populations and in Segment W-1 located on clay soils.

[3] The abbreviation *ssp.* refers to the term *subspecies*. The abbreviation *var.* refers to the term *variety*.

San Diego ambrosia (*Ambrosia pumila*)
San Diego ambrosia is an herbaceous perennial that belongs to the sunflower family (*Asteraceae*). It is a federally listed endangered, CNPS listed, and MSHCP Narrow Endemic species. A historic occurrence of San Diego ambrosia is located along Segment C-6 within disturbed habitat. This population is in close proximity to the population of San Diego ambrosia that was identified within nonnative grassland habitat along Segment W-1 within Altamont cobbly clay soils (Entrix 2006 and AMEC 2008). The population located at W-1 has been identified by the MSHCP as a population needing to be conserved under the Plan (USFWS 2009).

Round-leaved filaree (*California macrophylla*)
Round-leaved filaree is a CNPS listed and MSHCP Criteria Area species in the geranium family (*Geraniaceae*) that is found throughout California. A historic CNDDB occurrence of this species is located along Segment W-4 within clay soils that are associated with coastal sage scrub habitat. Recent biological surveys along this segment did not identify this species; however, areas along this segment that occupy heavy clay soils with grassland or coastal sage scrub habitat may support this species.

San Jacinto Valley crownscale (*Atriplex coronata var. notatior*)
San Jacinto Valley crownscale is an annual herb in the goosefoot family (*Chenopodiaceae*). It is a CNPS listed and MSHCP Criteria Area species. San Jacinto Valley crownscale was not identified along Segment C-6 during recent surveys; however, the CNDDB identifies an occurrence of this species near this segment within alkali marsh habitat. Other areas along this segment, which are occupied by alkali soils, may support this species.

Smooth tarplant (*Centromadia pungens ssp. laevis*)
Smooth tarplant is an annual herb that is a CNPS listed and MSHCP Criteria Area species that belongs to the sunflower family (*Asteraceae*). This species is endemic to Southern California and is known to occur in Orange (extirpated), Riverside, San Bernardino, and San Diego Counties (County of Riverside 2003). A recent population of smooth tarplant was identified growing among San Diego ambrosia near the centerline of Segment W-1 and the terminus of Segment C-6 (Entrix 2006). This occurrence was within nonnative grassland habitat. This area is also occupied by Altamont clay soils, which are often associated with other special status species mentioned in this section (Entrix 2006). Another larger population of this species was found in Segment C-9, approximately 1.5 miles from the W-1/C-6 occurrence (Donohue 2010). The population is approximately 3.8 acres in size and approximately 50 feet from the centerline of the route.

Coastal Sage Scrub
Coastal sage scrub, a MSHCP covered vegetation community, is characterized by short (less than 2 meters) aromatic species of soft chaparral, such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), California encelia (*Encelia californica*), and several species of sage (e.g., *Salvia mellifera, S. apiana*) (Holland 1986, Sawyer-Wolf 1995). Riversidean alluvial fan sage scrub is a subcatergory of this vegetation community, which occurs in drier climates. This community is a sensitive resource associated with several sensitive flora and fauna species, including the coastal California gnatcatcher and Stephens' kangaroo rat (County of Riverside 2003). The range of coastal sage scrub has been constrained due to human activity such as increased urbanization and conversion for agriculture (Holland and Keil 1995). This community occurs throughout the Project area, along proposed and alternative segments.

Riparian/Wetland Communities
Riparian and wetland communities are characterized by vegetation uniquely specialized to withstand frequent inundation by water. Riparian vegetation, including forest, woodland, and scrub subtypes, is

distributed in waterways and drainages throughout much of western Riverside County. A riparian community may be dominated by any of several trees/shrubs, including box elder (*Acer negundo*), bigleaf maple (*Acer macrophyllum*), coast live oak (*Quercus agrifolia*), white alder (*Alnus rhombifolia*), sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii*), California walnut (juglans), Mexican elderberry (*Sambucus mexicana*), mule fat (*Baccharis salicifolia*), tamarisk (*Tamarix* spp.), or any of several species of willow (*Salix* spp.). In addition, various understory herbs may be present, such as saltgrass (*Distichlis spicata*), stinging nettle (*Urtica dioica*), and poison oak (*Toxicodendron diversilobum*) (County of Riverside 2003). Subcategories of these habitat types within the Project area include mule fat scrub, southern cottonwood/willow riparian woodland, and southern sycamore/alder riparian woodland. Riparian habitat occurs in the eastern, central, and western portions of the Project along the San Jacinto River and Temescal Wash (Figures D.4-1 through D.4-8).

Wetland vegetation communities, including vernal pools, wet meadows, and marsh, occur in both flowing and still water, and are scattered throughout the Project area. Vegetation within the more permanently inundated wetlands includes cattails (*Typha* spp.), bulrushes (*Scirpus* spp.), sedges (*Carex* spp.), smartweed (*Polygonum* spp.), and watercress (*Rorippa* spp.), and also contains perennial and biennial forbs and grasses (County of Riverside 2003). Vernal pools are seasonally inundated, and the plant species colonizing these pools include many of the listed perennial species from Table D.4-3 including Parish's brittlescale, thread-leaved brodiaea, Orcutt's brodiaea, vernal barley, Coulter's goldfields, little mousetail, spreading navarretia, and Wright's trichocoronis.

Both riparian/riverine areas and wetlands may provide suitable habitat for special status birds, amphibians, and invertebrates. As described in Section D.4.1.3, surveys were conducted in riparian habitat within the Project area that would be potentially suitable for special status birds. Additionally, vernal pools were assessed for habitat suitability and presence of special status vernal pool invertebrates (e.g., the vernal pool fairy shrimp and the Riverside fairy shrimp).

D.4.2 Applicable Regulations, Plans, and Standards (Revised)

This section provides an overview of the applicable laws, regulations, and standards that influence the management of biological resources at the federal, state, and local levels. Although some of these laws do not apply to the Project, they provide context in determining why some species are designated special status and, if not formally listed under regulations, are considered "sensitive." The regulations and standards listed in the next section provide a regulatory background for assessing the effects of the Project on biological resources.

D.4.2.1 Federal

Federal Endangered Species Act

The Endangered Species Act (ESA) was enacted to protect threatened and endangered (T&E) species from extinction throughout all or a portion of its known range. The ESA makes it unlawful for any governmental agency to harm a listed T&E species by organizing funding or carrying out actions that may affect the species itself or its known habitat. Doing so would be considered a "take" (i.e., harming, harassing, or wanton killing) of a listed species without permit. The USFWS maintains the list of protected species as well as acting as regulator and consultant.

Migratory Bird Treaty Act

The prohibition against "take" (i.e., killing, harassing, trapping, or attempting to do so) of native migratory bird species is provided for by the Migratory Bird Treaty Act (MBTA). The MBTA was

enacted in response to the declines of migratory bird populations from uncontrolled commercial uses. The current act is an international effort to protect migratory birds and bird parts, including eggs, young, nests, and feathers.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act of 1940, as amended, protects both the bald eagle and the golden eagle by prohibiting, except under certain specified conditions, the taking, possession, and commerce in such birds. This Act makes it illegal to take bald and golden eagles or to trade in eagle parts, eggs, or feathers. Take has been broadly interpreted to include altering or disturbing nesting habitat (USFWS 2007). Pursuant to the ESA, permits were formerly available to "take" bald eagles as part of otherwise lawful activities. When the bald eagle was removed from the ESA (i.e., "delisted") in June 2007, however, the provision for issuing permits for activities that would "disturb" or otherwise incidentally take eagles was eliminated.

The USFWS has since proposed regulations to create a permit provision to continue to provide protection for eagles while also authorizing limited take of eagles for situations where take occurs pursuant to otherwise lawful activities. On September 11, 2009, these regulations were formalized in a final ruling issued in the Federal Register (74 Federal Register 175). The ruling took effect on November 10, 2009. The regulations comprise a USFWS program that will allow the issuance of two new types of permits, one addressing take in the form of disturbance or actual physical take of eagles (50 CFR 22.26), and a second permit, which would provide for removal of nests (50 CFR 22.27). Most permits issued under the new regulations are expected to be those that would authorize disturbance, as opposed to physical take (e.g., take resulting in mortality). Permits for physical take will be issued in very limited cases only, where every precaution has been implemented to avoid physical take and where other restrictions and requirements will apply.

Clean Water Act

The Clean Water Act regulates restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. The Clean Water Act authorizes the United States Army Corps of Engineers (USACE) to require that projects falling within the jurisdiction of the Clean Water Act obtain a permit.

D.4.2.2 State

California Endangered Species Act

The California Endangered Species Act (CESA) establishes legal protection for T&E plants and wildlife under the guidance of the CDFG. The CDFG also identifies species of concern as those who may become listed as threatened or endangered due to loss of habitat, limited distributions, and diminishing population sizes, or because the species is deemed to have scientific, recreational, or educational value.

California Fish and Game Code, Sections 1600-1603

This statute regulates activities that would "substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of, or use material from the streambed of a natural watercourse" that supports fish or wildlife resources. A stream is defined as a body of water that flows at least periodically or intermittently through a bed or channel having banks that supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. A Streambed Alteration Agreement must be obtained for any project that would result

in an adverse impact to a river, stream, or lake. If fish or wildlife would be substantially adversely affected, an agreement to implement mitigation measures identified by the CDFG would be required.

California Fish and Game Code, Sections 3503 and 3503.5

CDFG Code Section 3503 specifies the following general provision for birds: "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season that results in the incidental loss of fertile eggs or nestlings, or otherwise leads to nest abandonment, is considered take. Disturbance that causes nest abandonment and/or loss of reproductive effort is also considered take by CDFG.

California Fish and Game Code, Sections 3511 and 5050

CDFG Section 3511 and 5050 prohibits the taking and possession of birds and reptiles listed as "fully protected." The administering agency is the CDFG.

CEQA Guidelines Section 15380

CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria.

D.4.2.3 Local

Native and Heritage Tree Ordinance

The County of Riverside has several tree protection regulations, such as the Riverside County Oak Tree Management Guidelines, which regulate the removal of native oak trees (County of Riverside 1993); the County of Riverside, Roadside Tree Ordinance No. 12.08, which regulates the removal of trees within County highway rights-of-way (ROWs); and the County of Riverside, Open Space and Conservation Element, 1996, which requires that any future development in an identified sensitive vegetation area (including oak woodlands) must be evaluated individually and cumulatively for potential impact on vegetation (County of Riverside 1993).

Western Riverside County Multiple Species Habitat Conservation Plan

The Project is in the coverage area of the Western Riverside County MSHCP, which serves as an HCP pursuant to Section 10(a)(1)(B) of the Endangered Species Act, as well as a National Communities Conservation Plan (NCCP) under the NCCP Act of 2001. The MSHCP, which was adopted by the County of Riverside on June 17, 2003, is one of several large, multi-jurisdictional habitat conservation planning efforts in Southern California with the overall goal of maintaining biological diversity within an urbanizing region. The MSHCP will allow Riverside County and participating cities to better control local land-use decisions and maintain a strong economic climate in the region while addressing the requirements of the ESA and CESA. The MSHCP provides a conservation area for 146 special status species, including federal and state listed endangered and threatened species, and provides incidental take permits for development projects that impact these Covered Species.

The MSHCP requires:

- Site-specific focused surveys for Narrow Endemic Plant Species and for all public and private projects where appropriate habitat is present;
- Surveys for Criteria Area Wildlife Species where suitable habitat is present;
- Site surveys of riparian, riverine, and vernal pool resources in order to conserve these resources and the species that use them;
- Habitat compensation measures in the event that sensitive habitat is removed or adversely affected during project construction; and
- Fee payment to the appropriate permit agency when work is conducted within certain jurisdictional areas of the MSHCP.

The Applicant has stated that they will apply to the Riverside County Authority (RCA) to become a Participating Special Entity (PSE) under the MSHCP for this Project. PSE compliance requires that the Project follow all of the applicable provisions of the MSHCP. Application to the RCA for PSE status will ensure that the Valley-Ivyglen Project has the appropriate mitigation measures in place, as well as take authorization from the USFWS and CDFG for potential impacts to biological resources.

It should be noted that a small portion of the Project is located on Pacific Clay Products land (i.e. Segment W-1B and a portion of W-4), which is not subject to MSHCP authority due to a previous legal settlement. Mitigation on these areas of the Project would not be subject to MSHCP policy, nor afforded MSHCP take authorization.

D.4.3 Project Impacts and Mitigation (Revised)

D.4.3.1 Significance Criteria

For the purposes of the following evaluation, the Project would cause a significant impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through modifications of the habitat of any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife 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 ordinance.

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Potential impacts are discussed according to these significance criteria. Each impact is categorized according to the following classifications:

Class III – Less than significant impact without mitigation measures
Class II – Less than significant impact after mitigation measures are implemented
Class I – Significant impact and no feasible mitigation measures are available

D.4.3.2 Applicant Proposed Measures

The following Applicant Proposed Measures (APMs) are submitted as part of the Project to reduce impacts to biological resources during Project construction, maintenance, and operation. These APMs will be monitored along with any proposed mitigation measures (MMs) by the CPUC.

BIO-APM 1: A qualified biologist will conduct a training session for Project personnel prior to grading. The training shall include a description of the species of concern and its habitats, the general provisions of applicable environmental regulations, the need to adhere to the provisions of the regulations, the penalties associated with violating the provisions of the regulations, the general measures that are being implemented to conserve the species of concern as they relate to the Project, and the access routes to and Project site boundaries within which the Project activities must be accomplished.

BIO-APM 2: Water pollution and erosion control plans shall be developed and implemented in accordance with Regional Water Quality Control Board (RWQCB) requirements.

BIO-APM 3: The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.

BIO-APM 4: Projects should be designed to avoid the placement of equipment and personnel within stream channels or on sand and gravel bars, banks, and adjacent upland habitats used by target species of concern.

BIO-APM 5: Projects that cannot be conducted without placing equipment or personnel in wildlife habitats would be timed to avoid breeding and other sensitive seasons if these species are found to be present.

BIO-APM 6: Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, USFWS, CDFG, and RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.

BIO-APM 7: Erodible fill material shall not be deposited into water courses. Brush, loose soils, or other similar debris shall not be stockpiled within the stream channel or on its banks.

BIO-APM 8: A qualified biologist shall monitor clearing and grubbing, grading, excavation, and soil movement activities for the Project to ensure that all practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the Project footprint.

BIO-APM 9: The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to preexisting contours and revegetated with appropriate native species.

BIO-APM 10: Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the Project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the Project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.

BIO-APM 11: The Permitter shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with project approval conditions including these BMPs.

BIO-APM 12: All subtransmission poles would be designed to be raptor-safe in accordance with the Suggested Practices for Raptors on Power Lines: State of the Art in 1996 (Avian Power Line Interaction Committee 1996).

BIO-APM 13: Prior to installation of the poles, a survey would be conducted to locate any raptor or raven nests occurring on the existing poles. If nests are found on poles planned for replacement or modification, the Applicant would suspend work until the nests are inactive.

BIO-APM 14: Construction work plans/schedules will be designed to minimize construction related noise in sensitive areas when feasible. In addition, all construction equipment will maintain functional exhaust/muffler systems and idling of motors shall be limited, except as necessary (e.g., concrete mixing trucks).

D.4.3.3 Impacts Analysis

Project impacts on biological resources are divided into four elements: Valley-Ivyglen 115 kV Subtransmission Line, Telecommunications System, Fogerty Substation, and Valley and Ivyglen Substation Improvements.

Impact BIO-1: Effects on Sensitive Biological Communities and Special Status Species

Project impacts would be significant if they would 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 the CDFG or USFWS. The types and acreages of disturbance impacts associated with the Project are provided in Table D.4-4.

Valley-Ivyglen 115kV Subtransmission Line

Effects on special status species during the construction phase of the Project would be significant because they would result in a permanent loss and temporary disturbance to special status plant and wildlife individuals and communities as discussed in the following sections. However, mitigation would reduce these impacts to a less than significant level.

Table D.4-4 Valley-Ivyglen Habitat Disturbance Impacts from Project Components

Project Activity	Quantity	Temporary Impacts	Permanent Impacts	Temporary Impacts Total (acres)	Permanent Impacts Total (acres)
Pulling & Tensioner Sites	4 sites: 100 feet x 50 feet	4 sites: 100 feet x 50 feet	N/A	0.46	0.00
Staging/Laydown Areas	Within existing substation facilities	N/A	N/A	0.00	0.00
Fogarty Substation	6.6 acres	N/A	6.60 acres	N/A	6.60
New Transmission Poles					
LDS	620 poles: 2.5 feet diameter	620 poles: 100 feet x 100 feet	0.04 acres	142.33	0.04
TSP	45 poles: 6 feet diameter	45 poles: 100 feet x 100 feet	0.006 acres	10.33	0.006
Trenching Activities					
Ivyglen Substation	1 trench: 300 feet x 18 inches wide	1 trench: 300 feet x 18 inches wide	N/A	0.12	0.00
Fogarty Substation	2 trenches: 1200 x 18 inches wide	2 trenches: 1200 x 18 inches wide	N/A	0.99	0.00
New Access and Spur roads	16 Linear Miles x 16 feet wide	N/A	16 Linear Miles x 16 feet Wide	0.00	31.03
Removal of Existing Poles *	100 poles: 100 feet x 100 feet	100 poles: 100 feet x 100 feet	N/A	22.96	0.00
TOTAL IMPACTS				177.19	37.67

* Estimate of the number of poles that would be removed based on the projected length of subtransmission line in areas where the proposed line would run in parallel to existing lines.

Vegetation

Permanent loss of special status plant species and sensitive vegetation communities involves long-term impacts from direct loss of habitat associated with permanent Project features (e.g., new transmission towers and roadways) that would remain throughout the life of the Project, as well as direct mortality of individuals (incidental take) due to construction of the Project. The Project would require the installation of 620 light duty steel (LDS) poles and 45 tubular steel poles (TSP) poles resulting in the permanent removal of all vegetation within the towers' footprint. The overall impact on vegetation from the 665 poles would therefore be approximately 0.05 acres (Table D.4-4). The construction of the 16 miles of new unpaved roads required to access the Project site would require approximately 31 acres of new disturbance (Table D.4-4). Additionally, permanent indirect take of vegetation and plants would occur due to the generation of dust from construction activities and the introduction and growth of invasive plant species due to clearing activities. Significant layers of dust can impede the photosynthetic activity of plants, thus limiting the growth and long-term survival of these plants. Nonnative invasive plant species can out-compete native vegetation in newly disturbed areas, thus permanently altering the composition of the vegetation community.

Temporary impacts to vegetation would occur due to clearing of areas required for pull and tensioning sites and pole removal and installation. These impacts would be considered temporary as the areas would not be permanently graded or filled, and thus can return to their prior vegetative state after construction.

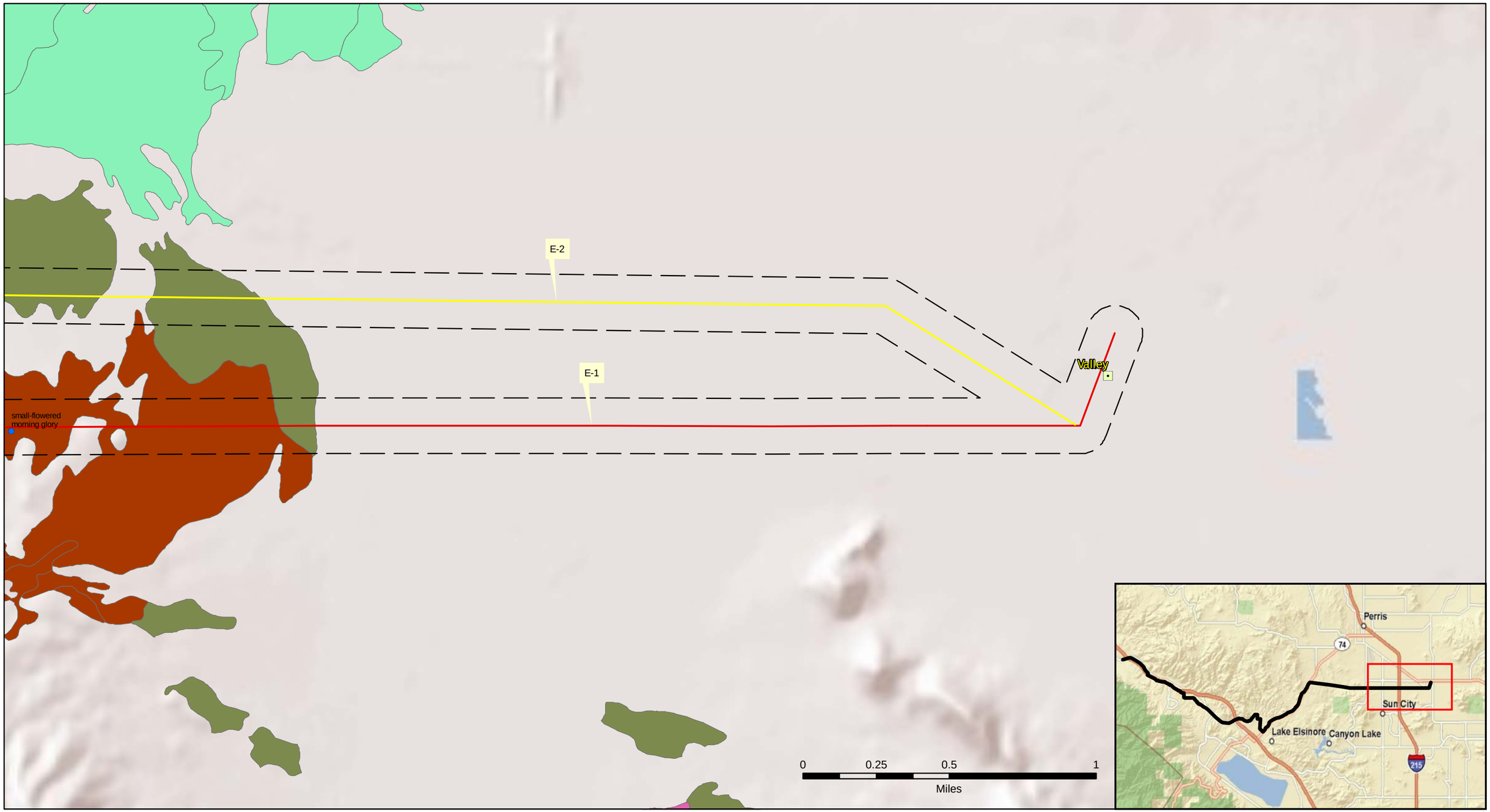
The amount of ground disturbance associated with these impacts would be a total of 176 acres for the four pull sites and for pole removal and installation along the ROW (Table D.4-4).

The construction of the subtransmission lines with associated work areas and new unpaved roads would affect the following special status plant species: small-flowered morning glory, Munz's onion, San Diego ambrosia, San Jacinto Valley crownscale, chaparral sand-verbena, Parry's spineflower, Coulter's goldfields, Palmer's grapplinghook, thread-leaved brodiaea, round-leaved filaree, smooth tarplant, long-spined spineflower, slender-horned spineflower, and many-stemmed dudleya. The status of these species, along with their habitat requirements and potential to occur, can be found in Table D.4-3. Table D.4-3 also lists other special status plant species that may occur adjacent to the Project area and would be impacted by the Project. Special status plant species are found at intervals along the subtransmission line as shown in Figures D.4-1 through D.4-8. These species are commonly associated with sensitive soil types (i.e., sensitive as designated by the MSHCP). Specifically, there are four instances along the proposed route in Segments W-1, W-4, and E-1, and one along alternative route Segment C-9 where this association occurs (Figures D.4-9 to D.4-13). Additionally, Parry's spineflower and long-spined spineflower were identified on the western end of E-1 outside of associations with sensitive soil. Impacts from the Project resulting in take of these species would be significant, particularly for the San Diego Ambrosia population at W-1 that has been designated by the MSHCP as having long-term conservation value.

Impacts to the special status species listed in this section would be reduced to less than significant by MM BIO-1a, -1b, -1c, and -2b. These MMs have been designed to reduce impacts to special status vegetation species through avoidance of these species during the final design phase of the Project. MM BIO-2b is recommended to address dust suppression techniques, while MM BIO-1c would reduce the impact of invasive plant species by requiring actions that prevent the introduction and spread of those species. Additionally, if final design requires the removal of sensitive species, MM BIO-1b requires a combination of preservation, restoration, and compensation measures. This will ensure that Project impacts to special status plant species and associated sensitive soils are reduced to less than significant.

The construction of the subtransmission lines and new roads would also impact approximately 6.9 acres of previously undisturbed coastal sage scrub, an MSHCP Covered Species and approximately 60 acres of previously disturbed coastal sage scrub (AMEC 2006a). These impacts would result from grading new access roads and clearing around new subtransmission line poles throughout the proposed route in Segments E-1, C-1, C-4, C-6, W-1, W-4, and W-10 during the construction phase of the Project. Compliance with the MSHCP requires mitigation for any net loss to coastal sage scrub habitat within the MSHCP area. Impacts to coastal sage scrub would be reduced to less than significant levels by MMs BIO-1a and BIO-1b. These MMs focus on avoiding impacts to coastal sage scrub during the final design phase of the Project as well as ensuring the Project complies with the MSHCP.

Impacts to special status plants and vegetation communities would occur during maintenance of the subtransmission line. Maintenance would be performed on an as-needed basis and may include line repairs, access road maintenance, construction of spurs, and any other operations or maintenance activities deemed necessary. Public roads and ROWs or privately owned and maintained roads adjacent to the proposed subtransmission line route would be used where possible to provide construction and maintenance access. Maintenance of the line would require frequent vehicle use and presence of field crews within the ROW corridor along existing roads and potentially in off-road sections to access pole locations. This would result in loss of habitat and inadvertent take of special status plants through direct and indirect impacts (e.g., dust generation, drainage, and propagation of invasives). Mitigation measures needed to alleviate these impacts would be the same as those prescribed for construction impacts as described in the previous two paragraphs.



Legend

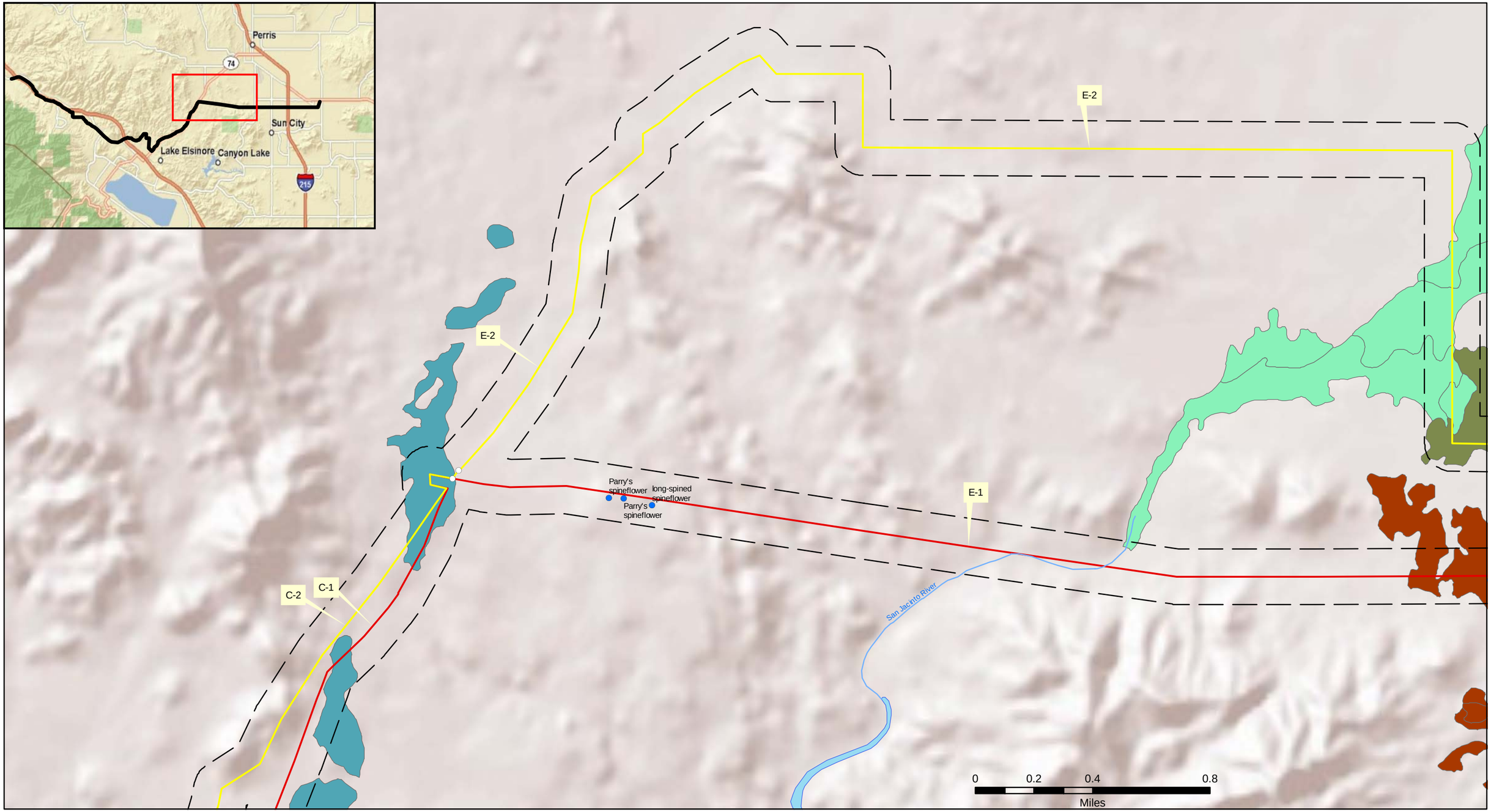
Sensitive Soils
- Altamont clay
- Altamont cobbly clay
- Auld clay
- Auld cobbly clay
- Bosanko clay
- Porterville clay
- Porterville cobbly clay
- Traver fine sandy loam
- Traver loamy fine sand
- Willows silty clay

- Fogarty Special Status Plant Species (AMEC 2006)
- Sensitive Plant Species (AMEC 2008)
- Special Status Plant Species (AMEC 2008 / 2009)
- Tarplant (AMEC 2009)
- Proposed Route Segment
- Alternative Route Segment
- Substations
- Transmission Nodes
- 500-ft Buffer

Figure D.4-9
Sensitive Soils and Special Status Plant Species

Map 1 of 5

This page intentionally left blank



Legend

Sensitive Soils

- Altamont clay
- Altamont cobbly clay
- Auld clay
- Auld cobbly clay
- Bosanko clay
- Porterville clay
- Porterville cobbly clay
- Traver fine sandy loam
- Traver loamy fine sand
- Willows silty clay
- Fogarty Special Status Plant Species (AMEC 2006)
- Sensitive Plant Species (AMEC 2008)
- Special Status Plant Species (AMEC 2008 / 2009)
- Tarplant (AMEC 2009)
- Proposed Route Segment
- Alternative Route Segment
- Substations
- Transmission Nodes
- 500-ft Buffer

Figure D.4-10
Sensitive Soils and Special Status Plant Species

Map 2 of 5

This page intentionally left blank

C-2
C-1
C-6
C-4
W-1A
C-3
San Diego ambrosia
smooth tarplant
C-8B
C-8B
Long-spined spineflower
long-spined spineflower
C-8C
C-8A
C-9B
C-8A
C-9A
C-8E
C-8D
C-9E
C-8E
C-9B
C-8E
C-9C
smooth tarplant
C-9E
C-9D
0
0.25
0.5
1
Miles
Perris
74
Sun City
Lake Elsinore
Canyon Lake
215

Legend

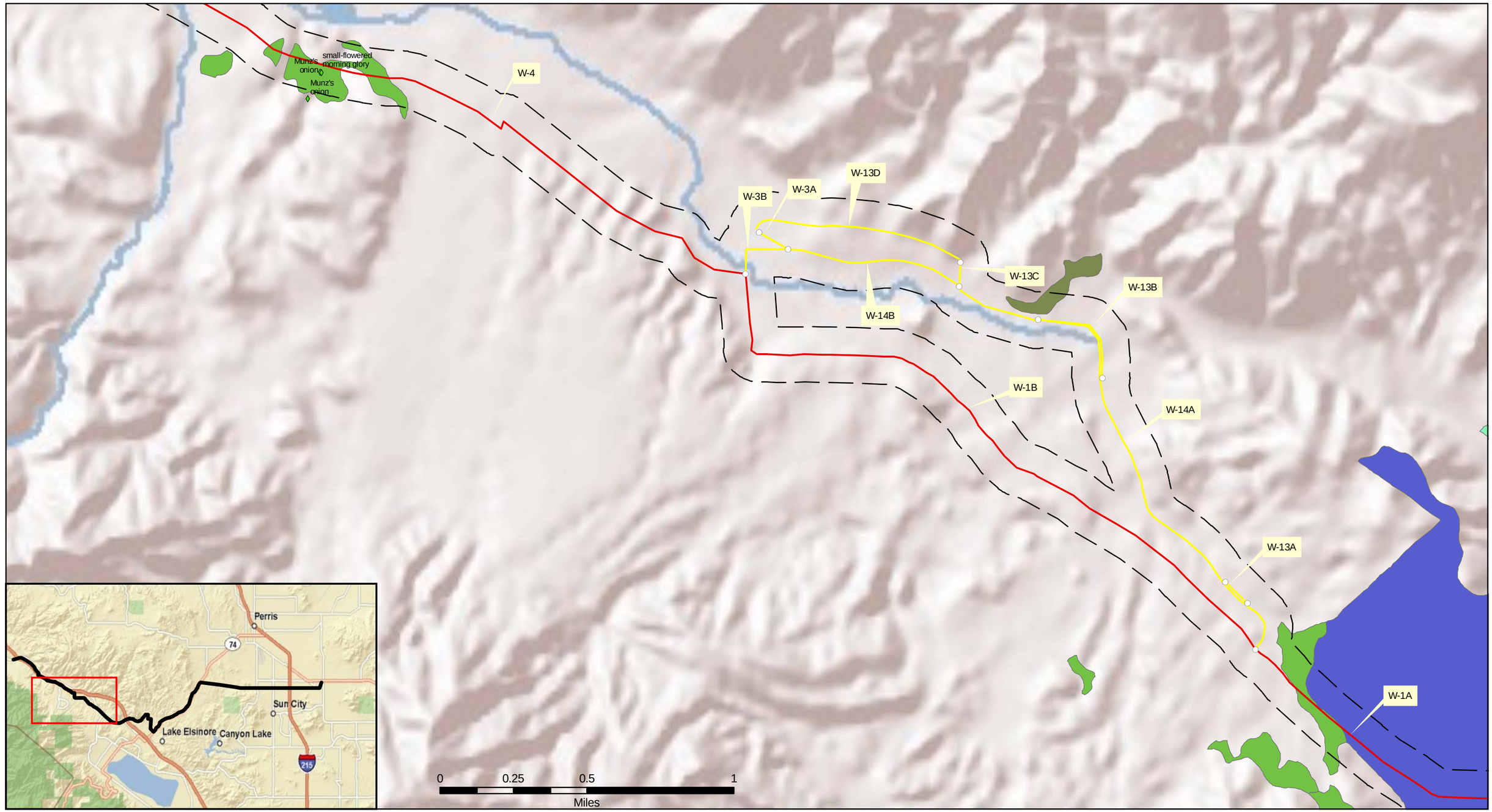
Sensitive Soils
- Altamont clay
- Altamont cobbly clay
- Auld clay
- Auld cobbly clay
- Bosanko clay
- Porterville clay
- Porterville cobbly clay
- Traver fine sandy loam
- Traver loamy fine sand
- Willows silty clay

- Fogarty Special Status Plant Species (AMEC 2006)
- Sensitive Plant Species (AMEC 2008)
- Special Status Plant Species (AMEC 2008 / 2009)
- Tarplant (AMEC 2009)
- Proposed Route Segment
- Alternative Route Segment
- Substations
- Transmission Nodes
- 500-ft Buffer

Figure D.4-11
Sensitive Soils and Special Status Plant Species

Map 3 of 5

This page intentionally left blank



Legend

Sensitive Soils

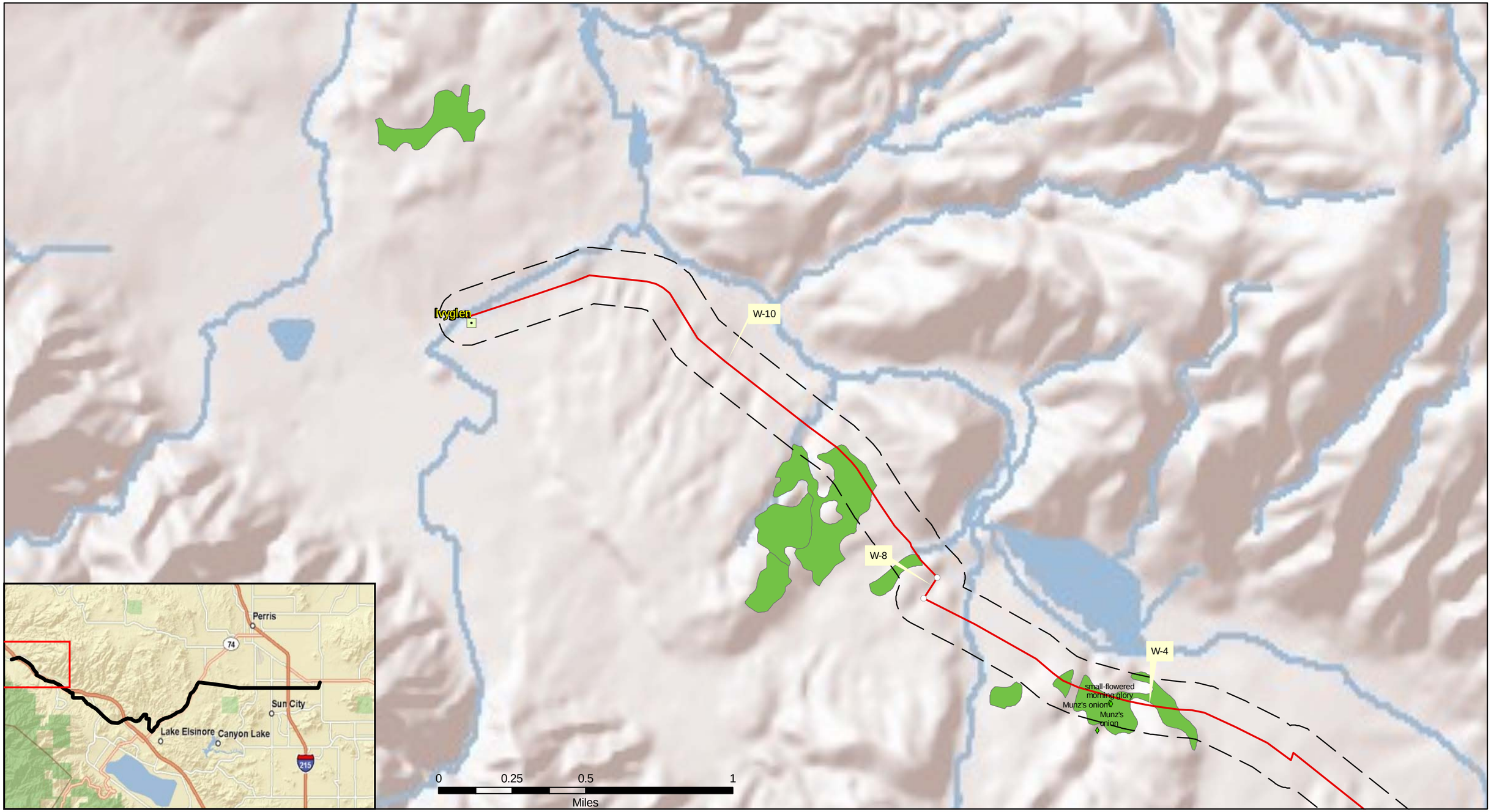
- Altamont clay
- Altamont cobbly clay
- Auld clay
- Auld cobbly clay
- Bosanko clay
- Porterville clay
- Porterville cobbly clay
- Traver fine sandy loam
- Traver loamy fine sand
- Willows silty clay

- Fogarty Special Status Plant Species (AMEC 2006)
- Sensitive Plant Species (AMEC 2008)
- Special Status Plant Species (AMEC 2008 / 2009)
- Tarplant (AMEC 2009)
- Proposed Route Segment
- Alternative Route Segment
- Substations
- Transmission Nodes
- 500-ft Buffer

Figure D.4-12
Sensitive Soils and Special Status Plant Species

Map 4 of 5

This page intentionally left blank



Legend

Sensitive Soils
- Altamont clay
- Altamont cobbly clay
- Auld clay
- Auld cobbly clay
- Bosanko clay
- Porterville clay
- Porterville cobbly clay
- Traver fine sandy loam
- Traver loamy fine sand
- Willows silty clay

- Fogarty Special Status Plant Species (AMEC 2006)
- Sensitive Plant Species (AMEC 2008)
- Special Status Plant Species (AMEC 2008 / 2009)
- Tarplant (AMEC 2009)
- Proposed Route Segment
- Alternative Route Segment
- Substations
- Transmission Nodes
- 500-ft Buffer

Figure D.4-13
Sensitive Soils and Special Status Plant Species

Map 5 of 5

This page intentionally left blank

Wildlife

Construction, operation, and maintenance of the Project would impact the following wildlife species and their habitats: western spadefoot toad, northern red diamond rattlesnake, orange-throated whiptail, San Diego Coast horned lizard, Stephen's kangaroo rat, Cooper's hawk, Southern California rufous-crowned sparrow, Bell's sage sparrow, burrowing owl, coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, and yellow-breasted chat. The status of these species, along with their habitat requirements and potential to occur, can be found in Table D.4-2. Table D.4-2 also lists other special status wildlife species that may occur adjacent to the Project area.

Construction activities such as clearing and grading for subtransmission poles and new roads, excavation for installation and removal of poles, and the presence of field crews and vehicles for installation of the subtransmission lines would cause permanent and temporary impacts on special status wildlife. Direct removal of, or disturbance in proximity to, suitable habitat would cause abandonment or reduction of available suitable habitat both within and near the Project area, and would result in the inadvertent take of wildlife present within that habitat. Trees, shrubs, and grasslands in the vicinity of the subtransmission line route provide suitable habitat for raptors and other nesting birds that are protected under the MBTA. The removal of forage and nesting habitat for birds, as well as for special status small mammals, amphibians, and reptiles would be considered a permanent impact. Additionally, take of special status wildlife would occur if the animals are present during construction activities and are killed by moving vehicles and equipment, or become entrapped in open trenches or excavation holes.

Temporary disturbances to special status wildlife species include short-term impacts during the 24-month Project construction phase. Construction would produce increased levels of noise, light, and dust within and adjacent to the Project area. These impacts resulting from temporary construction staging areas, tensioning/splicing areas, removal of existing pole towers, improvements to existing access roads, and work at conductor tensioning/splicing and staging/laydown areas are all considered temporary impacts. Removal of old towers and replacement with new towers would require work in an approximately 100-foot-diameter area centered on the proposed tower foundations.

Construction of the proposed subtransmission line would cause temporary impacts to migratory and resident bird populations by requiring the removal and trimming of trees and vegetation within the Project footprint. Under certain conditions, if the Project impacts these birds there would be a "take" under the MBTA or CESA, as well as CFG codes 3503 and 3503.5. Construction activities, such as noise, human presence, and habitat alteration due to trimming of trees and clearing of native vegetation, can affect the nesting habits of the special status and migratory bird species (Table D.4-2).

Impacts to special status wildlife from the operation and maintenance of the Project would occur due to frequent vehicle use and the presence of field crews within the ROW corridor along existing roads and potentially in off-road areas used access line components. Additionally, operation and maintenance may also require periodic vegetation trimming, which would impact nesting birds. These activities would result in loss of habitat and the inadvertent take of special status wildlife.

Temporary and permanent impacts to special status wildlife species (individuals) will be reduced to less than significant levels by MMs BIO-1a, and BIO-1d through BIO-1h, which would reduce impacts through avoidance. Pre-construction clearance surveys will help to avoid mortality to wildlife species (including nesting birds, reptile species, and small mammals) from construction activities. Temporary impacts to special status and migratory bird populations would be reduced to less than significant levels by adoption of MM BIO-1e, BIO-1f, BIO-1g, and BIO-1h. These measures allow for Project construction

to occur either (1) before the nesting season of special status and migratory birds or (2) during the nesting season using the appropriate exclusion zones. If riparian habitat is occupied by least Bell's vireo or southwestern willow flycatcher, then those areas will be avoided and mitigated per MM BIO-1g. Measures to prevent entrapment or free entrapped animals (MM BIO-1i) will further minimize potential mortality to individuals. Additionally, conservation efforts by the Applicant as a PSE under the MSHCP will provide conservation benefit to all wildlife species in all areas of the Project. Impacts to special status species habitats are described with respect to vegetation impacts under Impact BIO-1 above.

Telecommunications System

Impacts to biological resources resulting from the construction of the telecommunications system would occur concurrently with the construction impacts resulting from the proposed subtransmission line with the exception of approximately 2,700 feet of underground line at two substation sites (Table D.4-4). Placing the telecommunications system underground would require a backhoe to dig an 18-inch-wide by 30-inch-deep trench. No special status species were found within the area where trenching for the telecommunication system would occur for the Ivyglen Substation. Long-spined spineflower was observed on the southeastern portion of the proposed Fogarty Substation site, in addition to a drainage system along the northeastern half of the property. A Cooper's hawk was also sited in the vicinity of the proposed Fogarty Substation site, although it was not directly foraging on the site at the time. Trenching for the Fogarty Substation would occur within the uppermost northern boundary of the site, thus avoidance of the spineflower and the drainage would be possible, and direct impacts would be avoided. However, trenching would cause significant indirect impacts to sensitive resources at the proposed Fogarty Substation site, specifically the spineflower population, the drainage system, and forage habitat for the Cooper's hawk. Indirect impacts from trenching to these resources would occur from modification of surface runoff and erosion of spoils into the proposed Fogarty Substation site, increased dust, and increased disturbance from noise and human presence.

To reduce these impacts, MM BIO-1a through -1i, and MM BIO-2b would be needed. These measures would require conducting pre-construction surveys for special status species, employing appropriate avoidance measures, and implementing BMPs to ensure that temporary indirect impacts to special status species resulting from clearing of native vegetation, creation of fugitive dust, and generation of noise and human presence are reduced to less than significant levels.

The telecommunications system would require periodic, routine maintenance and emergency maintenance for service continuity. Impacts to special status species or communities from the operation and maintenance of the telecommunications system and mitigation would be the same those described for the subtransmission line.

Fogarty Substation

Construction of Fogarty Substation would result in both temporary and permanent impacts to sensitive biological resources. Temporary impacts to special status species would occur due to noise, fugitive dust, and human presence during the construction phase of the Project, mainly affecting nearby nesting birds. Permanent impacts to sensitive vegetation communities would occur due to the clearing and grading of the site. Small acreages of remnant coastal sage scrub community would be removed to accommodate the substation footprint. Additionally, the Project would permanently impact a population of long-spined spineflower present on the Fogarty Substation site—a CNPS list 1B.2 species and MSCHP Conservation Species. These impacts include inadvertent or accidental take by vehicles and/or indirect impacts from increased and altered site drainage, dust generation, herbicide application for fire protection and weed abatement, and propagation of invasive plants after clearing. Future plans for landscaping would also conflict with the long-spined spineflower population. Although the proposed footprint of the Fogarty

Substation has been designed to avoid direct grading and construction impacts to this population, indirect impacts from runoff, sedimentary erosion, and increased dust to the population would occur during construction. Construction of the substation would result in the permanent removal of 6.6 acres of forage habitat for the Cooper's hawk, which was observed in proximity to the site. However, this would not be a significant impact as the amount of habitat removed would be small relative to the larger regional area in which the hawk can forage. There are no nest trees for this species on the site, thus there would be no significant impacts to their breeding habitat.

Impacts to the long-spined spineflower will be reduced to less than significant levels by MMs BIO-1a, BIO-1b, BIO-1c, and BIO-2b. These MMs have been designed to reduce impacts to special status vegetation species through avoidance of these species during the final design phase of the Project, as well as appropriate BMPs to control dust, runoff, and invasive plants. Additionally, impacts to coastal sage scrub would be reduced to less than significant levels by MMs BIO-1a and BIO-1b. These MMs focus on avoiding impacts to coastal sage scrub during the final design phase of the Project as well as ensuring the Project is in compliance with the MSHCP. Temporary impacts to nesting birds would be minimized by MM BIO-1a through BIO-1h.

No impacts to special status species are expected to occur due to operations and maintenance activities. Maintenance and operation of the substation would require the Applicant's personnel make regular visits by vehicle to perform routine maintenance and repairs. The vehicle and crews would stay within the confines of the substation walls and existing access roads. Maintenance lighting would be used at the substation for emergency situations only and would be directed downward and shielded to reduce glare outside the facility onto biological resources.

Valley and Ivyglen Subtransmission Improvements

The Ivyglen Substation is surrounded by Riversidean alluvial fan sage scrub, coastal sage scrub, and developed and disturbed habitat; however, no special status species are found within the existing Project footprint. Temporary, indirect impacts on special status species would occur as a result of upgrades to the existing facility during Project construction due to noise, fugitive dust, and human presence. Wildlife species such as the burrowing owl, coastal California gnatcatcher, Bell's sage sparrow, Southern California rufous-crowned sparrow, orange-throated whiptail, San Diego horned lizard, and Stephen's kangaroo rat are known to use habitats similar to those found adjacent to the Project site and may be temporarily affected by construction. However with the implementation of MMs BIO-1a through BIO-1i, and BIO-2a and BIO-2b, no further impacts to special status species would result from Project operation and maintenance.

In summary, with the implementation of MMs BIO-1a through BIO-1i and BIO-2a and BIO-2b the impacts to special status species would be reduced to less than significant levels (Class II).

Mitigation Measures for Impact Bio-1

Class II impacts on biological resources resulting from Project construction, operation, and maintenance shall be reduced to less than significant by implementing the following MMs:

MM BIO-1a (Environmentally Sensitive Areas): The Applicant shall reduce impacts to the habitat of the special status species listed in Tables D.4-2 and D.4-3 by engineering the Project so that it minimizes impacts to special status species. This can be accomplished by siting permanent Project elements (i.e., roads and poles) away from known locations of special status species and communities. Environmentally

sensitive areas such as rare plant populations or specific breeding habitat will be identified in the field to minimize the possibility of inadvertent encroachment using the following avoidance methods:

a. A qualified botanist (i.e., a person with at least an undergraduate degree in biology, ecology, or a related field, with botany training and a minimum of 3 years' professional field experience within the region or working under the direct supervision of a professional botanist with at least 6 years of field experience in the region) will flag or otherwise mark special status plant species. Construction crews will avoid direct or indirect impacts to these flagged areas and be instructed to avoid intrusion beyond these marked areas.

b. A qualified botanist will monitor the known locations of special status plant populations that might be found prior to or during the construction period. Monitoring will occur during construction and for one year following construction to assess the effectiveness of protection measures.

c. The Applicant will limit removal of native vegetation communities, including intact coastal sage scrub, riparian vegetation, wetland habitat, and mature trees. An onsite qualified biologist (i.e., a person with at least an undergraduate degree in biology, ecology, or a related field, with a minimum of 3 years' professional field experience within the region or working under the direct supervision of a professional biologist with at least 6 years of field experience in the region) with local knowledge of the area will be consulted for identification, flagging of individuals or boundaries of vegetation communities (see MM BIO-2a and 2b for flagging of wetland boundaries), and assessment of sensitive vegetation habitats within the construction footprint. The biologist will provide oversight to ensure compliance with this measure.

MM BIO-1b (Special Status Plant Species): Pre-construction surveys will be conducted during the appropriate blooming and precipitation period by a qualified botanist for all special status plant species as defined by Table D.4-3. On the ground mapping of sensitive soils that are in direct association with these populations will be conducted during the pre-construction surveys. The limits of populations of special status plant species shall be flagged or otherwise marked by a qualified botanist to ensure construction crews will avoid direct impacts to these populations. A minimum buffer of 100 feet around these flagged plant populations shall be maintained to protect any special status plant seedbank that may be dormant in the sensitive soils.

The Applicant will also report geo-referenced special status plant locations to the CDFG and USFWS. The Applicant will implement avoidance measures including, but not limited to:

- No construction work (e.g., vegetation clearing and ground disturbance) will be authorized to begin until pre-construction surveys have been completed and results submitted to the CDFG and USFWS.
- The Applicant will avoid the flagged areas and will not drive vehicles, go by foot, or place equipment or materials in any area with special status plants.
- The Applicant will maintain a minimum distance of 25 feet from the flagged boundary of special status plants for equipment staging and fueling and fill stockpile areas from special status plant populations.
- Overhead installation of telecommunication lines will be accomplished by crews on foot as necessary to negotiate around flagged sensitive resources. This will also occur in areas where there is no established access road within the ROW and sensitive resources have been flagged during pre-construction surveys.

- Trenching to install telecommunications will be conducted a minimum of 25 feet from the flagged boundary of special status plant populations.
- If special status plants are present in an area where trenching to install telecommunications or other equipment would be required to connect to an existing subtransmission structure, the Applicant will identify and connect to an alternate structure where disturbance of special status plants can be avoided. This may require the Applicant to extend the length of the trench to reach the alternate structure or to avoid underground trenching in certain areas.
- TSP and line positioning and installation activities will avoid and span all flagged resources.

If the Applicant cannot avoid direct and/or indirect impacts to special status plants, then as a PSE under the MSHCP, the Applicant will consult with the CDFG, USFWS, and RCA and follow the provisions set forth in the MSHCP, including but not limited to:

1. Submittal to the RCA of required documentation, including quantitative evaluations for the Determination of Biologically Equivalent or Superior Preservation (DBESP), as needed**.**
2. Adhering to policies and procedures in MSHCP Section 6.1.2 (Riparian/Riverine/Vernal Pool Policy), Section 6.1.3 (Narrow Endemic Plant Species Policy), and Section 6.3.2 (Additional Survey Needs and Procedures for Criteria Area Species).
3. Proposing and implementing mitigation measures developed in consultation with and approved by the CDFG, USFWS, and RCA.

As specifically applies to plants covered under MSHCP policies 6.1.3 and 6.3.2, the Applicant shall implement avoidance and mitigation measures to reduce impacts on special status plant species to a less than significant level as consistent with provisions set forth in the MSHCP. Mitigation shall include the following and any other measures defined in consultation with the CDFG, USFWS, and RCA:

1. Avoid 90 percent of the plant populations with long-term conservation value found within suitable habitat within the Project area. If 90 percent conservation cannot be maintained, then a DBESP will be prepared according to MSHCP provisions.
2. The known locations of special status plant populations within the Project footprint found prior to or during the construction period will be monitored during ground disturbing construction activities by a qualified botanist. The Applicant will submit a post-construction report/technical memo to the CPUC within 60 days post-construction reporting on the effectiveness of protection measures.
3. Mitigation for impacted special status plants shall include restoration, conservation, and compensation measures, and may be onsite and/or offsite. As some special status plants such as Munz's onion and San Diego Ambrosia cannot be successfully salvaged and restored, mitigation shall include purchase of credits in an established mitigation bank as approved by the Resource Agencies. Expected mitigation ratios shall be a minimum of 1:1 for plant populations that are restored or conserved onsite, and 2:1 for plant populations that are preserved or conserved offsite. The Applicant will prepare a Habitat Mitigation and Monitoring Plan that will be submitted to and approved by the RCA and the CDFG and USFWS prior to initiating ground disturbance activities in areas where special status plants will be impacted. The plan will outline restoration and conservation activities, locations, monitoring requirements, and criteria to measure mitigation success.
4. Conservation measures shall include preservation of portions of the impacted onsite plant populations. The Applicant will establish conservation easements within one year of construction implementation on any onsite and offsite mitigation sites to protect the populations in perpetuity.

MM BIO-1c (Invasive Plant Species): The Applicant will use standard BMPS to avoid the introduction and/or spread of controllable invasive plant species such as tamarisk (*Tamarix sp*.) and giant reed (*Arundo donax*) during construction of the Project. Proper handling during construction shall include the following:

- All vehicles and equipment will be cleaned prior to arrival at the work site. Vehicle washing will concentrate on tracks or tires, on the undercarriage, and on front bumper/brush guard assemblies.
- Crews, with construction inspector oversight, will ensure that vehicles and equipment are free of soil and debris capable of transporting noxious weed seeds, roots or rhizomes before the vehicles and equipment are allowed use of access roads.
- Straw or hay bales used for sediment barrier installations or mulch distribution will be obtained from state-cleared sources that are free of invasive weeds.

MM BIO-1d (Special Status Wildlife Species): Preconstruction surveys will be conducted by a qualified wildlife biologist for all special status species defined in Table D.4-2 prior to commencement of construction activities. The locations of any special status species and their habitats shall be marked and avoided during final Project design and construction. A qualified wildlife biologist will be onsite to conduct biological monitoring for special status wildlife species including, but not limited to, those found in Table D.4-2 during construction in areas where special status wildlife and occupied habitat have been identified.

MM BIO-1e (Pre-Construction Nesting Bird Surveys): To avoid the impacts to active nests (with eggs or young) of any protected bird, the Applicant shall implement one of the following:

a. Conduct all construction activity (including vegetation pruning or removal) during the non-breeding season (generally between August 31 and February 1) for most special status and non-special status migratory birds.

b. If construction activities are scheduled to occur during the breeding season (February through August), a qualified biologist with knowledge of local wildlife resources will conduct pre-construction focused nesting surveys no more than 30 days prior to any ground disturbing activity or vegetation trimming or removal activities. These surveys shall be conducted up to a distance of 500 feet from the centerline of the subtransmission line and 500 feet from existing and new (i.e., Fogarty) substations. If nesting birds are located, the Applicant will maintain appropriate buffers as follows from occupied nests with all construction, operations, and maintenance activities:

    - 500 feet from nesting raptors
    - 250 feet from all other nesting birds

c. During active construction, the qualified biologist will monitor and assess any nesting birds within the specified buffer ranges to determine whether disturbance is impacting the birds. The qualified biologist will have the authority to halt construction in the area of disturbance impacting the birds until the biologist can notify and consult with the CPUC, USFWS, and CDFG.

MM BIO-1f (Burrowing owls): If burrowing owls are found during the pre-construction surveys, occupied burrows will be flagged and construction buffers will be established to avoid direct and indirect impacts to active nests as follows:

- 160 feet from occupied burrows during the non-nesting season

- 500 feet from occupied burrows during the nesting season (February 1 through August 31). Should this buffer not be able to be maintained, the closest distance allowable will be 300 feet, and the qualified biologist shall monitor the owls for signs of stress and/or other behavioral changes to determine if construction should be halted and discussions initiated with CPUC, USFWS, and CDFG on an appropriate course of action.

For lands under the MSHCP, as a PSE, the Applicant will follow procedures in MSHCP Policy 6.3.2 and outlined in the Applicant-prepared DBESP.

For lands not under the MSHCP, if the appropriate buffers cannot be maintained and impacts on the burrowing owl and/or their habitat (e.g., occupied burrows) are unavoidable, the Applicant will develop and implement a Burrowing Owl Compensation Plan, approved by the CDFG, that is consistent with mitigation guidelines outlined in the *California Burrowing Owl Consortium Protocol*. The plan will describe the compensatory measures that will be undertaken to address the loss of burrowing owl burrows within the Project area. This will include the preservation of 6.5 acres of onsite foraging habitat contiguous with occupied burrow sites per breeding pair or single bird unless otherwise determined in consultation with the CDFG. If avoidance of burrows cannot be maintained, onsite passive relocation of owls will be preferred over active relocation. To compensate for loss of burrows, the Applicant will provide one alternate natural (enlarged or cleared of debris) or artificial burrow in nearby contiguous foraging habitat for each occupied collapsed burrow within the Project area. Prior to collapsing burrows vacated through passive relocation, the Applicant's biological monitor will conduct daily monitoring for up to a one-week period to confirm that the alternate burrows provided are being used by the owls. The Applicant will not conduct active relocation unless the attempt at passive relocation has failed after one week. The Applicant will obtain approval from the CDFG before initiating any activities that may adversely impact burrowing owls.

MM BIO-1g (Least Bell's Vireo and Southwestern Willow Flycatcher): The Applicant will avoid construction activities during the nesting season (March 1 through August 31) in areas that provide suitable habitat for the least Bell's vireo and southwestern willow flycatcher as determined by a qualified biologist and in areas identified in Project surveys (AMEC 2007b, AMEC 2009). The Applicant will avoid construction activities within riparian habitat occupied by these two species as determined in the Project surveys (AMEC 2007b, AMEC 2009). If avoidance of these occupied areas is not possible for MSHCP-covered lands, mitigation will be performed in accordance with MSHCP Policy 6.1.2.

MM BIO-1h (Noise Control): The Applicant will avoid impacts to migratory and special status bird species protected under federal or state regulations by ensuring that construction or operational noise does not exceed ambient levels during the general nesting period. This will be accomplished through 1) work scheduling (i.e., scheduling construction to avoid segments where occupied nests are found) and 2) having properly functioning mufflers on construction vehicles. No vehicles, chain saws, or heavy equipment will be operated within the minimum exclusion zone of 250 feet until the nesting season is over or until a qualified wildlife biologist has determined that nesting is finished and the young have fledged. If a qualified wildlife biologist determines that any particular construction, operation, or maintenance activities pose a high risk of disturbing an active nest, the biologist will halt work in the particular area of impact and/or recommend additional, feasible measures to minimize the risk of nest disturbance. If work activities are found to result in harm to nesting birds, destruction of an active nest, or nest abandonment prior to fledging, the biologist will report this to the CDFG and USFWS.

MM BIO-1i (Wildlife Entrapment): At the end of each workday during construction, the Applicant will cover all open trenches or excavations, or provide escape ramps, to prevent the entrapment of wildlife (e.g., reptiles and small mammals). The Applicant will maintain fencing around the covered excavations

at night. The Applicant's qualified biologist will clear open trenches for wildlife at the end of each day and again prior to resuming work on the trench.

In summary, with the implementation of MMs BIO-1a through 1i, the Project's permanent and temporary biological resources impacts would be reduced to less than significant levels (Class II).

Impact BIO-2: Wetlands and Riparian Habitats

Wetlands and riparian habitat were mapped during field surveys by the Applicant in 2006 and 2009 and identified along the proposed route (Figures D.4-1 to D.4-8). Wetland delineation consisted of an area within 100 feet of the Project route. Vernal pools were also mapped and assessed for the ability to support listed vernal pool invertebrates. Many of these pools were determined to be able to support vernal pool invertebrates, although no special status invertebrates were found during protocol-level surveys in 2009 (AMEC 2010). Well-developed riparian zones that would be impacted are located at several distinct locations (Figures D.4-1 to D.4-3): the San Jacinto River area (E-1), a central and southern portion of C-1, and Temescal Wash areas at the intersection of W-1 and C-6 near Nichols Road, at Lake Street and Hostettler Road (W-1 and W-4), and in the northwestern portions of W-10.

Significant impacts to wetlands and/or riparian habitats would occur if the Project has 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. Substantial impacts would also occur if the Project has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS. These habitats provide important refugia, foraging, and breeding habitat for numerous special status species, including vernal pool invertebrates, western spadefoot toad, least Bell's vireo, southwestern willow flycatcher, yellow-breasted chat, and Cooper's hawk.

Direct permanent impacts on wetland and riparian habitat may occur as a result of grading of new roads and clearing of existing vegetation, which in turn exposes topsoil to weathering. Weathering of topsoil in the form of erosion can remove topsoil necessary for plant growth both in the graded areas and in lower areas affected by increased runoff. The eroded soil can be deposited as silt and alluvium in the drainages. This impact can be exacerbated by the removal of local vegetation within these communities. Further permanent, direct impacts to wetlands and riparian habitats may result from placing Project elements within these communities.

The construction of the subtransmission lines and new roads would impact approximately 5 acres of riparian habitat, approximately 0.07 acres of seasonal wetlands, and approximately 0.51 acres of vernal pools (Table D.4-1) (AMEC 2006a, Donohue 2010). These impacts would result from grading new access roads and clearing around new subtransmission line poles throughout the proposed route during the construction phase of the Project. Indirect impacts to aquatic systems would also occur from increased and altered site drainage runoff, dust generation from construction activities, the application of herbicides for fire protection and weed abatement purposes along the ROW, and the propagation of invasive plants after clearing. The MSHCP advocates avoidance of riparian/riverine areas and wetlands. If avoidance of these systems is not feasible, then a DBESP that outlines minimization and compensation measures is required. The Applicant has stated they would avoid the placement of construction crews and equipment within wetlands, stream beds and banks, and adjacent upland habitat (APM BIO-4). Impacts to aquatic resources as a result of the telecommunication system construction would not differ from those described for the subtransmission lines.

Permanent impacts to drainage habitat would occur due to clearing, grading, and trenching for telecommunications line installation at the Fogarty site. Drainage habitat (approximately 0.22 acres) located on the northeastern side of the proposed site would be avoided by the footprint (*see Figure 3-1 from the Final Biological Technical Report for the Fogarty Substation Project* (AMEC 2006b)), but indirect impacts from increased and altered site drainage, dust generation, the application of herbicides, and the propagation of invasive plants after clearing would permanently alter riparian habitat composition. Future plans for landscaping would also conflict with the drainage.

Impacts on wetlands, vernal pools, and riparian/riverine habitat would be significant. To reduce these impacts, MM BIO-2a and BIO-2b would be needed. MM BIO-2a would require pre-construction surveys for wetlands and aquatic habitat and would keep construction activities outside the boundaries of any wetland, riparian zone, or vernal pool during the final design phase of the Project. Additionally, should avoidance of these systems not be possible, restoration and compensation would be implemented in adherence to any applicable regulatory requirements. MM BIO-2b and BIO-1c require the implementation of robust BMPs designed to reduce impacts resulting from clearing of native vegetation, creation of fugitive dust, and the propagation of invasive plant species. Impacts on individual species associated with wetland and riparian habitats will be reduced to less than significant levels by adoption of MMs pertaining to special status species as outlined by MM BIO-1a, 1e, 1g, 1h, and 1i. Additionally, the Applicant will avoid all vernal pools, seasonal wetlands, and artificial ponds that would provide suitable aquatic habitat for special status invertebrates and the western spadefoot toad.

In summary, significant permanent impacts to aquatic systems will be reduced to less than significant levels by MMs BIO-2a and 2b, which focus on avoidance of impacts during the design and construction phases of the Project, as well as the adoption of construction techniques that will reduce impacts (Class II).

Mitigation Measures for Impact BIO-2

Class II impacts on wetlands and riparian habitats resulting from Project construction, operation, and maintenance can be reduced to less than significant by implementing the following MMs:

MM BIO-2a (Wetlands Avoidance and Restoration): Before construction work will start on Project, the Applicant's qualified wetland biologist will flag the boundaries of wetland resources based on prior surveys (AMEC 2006a, AMEC 2010, Entrix 2006). The wetland biologist shall be a person with at least an undergraduate degree in biology, ecology, or a related field, with USACE training and a minimum of 3 years' professional field experience within the region or working under the direct supervision of a professional wetland biologist with USACE training and at least 6 years of field experience in the region. For vernal pool wetlands, habitat will be flagged based on the vernal pool watershed (i.e., the internal drainage into the wetland system from the surrounding watershed based on hydrographic breaks) not the wet basin.

The Applicant's construction crews will not cross non-culverted drainages with vehicles, nor conduct construction activities or placement of equipment or supplies within the bed, bank, or riparian zone of any drainage, wetland, or water body. Many of the larger creeks flow through culverts beneath existing roads and will not be directly impacted. However, smaller creeks and resources may flow across the ROW and would be affected. Project infrastructure will be designed to avoid all sensitive aquatic resources, including spanning drainages and vernal pools with transmission lines.

If construction activities require placement of fill, crews, or equipment in sensitive aquatic resources, or require disturbance to a riparian area or vernal pool watershed, then the Applicant will do the following:

- Where avoidance of riparian and wetland areas is not feasible and work is required within jurisdictional wetlands, drainages, and other wetland habitats, the Applicant will obtain and comply with all necessary USACE and CDFG permits under the Clean Water Act and CDFG 1600 regulations. A wetland delineation report will be prepared and submitted to the USACE and CDFG for verification as part of this permit process.
- Restore temporarily impacted wetlands, riparian zones, and other aquatic resources to pre-construction condition, and monitor during and after disturbance. Include aquatic resource restoration efforts in the Habitat Mitigation and Monitoring Plan (MM BIO-1b) that will be developed. This plan shall also be submitted to and approved by the USACE, USFWS, CDFG, and the CPUC prior to initiating any mitigation activities. The plan will outline restoration and conservation activities, locations, monitoring requirements, and criteria to measure mitigation success.
- Mitigate for permanent impacts on wetlands and riparian areas caused by new structures and fill activities, prior to impact activities. At a minimum, mitigation ratios will be a 1:1 ratio for wetlands and riparian areas. High quality riparian zones, as determined by a qualified wetland biologist in consultation with the CPUC and the USACE, CDFG, and USFWS, will be mitigated at a minimum of 2:1 ratio. Mitigation may include compensation and conservation of in-kind, offsite areas at a minimum ratio of 1:1.

MM BIO-2b (BMPs): BMPs to be prescribed by the Stormwater Pollution Prevention Plan (SWPPP) (APM-BIO 2, Hydro-SCE-1) will include but are not limited to the following:

- The Applicant will not stockpile brush, loose soils, excavation spoils, or other similar debris material within sensitive habitats.
- The Applicant will maintain minimum distance of 100 feet for equipment staging, fueling, hazardous material storage/use, and fill stockpile areas from the flagged boundaries of riparian areas and wetlands.
- If visible dust is present during construction activities, standard dust suppression techniques (e.g., water spraying) will be used in all ground disturbance areas.

The BMPs included in the SWPPP will be implemented during construction to minimize indirect impacts associated with erosion and dust generation. The SWPPP will be reviewed and approved by the Santa Ana RWQCB prior to construction commencement (MM HYD-1a).

Impact BIO-3: Migratory Wildlife

Impacts to migratory wildlife are considered significant if they 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.

Permanent direct impacts to terrestrial species would occur due to the construction of 16 miles of new roadways within the Project area. Roadways act as barriers to movement, sometimes creating genetically isolated populations. After construction, these roadways would be used infrequently during operations

and maintenance (i.e., occasional to quarterly). Thus, the disruptive effect of roadways on the movement of any native or migratory species is expected to be less than significant (Class III).

Project construction may temporarily affect the movement of native and migratory species. Impediments to movement would mostly occur to nesting birds (see Impact BIO-1). Movement of fish, other aquatic organisms, and birds associated with riparian corridors along the route would also be temporarily impacted by any work within or near these sensitive habitats. Noise and the presence of construction crews, as well as increased erosion and runoff from construction activities, would be temporary impacts. However, the mitigation measures described in Impact BIO-1 and BIO-2 to avoid and minimize impacts to special status terrestrial and aquatic species and wetlands and riparian habitats would reduce the impacts to less than significant (Class II).

Impact BIO-4: Local Policies

Any conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, would be seen as a significant impact.

Permanent direct impacts to local trees would occur during Project construction. Removing local trees would be necessary to install new poles in areas where the proposed route passes through upland or riparian vegetation. Additional tree trimming or removal would be required along access roads, at some staging areas and pull sites, and along the ROW to protect subtransmission lines and to reduce fire danger. To reduce these impacts, many areas containing trees, such as riparian drainages and upland vegetation communities, will be spanned, eliminating the need for tree removal. Loss of mature trees and trees identified as locally important (e.g., oaks) would be significant due to the initial tree loss, as well as the long-term temporal aspects of replacing those trees or their functionality. Removing trees from protected communities, such as oak woodlands, would be done in accordance with the local Riverside County tree removal ordinances. Nonnative trees, such as the Peruvian peppertree and eucalyptus are not protected by the Riverside County tree ordinance. Significant impacts to native trees would be reduced to less than significant levels by MM BIO-4a, which requires that a tree removal permit be obtained prior to construction activities (Class II).

Mitigation Measures for Impact BIO-4

Class II impacts to local habitats resulting from Project construction, operation, and maintenance would be reduced to less than significant by implementing the following MM:

MM BIO-4a (Tree Removal Permitting): Obtain a Tree Removal Permit from the County of Riverside. The County of Riverside, Roadside Tree Ordinance 12.08 requires permits for tree removal within county highway ROWs (County of Riverside 2004). In addition, the County of Riverside requires that any future development in an identified sensitive vegetation area (including oak woodlands) must be evaluated individually and cumulatively for impacts on vegetation (County of Riverside 1993). Mitigation will be coordinated, as required, with the appropriate public and resource agencies once tree removal permits or approvals for lost significant trees are obtained. Mitigation for lost trees may not be implemented within the ROW due to fire safety concerns and instead may be implemented in an alternative agency approved location.

Impact BIO-5: Conservation Plans

A significant impact would result if the Project is found to be in conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan.

The Applicant shall participate in the MSHCP as a PSE in order to get 'take' authorization for any impacts to special status species as listed under the MSHCP. Surveys for MSHCP criteria species were conducted during Project planning and findings from the surveys are included in this document. Special status-species covered by the MSHCP are identified in Tables D.4-2 and D.4-3 along with habitat requirements and the potential for that species to occur within or adjacent to the Project area. As a PSE under the MSHCP, the Project will need to comply with all regulations and policies as outlined in the MSHCP and as promulgated by the RCA. These include, but are not limited to:

a. The payment of Local Development Mitigation Fees and other relevant fees as set forth in the MSHCP;

b. Compliance with the policies for the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools set forth in Section 6.1.2 of the MSHCP;

c. Compliance with the policies for the Protection of Narrow Endemic Plant Species set forth in Section 6.1.3 of the MSHCP;

d. Compliance with survey requirements as set forth in Section 6.3.2 of the MSHCP;

e. Compliance with the Urban/Wildlands Interface Guidelines as set forth in Section 6.1.4 of the MSHCP; and

f. Compliance with the BMPs and the siting and design criteria as set forth in Section 7.0 and Appendix C of the MSHCP.

The Project occurs within several areas identified by the MSHCP as important for conservation and management to preserve ecological resources and values. These areas provide key habitat and movement corridors for Covered Species depending on the overall species-specific objectives as noted in the MSHCP. Specifically, the Project occurs in Proposed Core 1, Proposed Extension of Existing Core 2, Proposed Linkages 1 and 7, and Proposed Constrained Linkages 3, 5, and 6 (County of Riverside 2003). Cores are blocks of appropriately sized habitat needed to support the life-cycle requirements of identified species, while linkages are defined by the MSHCP as areas between cores that allow for genetic flow and connecting habitat for Covered Species. The attributes of the core and linkages that intersect the Project area are given in Table D.4-5.

Table D.4-5 MSHCP Conservation Areas that intersect the Valley-Ivyglen Project

Conservation Area	Total Acreage	Project Segments Affected	Target Covered Species	Connected or Adjacent Conservation Areas
Proposed Core 1	7, 470	West and central	Coastal California gnatcatcher, Munz's onion, many-stemmed dudleya, cactus wren, tricolored blackbird, yellow warbler; movement corridor for common large mammals	Existing Core C (Lake Mathews/Estelle Mountain), Proposed Linkages 1,2,3 and 7, and Proposed Constrained Linkage5 and 6
Proposed Extension of Existing Core 2 (Lake Mathews/Estelle Mountain Extension)	8, 100	West	Cooper's hawk, Southern California rufous-crowned sparrow, Bell's sage sparrow, yellow warbler, white-tailed kite, southwestern willow flycatcher, yellow-breasted chat, loggerhead shrike, downy woodpecker, coastal California gnatcatcher, least Bell's	Existing Core C, Proposed Linkage 1, Proposed Constrained Linkage 3,5, and 6

Table D.4-5 MSHCP Conservation Areas that intersect the Valley-Ivyglen Project

Conservation Area	Total Acreage	Project Segments Affected	Target Covered Species	Connected or Adjacent Conservation Areas
			vireo, Stephens' kangaroo rat, bobcat, mountain lion, Munz's onion, long-spined spine flower, and many stemmed dudleya; high-quality habitat for the gnatcatcher	
Proposed Linkage 1	2, 310	West	Cooper's hawk, Bell's sage sparrow, loggerhead shrike, mountain quail, coastal California gnatcatcher, Stephens' kangaroo rat, bobcat, and mountain lion; important movement corridor for common large mammals	Existing Core B (Cleveland National Forest), Proposed Core 1, Proposed Constrained Linkages 5 and 6, Proposed Extension of Existing Core 2
Proposed Linkage 7	3, 400	Central and East	Bell's sage sparrow, coastal California gnatcatcher, least Bell's vireo, bobcat, San Jacinto Valley crownscale, vernal barley, and spreading navarretia; crucial east-west habitat corridor consisting of blocks of riparian habitat, including along San Jacinto River	Proposed Core 1, Proposed Linkage 8, Proposed Constrained Linkage 19
Proposed Constrained Linkage 3	80	West	Bobcat	Proposed Extension of Existing Core 2, Proposed Linkage 1
Proposed Constrained Linkage 5	25	West	Mountain lion, bobcat	Proposed Core 1, Proposed Extension of Existing Core 2, Proposed Linkage 1
Proposed Constrained Linkage 6	175	West	Cooper's hawk, yellow warbler, white-tailed kite, southwestern willow flycatcher, yellow-breasted chat and least Bell's vireo	Proposed Core 1, Proposed Extension of Existing Core 2, Proposed Linkage 1

Source: County of Riverside 2003

The Project would temporarily and permanently impact a total of 177 and 38 acres, respectively, of land within the Project footprint (Table D.4-4). Of that, most of the impacts would be spaced apart (i.e., along transmission poles) and linear in nature (i.e., new roads). The proposed Fogarty Substation site has the largest footprint of disturbance in one location (6.6 acres). Due to the linear nature and relative size of the impacts, the Project would not be expected to significantly impact large intact and interconnected habitat blocks of the MSHCP Core and Linkage system. Additionally, mitigation measures proposed in Impact BIO-1, BIO-2, and BIO-3 would alleviate impacts to special status Covered Species and migratory corridors. There would be significant impacts to Proposed Extension of Existing Core 2 if high-quality, intact coastal sage scrub, which provides habitat for the coastal California gnatcatcher, is removed during construction; however, MM BIO-1a would minimize the impacts to coastal sage scrub habitat, as well as other sensitive native vegetation communities. There would also be significant impacts to wetland and riparian habitat within Proposed Linkage 7, particularly in riparian areas in and around the San Jacinto River. Avoiding and minimizing impacts to riparian habitat in this area will be key to achieving conservation of habitat and water quality functions; thus, MM BIO-2a and BIO-2b will be needed to reduce impacts to less than significant.

With the incorporation of mitigation measures, and also by going through the PSE process with the RCA to ensure there will be no conflict with the provisions of the MSHCP, impacts to local, regional, or state habitat conservation plans will be less than significant.

References [4]

AMEC Earth and Environmental, Inc. (AMEC). 2009. Focused Surveys for the Least Bell's Vireo and Southwestern Willow Flycatcher Valley-Ivyglen Subtransmission Line Project. Submitted to Southern California Edison on September 28, 2009.

AMEC Earth and Environmental, Inc. (AMEC). 2010. Draft Results of Focused Surveys for Listed Fairy Shrimp Species for the Proposed Valley-Ivyglen Subtransmission Line Project. Submitted to Southern California Edison on February 2010.

California Natural Diversity Database (CNDDB). 2010. Accessed February 3, 2010. http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp.

Donohue, Kara. 2010. Personal Communication on New Survey Efforts. Biologist. Southern California Edison, Rosemead, California. Email communication with Jennifer Siu, Ecology and Environment, Inc., San Francisco, CA. February 19 through March 3.

National Oceanic and Atmospheric Administration (NOAA). 2010. National Climatic Data Center. Accessed February 3, 2010. http://www.ncdc.noaa.gov/sotc/?report=national&year=2009&month=13&submitted=Get+Report#precip.

Riverside County Habitat Conservation Agency. 2010. Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California. Accessed February 12, 2010. http://www.skrplan.org/skr.html.

U.S. Fish and Wildlife Service (USFWS). 2007. Vernal Pool Fairy Shrimp (*Branchinecta lynchi*) 5 Year Review: Summary and Evaluation. Sacramento Fish and Wildlife Office, Sacramento, CA.

[4] References cited in the revised Biological Resources section of the Final EIR but not cited in the Biological Resources section of the Draft EIR.