BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

In the Matter of the Application of SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) for a Permit to Construct Electrical Facilities With Voltages Between 50 kV and 200 kV: Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project	Application No. _____

PROPONENT'S ENVIRONMENTAL ASSESSMENT

CIRCLE CITY SUBSTATION AND MIRA LOMA-JEFFERSON 66 kV SUBTRANSMISSION LINE PROJECT

VOLUME 2 of 6

(Chapter 4.4 through Attachment 4.4-B)

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Dated: **December 4, 2015**

4.4 Biological Resources

This section describes the biological resources in the area of the Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project (Proposed Project). The potential impacts to biological resources resulting from the construction of the proposed Circle City Substation site, Source Line Route, and Mira Loma-Jefferson 66 kilovolt (kV) Subtransmission Line Route are discussed, as are the alternative substation site, alternative source line routes, and alternative Mira Loma-Jefferson 66 kV Subtransmission Line routes. With implementation of the applicant-proposed measures (APMs) provided in Section 4.4.6 Applicant-Proposed Measures, impacts to biological resources would be less than significant.

4.4.1 Environmental Setting

In Chapter 2 – Project Alternatives, Figure 2-1: Alternative Substation Sites and Source Line Routes Map and Figure 2-2: Alternative Mira Loma-Jefferson 66 kV Subtransmission Line Routes Map depict the proposed and alternative Proposed Project components. The study area for the Proposed Project, which is depicted in Attachment 4.4-A: Vegetation Communities Map, consists of the following:

- an approximately 300-foot buffer around all substation sites (i.e., the existing Mira Loma and Corona substations, the proposed Circle City Substation site, and Substation Site Alternative B);

- an approximately 300-foot buffer on either side of the proposed and alternative source line routes and the proposed and alternative Mira Loma-Jefferson 66 kV Subtransmission Line routes; and

- an approximately 300-foot buffer around all proposed staging yards, access roads, guard structures, and pulling sites for the proposed routes.

The Proposed Project is located between the San Gabriel Mountains to the north and the Santa Ana Mountains to the south. It is on the United States (U.S.) Geological Survey's (USGS's) Guasti, Corona North, and Corona South 7.5-minute quadrangle maps. Topography in the Proposed Project vicinity is generally flat, with an approximate range in elevation from 520 to 890 feet above mean sea level. Land uses in the immediate Proposed Project vicinity are primarily agricultural (i.e., croplands and dairies) to the north, and residential/commercial to the south. The Prado Flood Control Basin, near the center of the Proposed Project, is created by the Prado Dam and is located at the confluence of the Santa Ana River, Mill Creek, Chino Creek, and Temescal Creek. The following soil series have been mapped in the study area:

- Arbuckle,
- Buchenau,
- Cajalco,
- Chino,
- Chualar,
- Cieneba,
- Cortina,

- Delhi,
- Dello,
- Domino,
- Garretson,
- Grangeville,
- Greenfield,
- Hanford,
- Hilmar,
- Metz,
- Pachappa,
- Placentia,
- Ramona,
- San Emigdio,
- Temescal,
- Tujunga, and
- Waukena.

Gravel pits, riverwash, rough broken land, terrace escarpments, and water[1] have also been mapped. In Section 4.6 Geology and Soils, Figure 4.6-2: Soils Map (Source Line Route) and Figure 4.6-3: Soils Map (Subtransmission Line) depict the specific soil types found in the study area. Two staging yards—Staging Yards #6 and #7—are located in a separate location from the Proposed Project alignment and are therefore not represented on these figures. Tujunga soil series is mapped within Staging Yard #6, and Garretson, Arbuckle, and Perkins soil series are mapped within Staging Yard #7.

The region experiences a Mediterranean climate characterized by mild, rainy winters and hot, dry summers. The temperature is moderated by the coastal influence of the Pacific Ocean, which creates mild conditions throughout most of the year. The most distinguishing characteristic of a Mediterranean climate is its seasonal precipitation. In Southern California, precipitation is characterized by brief, intense storms between November and March. It is not unusual for a majority of the annual precipitation to fall during a few storms over a short span of time. Rainfall patterns are subject to extreme variations from year to year and longer-term wet and dry cycles. The average annual rainfall for the area is approximately 13.3 inches (National Oceanic and Atmospheric Administration [NOAA] National Climatic Data Center, 2015). The climatic conditions in the region of the Proposed Project have a significant influence on the existing vegetation communities described in the following subsections.

4.4.1.1 Survey Methodologies

Literature Review

A literature review was performed to identify special-status plants, wildlife, and habitats known to occur (or that historically occurred) in the vicinity of the study area. This search included a

[1] The soil series "water" represents areas of open water within the Proposed Project, such as the quarry lake and the Santa Ana River. Figure 4.6-2: Soils Map (Source Line Route) and Figure 4.6-3: Soils Map (Subtransmission Line) in Section 4.6 Geology and Soils depict the locations within the Proposed Project where this soil series is mapped.

review of the USGS's Ontario, Guasti, Fontana, Prado Dam, Corona North, Riverside West, Blackstar Canyon, Corona South, and Lake Mathews 7.5-minute quadrangles in the California Native Plant Society's (CNPS's) Inventory of Rare and Endangered Vascular Plants of California and the California Department of Fish and Wildlife's (CDFW's) California Natural Diversity Database (CNDDB). Special-status plant species were considered to be any plant species with a federal or state listing status and/or a CNPS California Rare Plant Rank (CRPR) of 1B or 2 through 4. Special-status wildlife species were considered to be any federally or state-listed—or proposed to be listed—threatened or endangered species, California Species of Special Concern, and/or fully protected species. The Assessor's Parcel Numbers within Riverside County were checked in the Riverside County Conservation Summary Report Generator for the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Critical habitat designations provided by the U.S. Fish and Wildlife Service (USFWS) were reviewed to identify any designated critical habitat located in the vicinity of the study area.

General Surveys for Sensitive Species

General plant and wildlife surveys and vegetation mapping were initially conducted by BonTerra Consulting in 2010. Additional areas were surveyed in 2011 and 2012 following various shifts in the Proposed Project alignment, the addition and removal of Proposed Project components, and the expansion of the survey area buffer on either side of the Proposed Project components from 50 feet to 300 feet. The entire study area was surveyed in 2015 to incorporate the addition and removal of alternative Proposed Project components and to update the existing survey information. Attachment 4.4-B: Habitat Assessment details the 2015 survey effort. This section describes general biological conditions for the Proposed Project and its alternatives, including an approximately 300-foot buffer. A summary of the general survey effort is included in Table 4.4-1: Summary of General Biological Surveys. The general surveys included an evaluation of the potential for habitats to support special-status plant and wildlife species. Vegetation was mapped in the field on an aerial photograph at a scale of 1 inch to 200 feet. The general surveys also included an assessment of resources to comply with MSHCP requirements, which included an assessment of riparian/riverine resources, vernal pools, and urban/wildlands interface issues. MSHCP riparian/riverine resources are depicted in Attachment 4.4-A: Vegetation Communities Map.

In addition, the study area was assessed for any "Additional Survey Needs" species (i.e., narrow endemic plant species and burrowing owl [*Athene cunicularia*]), per the MSHCP. Nomenclature for vegetation communities generally follows the MSHCP.

Plant species were identified in the field or collected for subsequent identification using keys in Baldwin et al. (2012), Munz (1974), Abrams (1923, 1944, 1951), and Abrams and Ferris (1960). Taxonomy follows Baldwin et al. (2012) and current scientific data (e.g., scientific journals) for scientific and common names. Active searches for reptiles and amphibians included lifting, overturning, and carefully replacing rocks and debris. Birds were identified by visual and auditory recognition. Surveys for mammals were conducted during the day and included searching for and identifying diagnostic signs, including scat, footprints, burrows, and trails. Taxonomy and nomenclature for wildlife generally follows Eriksen and Belk (1999) for fairy shrimp, American Fisheries Society (1991) for fish, Crother (2012) for amphibians and reptiles,

American Ornithologists' Union (2015) for birds, and Baker et al. (2003) for mammals. All species observed were recorded in field notes.

Table 4.4-1: Summary of General Biological Surveys

Date	Surveying Biologists	Area Surveyed
March 2, 2010	Stacie Tennant Sandra Leatherman	Original substation alternatives, including areas not in the current study area
March 23, 2010	Lindsay Messett Sandra Leatherman	Substation alternatives, including an additional substation alternative not in the current study area, and several source line route segments, including some not in the current study area
May 13, 2010	Allison Rudalevige Ann Johnston	Mira Loma Substation and the previous alignments for the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route and Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 2 with a 50-foot buffer
June 17, 2010	Allison Rudalevige	Revisions to the alignment of Mira Loma Substation and Substation Site Alternative B; and new alignments plus a 50-foot buffer for the proposed and alternative source line routes, the proposed Mira Loma-Jefferson 66 kV Subtransmission Line, and the Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 2
November 29, 2011	Allison Rudalevige Jason Mintzer	New portions of the alternative source line routes and Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 3
March 14, 2012	Allison Rudalevige	Proposed staging yards and the expanded buffer of 300 feet
March 9 to March 12, 2015	Yasmine Akky Nick Fisher	Entire study area, including Staging Yards #6 and #7

Focused Surveys

Focused biological surveys were conducted for special-status plant species (including MSHCP narrow endemic), Delhi Sands flower-loving fly (DSFF) (*Rhaphiomidas terminates abdominalis*), special-status fairy shrimp, burrowing owl, least Bell's vireo (*Vireo bellii pusillus*), and southwestern willow flycatcher (*Empidonax traillii extimus*). Habitat assessments were conducted for special-status mammals, including San Bernardino kangaroo rat (*Dipodomys merriami parvus*), Stephens' kangaroo rat (*Dipodomys stephensi*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), and native bat species. Surveys were conducted in 2010 and 2011 for various portions of the study area, including Proposed Project alternatives. Focused species surveys conducted after 2011 covered the entire study area. Technical reports for focused species surveys conducted prior to 2012 are provided as attachments to Attachment 4.4-C: Biological Technical Report, while reports for surveys conducted after 2012 are provided in Attachment 4.4-D: Additional Focused Species Survey Reports.

Special-Status Plant Species

Special-status plant surveys were floristic in nature and were conducted in 2010, 2011, 2012, and 2013. These surveys followed the CDFW's Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities. Prior to conducting the field surveys each year, reference populations for annual and difficult-to-detect target species with a potential to occur in the study area were monitored to ensure that the scheduled surveys were comprehensive and conducted during the appropriate blooming period for these species. A summary of the focused survey effort is included in Table 4.4-2: Summary of Special-Status Plant Species Surveys. A systematic walking survey was conducted and all plant species observed were recorded in field notes. Plant species were identified in the field or collected for later identification. Plants were identified to the taxonomic level necessary to determine whether they are a special-status species.

Delhi Sands Flower-Loving Fly

Focused surveys for DSFF followed the USFWS protocol (USFWS 1996a, as amended). In 2010 and 2011, surveys were conducted by biologists Gilbert Goodlett (USFWS Permit Number TE-005535-3) and Brian Drake (USFWS Permit Number TE-006328-4) with EnviroPlus Consulting. Surveys were conducted in areas within the Ontario Recovery Unit that contains Delhi series soils, and excluded developed and agricultural areas. Surveys were conducted twice a week between July 1 and September 20 in 2010 and 2011 between the hours of 10:00 a.m. and 2:00 p.m., with no more than 50 acres being surveyed per day.

Focused surveys for DSFF in 2012, 2013, and 2014 were conducted by biologists John Dicus (TE-839960-5) and Melanie Dicus (TE-049175-3). Surveys were conducted twice a week between July 1 and September 20 between the hours of 10:00 a.m. and 2:00 p.m., with no more than 50 acres being surveyed per day.

Fairy Shrimp

A habitat assessment for Riverside fairy shrimp (*Streptocephalus woottoni*) was conducted for the proposed Circle City Substation site on June 23, 2010, by BonTerra Consulting biologist Jeff Crain (USFWS Permit Number TE-047998-1). A habitat assessment was conducted by Jeff Crain on November 26, 2010 for Mira Loma Substation, the proposed Circle City Substation site, Substation Site Alternative B, the proposed Source Line Route, portions of the alternative source line routes, the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route, and Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 2.

Focused surveys following the USFWS protocol (USFWS, 1996b) were conducted on December 10 and 24, 2010 and January 7 and 21, 2011 (i.e., the 2010 surveys) by Jeff Crain. Per USFWS protocol, a complete survey requires either one consecutive wet-season or dry-season survey, or two wet-season surveys within a 5-year period. The 2010/2011 surveys covered two ponds within the survey area and represent the first year of wet-season surveys for these ponds.

Table 4.4-2: Summary of Special-Status Plant Species Surveys

Date	Surveying Biologists	Number of Hours Per Person	Area Surveyed
April 13, 2010	Sandra Leatherman Jeff Crain Amber Oneal	21	Corona Substation, the proposed Circle City Substation site, Substation Site Alternative B, and several proposed and alternative source line route segments, including some not in the current study area
May 13, 2010	Sandra Leatherman Jeff Crain	14	
June 23, 2010	Sandra Leatherman Jeff Crain Amber Oneal Jennifer Pareti	28	
April 4, 2011	Sandra Leatherman Jennifer Pareti	16	Mira Loma Substation, Corona Substation, the proposed Circle City Substation site, Substation Site Alternative B, the proposed Source Line Route, portions of the alternative source line routes, the Mira Loma-Jefferson 66 kV Subtransmission Line Route, and Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 2
April 29, 2011	Allison Rudalevige	2.5	
May 27, 2011	Allison Rudalevige Sandra Leatherman	4.6	
June 9, 2011	Sandra Leatherman Stacie Tennant	7.4	
July 5, 2011	Allison Rudalevige Sandra Leatherman	11	
July 8, 2011	Allison Rudalevige Sandra Leatherman	11	
July 19, 2011	Allison Rudalevige Sandra Leatherman	3.4	
August 17, 2011	Allison Rudalevige Sandra Leatherman	5	
April 18, 2012	Allison Rudalevige Jennifer Pareti	4.3	Mira Loma Substation; Corona Substation; the proposed Circle City Substation site; the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route; the proposed Source Line Route; and proposed staging yards, access roads, guard structures, and pulling sites for the proposed routes
June 13, 2012	Sandra Leatherman David Bramlet	14.5	
June 18, 2012	Sandra Leatherman David Bramlet	16	
August 20, 2012	Robert Allen	1.5	

Date	Surveying Biologists	Number of Hours Per Person	Area Surveyed
May 6, 2013	Heather Clayton Jeremy Smith Linette Lina	13	Mira Loma Substation, Corona Substation, the proposed Circle City Substation site, the proposed Source Line Route, and the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route
May 15, 2013	Heather Clayton Jeremy Smith Linette Lina	19.25	
May 17, 2013	Heather Clayton Jeremy Smith Linette Lina	16	
August 25, 2013	Heather Clayton Jeremy Smith Linette Lina	15.25	

A second year of wet-season surveys covering the entire study area was conducted by BonTerra Consulting Biologist/Regulatory Technician Allison Rudalevige (USFWS Permit Number TE-177979-0). Six additional ponding areas were observed during these surveys. The 2011/2012 surveys represent the first year of wet-season surveys for these additional ponding areas, and the second year of wet-season surveys for previously surveyed ponding areas. The 2011/2012 surveys were conducted on the following dates:

- November 29 and 30, 2011;
- December 14 and 29, 2011;
- January 6 and 25, 2012;
- February 8 and 23, 2012;
- March 7 and 21, 2012;
- April 5 and 18, 2012; and
- May 3, 2012.

A second set of focused surveys were conducted in 2012 and 2013 to update the information obtained from previous surveys. The entire study area was included in this set of surveys. A habitat assessment was conducted on October 12, 2012 by Chambers Group biologist Heather Franklin, and on October 15, 2012 by Heather Franklin and Chambers Group biologist Linette Lina. Focused species wet-season surveys were conducted by Busby Biological Services biologists Melissa Busby (TE-080779-2) and Darin Busby (TE-115373-2) with assistance from other biologists under their supervision. The 2012/2013 surveys were conducted on the following dates:

- October 26, 2012;
- December 7, 20, 26, and 27, 2012;
- January 3, 18, and 31, 2013;
- February 14, 2013; and
- March 1, 15, and 27, 2013.

The 2012/2013 surveys covered 86 basins—a majority of which were not included in prior surveys. The 2012/2013 surveys represent a third year of wet-season surveys on the 2010/2011 ponds, a second year of wet-season surveys on the additional 2011/2012 ponds, and the first year of wet-season surveys for additional ponds detected in 2012/2013.

Additional focused protocol-level surveys were conducted in 2014 and 2015 to provide the second year of wet-season surveys. The entire study area was included in this set of surveys. The 2014/2015 surveys were conducted by permitted Busby Biological Services biologists Darin Busby (TE-115373-3) and Melissa Busby (TE-080779-2), with assistance from other biologists under their supervision. The 2014/2015 surveys were conducted on the following dates:

- December 11, 19, 20, and 26, 2014;
- January 2, 7, and 19, 2015;
- February 3, and 14, 2015;
- March 2, and 15, 2015;
- April 13, and 29, 2015;

- May 14, 20, and 28, 2015.

Vernal pool locations are depicted in the Focused, Protocol-Level 2012/2013 Wet Season Fairy Shrimp Surveys Report in Attachment 4.4-D: Additional Focused Species Survey Reports.

Burrowing Owl

Surveys conducted for burrowing owl in 2010, 2011, and 2012 followed the Burrowing Owl Survey Instructions for the Western Riverside County MSHCP (Riverside County, 2006). Surveys for burrowing owl were conducted during the breeding season, which extends from March 1 to August 31. These surveys were conducted in three phases, and include a habitat assessment, burrow surveys, and focused owl surveys. A summary of the focused survey effort is included in Table 4.4-3: Summary of Burrowing Owl Surveys.

Table 4.4-3: Summary of Burrowing Owl Surveys

Date	Surveying Biologists	Survey Type	Area Surveyed
March 2, 2010	Sandra Leatherman Stacie Tennant	Habitat Assessment	Corona Substation, the proposed Circle City Substation site, Substation Site Alternative B, and several potential source line route segments (including some not in the current study area)
July 5, 2010	Lindsay Messett Jennifer Pareti	Burrow Survey	
July 6, 7, 15, and 20, 2010	Lindsay Messett	Focused Owl Survey	
April 14 and 29, 2011	Allison Rudalevige Jennifer Pareti Sandra Leatherman	Habitat Assessment	Mira Loma Substation, Corona Substation, the proposed Circle City Substation site, Substation Site Alternative B, several potential source line route segments (including some not in the current study area), the Mira Loma-Jefferson 66 kV Subtransmission Line Route, and Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 2
August 8, 2011	Lindsay Messett Cristhian Mace	Burrow Survey	
August 9 to 12, 2011	Lindsay Messett Jonathan Aguayo	Focused Owl Survey	
July 9, 2012	Lindsay Messett Jonathan Aguayo	Burrow Survey	Mira Loma Substation; Corona Substation; the proposed Circle City Substation site; the proposed Source Line Route; the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route; and proposed staging yards, access roads, guard structures, and pulling sites for the proposed routes
July 9 and 31, 2012; August 2 and 7, 2012	Lindsay Messett Jonathan Aguayo	Focused Owl Survey	

Burrow surveys were conducted by walking transects through potential habitat, with spacing that allowed 100-percent coverage of the ground surface. Areas of bare ground, low-density vegetation, man-made structures, abandoned equipment, and other areas considered suitable for the burrowing owl were surveyed. All natural or man-made cavities large enough to allow burrowing owl entry were inspected for evidence of occupation. Evidence of occupation may include prey remains, cast pellets, white-wash, feathers, and observations of owls adjacent to

burrows. Any evidence of owl occupation was described and mapped, and the location of the evidence was recorded using a Global Positioning System unit. The focused owl surveys were conducted within portions of the study area where burrowing owls had a potential to occur based on the results of the habitat assessment and the burrow surveys. Surveys were conducted from 1 hour before sunrise to 2 hours after, or from 2 hours before sunset to 1 hour after.

Least Bell's Vireo and Southwestern Willow Flycatcher

Focused surveys for least Bell's vireo were conducted in 2010, 2011, and 2012 following USFWS protocol (USFWS, 2001). In 2011 and 2012, focused surveys were conducted for least Bell's vireo and southwestern willow flycatcher. The southwestern willow flycatcher surveys followed USFWS protocol (Sogge et al., 2010) and can be conducted concurrently with least Bell's vireo surveys. A summary of the focused survey effort is included in Table 4.4-4: Summary of Least Bell's Vireo and Southwestern Willow Flycatcher Surveys. Vireo survey protocol requires that at least eight surveys must be conducted from April 10 to July 31, with a 10-day interval between site visits. Southwestern willow flycatcher survey protocol requires a total of five surveys, with the first conducted between May 15 and May 31, the second and third between June 1 and June 24, and the fourth and fifth between June 25 and July 17. Riparian habitat was systematically surveyed by walking slowly and methodically along its margins. Following the southwestern willow flycatcher protocol, recorded vocalizations were used to elicit a response from any potentially territorial southwestern willow flycatchers. All surveys were conducted under optimal weather conditions and during early morning hours when bird activity is at a peak.

Table 4.4-4: Summary of Least Bell's Vireo and Southwestern Willow Flycatcher Surveys

Date	Surveying Biologists	Species Included in Survey	Area Surveyed
May 13 and 24, 2010; June 5, 17, and 28, 2010; and July 8, 19, and 29, 2010	Lindsay Messett	Least Bell's vireo	The alternative source line routes
April 14 and 27, 2011; May 16, 2011; June 3, 15, and 27, 2011; and July 11 and 22, 2011	Amber Oneal	Least Bell's vireo and southwestern willow flycatcher	The proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route, Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 2, and Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 3
April 23, 2012; May 3, 18, and 29, 2012; June 8, 18, and 28, 2012; and July 9, 2012	Brian Daniels Lindsay Messett	Least Bell's vireo and southwestern willow flycatcher	The proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route

Western Yellow-Billed Cuckoo

Suitable foraging and limited suitable breeding habitats for western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) are present along the Proposed Project route within the Prado Flood Control Basin. Focused surveys will be conducted during the next nesting season

within suitable habitat, in accordance with MSHCP requirements. The western yellow-billed cuckoo surveys will follow USFWS protocol and a minimum of four survey visits will be conducted during three survey periods between June 15 and August 15, 2016.

Special-Status Mammals

A habitat assessment for Stephens' kangaroo rat, San Bernardino kangaroo rat, and Los Angeles pocket mouse was conducted on July 18, 2010 and May 13, 2012, by BonTerra Consulting biologist Stephen Montgomery (USFWS Permit Number TE-745541-10). The assessment included the existing Mira Loma Substation, the proposed Circle City Substation site, the proposed Source Line Route, and the proposed Mira Loma-Jefferson 66 kV Subtransmission Line. Portions of the alternative source line routes and Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 2 and Alternative 3 were only surveyed in 2010. The Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 3 centerline was included in the buffer for Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 2; however, the entire Alternative 3 buffer was not surveyed. General habitat conditions were viewed on an aerial photograph, and all undeveloped areas were noted on a field map and checked in the field for potential suitability for the three species.

A habitat assessment for native bat species was conducted for the proposed Circle City Substation site on July 21 and September 12, 2011 by BonTerra Consulting Biologist Steve Norton. The first survey was conducted during the daytime to locate bat sign and/or potential roosting sites. The second survey was conducted at sunset to record relevant nocturnal site conditions and to incidentally observe any emerging bat species.

Special-Status Species and Critical Habitat

Thirty-seven special-status plant species and fifty-five special-status wildlife species have been reported from the vicinity of the study area, which generally includes the USGS Ontario, Guasti, Fontana, Prado Dam, Corona North, Riverside West, Corona South, and Lake Mathews 7.5-minute quadrangles. A portion of the study area falls within the Western Riverside County MSHCP Additional Survey Needs area for three narrow endemic plant species and the burrowing owl. Table 4.4-5: MSHCP Additional Survey Needs Area, Criteria Cells, and Cell Groups Near the Study Area describes the MSHCP Additional Survey Needs areas that fall within the Proposed Project. Of these, six plant species and 14 wildlife species are federally and/or state-listed as threatened or endangered. One plant species is also a federal candidate for listing. This section analyzes potential impacts to the following:

- federally listed endangered or threatened species;
- proposed or candidate species for federal listing;
- state-listed endangered, threatened, or rare species;
- California Species of Special Concern (SSC);
- California Fully Protected or Protected species;
- plants given a CRPR; and
- MSHCP narrow endemic plant species reported from the vicinity of the study area.

Table 4.4-5: MSHCP Additional Survey Needs Area, Criteria Cells, and Cell Groups Near the Study Area

Proposed Project Component	Additional Survey Needs Area		Criteria Cell	Cell Group	MSHCP Target Criteria
	Burrowing Owl	Narrow Endemic Plant Species			
Mira Loma Substation	●[a]	San Diego ambrosia, Brand's star phacelia, San Miguel savory[a]	68[a], 118[a], 168[a]	A[a]	Conservation within these cells would follow species-specific Conservation Objectives 1A, 1B, or 1C for DSFF (see Table 9-2 of the MSHCP). Under Objective 1A, surveys for the DSFF are not required on a project-by-project basis; under Objectives 1B and 1C, project-by-project surveys would be required in accordance with USFWS guidelines.
Corona Substation	- -	- -	- -	- -	- -
Proposed Circle City Substation site	●	San Diego ambrosia, Brand's star phacelia, San Miguel savory	1826	- -	Conservation within this Cell would contribute to assembly of Proposed Constrained Linkage 4. Conservation within this Cell would focus on water associated with Temescal Wash. Areas conserved within this Cell would be connected to water proposed for conservation to the south in Cell 1923. Conservation within this Cell would range from 15 to 25 percent, focusing on the southern portion of the Cell.
Substation Site Alternative B	●[a]	San Diego ambrosia, Brand's star phacelia, San Miguel savory[a]	1826	- -	Conservation within this Cell would contribute to assembly of Proposed Constrained Linkage 4. Conservation within this Cell would focus on water associated with Temescal Wash. Areas conserved within this Cell would be connected to water proposed for conservation to the south in Cell 1923. Conservation within this Cell would range from 15 to 25 percent, focusing on the southern portion of the Cell.
Proposed Source Line Route	●	San Diego ambrosia, Brand's star phacelia, San Miguel savory	1826	- -	Conservation within this Cell would contribute to assembly of Proposed Constrained Linkage 4. Conservation within this Cell would focus on water associated with Temescal Wash. Areas conserved within this Cell would be connected to water proposed for conservation to the south in Cell 1923. Conservation within this Cell would range from 15 to 25 percent, focusing on the southern portion of the Cell.

Proposed Project Component	Additional Survey Needs Area		Criteria Cell	Cell Group	MSHCP Target Criteria
	Burrowing Owl	Narrow Endemic Plant Species			
Alternative Source Line Routes	●	San Diego ambrosia, Brand's star phacelia, San Miguel savory	1826, 1923	--	*1826:* Conservation within this Cell would contribute to assembly of Proposed Constrained Linkage 4. Conservation within this Cell would focus on water associated with Temescal Wash. Areas conserved within this Cell would be connected to water proposed for conservation to the south in Cell 1923. Conservation within this Cell would range from 15 to 25 percent, focusing on the southern portion of the Cell. *1923:* Conservation within this Cell would contribute to assembly of Proposed Constrained Linkage 4. Conservation within this Cell would focus on water and riparian habitat associated with Temescal Wash. Areas conserved within this Cell would be connected to water proposed for conservation to the north in Cell 1826, and to riparian habitat proposed for conservation in Cell 1924 to the east. Conservation within this Cell would range from 10 to 20 percent, focusing on the northern and eastern portions of the Cell.
Proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route	●	San Diego ambrosia, Brand's star phacelia, San Miguel savory	--	--	--
Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 2	●	San Diego ambrosia, Brand's star phacelia, San Miguel savory	--	--	--
Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 3	●	San Diego ambrosia, Brand's star phacelia, San Miguel savory	--	--	--

Proposed Project Component	Additional Survey Needs Area		Criteria Cell	Cell Group	MSHCP Target Criteria
	Burrowing Owl	Narrow Endemic Plant Species			
Proposed staging yards	●	San Diego ambrosia, Brand's star phacelia, San Miguel savory	68[a], 1826	A[a]	*68:* Conservation within this cell would follow species-specific Conservation Objectives 1A, 1B, or 1C for DSFF (see Table 9-2 of the MSHCP). Under Objective 1A, surveys for the DSFF are not required on a project-by-project basis; under Objectives 1B and 1C, project-by-project surveys in accordance with USFWS guidelines would be required. *1826:* Conservation within this Cell would contribute to assembly of Proposed Constrained Linkage 4. Conservation within this Cell would focus on water associated with Temescal Wash. Areas conserved within this Cell would be connected to water proposed for conservation to the south in Cell 1923. Conservation within this Cell would range from 15 to 25 percent, focusing on the southern portion of the Cell.

Notes:
- - = Not applicable
X = Surveys are required.
[a] = Criteria Cell or Cell Group is adjacent to this portion of the study area.

The USFWS designated 9,331 acres of critical habitat for the Santa Ana sucker (*Catostomus santaanae*) on December 14, 2010; 37,560 acres of critical habitat for the least Bell's vireo on February 2, 1994; and 208,973 acres of critical habitat for the southwestern willow flycatcher on January 2, 2013. In addition, the USFWS proposed the designation of 546,335 acres of critical habitat for the western yellow-billed cuckoo (*Coccyzus americanus)* on August 15, 2014. The Proposed Project—specifically the proposed and alternative Mira Loma-Jefferson 66 kV Subtransmission Line routes—would cross designated critical habitat for the Santa Ana sucker, the least Bell's vireo, and the southwestern willow flycatcher, as well as proposed critical habitat for the western yellow-billed cuckoo, as shown in Figure 4.4-1: Critical Habitat. Critical habitat for the Santa Ana sucker that overlaps the study area is entirely within the MSHCP. As such, should Southern California Edison (SCE) opt to request "Participating Special Entity" (PSE)[2] status pursuant to the Western Riverside County MSHCP, potential impacts on designated critical habitat would be addressed by participation in the MSHCP. Critical habitat for least Bell's vireo and southwestern willow flycatcher and proposed critical habitat for western yellow-billed cuckoo that overlaps with the study area are within both San Bernardino County (specifically along the west side of Hellman Avenue) and Riverside County.

Jurisdictional Water Resources

The study area was assessed for the presence of U.S. Army Corps of Engineers- (USACE-) jurisdictional waters of the U.S., including wetlands (if present) and/or jurisdictional waters of the State. The assessment included a review of aerial images of the study area and field visits to verify potential jurisdictional resources. BonTerra Consulting regulatory specialist Gary Medeiros conducted field visits on June 8 and July 1, 2010. LSA Associates biologists Sarah Barrera and Claudia Bauer conducted field visits on June 3, 4, and 18, 2015 within a survey area including the proposed Circle City substation boundaries, staging yards, the route, and the associated SCE ROW along the route. The Jurisdictional Delineation Report is provided in Attachment 4.4-E: Jurisdictional Delineation Report.

A formal jurisdictional delineation of the study area was conducted on November 23, 2011, and January 6, 2012, by Gary Medeiros and Allison Rudalevige. The delineations followed the protocol in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (1987 Wetlands Manual) (USACE, 2008) and the *Corps of Engineers Wetlands Delineation Manual* (Arid West Supplement) (Environmental Laboratory, 1987). Both the 1987 Wetlands Manual and the Arid West Supplement to the manual provide technical methods and guidelines for determining the presence of waters of the U.S. and wetland resources. A three-parameter approach requiring evidence of wetland hydrology, hydrophytic vegetation, and hydric soils was used to identify wetland waters of the U.S. Non-wetland waters of the U.S. were delineated based on the limits of the ordinary high water mark (OHWM), which can be determined by a number of factors, including erosion, the deposition of vegetation or debris, and changes in vegetation. The CDFW's jurisdiction is defined as the top of the bank to the top of the bank of the stream, channel, or basin or to the outer limit of riparian vegetation located within or immediately adjacent to the river, stream, creek, pond, or lake or other

[2] A PSE is any regional public facility provider (e.g., a utility company, a public district, or agency) that operates and/or owns land within the Western Riverside County MSHCP area and applies for Take Authorization pursuant to Section 11.8 of the Implementing Agreement for the Western Riverside County MSHCP.

impoundment. It should be noted that the Regional Water Quality Control Board (RWQCB) shares USACE jurisdiction unless isolated conditions are present. If isolated water conditions are present, the RWQCB takes jurisdiction using the USACE's definition of the OHWM and/or the three parameter wetlands methodology pursuant to the 1987 Wetlands Manual. Jurisdictional features were delineated using an aerial photograph with a scale of 1 inch equal to 200 feet. The field survey included the collection of vegetation, soils, and hydrologic data from nine sampling points in the study area; this information was recorded on Wetland Determination Data Forms.

Wildlife Movement

The study area is located in a mosaic of developed and partially developed parcels, demolished and partially demolished dairies/farms, cleared lands, active agricultural operations, and open space. Agricultural land uses tend to increase to the north along the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route, and developed land uses cover most of the southern portion of the study area south of the Santa Ana River.

Portions of the proposed Circle City Substation site, Substation Site Alternative B, and the alternative source line routes occur within the MSHCP Proposed Constrained Linkage 4.[3] This proposed linkage is comprised of the portion of Temescal Wash that extends from Indiana Avenue to El Cerrito Road. This linkage provides movement for species between core areas in Lake Mathews/Estelle Mountain and areas upstream along Temescal Wash. The northern extent of this linkage is constrained by existing development in the City of Corona. A portion of the alternative source line routes overlap Temescal Wash.

The proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route would cross the Prado Flood Control Basin. Riparian vegetation in this area represents a regional wildlife movement corridor separating the upper and lower Santa Ana River watershed. Amphibians, reptiles, and small mammals are expected to utilize the riparian vegetation for movement, though larger mammals are not as likely to be found along the river corridor (California State Coastal Conservancy, 2001). Further, during appropriate seasonal flows, the Santa Ana River may provide a movement corridor for fish and other aquatic species. The wetlands of the Prado Flood Control Basin are home to approximately 250 rare and endangered bird and waterfowl species that migrate along the Pacific Flyway or reside in the area (California State Coastal Conservancy, 2001). Habitat within the Prado Flood Control Basin and along the Santa Ana River comprises MSHCP Existing Core A. A Criteria Cell for Existing Core A (i.e., Cell 964) is located less than 3,000 feet upstream of the study area. This area functions as a linkage connecting Orange County to the west with San Bernardino County to the north. It is also connected to the Cleveland National Forest via both upland and riparian connections.

Western Riverside County Multiple Species Habitat Conservation Plan

As previously described, a portion of the study area is located within the Western Riverside County MSHCP. The study area occurs within the Western Riverside County MSHCP's area

[3] MSHCP Proposed Constrained Linkage 4 is a constricted connection expected to provide for movement of identified planning species between Core Areas, where options for assembly of the connection are limited due to existing patterns of use.

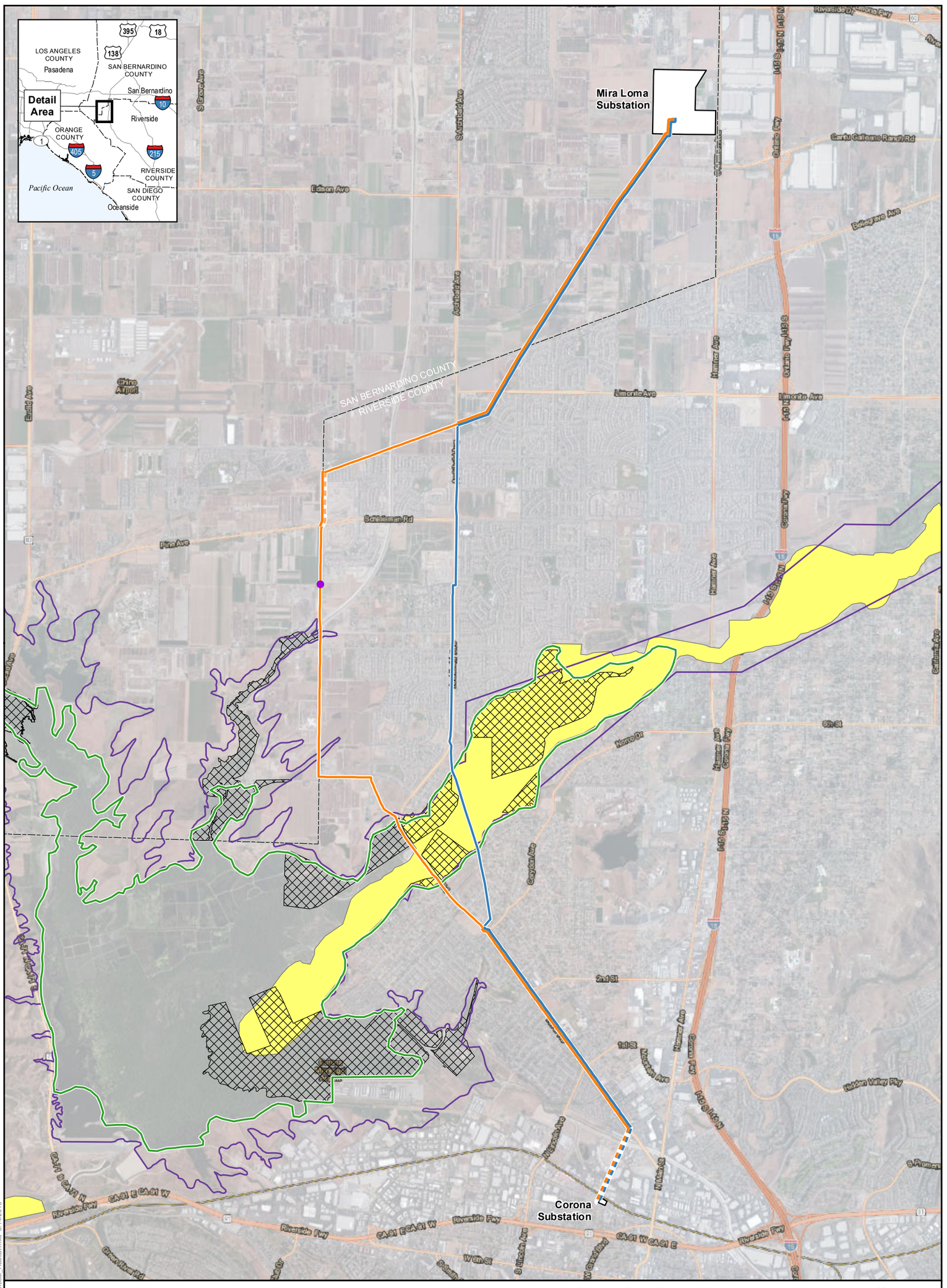

Figure 4.4-1: Critical Habitat Map

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Mira Loma-Jefferson 66 kV Subtransmission Line

- Subtransmission Line Route Alternative 1 - Overhead (Proposed)
- Subtransmission Line Route Alternative 1 - Underground (Proposed)
- Subtransmission Line Route Alternative 2 - Underground*
- Subtransmission Line Route Alternative 3 - Overhead
- Subtransmission Line Route Alternative 3 - Underground
- Subtransmission Line - Underground Crossing

*Note: Except for the underground portion indicated, Alternative Route 2 would utilize the same route and construction techniques as the Proposed Route.

Critical Habitat

- Least Bell's Vireo (1994 Final)
- Southwestern Willow Flycatcher (2013 Final)
- Santa Ana Sucker (2010 Final)
- Yellow-Billed Cuckoo (2014 Proposed)

- Substation
- County Boundary

Sources: Insignia, 2015; NRCS, 2008; SCE, 2015

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plans for Eastvale, Temescal Canyon, and Riverside/Norco. The target conservation acreage range for the Eastvale Area Plan is 1,040 to 1,185 acres. This area plan contains a small portion of Existing Core A. The target conservation acreage range for the Temescal Canyon Area Plan is 29,555 to 31,870 acres. This area plan contains Proposed Constrained Linkages 1 and 2; a large portion of Proposed Constrained Linkages 3 and 4; a large portion of Proposed Extension of Existing Cores 1 and 2; and a small portion of Existing Core A. The target conservation acreage range for the Riverside/Norco Area Plan is 3,465 to 3,615 acres. This area plan also contains a small portion of Proposed Constrained Linkage 7 and a small portion of Existing Core A.

Portions of the study area overlap Criteria Cells 1826 and 1923, as shown in Figure 4.4-2: Western Riverside County Multiple Species Habitat Conservation Plan Map. Other portions of the study area are adjacent to, but do not overlap, Criteria Cells 68, 118, and 168 and Cell Group A. The study area overlaps the Additional Survey Needs areas for San Diego ambrosia (*Ambrosia pumila*), Brand's star phacelia (*Phacelia stellaris*), San Miguel savory (*Satureja chandleri*), and burrowing owl. The study area is outside of all "Additional Survey Needs" areas for Criteria Area plant species, amphibians, and mammals, which are identified in Table 4.4-5: MSHCP Additional Survey Needs Area, Criteria Cells, and Cell Groups Near the Study Area.

It should be noted that the Proposed Project is located outside of the Stephens' kangaroo rat Habitat Conservation Plan (HCP) fee area and Core Reserve boundaries, but portions of the alignment are located within Western Riverside County MSHCP boundaries. As such, the Western Riverside County MSHCP can provide take coverage for this species, if needed.

Plant Protection and Management

The Riverside County Code (Chapter 12.24) provides for the protection of timberlands in Riverside County. This ordinance applies to any parcel or property that is larger than 0.5 acre, is located in an area above 5,000 feet in elevation, and is within the unincorporated area of the county. The provisions of Chapter 12.24 do not apply to activities conducted by a public utility, subject to the jurisdiction of the California Public Utilities Commission (CPUC) or any other constituted public agency, where—to construct and maintain safe operation of facilities under their jurisdiction—trees are removed, pruned, topped, or braced.

The San Bernardino Code of Ordinances (Title 8, Division 8, Section 88.01) provides for the protection of plant resources in San Bernardino County. This ordinance applies to all private land within the unincorporated areas of San Bernardino County and to public lands owned by the county, except as specified by the provisions of this Division. The removal of any regulated native tree or desert native plant by "any public utility subject to jurisdiction of the CPUC or any other constituted public agency, including franchised cable TV where to establish or maintain safe operation of facilities under their jurisdiction, trees are pruned, topped or braced" may be exempt from this Division.

Chapter 12.16 of the City of Chino Municipal Code states that, without written permission from the service department, no person shall remove, trim, prune, or cut any tree upon the streets or planting strips. Upon such permission being granted to any person for the purpose of trimming, pruning, cutting, or removing any trees, such trimming, pruning, cutting, or removal shall be done under the general supervision of the service department.

The City of Corona's Community Forestry Program was enacted, in part, to recognize, designate, and protect landmark trees on public property. As such, the City of Corona has jurisdiction over the planning, planting, maintenance, alteration, and removal of all trees, shrubs, and landscape materials on public property. The city Municipal Code states that "it shall be unlawful for any person to alter or remove or plant any trees, shrubs or landscape materials on public property without a permit for such work issued by the Director" (Chapter 12.22, Section 070).

Former Chapter 12.24, Section 12.24.010 to 12.24.080 of the City of Eastvale's Municipal Code pertained to tree removal, but was repealed in its entirety.

Chapter 12.08, Section 040 of the City of Norco's Municipal Code states that no person, firm, corporation, public district, public agency, or political subdivision shall remove or severely trim any tree planted in the right-of-way (ROW) of any city street. A permit from the Superintendent of City Streets is required prior to removal or severe trimming of any street tree.

Chapter 10-2 of the City of Ontario Municipal Code states that no person shall cut, carve, mutilate, or otherwise do harm to any tree in any park, parkway, or public place, or prune or top such trees, except as provided in this chapter, or to apply or allow to exist upon any parkway or tree any substance harmful to such trees. Authorization from the city's Public Works Agency is required for removal or relocation of any parkway tree.

4.4.2 Regulatory Setting

The following definitions describe the various categories of special-status biological resources used in this document:

- **Federally listed endangered species:** Species facing extinction throughout all, or a significant portion of, its geographic range.
- **Federally listed threatened species:** Species likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
- **Proposed or candidate species:** Species officially proposed by the USFWS for addition to the federal threatened and endangered species list.
- **State-listed endangered species:** Species whose prospects of survival and reproduction are in immediate jeopardy.
- **State-listed threatened species:** Species present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management.
- **State-listed rare species:** Species present in such small numbers throughout its range that it may become endangered if its present environment worsens.
- **California SSC:** Informal designation used by the CDFW for some declining wildlife species that are not state candidates.

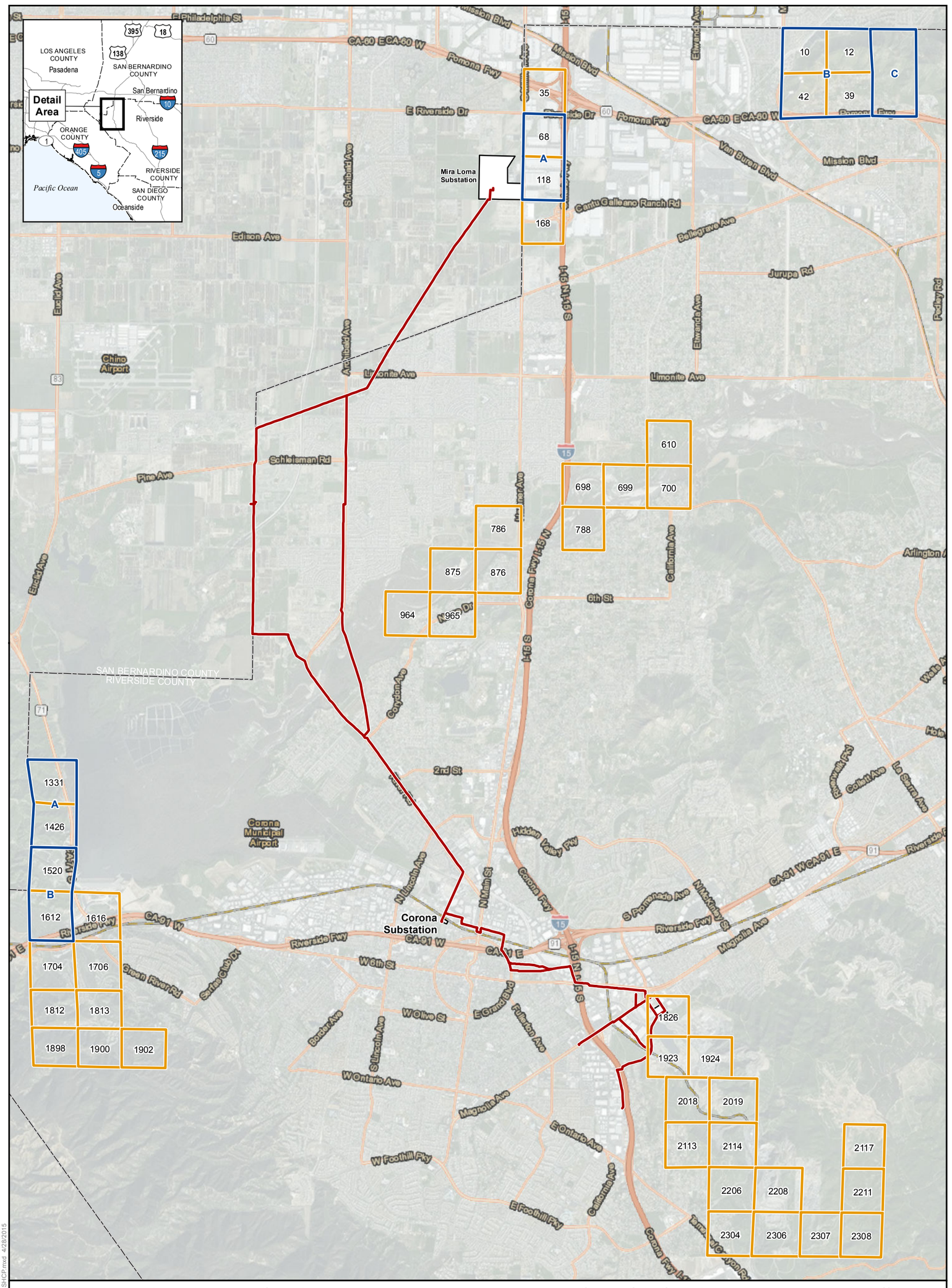

Figure 4.4-2: Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Proposed Project and Alternative Alignments
- MSHCP Cell Groups
- MSHCP Criteria Cells
- Substation
- County Boundary

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Sources: Insignia, 2015; SCE, 2015

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- **California Fully Protected and Protected:** Species, such as the mountain lion (*Felis concolor*) and white-tailed kite (*Elanus leucurus*), that are protected by special legislation for various reasons.

- **CRPR:** A ranking system by the Rare Plant Status Review groups[4] and managed by the CNPS and the CDFW as follows:

  - *1A:* Species presumed extinct in California because they have not been seen in the wild for many years.
  - *1B:* Species rare, threatened, or endangered throughout their range.
  - *2:* Species considered rare, threatened, or endangered in California, but are more common in other states.
  - *3:* Species that require more information before they can be assigned to another rank or be rejected; a "review" list.
  - *4:* Species of limited distribution or infrequent throughout a broader area of California; a "watch" list.

- **CRPR Threat Ranks:** Extension added to the CRPR that designates the level of endangerment, as follows:

  - *0.1:* "Seriously threatened" in California (i.e., over 80 percent of the occurrences threatened or having a high degree and immediacy of threat).
  - *0.2:* "Fairly threatened" in California (i.e., 20 to 80 percent of the occurrences threatened or having a moderate degree and immediacy of threat).
  - *0.3:* "Not very threatened" in California (i.e., less than 20 percent of occurrences or having a low degree and immediacy of threat or no current known threats).

4.4.2.1 Federal

Endangered Species Act (16 U.S. Code [U.S.C.] § 153 et seq.)

The federal Endangered Species Act (FESA) protects plants and animals that are listed by the federal government as "endangered" or "threatened." The FESA is implemented by enforcing Sections 7 and 9 of the FESA. A federally listed species is protected from unauthorized "take" pursuant to Section 9 of the FESA. "Take," as defined by the FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or to attempt to engage in any such conduct." All persons are presently prohibited from taking a federally listed species unless and until the following occurs:

1. the appropriate Section 10(a) permit has been issued by the USFWS, or

2. an Incidental Take Statement is obtained as a result of formal consultation between a federal agency and the USFWS pursuant to Section 7 of the FESA and the implementing regulations that pertain to it (Title 50, Part 402 of the Code of Federal Regulations).

[4] The Rare Plant Status Review groups are comprised of over 300 botanical experts from government, academia, non-governmental organizations, and the private sector.

It should be noted that the Proposed Project must have a federal nexus in order to request "take" pursuant to Section 7. If no federal nexus exists, and there are impacts to federally listed species, preparation of an HCP would likely be required. In addition, "person" is defined in the FESA as "an individual, corporation, partnership, trust, association, or any private entity; any officer, employee, agent, department, or instrument of the federal government; any State, Municipality, or political subdivision of the state; or any other entity subject to the jurisdiction of the United States." A project applicant is a "person" for the purposes of the FESA.

Clean Water Act (33 U.S.C. § 1251 et seq.)

Section 404 of the Clean Water Act (CWA) regulates the discharge of dredged or fill material into waters of the U.S., including wetlands. The USACE is the designated regulatory agency responsible for administering the Section 404 permit program and for making jurisdictional determinations. This permitting authority applies to all waters of the U.S., where the material has the effect of replacing any portion of waters of the U.S. with dry land, or changing the bottom elevation of any portion of waters of the U.S. These fill materials would include sand, rock, clay, construction debris, wood chips, and materials used to create any structure or infrastructure in the waters of the U.S. Dredge and fill activities are typically associated with development projects; water resource-related projects; infrastructure development; and wetland conversion to farming, forestry, and urban development.

Under Section 401 of the CWA, an activity requiring a USACE Section 404 permit must obtain a state Water Quality Certification (or waiver thereof) to ensure that the activity would not violate established state water quality standards. The U.S. Environmental Protection Agency is the federal regulatory agency responsible for implementing the CWA. However, the State Water Resources Control Board (SWRCB), in conjunction with the nine RWQCBs, has been delegated the responsibility of administering the Section 401 Water Quality Certification program. The RWQCB is the primary agency responsible for protecting water quality in California through the regulation of discharges to surface waters under the CWA and the Porter-Cologne Water Quality Control Act. The RWQCB's jurisdiction extends to all waters of the State and to all waters of the U.S., including wetlands (isolated and non-isolated). Section 401 requires the RWQCB to provide "certification that there is reasonable assurance that an activity which may result in the discharge to waters of the U.S. would not violate water quality standards." A Water Quality Certification must be based on a finding that the proposed discharge would comply with water quality standards, which contain numeric and narrative objectives that can be found in each of the nine RWQCBs' Basin Plans.

Migratory Bird Treaty Act (16 U.S.C. § 703-711)

The Migratory Bird Treaty Act (MBTA) of 1918, as amended in 1972, makes it unlawful—unless permitted by regulations—to "pursue; hunt; take; capture; kill; attempt to take, capture or kill; possess; offer for sale; sell; offer to purchase; purchase; deliver for shipment; ship; cause to be shipped; deliver for transportation; transport; cause to be transported; carry or cause to be carried by any means whatever; receive for shipment, transportation, or carriage; or export, at any time, or in any manner, any migratory bird … or any part, nest, or egg of any such bird" (16 U.S.C. § 703).

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment, including the following:

- *Accipitridae* (kites, hawks, and eagles),
- *Cathartidae* (New World vultures),
- *Falconidae* (falcons and caracaras),
- *Pandionidae* (ospreys),
- *Strigidae* (typical owls), and
- *Tytonidae* (barn owls).

The provisions of the 1972 amendment to the MBTA protect all species and subspecies of these families.

Bald and Golden Eagle Protection Act (16 U.S.C. § 668)

The Bald and Golden Eagle Protection Act (BGEPA) provides for the protection of the bald eagle (*Haliaeetus leucocephalus)* and the golden eagle (*Aquila chrysaetos*) by prohibiting—except under certain specified conditions—the taking, possession, and commerce of these bird species. The 1972 amendments to the BGEPA increased penalties for violating provisions of the law and strengthened other enforcement measures. A 1978 amendment to the BGEPA authorizes the Secretary of the Interior to permit the take of golden eagle nests that interfere with resource development or recovery operations. In addition, a 1994 memorandum from President Bill Clinton to the heads of executive agencies and departments sets out the policy concerning collection and distribution of eagle feathers for Native American religious purposes.

4.4.2.2 State

California Endangered Species Act (California Fish and Game Code § 2050 et seq.)

Pursuant to the California Endangered Species Act (CESA) and Section 2081 of the California Fish and Game Code, an Incidental Take Permit (ITP) from the CDFW is required for projects that could result in the take of a state-listed threatened or endangered species. Under the CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species, but the definition does not include "harm" or "harass," as the federal act does. As a result, the threshold for a take under the CESA is higher than that under the FESA. A CDFW-authorized ITP would be required where a project could result in the take of a state-listed threatened or endangered species. The application for an ITP under Section 2081(b) has a number of requirements, including the preparation of a conservation plan, generally referred to as an HCP.

The State of California provides the following definitions for species:

- an endangered species is one whose prospects of survival and reproduction are in immediate jeopardy;

- a threatened species is one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management; and

- a rare species is one present in such small numbers throughout its range that it may become endangered if its present environment worsens.

The rare species designation applies only to California native plants. A California SSC is an informal designation that the CDFW uses for some declining wildlife species that are not state candidates for listing. This designation does not provide legal protection, but signifies that these species are recognized as special status by the CDFW.

California Environmental Quality Act (California Fish and Game Code § 1802)

State law confers upon the CDFW the trustee responsibility and authority for fish and wildlife resources. The CDFW may play various roles under the California Environmental Quality Act (CEQA) process. By state law, the CDFW has jurisdiction over the conservation, protection, and management of the wildlife, native plants, and habitat necessary to maintain biologically sustainable populations. The CDFW is required to consult with lead and responsible agencies and to provide the requisite biological expertise to review and comment on environmental documents and impacts arising from project activities.

As a trustee agency, the CDFW has jurisdiction over certain resources held in trust for the people of California. Trustee agencies are generally required to be notified of CEQA documents relevant to their jurisdiction, whether or not these agencies have actual permitting authority or approval power over aspects of the underlying project (Title 14, § 15386 of the California Code of Regulations). The CDFW, as a trustee agency, must be notified of CEQA documents regarding projects that involve fish and wildlife of the state, as well as rare and endangered native plants, wildlife areas, and ecological reserves. Although, the CDFW cannot approve or disapprove a project because it is a trustee agency, lead and responsible agencies are required to consult with the CDFW. The CDFW, as the trustee agency for fish and wildlife resources, must provide the requisite biological expertise to review and comment upon environmental documents and impacts arising from project activities and make recommendations regarding those resources held in trust for the people of California.

California Fish and Game Code Sections 1600 through 1616

All diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream, or lake in California that support wildlife resources and/or riparian vegetation are subject to CDFW regulations, pursuant to Sections 1600 through 1616 of the California Fish and Game Code. Under Section 1602, it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the CDFW as waters within its jurisdiction without first notifying the CDFW of the activity. In addition, a person cannot use any material from the streambeds without first notifying the CDFW of the activity. For a project that may affect stream channels and/or riparian vegetation regulated under Sections 1600 through 1616, CDFW authorization is required in the form of a Streambed Alteration Agreement.

Native Plant Protection Act (California Fish and Game Code § 1900 et seq.)

These sections provide for the preservation, protection, and enhancement of endangered or rare native plants in California. These sections also allow for the adoption of regulations governing

the take, possession, propagation, transportation, exportation, importation, or sale of any endangered or rare native plants.

California Fully Protected Species (California Fish and Game Code § 3511, 4700, 5050, and 5515)

These sections include a provision for the protection of bird, mammal, reptile, amphibian, and fish species that are "fully protected." Fully protected animals may not be harmed, taken, or possessed.

Nesting Bird Protection (California Fish and Game Code § 3503, 3503.5, and 3513)

These sections state that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by a regulation made pursuant to the California Fish and Game Code. Section 3503.5 explicitly provides protection for all birds of prey, including their eggs and nests. Section 3513 makes it unlawful to take or possess any migratory non-game bird as designated in the MBTA.

Title 14, Sections 670.2 and 670.5 of the California Code of Regulations

These sections list species, subspecies, and varieties of plants (§ 670.2) and animals (§ 670.5) that are designated as threatened, endangered (as defined by § 2067 of the California Fish and Game Code), or rare (as defined by § 1901 of the California Fish and Game Code) in California.

Porter-Cologne Water Quality Control Act

Pursuant to the California Porter-Cologne Water Quality Control Act, the SWRCB and the nine RWQCBs may require permits—known as "Waste Discharge Requirements" (WDRs)—for the fill or alteration of the waters of the State. The term "waters of the State" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code § 13050[e]). The SWRCB and RWQCBs have interpreted their authority to require WDRs to extend to any proposal to fill or alter waters of the State, even if those same waters are not under the USACE's jurisdiction. Pursuant to this authority, the SWRCB and RWQCBs may require the submission of a "report of waste discharge" under Section 13260, which is treated as an application for WDRs.

Western Riverside County Multiple Species Habitat Conservation Plan

The MSHCP is a comprehensive, multi-jurisdictional plan that focuses on conservation of species and their associated habitats in western Riverside County. The MSHCP allows Riverside County and its cities participating in the plan to better control local land use decisions and to maintain a strong economic climate in the region, while addressing the requirements of the CESA and FESA. The MSHCP area encompasses approximately 1.26 million acres in western Riverside County. The MSHCP serves as an HCP pursuant to Section 10(a)(1)(B) of the FESA, as well as a Natural Communities Conservation Plan (NCCP) under the Natural Community Conservation Planning Act of 2001. The MSHCP is used to allow the participating jurisdictions to authorize "take" of plant and wildlife species identified within the plan area. Under the MSHCP, the wildlife agencies (i.e., the USFWS and the CDFW) would grant "Take Authorization" for otherwise lawful actions. SCE is given the option of utilizing the MSHCP as a PSE.

The MSHCP has 146 "covered species," including 14 narrow endemic plant species. Of the 146 "covered species," 118 species—including 13 of the 14 narrow endemic plant species—are considered "adequately conserved" within the MSHCP. A covered species is considered adequately conserved when a suitable amount of designated "criteria area" (i.e., geographic area, soils, and/or habitat that supports, or has the potential to support, the covered species) has been acquired or designated for acquisition for that species in the MSHCP. For species that are not deemed adequately conserved, additional dedication and/or purchase of conservation land may be required, as determined on a case-by-case basis. A narrow endemic species has a limited geographic distribution (e.g., Santa Rosa Plateau or San Jacinto River Valley), an affinity for a particular soil type (e.g., Domino, Travers, or Willow), and/or is restricted to a specific habitat (e.g., coastal sage scrub or vernal pools).

4.4.2.3 Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order No. 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters." Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the counties and cities' regulations are not applicable as the counties and cities do not have jurisdiction over the Proposed Project. Accordingly, the following discussion of local land use regulations is provided for informational purposes only.

The Plant Protection and Management section within Section 4.4.1 Environmental Setting provided the local regulatory setting for Riverside County; San Bernardino County; and the cities of Chino, Corona, Eastvale, Norco, and Ontario.

4.4.3 Existing Biological Resources

This section describes the biological resources that occur or potentially occur in the study area of the Proposed Project. Vegetation communities, wildlife populations and movement patterns, special-status vegetation communities, and special-status plant and wildlife species that are either known to occur or have the potential to occur are discussed in the following subsections. Additional information regarding existing biological resources in the study area is provided in Attachment 4.4-C: Biological Technical Report.

4.4.3.1 Vegetation Communities

The following 16 vegetation communities[5] occur in the study area:

- agricultural field,
- dairy,
- developed,

[5] Nomenclature for vegetation communities generally follows descriptions in the Western Riverside County MSHCP.

- disturbed,
- disturbed mule fat scrub,
- disturbed Riversidean sage scrub,
- non-native grassland,
- ornamental,
- ornamental/developed,
- Riversidean sage scrub,
- ruderal,
- willow riparian forest,
- freshwater marsh,
- impoundment,
- flood control channel, and
- open water.

The vegetation communities present within the study area are depicted in Attachment 4.4-A: Vegetation Communities Map and are quantified in Table 4.4-6: Vegetation Communities and Potential Impacts. These vegetation communities are described in greater detail in the following subsections.

Agricultural Field

Agricultural fields include active row crops and tilled land. Ruderal species (e.g., shortpod mustard [*Hirschfeldia incana*], wild oats [*Avena* sp.], and cheeseweed [*Malva parviflora*]) or unvegetated areas may be present along the margins of the fields; however, these areas were generally too small to be mapped separately. Agricultural fields occur at the northern end of the study area along the proposed and alternative Mira Loma-Jefferson 66 kV Subtransmission Line routes.

Dairy

Dairies are primarily unvegetated fields with associated structures (e.g., cattle pens). Domestic cattle (*Bos taurus*) are present in these areas. Dairies occur at the northern end of the study area along the proposed and alternative Mira Loma-Jefferson 66 kV Subtransmission Line routes.

Developed

Developed areas consist of paved roads and utility structures that do not contain landscaped areas. No vegetation was present in these areas. Developed areas that contained vegetation adjacent to structures were mapped as “Ornamental/Developed.” Developed areas occur throughout the study area.

Disturbed

Disturbed areas consist of bare ground and contain little to no vegetation. They have been heavily disturbed by activities such as grading. Disturbed areas are located throughout the study area.

Table 4.4-6: Vegetation Communities and Potential Impacts

Vegetation Communities	Approximate Area (acres)	Approximate Impacts (acres)		
		Permanent	Temporary	Total
Agricultural Field	40.76	0.06	6.19	6.25
Dairy	68.67	0.59	7.82	8.41
Developed	410.25	1.27	67.22	68.49
Disturbed	171.37	5.45	21.94	27.39
Disturbed Mule Fat Scrub	5.30	--	--	--
Disturbed Riversidean Sage Scrub	6.77	--	--	--
Non-native Grassland	66.31	0.13	10.74	10.87
Ornamental	25.26	0.06	4.47	4.53
Ornamental/Developed	796.47	1.62	50.94	52.56
Riversidean Sage Scrub	0.63	--	0.11	0.11
Ruderal	322.43	19.21	64.42	83.63
Willow Riparian Forest	75.82	0.28	2.39	2.67
Freshwater Marsh	0.21	--	--	--
Impoundment	21.88	0.02	1.99	2.01
Flood Control Channel	21.39	--	1.4	1.4
Open Water	10.56	--	0.04	0.04
Total	**2,044.08**	**28.69**	**239.67**	**268.36**

-- = Not applicable

Disturbed Mule Fat Scrub

Disturbed mule fat scrub is dominated by scattered mule fat (*Baccharis salicifolia*) with other species present, including water cress (*Nasturtium officinale* [*Rorippa nasturtium-aquaticum*]), broad-leaved peppergrass (*Lepidium latifolium*), and Spanish sunflower (*Pulicaria paludosa*). This vegetation type occurs along the alternative source line routes around the quarry lake and southwest of Sherborn Street.

Disturbed Riversidean Sage Scrub

Disturbed Riversidean sage scrub within the study area is dominated by a very sparse cover of California buckwheat (*Eriogonum fasciculatum*) and/or brittlebush (*Encelia farinosa*), and is intermixed with non-native vegetation, including tree tobacco (*Nicotiana glauca*). Disturbed Riversidean sage scrub occurs near the southern end of the alternative source line routes adjacent to Interstate (I-) 15 and around the quarry lake adjacent to this route. A portion of this vegetation community that is adjacent to I-15 has been seeded. An additional area of disturbed Riversidean sage scrub occurs near Substation Site Alternative B.

Non-Native Grassland

Non-native grassland within the study area is dominated by a variety of non-native species, including ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *Rubens*), wild oats, foxtail fescue (*Festuca myuros* [*Vulpia myuros*]), rancher's fiddleneck (*Amsinckia menziesii*), common horseweed (*Erigeron canadensis* [*Conyza canadensis*]), and foxtail barley (*Hordeum murinum*). The proportion of each species varies by patch. Ruderal species, such as shortpod mustard and cheeseweed, are present in lesser densities. This vegetation type is scattered throughout the study area.

Ornamental

Ornamental vegetation includes landscaping (e.g., crape myrtle [*Lagerstroemia indica*], day lily [*Hemerocallis fulva*], and turf grass) in the center median or roads; nurseries; landscaped parks; and gum tree (*Eucalyptus* sp.) windrows adjacent to roads. Ornamental vegetation is scattered throughout the study area.

Ornamental/Developed

Ornamental/developed areas include residential and commercial development and associated ornamental landscaping. A large variety of ornamental species occurs in these areas, including, but not limited to, the following:

- Peruvian pepper tree (*Schinus molle*),
- Brazilian pepper tree (*Schinus terebinthifolius*),
- sweet gum (*Liquidambar styraciflua*),
- flowering plum (*Prunus* sp.),
- gum tree,
- fan palm (*Washingtonia robusta*),
- date palm (*Phoenix* sp.),
- day lily,

- India hawthorn (*Raphiolepis indica*),
- roses (*Rosa* spp.),
- African fountain grass (*Pennisetum setaceum*), and
- turf grass.

Ornamental/developed areas occur throughout the study area.

Riversidean Sage Scrub

Riversidean sage scrub is dominated by California buckwheat and California sagebrush (*Artemisia californica*). This vegetation type occurs near the southern end of the alternative source line route on a slope above the banks of a man-altered drainage.

Ruderal

Ruderal (i.e., weedy) communities are assemblages of plants that thrive in waste areas, roadsides, and other sites that have been disturbed by human activity. Ruderal vegetation within the study area is dominated by a mixture of primarily non-native herbs and grasses. Dominant species, which vary by patch, include shortpod mustard, rancher's fiddleneck, western sunflower (*Helianthus annuus*), cheeseweed, ripgut grass, and wild oats. Other species present in lesser densities include Russian thistle (*Salsola tragus*), white nightshade (*Solanum americanum*), London rocket (*Sisymbrium irio*), and foxtail barley. This vegetation type is scattered throughout the study area and sometimes intergrades with non-native grassland.

Willow Riparian Forest

Willow riparian forest is dominated by large trees, primarily Goodding's black willow (*Salix gooddingii*) and red willow (*Salix laevigata*). The understory is dominated by mule fat in some areas, and a mixture of mule fat, tree tobacco, and giant reed (*Arundo donax*) in other areas. Other large trees present in this vegetation community include the following:

- gum tree,
- narrow-leaved willow (*Salix exigua*),
- western sycamore (*Platanus racemosa*),
- coast live oak (*Quercus agrifolia*),
- Fremont cottonwood (*Populus fremontii*),
- blue elderberry (*Sambucus nigra* ssp. *Caerulea* [*Sambucus mexicana*]), and
- tree of heaven (*Ailanthus altissima*).

Open water occurs in some places under the tree canopy, but was not mapped as a separate vegetation type. This vegetation type occurs along the proposed and alternative Mira Loma-Jefferson 66 kV Subtransmission Line routes within the Prado Flood Control Basin and other drainages. Willow riparian forest also occurs within a drainage along the alternative source line routes.

Freshwater Marsh

Freshwater marsh in the study area is dominated by cattails (*Typha* sp.). Two patches of freshwater marsh occur within the study area—one along the proposed and alternative Mira

Loma-Jefferson 66 kV Subtransmission Line routes in the Prado Flood Control Basin and one along the alternative source line routes around the quarry lake. These freshwater marsh patches are shown on pages 10 and 21 of Attachment 4.4-A: Vegetation Communities Map, respectively.

Impoundment

Impoundments are man-made reservoirs used to store water. Although the surface of these features can be bare ground, ruderal vegetation, or open water, impoundments are mapped separately because their composition fluctuates throughout the year and from year to year. Impoundments have been primarily constructed in the northern portion of the study area and are associated with active or abandoned agricultural fields or dairies. One impoundment was also identified at the southern end of the alternative source line routes.

Flood Control Channel

Flood control channels occur along all routes in the study area. These channels are concrete-lined or have earthen bottoms. They may contain open water and small amounts of vegetation.

Open Water

The Santa Ana River and the quarry lake—which is adjacent to the alternative source line routes—have been mapped as open water. These open water areas occur where emergent vegetation or a tree canopy are absent.

4.4.3.2 Jurisdictional Water Resources

Multiple hydrologic features in the survey area[6] may be under the jurisdiction of the USACE, the RWQCB, and/or the CDFW. These features include the Santa Ana River and Prado Flood Control Basin, as well as several flood control channels, drainages, and impoundments. As summarized in Table 4.4-7: Potentially Jurisdictional Resources and Impacts and as depicted in Attachment 4.4-F: Jurisdictional Resources Map, the jurisdictional delineation identified a total of approximately 10.12 acres of USACE-jurisdictional waters of the U.S. (approximately 1.13 acres are wetlands and 8.99 acres are non-wetland waters) and approximately 15.41 acres of CDFW-jurisdictional waters in the survey area. The RWQCB-jurisdictional boundaries include those determined for the USACE under waters of the U.S., as well as isolated waters, which include the impoundments in the survey area. Therefore, a total of approximately 19.97 acres under the jurisdiction of the RWQCB was identified to be present in the survey area. The hydrologic features within the survey area are described in Table 4.4-8: Hydrologic Features in the Survey Area and depicted in Attachment 4.4-F: Jurisdictional Resources Map.

4.4.3.3 Special-Status Vegetation Communities

In addition to providing an inventory of special-status plant and wildlife species, the CNDDB also provides an inventory of vegetation communities that are considered special-status by state and federal resource agencies, academic institutions, and various conservation groups. Determination of the sensitivity level of the vegetation communities is based on the Nature

[6] The survey area is smaller than the study area and consists of the Circle City Substation boundary, staging yards, the subtransmission line route and associated ROW.

Conservancy Heritage Program Status Ranks, which ranks vegetation communities on a global and statewide basis according to the number and size of remaining occurrences and recognized threats. Special-status vegetation communities that occur in the study area include coastal sage scrub and willow riparian forest.

Table 4.4-7: Potentially Jurisdictional Resources and Impacts

Jurisdiction	Approximate Amount (acres)	Approximate Impacts (acres)		
		Temporary	Permanent	Total
Wetlands	2.38	1.15	0.10	1.25
Other non-wetland waters of the U.S.	13.12	3.75	0.37	4.12
Total waters of the U.S.	**15.5**	**4.90**	**0.47**	**5.37**
Isolated waters of the State	9.86	2.19	0.05	2.24
Non-isolated waters of the State	15.5	4.90	0.47	5.37
Total waters of the State	**25.36**	**7.09**	**0.52**	**7.61**
Total CDFW-jurisdictional waters	**21.53**	**5.64**	**0.48**	**6.11**
Potentially Jurisdictional Waters[7]	**31.21**	**7.85**	**0.50**	**8.35**

Coastal sage scrub, of which Riversidean sage scrub is a xeric (i.e., dry) sub-association, has declined by 70 to 90 percent in its historic range in California (Noss and Peters, 1995). It has largely been lost to land use changes in Southern California basins and foothills. Loss of sage scrub habitat has led to the listing of 11 mammal, 26 bird, and 10 reptile species as threatened or endangered (Barbour et al., 2007). The ecological function of Southern California's remaining sage scrub is threatened by habitat fragmentation, invasive non-native species, livestock grazing, off-highway vehicles, altered fire regime, and perhaps air pollution (O'Leary, 1995). Riversidean sage scrub and disturbed Riversidean sage scrub within the study area are depicted on the maps in Attachment 4.4-A: Vegetation Communities Map.

The CDFW considers willow riparian forest to be vulnerable and at moderate risk of elimination. Most natural riparian vegetation in Southern California has been lost or degraded by land use conversions to agricultural, urban, and recreational uses; channelization for flood control; sand and gravel mining; groundwater pumping; water impoundments; and various other changes. It is estimated that as much as 95 to 97 percent of historic riparian habitats in Southern California has been lost (Faber et al., 1989). Riparian habitats are biologically productive, as well as diverse, and are the exclusive habitat of several special-status species. Willow riparian forest that is present within the study area is depicted on Attachment 4.4-A: Vegetation Communities Map.

[7] Note that some of the jurisdictions overlap; therefore, the total amount in each jurisdiction does not add up to the total amount of potentially jurisdictional waters.

Table 4.4-8: Hydrologic Features in the Survey Area[8]

Feature ID	Description	Approximate Distance from the Proposed Project (miles)	Page Number in Attachment 4.4-F: Jurisdictional Resources Map	Approximate Area – USACE/RWQCB (acres)	Approximate Area – Potentially RWQCB Only (acres)	Approximate Area – CDFW (acres)
I-1	Artificial Pond	Spanned	1	--	0.49	--
I-2	Detention Basin	Spanned	2	--	0.90	--
I-3	Detention Basin	Spanned	2	--	0.90	--
I-4	Detention Basin	Spanned	2	--	1.23	--
I-5	Detention Basin	Spanned	2	--	1.25	--
I-6	Detention Basin	Spanned	2	--	1.47	--
I-7	Detention Basin	Spanned	2	--	1.26	--
I-8	Detention Basin	Spanned	2	--	0.45	--
I-9	Detention Basin	Spanned	2	--	0.11	--
1	Flood control channel flows into Cucamonga Creek	Spanned	3	0.16	--	0.16
I-10	Ag Basin	Spanned	3	--	0.38	--
2	Concrete channel	Adjacent	3, 4	0.03		0.05
I-11	Detention Basin	Adjacent	4	--	0.11	--
I-12	Detention Basin	Adjacent	4	--	0.66	--
I-13	Detention Basin	Spanned	4	--	0.18	--

[8] The survey area is smaller than the study area and consists of the Circle City Substation boundary, staging yards, the subtransmission line route, and associated ROW

Feature ID	Description	Approximate Distance from the Proposed Project (miles)	Page Number in Attachment 4.4-F: Jurisdictional Resources Map	Approximate Area – USACE/RWQCB (acres)	Approximate Area – Potentially RWQCB Only (acres)	Approximate Area – CDFW (acres)
3	Flood control channel (Cucamonga Creek)	Spanned	4, 5	0.35	--	1.88
4	Earthen ditch	Adjacent	5	0.15	--	0.87
I-14	Detention Basin	Adjacent	6	--	0.14	--
5	Mill Creek	Spanned	6, 7	0.01	--	0.02
6	Santa Ana River	Crossed	8	7.85	--	8.06
7	Concrete channel that flows into an earthen drainage	Spanned	9	0.04	--	0.19
8	Temescal Wash	Spanned	10, 11, 12	0.68	--	1.17
9	Concrete channel	Adjacent	10	0.01	--	0.01
10	Concrete channel that flows into Temescal Wash	Spanned	10	0.02	--	0.03
I-15	Detention Basin	Adjacent	11, 12	0.15	0.15	--
I-16	Detention Basin	Spanned	13	0.17	0.17	--
11	Quarry lake	0.02	13	0.06	--	0.74
12	Flood control channel	0.13	13, 14	0.76	--	2.23

4.4.3.4 Special-Status Wildlife Species

Fifty-five special-status wildlife species have been reported in the vicinity of the Proposed Project based on the results of the literature review described previously. A list of these species, their listing status, habitat, potential to occur in the study area, and whether they were observed during focused surveys is included in Attachment 4.4-H: Special-Status Wildlife Species Potentially Occurring in the Proposed Project Vicinity. Potential occurrences were determined by biologists with expertise on each of the wildlife species.

One listed wildlife species—the federally and state-listed endangered least Bell's vireo—was observed in the study area during the 2010 and 2011 focused surveys. Burrowing owl was also documented during 2011 and 2012 focused species surveys. Additional special-status species have been incidentally observed in the study area during focused species surveys, including white-tailed kite, American peregrine falcon (*Falco peregrinus anatum*), loggerhead shrike (*Lanius ludovicianus*), Vaux's swift (*Chaetura vauxi*), yellow warbler (*Dendroica petechia brewsteri*), and yellow-breasted chat (*Icteria virens*). Mapped locations for a portion of these special-status species are depicted in Figure 4.4-3: Special-Status Species Locations Map (Source Line Route) and Figure 4.4-4: Special-Status Species Locations Map (Subtransmission Line). Attachment 4.4-C: Biological Technical Report and Attachment 4.4-D: Additional Focused Species Survey Reports include the focused species survey reports that describe these observations.

4.4.3.5 Wildlife Populations and Movement Patterns

The agricultural portions of the study area are generally of low biological value due to the limited amounts of suitable habitat for wildlife species and their proximity to existing indirect effects of urban development (e.g., night lighting, noise, and general human activity). Therefore, wildlife species are not expected to use the northern portion of the study area for regional wildlife movement. The developed land uses in the southern portion of the study area limit wildlife movement for similar reasons, with dense commercial and residential development creating a barrier to movement. Limited movement opportunities for common wildlife species may be found along the flood control channels and railroad tracks within the study area.

The study area is located near the northern end of the unlined portion of Temescal Wash, which is part of MSHCP Proposed Constrained Linkage 4. This wash becomes concrete-lined and surrounded by commercial development where it is crossed by the alternative source line routes. Because of these modifications to the natural stream course, wildlife movement is expected to be limited in this area.

A variety of wildlife species are expected to utilize the riparian vegetation in the Prado Flood Control Basin (i.e., MSHCP Existing Core A) for both regional and local wildlife movement, especially because the area is constrained on all sides by existing urban development and agricultural uses. Further, depending on seasonal flow, aquatic species may use the Santa Ana River as a movement corridor.

4.4.4 Significance Criteria

The significance criteria for assessing the impacts to biological resources are derived from the CEQA Environmental Checklist. According to the CEQA Environmental Checklist, a project causes a potentially significant impact if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the CDFW or USFWS
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS
- Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, and coastal) 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 an established native resident or migratory wildlife corridor, 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 HCP, NCCP, or other approved local, regional, or state HCP.

4.4.5 Impacts

The potential impacts to vegetation communities in the study area are quantified in Table 4.4-6: Vegetation Communities and Potential Impacts and depicted on Attachment 4.4-A: Vegetation Communities Map. The total potential impacts to jurisdictional resources in the study area are quantified in Table 4.4-7: Potentially Jurisdictional Resources and Impacts and are depicted on Attachment 4.4-F: Jurisdictional Resources Map. The following subsections assess specific impacts to biological resources within the study area.

4.4.5.1 Would the project 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 CDFW or USFWS?

Construction – Less-than-Significant Impact

Special-Status Plant Species

Focused surveys for special-status plant species were conducted in spring and summer of 2010, 2011, 2012, and 2013. These surveys covered Mira Loma Substation, Corona Substation, the proposed Circle City Substation site, the proposed and alternative source line routes, the

Figure 4.4-3: Special-Status Species Locations Map (Source Line Route)

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- Undergrounding
- Source Line Route Alternative 1 (Proposed)
- Source Line Route Alternative 2
- Source Line Route Alternative 3
- Source Line Route Alternative 4
- Source Line Route Alternative Extensions to Substation Site Alternative B

Special-Status Species Observations

- Least Bell's Vireo
- Yellow Warbler

Corona Substation

Site Alternative A (Proposed)

Site Alternative B

DETAIL

1:14,000

0 1,000 2,000 Feet

Sources: Insignia, 2015; SCE, 2015

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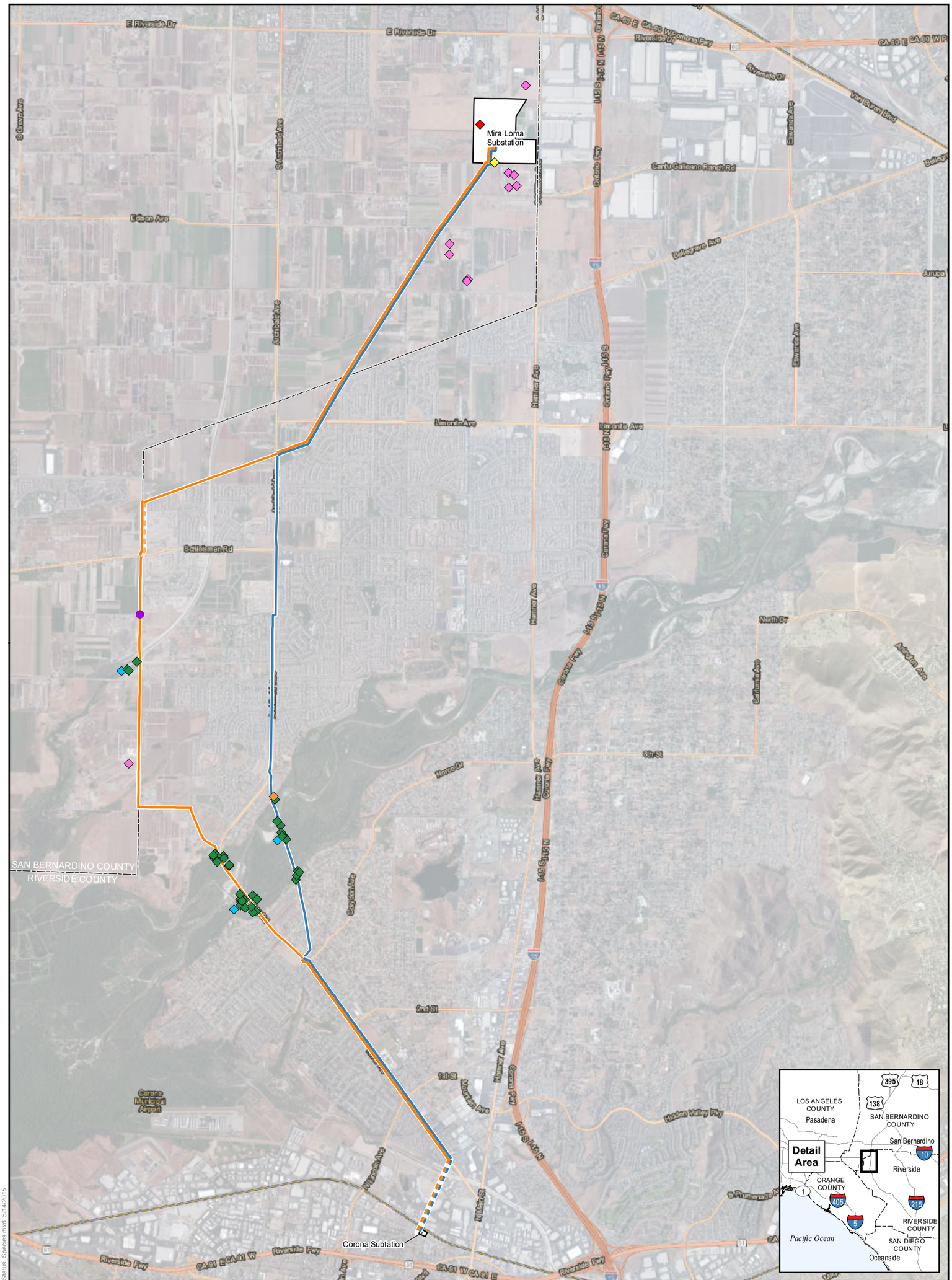

Figure 4.4-4: Special-Status Species Locations Map (Subtransmission Line)

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Mira Loma-Jefferson 66 kV Subtransmission Line

- Subtransmission Line Route Alternative 1 - Overhead (Proposed)
- Subtransmission Line Route Alternative 1 - Underground (Proposed)
- Subtransmission Line Route Alternative 2 - Underground*
- Subtransmission Line Route Alternative 3 - Overhead
- Subtransmission Line Route Alternative 3 - Underground
- Subtransmission Line - Underground Crossing

*Note: Except for the underground portion indicated, Alternative Route 2 would utilize the same route as the Alternative Route 1/Proposed Route.

Special-Status Species Observations

- American Peregrine Falcon
- Burrowing Owl
- Least Bell's Vireo
- Loggerhead Shrike
- Yellow Warbler
- Yellow Warbler/Yellow-breasted Chat

- Substation
- County Boundary

SOUTHERN CALIFORNIA EDISON® An EDISON INTERNATIONAL® Company

INSIGNIA ENVIRONMENTAL

1:46,000

0 0.5 1 Miles

Sources: Insignia, 2015; SCE, 2015

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proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route, the alternative Mira Loma-Jefferson 66 kV Subtransmission Line routes, and proposed staging yards. No special-status plant species were observed during the surveys.

As special-status plant species were not observed during focused surveys, no impacts are anticipated, and no APMs would be required. Should special-status plant species be observed within the study area in the future, impacts to these species would be considered potentially significant, depending on the status of the species and the number of individuals observed, and they would be mitigated for. Individual special-status plant species and/or their seed banks have the potential to be impacted by ground-disturbing activities, which can dig up seeds and decrease viability, or cause physical damage to the root system and/or aboveground portions of the plant. In addition, increased dust has the potential to cause a reduction in photosynthetic potential for individual special-status plants. While special-status plant species are not expected to occur within the study area, SCE proposes APMs BIO-01 and BIO-02 to avoid and/or mitigate for potential impacts to special-status plant species in the Proposed Project area. APM-BIO-01 would require biological monitoring in Proposed Project construction areas where sensitive biological resources or habitats suitable to special-status species are located. APM-BIO-02 would require avoidance, minimization, or mitigation for impacts to special-status plant species. These APMs would reduce any potential impact on special-status plant species to a less-than-significant level. For species in Riverside County, mitigation is dependent on whether the species are covered by the MSHCP, and if so, whether SCE would become a PSE for the Proposed Project under the MSHCP.

Invertebrates

While Riverside fairy shrimp and vernal pool fairy shrimp (*Branchinecta lynchi*) have the potential to occur in the Proposed Project area, no special-status fairy shrimp species were observed in the study area. As a result, construction activities associated with the Proposed Project are not anticipated to impact Riverside fairy shrimp or vernal pool fairy shrimp. In the event that listed fairy shrimp species are detected, additional mitigation would be required. As a result, SCE is proposing APMs BIO-01 and BIO-03 in the event that listed fairy shrimp are found in San Bernardino County or in Riverside County, with and without participation in the MSHCP. As previously described, APM-BIO-01 would require biological monitoring in Proposed Project construction areas where sensitive biological resources or habitats suitable to any special-status species are located. APM-BIO-03 would provide for avoidance, minimization, or mitigation of impacts to listed fairy shrimp.

Focused surveys for DSFF were conducted in 2010 and 2011 for some portions of the Proposed Project area that overlap the SCE Ontario Recovery Unit and contain Delhi series soils. This species was not observed during these surveys. Focused surveys in the northernmost proposed staging yard, which contains Delhi series soils, and the entire study area were conducted in 2012, 2013, and 2014 pursuant to the USFWS survey protocol. This species was not observed during the 2012, 2013, and 2014 surveys. As this species was not observed during focused surveys, construction activities associated with the Proposed Project are not anticipated to impact DSFF, and no additional APMs are required. In the event that DSFF is identified in the study area, SCE proposes to implement APMs BIO-01 and BIO-04 to ensure that impacts to DSFF would be less than significant. As previously described, APM-BIO-01 would require biological monitoring in

Proposed Project construction areas where sensitive biological resources or habitats suitable to any special-status species are located. APM-BIO-04 would provide for avoidance, minimization, or mitigation of impacts to DSFF.

Fish

The Proposed Project area contains suitable habitat for arroyo chub (*Gila orcuttii*) and Santa Ana sucker in Riverside County. The current Proposed Project design does not directly impact open water in the Prado Flood Control Basin; however, the active channel that would provide potentially suitable habitat for special-status fish species flows between the proposed hybrid H-frames. Further, the existing H-frames that are proposed for removal are located on the river bank. Therefore, there is potential for these species to be impacted (e.g., direct mortality or change in water quality), depending on the water levels at the time of Proposed Project construction and pole removal. As a result, SCE is proposing APMs BIO-01, BIO-05, and BIO-10 to ensure impacts to special-status fish species are less than significant. As previously described, APM-BIO-01 would require biological monitoring in Proposed Project construction areas where sensitive biological resources or habitats suitable to any special-status species are located. APM-BIO-05 would provide for avoidance, minimization, or mitigation of impacts to special-status fish species. APM-BIO-10 would provide mitigation for any impacts to riparian/riverine habitat suitable for special-status fish species as appropriate. Further, indirect impacts would be addressed by implementation of best management practices and adherence to the Construction General Permit and Storm Water Pollution Prevention Plan described in Section 4.9 Hydrology and Water Quality.

The Proposed Project overlaps with the designated critical habitat for Santa Ana sucker. This overlapping critical habitat is entirely within the Western Riverside County MSHCP. As such, should SCE opt to request PSE status pursuant to the MSHCP, potential impacts on designated critical habitat would be addressed by participation in the MSHCP. If SCE opts out of the MSHCP, additional coordination with the USFWS would be required.

Amphibians

Suitable habitat for western spadefoot toad (*Spea* [*Scaphiopus*] *hammondii*) is present in the Proposed Project area. Potential impacts to this species (e.g., direct mortality or loss of habitat) would be considered less than significant in consideration of the limited amount of habitat loss and that impacts to suitable habitat are primarily temporary in nature. In addition, this species is covered by the Western Riverside County MSHCP. APM-BIO-01, which is implemented for other species, would also protect western spadefoot toad. As previously described, APM-BIO-01 would require biological monitoring in Proposed Project construction areas where sensitive biological resources or habitats suitable to any special-status species are located.

Reptiles

Suitable habitat for western pond turtle (*Emys marmorata*), coast horned lizard (*Phrynosoma blainvillii*), two-striped garter snake (*Thamnophis hammondii*), and south coast garter snake (*Thamnophis sirtalis* ssp.) is present in the Proposed Project area. Potential impacts (e.g., direct mortality or loss of habitat) to these species would be considered less than significant in consideration of the limited amount of habitat loss and that impacts to their suitable habitat are

primarily temporary in nature. In addition, western pond turtle is covered by the Western Riverside County MSHCP. APM-BIO-01, which is implemented for other species, would also protect individual western pond turtles, coast horned lizards, two-striped garter snakes, and south coast garter snakes. As previously described, APM-BIO-01 would require biological monitoring in Proposed Project construction areas where sensitive biological resources or habitats suitable to any special-status species are located.

Birds

One listed wildlife species has been observed during focused species surveys in the Proposed Project area: the federally and state-listed endangered least Bell's vireo. Other special-status riparian bird species observed in, and having potential to nest in, the Proposed Project area include yellow warbler and yellow-breasted chat. Figure 4.4-3: Special-Status Species Locations Map (Source Line Route) and Figure 4.4-4: Special-Status Species Locations Map (Subtransmission Line) depict the location of these special-status birds documented within the study area. In addition, vermilion flycatcher (*Pyrocephalus rubinus*) has potential to nest in the Proposed Project area. Potential impacts on breeding habitat (e.g., loss of habitat) for the non-listed species would be considered less than significant in consideration of the limited amount of foraging/nesting habitat loss and because impacts to suitable habitat are primarily temporary in nature. Further, yellow warbler and yellow-breasted chat are covered by the Western Riverside County MSHCP.

Construction of the Proposed Project would result in the permanent loss of approximately 0.28 acre—and the temporary loss of approximately 2.39 acres—of moderate- to high-quality, occupied habitat for least Bell's vireo and western yellow-billed cuckoo (i.e., willow riparian forest). Any impact to least Bell's vireo or western yellow-billed cuckoo, whether directly (e.g., direct mortality) or through habitat modifications, would be considered significant and would require additional mitigation. As a result, SCE is proposing APMs BIO-01 and BIO-06 to ensure potential impacts to least Bell's vireo are less than significant. As previously described, APM-BIO-01 would require biological monitoring in Proposed Project construction areas where sensitive biological resources or habitats suitable to any special-status species are located. APM-BIO-06 would provide for avoidance and minimization of impacts to least Bell's vireo and western yellow-billed cuckoo (i.e., exclusion buffers during construction) or mitigation of unavoidable impacts to least Bell's vireo. Further, implementation of APM-BIO-10 addresses the loss of riparian/riverine habitat suitable for least Bell's vireo and western yellow-billed cuckoo.

The Proposed Project area overlaps designated critical habitat for the least Bell's vireo and western yellow-billed cuckoo in both Riverside County and San Bernardino County. Construction in San Bernardino County either adjacent to or in critical habitat includes one new tubular steel pole and two new light-weight steel (LWS) poles. These structures would be placed along Hellman Avenue and not within suitable habitat for least Bell's vireo or western yellow-billed cuckoo. Although impacts to critical habitat within San Bernardino County are unlikely, the placement of these poles in critical habitat may require additional coordination with the USFWS. Construction that is either adjacent to or in critical habitat in the Prado Flood Control Basin in Riverside County would consist of new LWS poles, hybrid H-frames, and conductor pulling sites. These impacts would occur along River Road, either adjacent to or in suitable habitat for least Bell's vireo and western yellow-billed cuckoo. Should there be any

encroachment into critical habitat in Riverside County, potential impacts could be addressed by participation in the Western Riverside County MSHCP.

An American peregrine falcon was observed in the Proposed Project area. Suitable foraging habitat, but no suitable breeding habitat for this species and northern harrier (*Circus cyaneus*) is present in the Proposed Project area. Because there is no suitable breeding habitat for these species, there would be no impacts on nesting individuals. Therefore, no additional APMs are required.

Suitable foraging habitat for golden eagle and white-tailed kite is present in the Proposed Project area, and white-tailed kite was observed in the study area. The loss of foraging habitat for these species could contribute to the ongoing regional and local loss of raptor foraging habitat. Impacts would be less than significant with mitigation, subject to the review of the Regional Conservation Authority (RCA) and/or the wildlife agencies. Implementation of APM-BIO-07 would reduce potential impacts to raptor foraging habitat as it requires avoidance, minimization, and mitigation of impacts to non-riparian special-status vegetation.

Although burrowing owls were not observed or detected in the Proposed Project area during focused surveys, they were observed within 500 feet of the Proposed Project, and suitable habitat for this species exists throughout the Proposed Project area. As such, there is potential for burrowing owls to occupy the Proposed Project area in the future. There are currently two regulatory frameworks for addressing burrowing owl surveys, minimization measures, and mitigation: species-specific objectives provided in the Western Riverside County MSHCP and the CDFW's Staff Report on Burrowing Owl Mitigation. Given that the burrowing owls observed, to date, in the vicinity of the study area were located in San Bernardino County, mitigation for those owls would likely be pursuant to the CDFW's guidelines. However, mitigation has also been included in the following paragraphs pursuant to the MSHCP in the event that burrowing owls are found in Riverside County during subsequent surveys. As a result, SCE proposes APMs BIO-01 and BIO-08 to ensure potential impacts to burrowing owls would be less than significant. As previously described, APM-BIO-01 would require biological monitoring in Proposed Project construction areas where sensitive biological resources or habitats suitable to any special-status species are located. APM-BIO-08 would provide for avoidance, minimization, or mitigation of impacts to burrowing owls.

Loggerhead shrike has been observed in the Proposed Project area. This species and grasshopper sparrow (*Ammodramus savannarum*) have the potential to nest in the Proposed Project area. Potential impacts on breeding habitat for these species would be considered less than significant in consideration of the limited amount of habitat loss and that impacts to suitable habitat are primarily temporary in nature. In addition, loggerhead shrike and grasshopper sparrow are covered by the Western Riverside County MSHCP.

Suitable foraging habitat, but no suitable breeding habitat is present in the study area for redhead (*Aythya americana*), American white pelican (*Pelecanus erythrorhynchos*), tricolored blackbird (*Agelaius tricolor*), and yellow-headed blackbird (*Xanthocephalus xanthocephalus*). While Vaux's swift was documented within the study area, the Proposed Project is outside of the recorded breeding range for this species. Because there is no suitable breeding habitat for these

species, there would be no impacts on nesting individuals. Therefore, no additional APMs are required.

Suitable foraging habitat for mountain plover (*Charadrius montanus*) and Oregon vesper sparrow (*Pooecetes gramineus affinis*) is present in the Proposed Project area. Potential impacts to these species would be considered less than significant in consideration of the limited amount of potential habitat loss and that impacts to suitable habitat are primarily temporary in nature. In addition, mountain plover is covered by the Western Riverside County MSHCP. Therefore, no APMs would be required.

Pursuant to the MBTA and applicable provisions of the California Fish and Game Code (specifically Sections 3503, 3503.5, and 3515), impacts to active bird nests, including raptor nests, are not permitted. The loss of any active nest, whether of a common or special-status species, would be a violation of the MBTA and California Fish and Game Code. Potential impacts on active nests would be reduced to less-than-significant levels with implementation of APMs BIO-01 and BIO-09. As previously described, APM-BIO-01 would require biological monitoring in Proposed Project construction areas where sensitive biological resources or habitats suitable to any special-status species are located. APM-BIO-09 would provide for various methods of avoiding impacts to nesting birds.

Mammals

Suitable or limited suitable foraging habitat for pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), western yellow bat (*Lasiurus xanthinus*), and western mastiff bat (*Eumops perotis californicus*) is present in the Proposed Project area. The permanent loss of foraging habitat for these species (i.e., approximately 20.35 acres of disturbed Riversidean sage scrub, non-native grassland, ruderal, willow riparian forest, impoundment, agricultural field, dairy, and ornamental that may provide a limited food source) would contribute to the ongoing regional and local loss of foraging habitat. Impacts (e.g., loss of habitat for a food source) would be less than significant with mitigation, subject to the review of the wildlife agencies. SCE is proposing to implement APM-BIO-07 and APM-BIO-10 to ensure potential impacts to bat foraging habitat are minimized to the greatest extent feasible. APM-BIO-07 would provide for avoidance, minimization, or mitigation of impacts to non-riparian special-status vegetation. APM-BIO-10 would provide for avoidance, minimization, or mitigation of impacts to riparian vegetation.

Suitable or limited suitable habitat for San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) and northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) is present in the Proposed Project area. Potential impacts to these species (e.g., direct mortality and loss of habitat) would be considered less than significant in consideration of the limited amount of habitat loss and that impacts would be primarily temporary in nature. In addition, these species are covered by the Western Riverside County MSHCP. Therefore, no APMs would be required for these species.

Operation – Less-than-Significant Impact

Although noise levels may increase over present levels due to normal operation of the proposed Circle City Substation, the Proposed Project noise would be minor. Wildlife species stressed by

noise may disperse from the habitat located in the vicinity of Circle City Substation. However, this potential impact would be considered less than significant, and no mitigation would be required.

No dust or urban pollutants would be expected during operation of Circle City Substation. Therefore, there would be no impact and no additional APMs are required.

Any landscaping or restoration associated with the Proposed Project would exclude the use of invasive plant species. Not only is this SCE's standard practice, but landscaping and restoration may also be subject to review and approval by the CPUC, RCA, and USFWS or CDFW. Therefore, there would be no impact as a result of invasive species, and no APMs would be required.

Operation of the Proposed Project has the potential to increase the electrocution and collision risk for avian species, particularly large raptors. Electrocution can occur when the bird's body is in contact with two different phases at the same time (e.g., connecting phase to ground or connecting phase to phase). Collision risk may occur when the bird's body comes into contact with a static wire. These impacts would be considered potentially significant. However, as stated in Chapter 3 – Project Description, all 66 kV subtransmission line structures would be designed consistent with Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006 and Reducing Avian Collisions with Power Lines: The State of the Art in 2012.

4.4.5.2 Would the project 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 Wildlife or U.S. Fish and Wildlife Service?

Construction – Less-than-Significant Impact

Willow riparian forest is considered a special-status vegetation type by the CDFW due to its decline in the region and its suitability as habitat for special-status species, such as the least Bell's vireo and western yellow-billed cuckoo. The Proposed Project may potentially temporarily impact approximately 2.39 acres of willow riparian forest vegetation, and approximately 0.28 acre potentially may be permanently impacted. Although seemingly duplicative with mitigation for impacts to jurisdictional waters, impacts need to be addressed in terms of no net loss of habitat functions and values for the least Bell's vireo, Santa Ana sucker, and the western yellow-billed cuckoo. In addition, mapped riparian habitats are not necessarily equivalent to delineated areas subject to the jurisdiction of the USACE, the RWQCB, and/or the CDFW. Only the portion of these habitats associated with a discernible streambed and/or adjacent wetlands that meet certain criteria are within the jurisdiction of the USACE, the RWQCB, and/or the CDFW. Mitigation for jurisdictional waters is typically inclusive of what would be required to reduce potential impacts to least Bell's vireo, Santa Ana sucker, and/or western yellow-billed cuckoo habitat to less-than-significant levels. However, a separate mitigation plan in the format of a Determination of Biologically Equivalent or Superior Preservation (DBESP) is required as part of the Western Riverside County MSHCP PSE review process. Implementation of APM-BIO-10 would provide for avoidance, minimization, or mitigation of impacts to riparian vegetation to

ensure potential impacts to riparian/riverine habitat (i.e., habitat for least Bell's vireo, Santa Ana sucker, and/or western yellow-billed cuckoo) would be less than significant.

Operation – No Impact

The proposed and alternative source line routes are not associated with special-status vegetation communities, including riparian communities. Upon the start of Proposed Project operation, the Mira Loma-Jefferson 66 kV Subtransmission Line Route would operate in a similar manner as current lines. Therefore, no significant impact would result from the operation of the Mira Loma-Jefferson 66 kV Subtransmission Line Route, and no additional APMs are required.

4.4.5.3 Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Construction – Less-than-Significant Impact

Based on the preliminary surveys, the Proposed Project would potentially temporarily impact a total of approximately 4.90 acres of USACE-jurisdictional waters of the U.S. (of which approximately 1.15 acres are wetlands), 7.09 acres under the jurisdiction of the RWQCB, and 5.64 acres of CDFW-jurisdictional waters of the State, as summarized in Table 4.4-7: Potentially Jurisdictional Resources and Impacts. In addition, the Proposed Project would potentially and permanently impact a total of approximately 0.47 acre of USACE-jurisdictional waters of the U.S. (of which approximately 0.10 acre is wetlands), 0.52 acre under the jurisdiction of the RWQCB, and 0.48 acre of CDFW-jurisdictional waters of the State, as summarized in Table 4.4-7: Potentially Jurisdictional Resources and Impacts.

Implementation of APMs BIO-01 and BIO-11 would ensure impacts to jurisdictional resources would be less than significant. As previously described, APM-BIO-01 would require biological monitoring in Proposed Project construction areas where sensitive biological resources or habitats suitable to any special-status species are located. APM-BIO-11 would provide for the mitigation of impacts to jurisdictional waters. In addition, APM-BIO-10 would provide mitigation for any impacts to riparian/riverine habitat suitable to reduce impacts to wetlands.

Operation – No Impact

The proposed Source Line Route is a new line, but is not expected to operate in a manner that is different from existing lines. Upon the start of Proposed Project operation, the Mira Loma-Jefferson 66 kV Subtransmission Line Route would operate in a similar manner as current subtransmission lines. Therefore, no impacts would result from the operation of the subtransmission line route.

No jurisdictional resources would be impacted by the new substation operation. Therefore, no additional APMs are required.

4.4.5.4 Would the project 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?

Construction – Less-than-Significant Impact

The Proposed Project area contains open water that is suitable for movement of arroyo chub and Santa Ana sucker. The current Proposed Project design does not directly impact open water in the Prado Flood Control Basin; however, the active channel that would provide potentially suitable habitat for special-status fish species flows between the proposed hybrid H-frames. Depending on water levels and seasonal flow, there would be a potential for impacts to fish movement. As a result, SCE proposes APMs BIO-01, BIO-05, and BIO-10 to ensure that impacts to special-status fish movement or their nursery sites would be less than significant. As previously described, APM-BIO-01 would require biological monitoring in Proposed Project construction areas where sensitive biological resources or habitats suitable to any special-status species are located. APM-BIO-05 would provide for avoidance, minimization, or mitigation of impacts to special-status fish species. APM-BIO-10 would provide mitigation for any impacts to riparian/riverine habitat suitable for special-status fish species as appropriate.

The Proposed Project is located in a region dominated by agricultural and residential land uses. Terrestrial wildlife movement opportunities in the area are already constrained by development. Therefore, the Proposed Project is not expected to interfere substantially with the movement of any terrestrial wildlife species or impede the use of nursery sites in the developed portions of the study area.

Specific to the Western Riverside County MSHCP, the Santa Ana River/Prado Flood Control Basin and Temescal Wash areas are important landscape linkages in the region. Habitat within the Prado Flood Basin comprises MSHCP Existing Core A, and Temescal Wash comprises MSHCP Proposed Constrained Linkage 4. Conservation of Criteria Cell 1826 focuses on the 15 to 25 percent of the southern portion of Criteria Cell 1826 to provide for conservation of Temescal Wash. The Proposed Project would not impact the southern 15 to 25 percent of this Criteria Cell; the Proposed Project alignment crosses the channelized portion of Temescal Wash northwest of the area described for conservation. As such, terrestrial wildlife movement along Temescal Wash would not be impacted by the Proposed Project. The Proposed Project is not expected to conflict with the MSHCP goals for wildlife movement through MSHCP Proposed Constrained Linkage 4 in Criteria Cell 1826.

Construction activities, while temporary in nature, may create dust and noise within and adjacent to the Proposed Project area in the vicinity of Existing Core A. Wildlife may be deterred by noise and human activity; however, most wildlife movement would occur at night, while construction activities would occur during the day. These impacts would be considered potentially significant. Chapter 3 – Project Description provides Proposed Project design features for dust control and other measures to reduce this potential impact to a less-than-significant level. Further, it is SCE's standard practice to cover holes and trenches during the night to prevent impacts to the nocturnal movement of small animals, as described in Section 3.10 Worker Environmental Awareness Training in Chapter 3 – Project Description.

Operation – No Impact

The Mira Loma-Jefferson 66 kV Subtransmission Line Route would operate in a similar manner as SCE subtransmission lines currently operate. Wildlife movement would not be blocked by the new overhead lines. All trenches and holes created by the Proposed Project would be covered upon Proposed Project completion. Therefore, no significant impact would result from the operation of the Mira Loma-Jefferson 66 kV Subtransmission Line Route.

The proposed Circle City Substation site and Substation Site Alternative B are located adjacent to existing commercial and industrial development that does not provide suitable wildlife movement corridors. Therefore, wildlife movement would not be impacted by the new substation, and thus, no APMs would be required.

4.4.5.5 Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Construction – Less-than-Significant Impact

The Riverside County and San Bernardino County ordinance codes and the municipal codes for the cities of Chino, Corona, Eastvale, Norco, and Ontario provide for the protection of plant resources in their respective jurisdictions. Plants protected under these codes may be present within the study area and potentially impacted by Proposed Project activities. As a result, SCE is proposing to implement APM-BIO-12 to ensure that impacts to protected trees would be less than significant. APM-BIO-12 would provide for the avoidance, minimization, and mitigation of impacts to protected trees.

Operation – Less-than-Significant Impact

The Riverside County and San Bernardino County ordinance codes and the municipal codes for the cities of Chino, Corona, Eastvale, Norco, and Ontario provide for the protection of plant resources in their respective jurisdictions. Plants protected under these codes may be present within the study area and potentially impacted by Proposed Project activities. As a result, SCE proposes to implement APM-BIO-12 to ensure that impacts to protected trees would be less than significant. As previously described, APM-BIO-12 would provide for the avoidance, minimization, and mitigation of impacts to protected trees.

4.4.5.6 Would the project conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan?

Construction – Less-than-Significant Impact

The Proposed Project occurs within the Western Riverside County MSHCP area, and SCE may elect to act as a PSE in the MSHCP. As previously described, a PSE is any regional public facility provider (e.g., a utility company, a public district, or agency) that operates and/or owns land within the MSHCP area and that applies for Take Authorization pursuant to Section 11.8 of the Implementing Agreement. The Proposed Project is not expected to conflict with the MSHCP if the APMs listed in Section 4.4.6 Applicant-Proposed Measures are implemented and SCE is granted PSE status.

The Mira Loma-Jefferson 66 kV Subtransmission Line Route crosses MSHCP Existing Core A. However, there are no Criteria Cells or Cell Groups that present conservation goals for Existing Core A in the study area. Therefore, the Mira Loma-Jefferson 66 kV Subtransmission Line Route is not expected to conflict with the Western Riverside County MSHCP goals for Existing Core A.

The proposed staging yard near the proposed Circle City Substation site occurs within an MSHCP Conservation Area—Cell 1826—that includes conservation goals for Proposed Constrained Linkage 4. Conservation within this Cell would range from 15 to 25 percent, focusing on the southern portion of the Cell. This staging yard would occur in the center of the Cell, which is not an area described for conservation. Further, the Cell is surrounded by other commercial/industrial development uses to the north, south, and west that are not described for conservation. This area is also separated from Temescal Creek (i.e., Proposed Constrained Linkage 4) by All American Way and a gravel parking lot. Therefore, the staging yard and construction related to its use are not expected to conflict with the MSHCP goals for this Cell. As such, Proposed Project construction would be consistent with the MSHCP and, therefore, impacts would be less than significant.

Operation – Less-than-Significant Impact

The proposed Source Line Route would travel through developed areas, and these areas are not proposed for conservation by the Western Riverside County MSHCP. The Mira Loma-Jefferson 66 kV Subtransmission Line Route would operate in a similar manner as other SCE subtransmission lines currently operate at the conclusion of Proposed Project construction. Operation of the Proposed Project would not block a linkage or eliminate an essential portion of a core reserve designated for conservation. Therefore, no significant impacts would result from the operation of the Mira Loma-Jefferson 66 kV Subtransmission Line Route.

The proposed Circle City Substation site occurs within the northwest corner of Cell 1826, which is not described for conservation. Conservation within this Cell would range from 15 to 25 percent, focusing on the southern portion of the Cell. Therefore, operation of this substation is not expected to conflict with the MSHCP goals for this Cell. Based on the previous discussion, the Proposed Project would be consistent with the MSHCP, and therefore, impacts would be less than significant.

4.4.6 Applicant-Proposed Measures

This section focuses on the development of APMs for potential impacts associated with the Proposed Project that may be potentially significant. SCE has designed and incorporated the following APMs into the Proposed Project to avoid or minimize potential impacts to biological resources. Although impacts potentially resulting from the alternatives have not yet been discussed in this chapter, the following APMs also serve to avoid, minimize, and mitigate potential impacts associated with the alternatives:

- **APM-BIO-01: Implement Biological Monitoring.** *(This measure would apply to all portions of the Proposed Project.*) Biological Monitors would be utilized during construction of the Proposed Project within areas encompassing sensitive biological resources or habitats suitable for any special-status species. The Biological Monitors in

coordination with the SCE Lead Biologist would be responsible for ensuring that impacts to special-status species, native vegetation, wildlife habitat, and unique resources are avoided to the extent feasible. Biological Monitors would flag the boundaries of areas where activities need to be restricted to protect native plants and wildlife and/or special-status species. These restricted areas would be monitored for their protection during construction. If non-listed sensitive fauna are found within the impact area and could be harmed, the Biological Monitor would relocate the individual out of the Proposed Project impact area. If listed species are found within the impact area, only a biologist with the appropriate permit to handle that species would be allowed to relocate the individual. The Biological Monitor would have the authority to suspend any operation that is, in the qualified Biologist's opinion, not consistent with any regulations or approved mitigation plans related to the protection of biological resources.

- **APM-BIO-02: Avoid, Minimize, and/or Mitigate Impacts to Special-Status Plant Species.** *(This measure would apply to the following portions of the Proposed Project: Mira Loma Substation, Corona Substation, the proposed Circle City Substation site, the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route, proposed staging yards, access roads, guard structures, and pulling sites.)* If any special-status plant species are discovered within the impact area, the Proposed Project impact boundary would be adjusted to avoid impacts to observed special-status plant species unless the adjustment would impact worker or public safety. If avoidance is not possible, a qualified biologist would prepare and implement a mitigation plan, which would include a detailed description of the appropriateness of the mitigation site, monitoring requirements, and annual reporting requirements. Measures may involve soil salvage, seed collection, and/or transplantation to establish the species in a suitable mitigation site.

  Should SCE opt to participate in the Western Riverside County MSHCP for areas within Riverside County and for locations with positive survey results for narrow endemic plant species, 90 percent of those portions of the property that provide for long-term conservation value would be avoided until it is demonstrated that conservation goals for the particular species are met. If the 90-percent threshold cannot be met, SCE would prepare the mitigation plan described previously in the format of a DBESP document. The RCA would request USFWS and CDFW concurrence with the MSHCP "findings of consistency" and DBESP approval. Subsequent coordination on relevant biological issues would be handled through consultation with the RCA. The RCA would determine the need for additional consultation with the USFWS and the CDFW. It should also be noted that, assuming all focused plant surveys are current at the time of the PSE and DBESP review, any MSHCP-covered plant species that is not observed during surveys, but which is observed at a later date prior to or during construction, would not require additional mitigation.

- **APM-BIO-03: Avoid, Minimize, and/or Mitigate Impacts to Listed Fairy Shrimp.** *(This measure would apply to the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route.)* Impacts to listed fairy shrimp would be avoided to the extent feasible. Habitat areas with listed fairy shrimp would be marked as "off limits" in construction plans and/or maps and in the field.

Should SCE opt to participate in the Western Riverside County MSHCP, pursuant to Section 6.1.2 of the MSHCP and/or if the Proposed Project design is determined to impact vernal pool resources, avoidance and minimization measures would be implemented in accordance with the species-specific objectives for Riverside fairy shrimp and vernal pool fairy shrimp. If avoidance is not feasible, an alternative that minimizes direct and indirect effects to vernal pools and associated functions and values would be selected. Those impacts that are unavoidable would be mitigated such that the lost functions and values would be replaced as set forth under a DBESP. The RCA would request USFWS and CDFW concurrence with the MSHCP "findings of consistency" and DBESP approval. Subsequent coordination on any biological issues would be handled through consultation with the RCA. The RCA would determine the need for additional consultation with the USFWS and CDFW. It should also be noted that, assuming all fairy shrimp surveys are current and have been conducted pursuant to approved protocols at the time of the PSE and DBESP review, any MSHCP-covered fairy shrimp species that is not observed during surveys, but which is observed at a later date prior to or during construction, would not require additional mitigation.

For areas within San Bernardino County, or if SCE opts out of the Western Riverside County MSHCP in Riverside County, SCE would prepare an HCP and seek take authorization through Section 7 or Section 10 of the FESA for impacts to listed fairy shrimp. Prior to construction, SCE would obtain a Biological Opinion issued from the USFWS authorizing the removal of applicable resources (i.e., listed fairy shrimp habitat). It is anticipated that the USFWS Biological Opinion would contain conservation recommendations to avoid or reduce impacts.

- **APM-BIO-04: Avoid, Minimize, and/or Mitigate Impacts to DSFF.** *(This measure would apply to the following portions of the study area that encompass Delhi series soils and that would be within the SCE Ontario Recovery Unit: the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route and the proposed staging yard at the north end of the study area.)* Impacts to DSFF would be avoided to the extent practicable. Should avoidance be infeasible, SCE would seek take authorization through Section 7 or Section 10 of the FESA for impacts to occupied habitat of DSFF in San Bernardino County, or if SCE did not opt to become a PSE in the MSHCP in Riverside County. Prior to construction, SCE would prepare an HCP and seek a Biological Opinion issued from the USFWS that would authorize the removal of applicable resources (i.e., DSFF habitat). It is anticipated that the USFWS Biological Opinion would contain conservation recommendations to avoid or reduce impacts. Should SCE opt to participate in the MSHCP, and if DSFF are found, full avoidance through on-site preservation would be preferred. However, should on-site preservation be infeasible, purchase of suitable DSFF habitat at a 3-to-1 ratio in specifically designated areas could be required by the RCA.

- **APM-BIO-05: Avoid or Minimize Impacts to Special-Status Fish Species.** *(This measure would apply to the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route.)* Should Proposed Project work occur within open water (i.e., in the Santa Ana River), impacts to special-status fish species would be avoided to the extent feasible.

Should SCE opt to participate in the MSHCP, avoidance/minimization measures are not specifically required by the MSHCP. Should SCE not opt to participate in the MSHCP, the following avoidance and minimization measures would be required to ensure that special-status fish species are not present within the construction area:

- Work would be conducted during the dry season when there would be less potential to impact special-status fish species.

- Prior to the initiation of construction activities within the Santa Ana River, barrier nets would be installed upstream and downstream from the work area in open water, allowing sufficient space for construction crews to operate. These nets are intended to exclude fish from the work area.

- Any fish that may appear inside the netted area after the barrier nets are established would be captured and relocated outside of the work area by a qualified biologist.

- Daily monitoring of the nets would be performed to ensure the nets are in place and free of debris.

- **APM-BIO-06: Avoid, Minimize, and/or Mitigate Impacts to Least Bell's Vireo and Western Yellow-Billed Cuckoo.** *(This measure would apply to the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route.)* For areas in Riverside County, SCE may choose to mitigate potential impacts to the least Bell's vireo and the western yellow billed cuckoo by participation in the Western Riverside County MSHCP. SCE would prepare a DBESP to cover permanent impacts that would include conservation recommendations for least Bell's vireo and western-yellow billed cuckoo pursuant to the MSHCP. The DBESP would also include a discussion of avoidance and minimization of temporary impacts (i.e., exclusion buffers during construction). The RCA would request USFWS and CDFW concurrence with the MSHCP "findings of consistency," as well as DBESP approval. For areas within San Bernardino County or, if SCE opts out of the Western Riverside County MSHCP, temporary and permanent impacts to least Bell's vireos, western yellow-billed cuckoos, and their habitat would be mitigated by obtaining a take permit under the FESA and CESA. The conditions of the take permit would include acreages of disturbance, mitigation ratios for permanent and temporary disturbance, locations for restoration, and/or potential mitigation banks for payment. Conservation recommendations may include the following at the discretion of the USFWS:

  - In areas of occupied habitat for the least Bell's vireo and western yellow-billed cuckoo, SCE would conduct non-protocol pre-construction clearance surveys no more than 7 days prior to construction to determine the location of nests and territories.

  - In areas of occupied habitat for the least Bell's vireo and western yellow-billed cuckoo, a buffer area around active nests would be established by the SCE biologist and provided to the USFWS and CDFW for concurrence. The buffer would be established based on construction activities, potential noise levels and behavior of the species.

- Construction activities in occupied habitat for the least Bell's vireo and western yellow-billed cuckoo would be monitored by a qualified biologist.

- **APM-BIO-07: Avoid and/or Minimize Impacts to Special-Status Vegetation – Non-Riparian.** (*This measure would apply to the following portions of the study area: Mira Loma Substation, the proposed Circle City Substation site, the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route, proposed staging yards, access roads, guard structures, and pulling sites*.) Impacts to special-status vegetation communities that may support special-status species and provide foraging habitat for sensitive raptors and other bird species would be avoided to the extent feasible. Non-riparian special-status vegetation, which includes Riversidean sage scrub, would be marked as "off limits" in construction plans and/or maps, and flagged prior to construction by a qualified Biological Monitor. If significant impacts to special-status vegetation are unavoidable, mitigation may be necessary, depending on the quality of vegetation and the ability to support habitat for special-status species. Should SCE opt to participate in the Western Riverside County MSHCP, impacts to special-status vegetation communities within Riverside County are fully covered through payment of mitigation fees. Should SCE choose to opt out of the MSHCP PSE process, a restoration plan would be prepared in consultation with the USFWS and CDFW. The restoration plan would include, but is not limited to, identification of responsible parties, restoration details and schedule, monitoring and maintenance, and success criteria.

- **APM-BIO-08: Avoid, Minimize, and/or Mitigate Impacts to Burrowing Owl.** *(This measure applies to the following portions of the study area: Mira Loma Substation, the proposed Circle City Substation site, the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route, proposed staging yards, access roads, guard structures, and pulling sites.)* Should SCE opt to participate in the MSHCP for areas within Riverside County, then avoidance/minimization would be preferred. However, if avoidance/minimization would not be possible (i.e., 90 percent of the areas with long-term conservation value were conserved), then a DBESP would be prepared that would include suitable burrowing owl habitat creation and translocation. The RCA would request USFWS and CDFW concurrence with the MSHCP "findings of consistency" and DBESP approval.

  For areas within San Bernardino County, a Burrowing Owl Management Plan would be created for the Proposed Project. The plan would include information related to construction monitoring, relocation strategy, and exclusionary devices.

  - A pre-construction non-protocol burrowing owl survey would be conducted no more than 14 days prior to commencement of ground-disturbing activities within suitable habitat to determine if any occupied burrows are present.

  - If occupied burrows are found, adequate buffers would be established around burrows. Adequate buffers would be 160 feet from wintering burrows (i.e., from December 1 to January 31) and 250 feet from breeding burrows during the breeding season (i.e., from February 1 to August 31).

- Biological Monitors would monitor all construction activities that could potentially impact active burrows.

- **APM-BIO-09: Avoid Impacts to Nesting Birds.** *(This measure would apply to all portions of the Proposed Project.)* SCE would conduct pre-construction clearance surveys no more than 7 days prior to construction to determine the location of nesting birds and territories during the nesting bird season (typically February 1 to August 31, or earlier for species such as raptors). An avian biologist would establish a buffer area around active nest(s) and would monitor the effects of construction activities to prevent failure of the active nest. The buffer would be established based on construction activities, potential noise disturbance levels, and behavior of the species. Monitoring of construction activities that have the potential to affect active nest(s) would continue until the adjacent construction activities are completed or until the nest is no longer active.

- **APM-BIO-10: Avoid, Minimize, and/or Mitigate Impacts to MSHCP Covered Riparian Vegetation/Riverine Habitat.** *(This measure would apply to the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route.)* Pursuant to MSHCP Section 6.1.2, impacts to riparian/riverine habitat would be avoided to the extent feasible. In areas where avoidance is not possible, permanent impacts to riparian vegetation, which includes willow riparian forest, and/or riverine habitat would be mitigated to ensure no net loss of habitat. Prior to construction, the limits of grading would be clearly marked around any such habitat.

  SCE would also prepare a mitigation plan in the format of a DBESP as part of the PSE review process. The RCA would request USFWS and CDFW concurrence with the MSHCP "findings of consistency" and DBESP approval. Subsequent coordination on any biological issues would be handled through consultation with the RCA. The RCA would determine the need for additional consultation with the USFWS and CDFW.

- **APM-BIO-11: Mitigation for Impacts to Jurisdictional Waters.** *(This measure would apply to the following portions of the study area: Mira Loma Substation, the proposed Source Line Route, Source Line Route Alternative 2, and the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route.)* Impacts to potential USACE-, RWQCB-, and CDFW-jurisdictional areas would be avoided to the extent feasible. These areas would be marked as "off limits" in construction plans and/or maps and in the field. If avoidance is not feasible, permits from the USACE, RWQCB, and CDFW would be obtained for direct and indirect impacts on areas within these agencies' jurisdictions. It is anticipated that the regulatory permit requirements would contain measures to avoid, reduce, and/or mitigate for impacts on their respective jurisdictions. In areas where avoidance is not possible, impacts to jurisdictional waters would be mitigated to ensure no net loss of habitat. SCE would pay into a mitigation bank, pay into an in-lieu fee program, or work with a local RCA to establish appropriate mitigation within the same watershed as the area of impact. On-site restoration back to existing conditions would be implemented where possible; however, on-site mitigation with conservation easements and deed restrictions is rarely possible within SCE work easements. Subject to the approval of the resource agencies (i.e., the USACE, RWQCB, and CDFW), SCE would

submit the required materials and mitigation proposal as part of the regulated waters application processes. SCE would comply with all conditions as set forth in the regulated water permits.

- **APM-BIO-12: Avoid, Minimize, and/or Mitigate for Impacts to Protected Trees.** *(This measure would apply to all portions of the Proposed Project within San Bernardino County and the cities of Chino, Corona, Eastvale, Norco, and Ontario.)* The Proposed Project would be designed to avoid protected trees to the extent feasible. Should SCE need to trim, encroach into protected root zone, relocate, or remove any protected trees as identified during pre-construction surveys, a ministerial permit would be required by the local jurisdiction's applicable ministerial tree ordinances. Due to the varying jurisdictions within the survey areas, measures would be implemented depending on the location of the protected trees, as well as conditions stated in each approved ministerial tree permit.

4.4.7 Alternative Substation Site

This section analyzes the potential biological impacts resulting from construction of Substation Site Alternative B. Detailed Proposed Project design has not been developed for this component; therefore, a quantitative analysis of potential impacts has not been conducted. With few exceptions, the general biological conditions of Substation Site Alternative B would be consistent with the Proposed Project, and the resulting impacts are expected to be qualitatively similar. The previously described APMs (specifically, APMs BIO-01, BIO-02, BIO-07, BIO-08, BIO-09, and BIO-12) would be applicable to the Proposed Project alternatives. Differences from the Proposed Project are described in more detail in the following paragraphs.

Substation Site Alternative B is located adjacent to the proposed Circle City Substation site (i.e., Substation Site Alternative A), and therefore, has similar characteristics. Non-native grassland is present in Substation Site Alternative B, as compared to ruderal vegetation present on the proposed Circle City Substation site. This is a minor difference in vegetation community, which is not anticipated to result in additional impacts. Therefore, potential impacts to vegetation, special-status species, and wildlife movement are expected to be similar to those of the Proposed Project.

Development of Substation Site Alternative B would impact a potentially jurisdictional drainage—Feature 23—described in Table 4.4-8: Hydrologic Features in the Survey Area and depicted on Attachment 4.4-F: Jurisdictional Resources Map. Implementation of APMs BIO-01 and BIO-11 would ensure that impacts to this potentially jurisdictional resource would be less than significant. As previously described, APM-BIO-01 would require biological monitoring in Proposed Project construction areas where sensitive biological resources or habitats suitable to any special-status species are located. APM-BIO-11 would provide for the mitigation of impacts to jurisdictional waters. As a result, the utilization of Substation Site Alternative B would result in less-than-significant impacts to jurisdictional water resources.

General and focused biological surveys have been conducted for a 300-foot buffer around Substation Site Alternative B. It is likely that impacts associated with access roads, guard structures, and pulling sites would fall within the surveyed buffer, and additional surveys would not be necessary. If Substation Site Alternative B was selected for implementation and additional

staging yards were proposed outside the current 300-foot buffer, then these areas would need to be surveyed for biological resources. Biological monitoring (i.e., APM-BIO-01) would be necessary throughout these areas.

4.4.8 Alternative Source Line Routes

This section analyzes the potential biological impacts resulting from the construction of alternative source line routes depicted on Figure 2-1: Alternative Substation Sites and Source Line Routes Map in Chapter 2 – Project Alternatives. These lines have been included in the study area, and associated staging yards, access roads, guard structures, and pulling sites unique to these alternatives are expected to have similar biological conditions as the alternative source line routes. As depicted on Figure 2-1: Alternative Substation Sites and Source Line Routes Map in Chapter 2 – Project Alternatives, Source Line Route Alternative 4 follows an almost identical route to the proposed Source Line Route. As a result, Source Line Route Alternatives 2 and 3 are analyzed in the following paragraphs. Detailed Proposed Project design has not been developed for these components; therefore, a quantitative analysis of potential impacts has not been conducted. With few exceptions, the general biological conditions of the alternatives would be consistent with the Proposed Project, and the resulting impacts are expected to be qualitatively similar. The previously described APMs (specifically, APMs BIO-01, BIO-02, BIO-06, BIO-07, BIO-08, BIO-09, BIO-10, BIO-11, and BIO-12) would be applicable to the Proposed Project alternatives. Differences from the Proposed Project are described in more detail in the following paragraphs.

Potential impacts to vegetation, special-status species, and wildlife movement are expected to be similar to those of the Proposed Project. Development of the alternative source line routes would not impact MSHCP Existing Core A. Because there are additional riparian/riverine resources and jurisdictional resources at the southern end of Source Line Route Alternatives 2 and 3, total impacts to these resources may be potentially higher than those of the Proposed Project. In addition, least Bell’s vireo has been observed in this area. Habitat within Temescal Wash comprises MSHCP Proposed Constrained Linkage 4 and both Source Line Route Alternatives 2 and 3 would cross Criteria Cells in this area. Conservation of this area focuses on 15 to 25 percent of the southern portion of Criteria Cell 1826, and 10 to 20 percent of the northern and eastern portion of Criteria Cell 1923. Source Line Route Alternatives 2 and 3 occur within these portions of the Criteria Cells that are the focus of conservation. Therefore, the alternative source line routes may potentially impact Proposed Constrained Linkage 4. However, it is anticipated that temporary guard structures would be in place on either side of Temescal Wash to prevent impacts from occurring within the wash.

An additional vegetation type that is not present in the Proposed Project, but is present along the alternative source line routes, is Riversidean sage scrub. This vegetation type is not as heavily disturbed as the disturbed Riversidean sage scrub mapped along the Proposed Project alignment. Impacts would be considered potentially significant due to this vegetation type’s decline in the Proposed Project region and its ability to support special-status species. SCE would implement APM-BIO-07 to ensure impacts to special-status vegetation communities would be less than significant. Should SCE opt to request PSE status pursuant to the MSHCP, potential impacts to this vegetation type would be covered by the MSHCP and no further actions would be required.

General and focused biological surveys have been conducted for a 300-foot buffer around the alternative source line routes. It is likely that impacts associated with access roads, guard structures, and pulling sites would fall within the surveyed buffer, and additional surveys would not be necessary. If the alternative source line routes are selected for implementation and additional staging yards are proposed outside of the current 300-foot buffer, then these areas would need to be surveyed for biological resources. Biological monitoring (i.e., APM-BIO-01) would be necessary throughout these areas.

4.4.9 Alternative Mira Loma-Jefferson 66 kV Subtransmission Line Routes

Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 2 and Alternative 3 have been included in the study area, and associated staging yards, access roads, guard structures, and pulling sites unique to these alternatives are expected to have similar biological conditions as the Proposed Project. Detailed Proposed Project design has not been developed for these components; therefore, a quantitative analysis of potential impacts has not been conducted. With few exceptions, the general biological conditions of the alternatives would be consistent with the Proposed Project, and the resulting impacts would be expected to be qualitatively similar. The previously described APMs (specifically, APMs BIO-01, BIO-02, BIO-04, BIO-05, BIO-06, BIO-07, BIO-08, BIO-09, BIO-10, BIO-11, and BIO-12) would be applicable to Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 2 and Alternative 3.

Potential impacts to vegetation, riparian/riverine resources, jurisdictional resources, special-status species, wildlife movement, and areas (i.e., Cores/Linkages) described for conservation by the MSHCP are expected to be similar to those of the Proposed Project.

General and focused biological surveys have been conducted for a 300-foot buffer around Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 2. It is likely that impacts associated with access roads, guard structures, and pulling sites would fall within the surveyed buffer, and additional surveys would not be necessary. If Alternative 2 is selected for implementation and additional staging yards are proposed outside of the current 300-foot buffer, then these areas would need to be surveyed for biological resources. Biological monitoring (i.e., APM-BIO-01) would be necessary throughout these areas.

4.4.10 References

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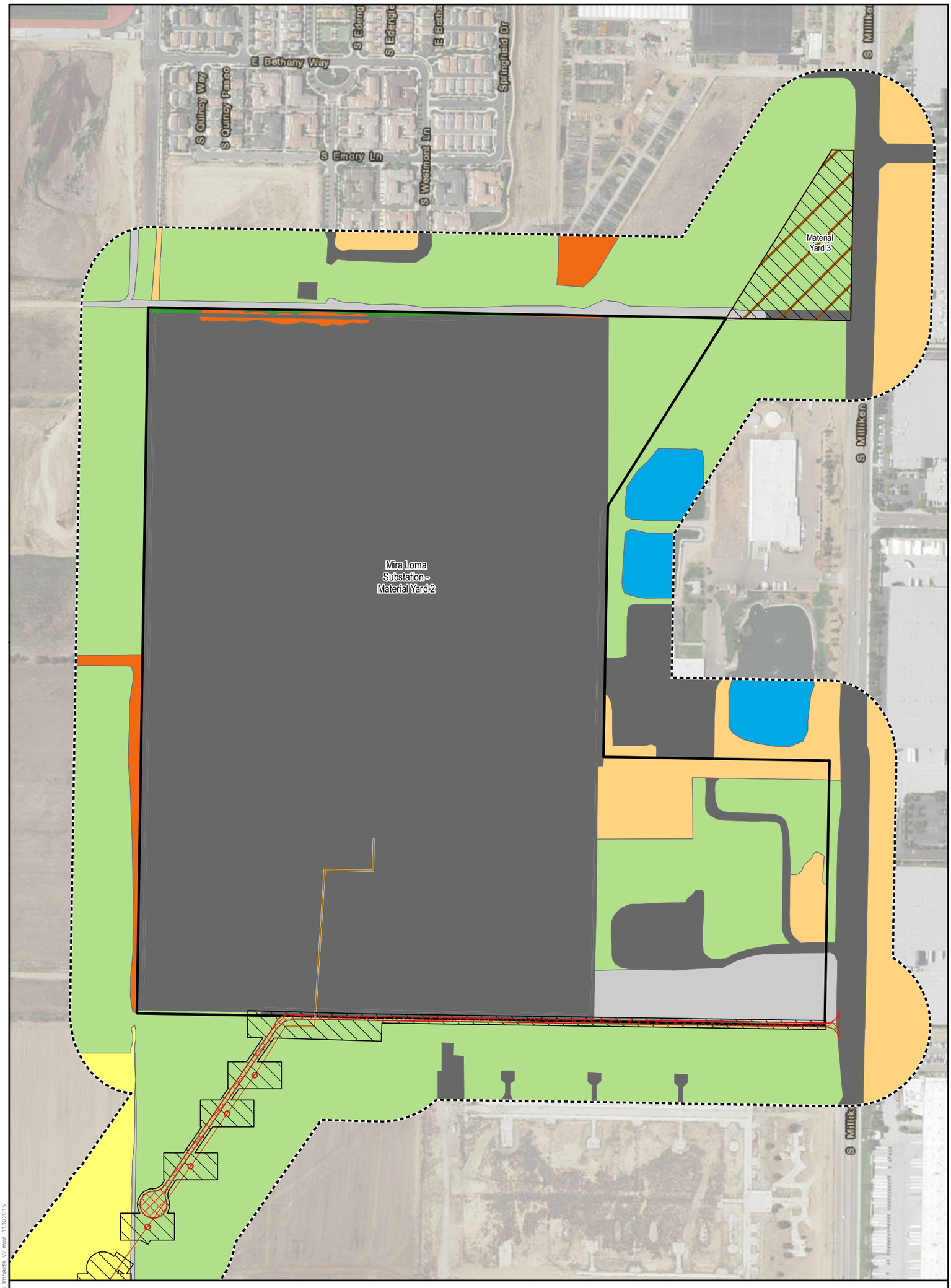
ATTACHMENT 4.4-A: VEGETATION COMMUNITIES MAP



Attachment 4.4-A: Vegetation Communities Map 1 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
- Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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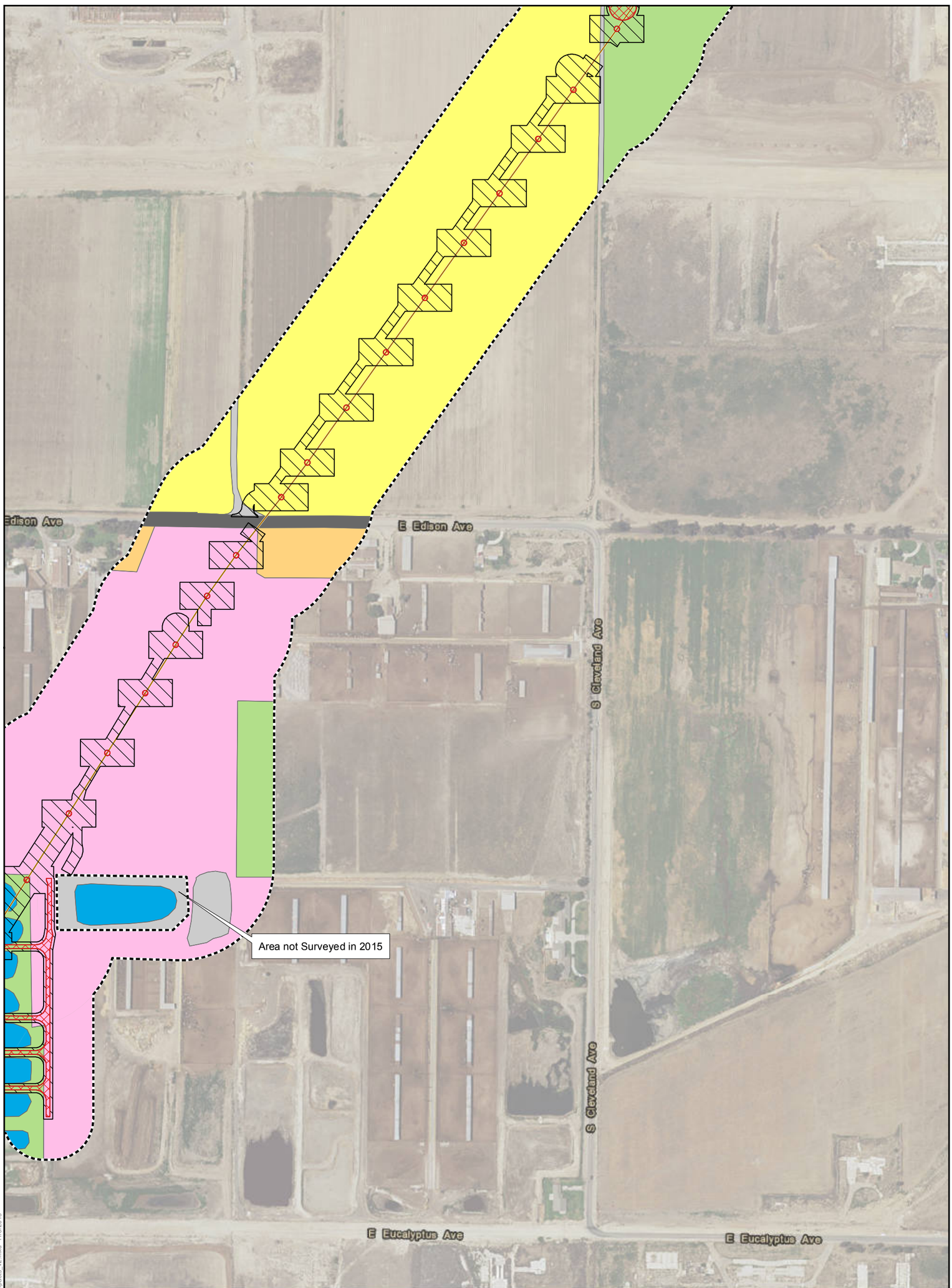

Attachment 4.4-A: Vegetation Communities Map 2 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
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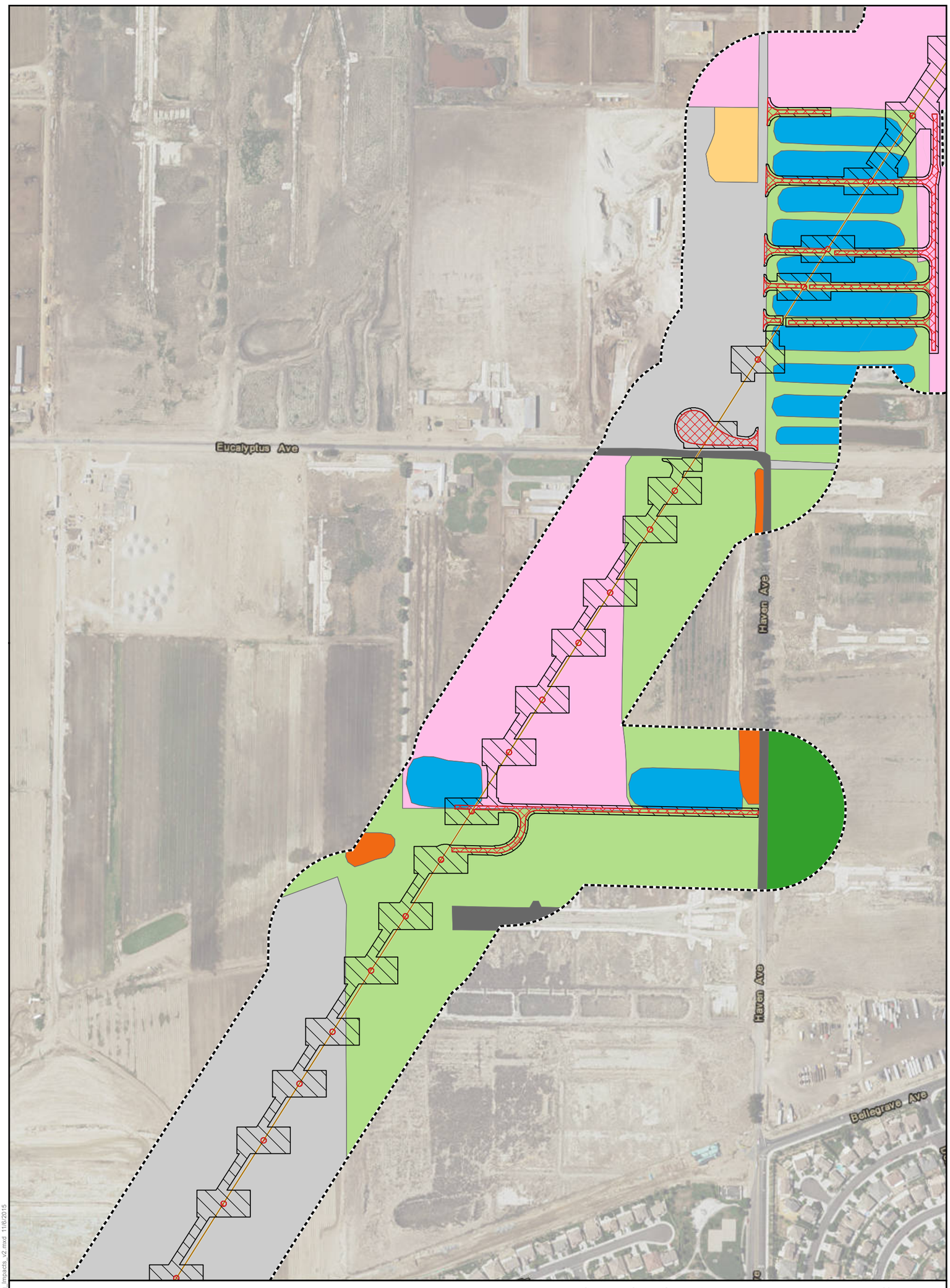

Attachment 4.4-A: Vegetation Communities Map 3 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
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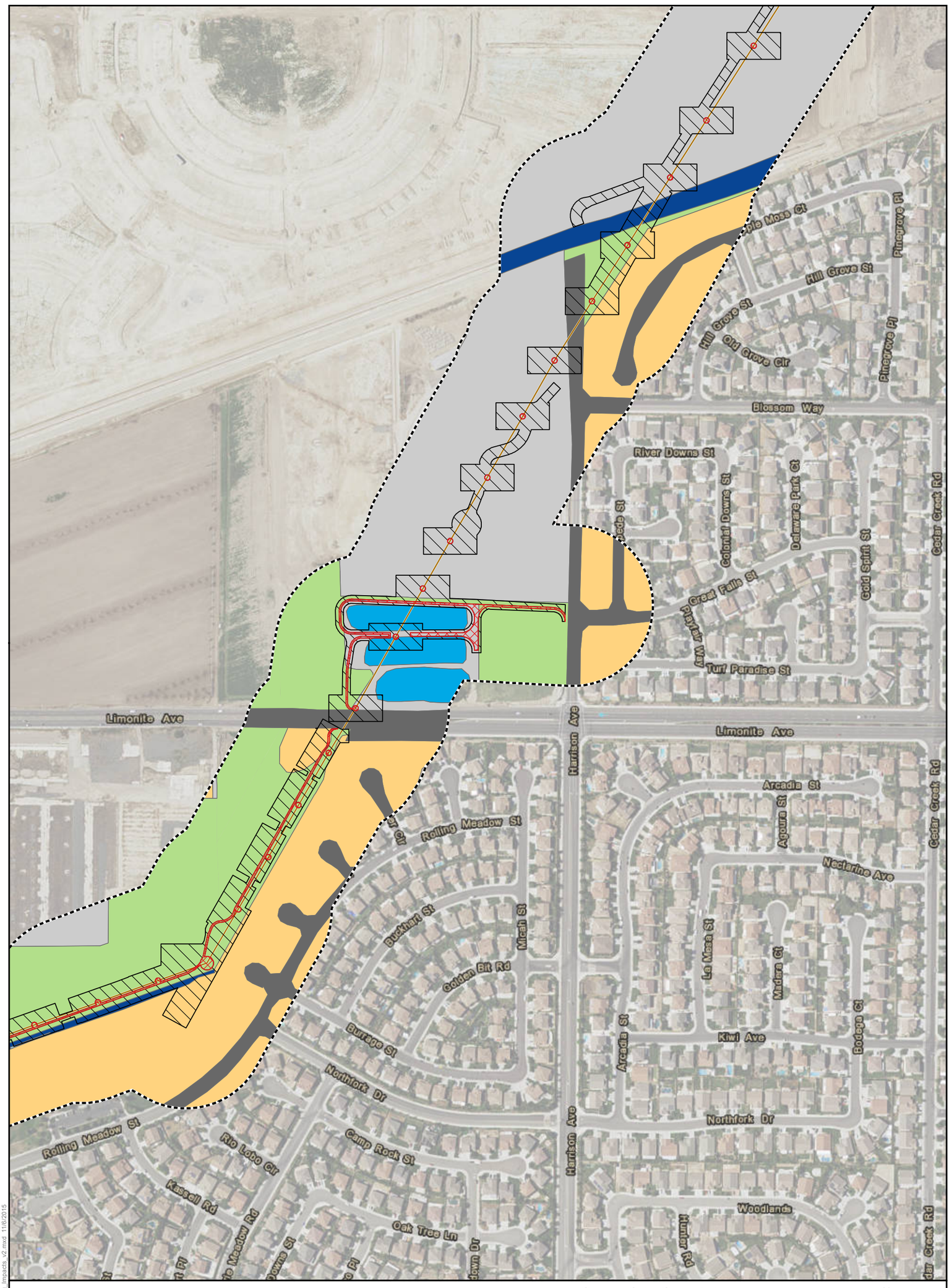

Attachment 4.4-A: Vegetation Communities Map 4 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
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Vegetation Types

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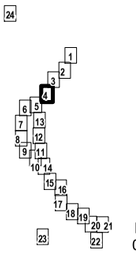

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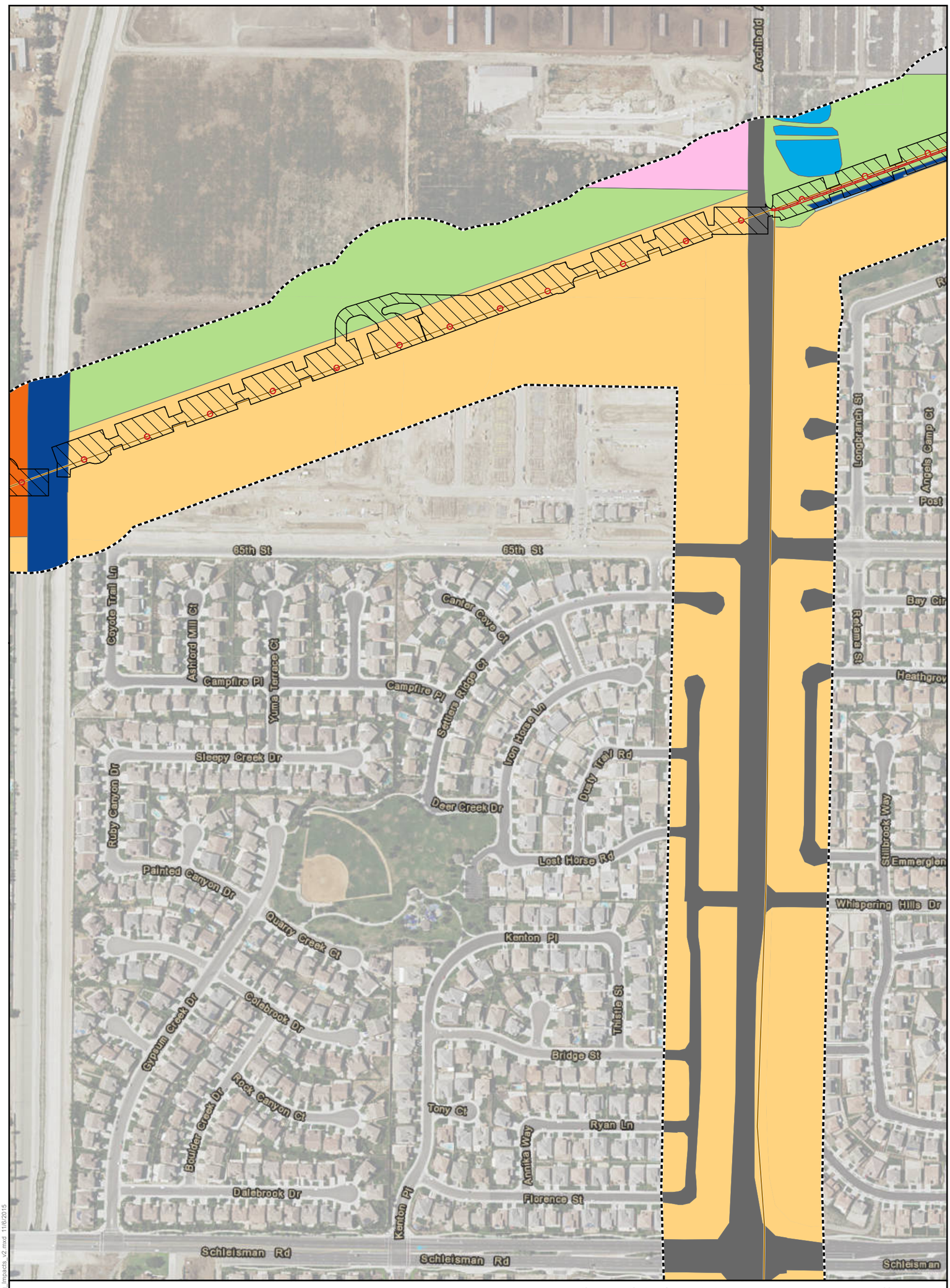

Attachment 4.4-A: Vegetation Communities Map 5 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
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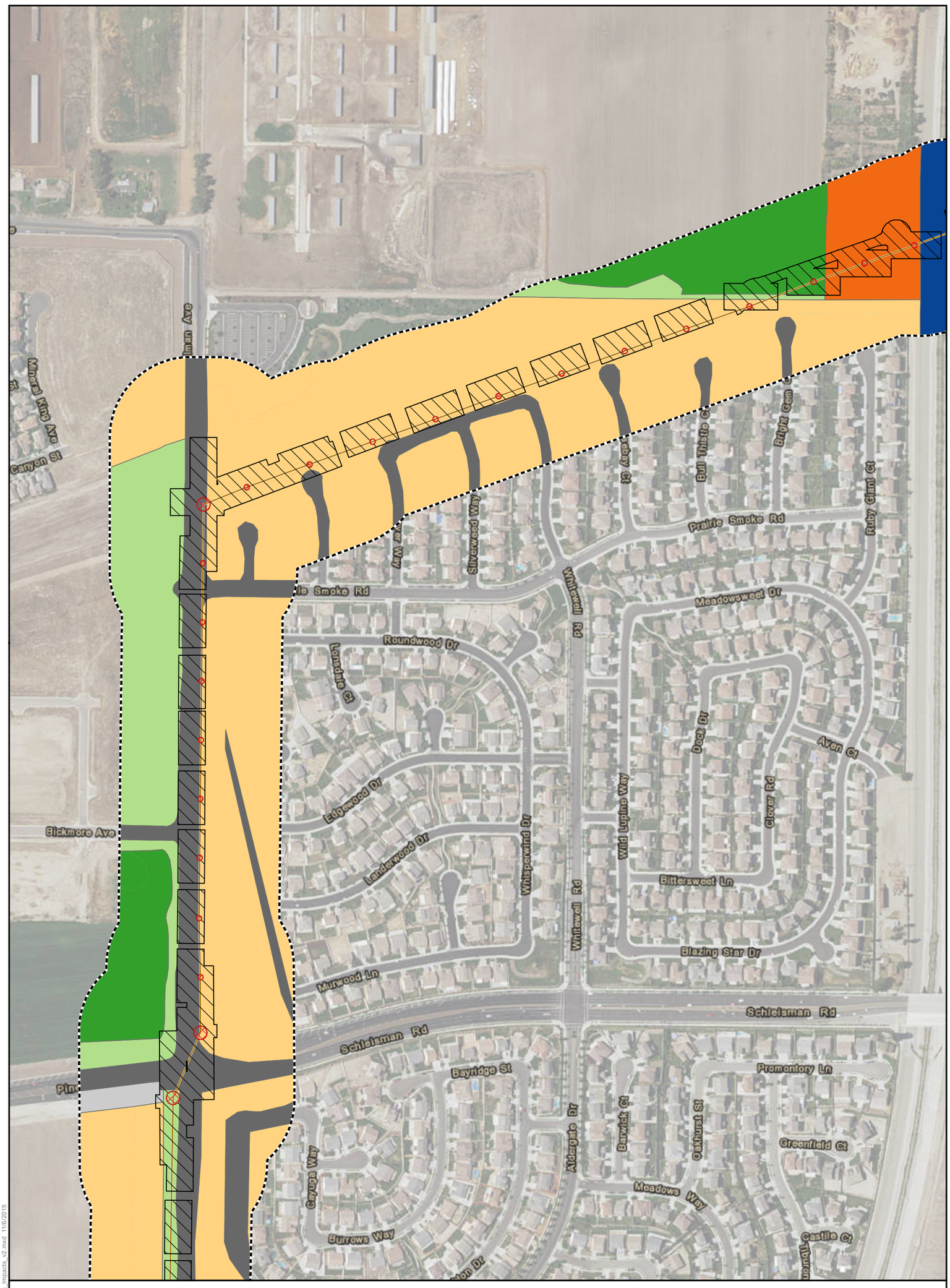

Attachment 4.4-A: Vegetation Communities Map 6 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
- Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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INSIGNIA ENVIRONMENTAL

1:4,200

0 200 400 Feet

Sources: Insignia, 2015; SCE, 2015

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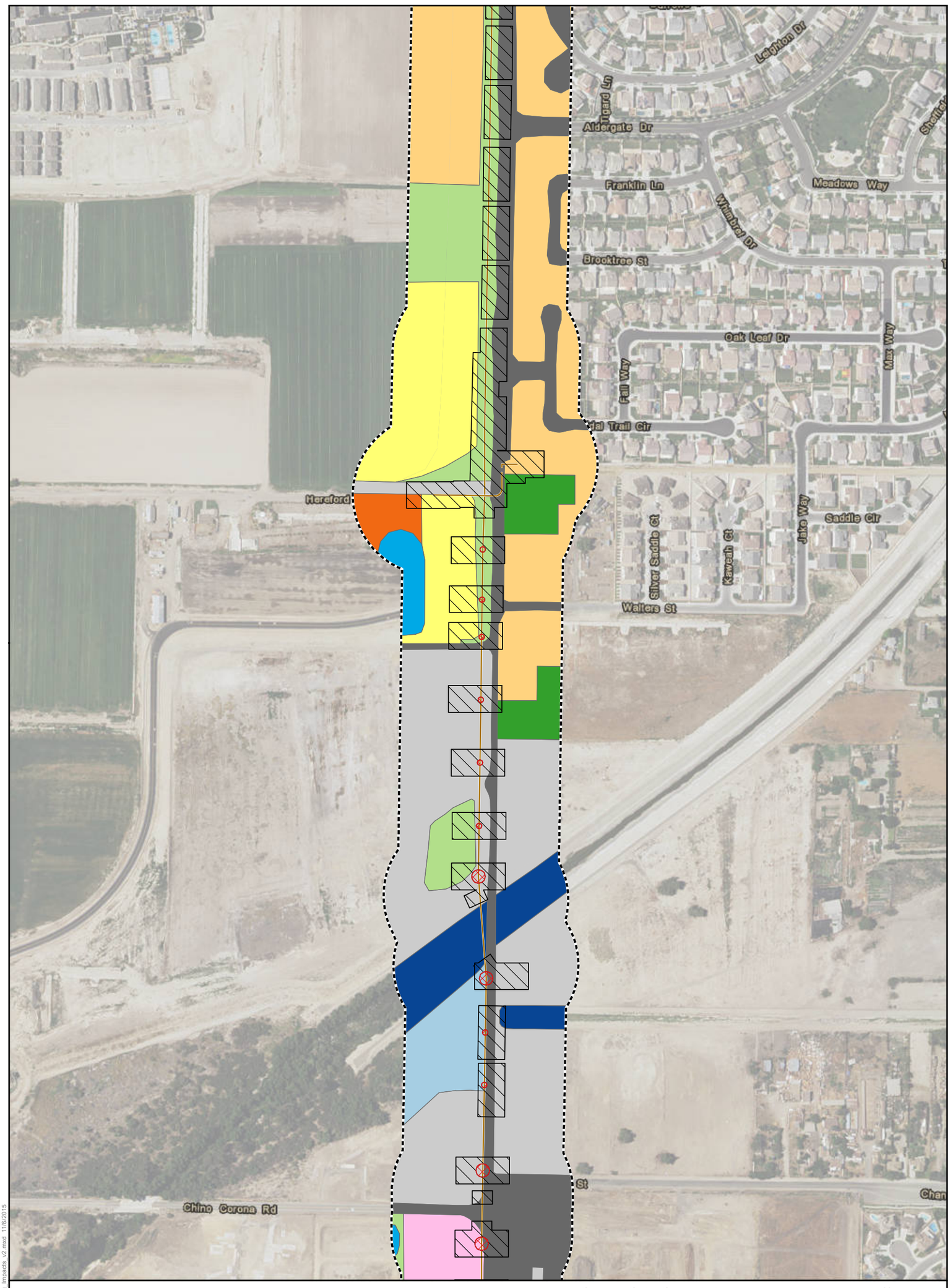

Attachment 4.4-A: Vegetation Communities Map 7 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Permanent Impact
Temporary Impact
Substation
Study Area
Material Yard
Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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INSIGNIA ENVIRONMENTAL

1:4,200
0 200 400 Feet

Sources: Insignia, 2015; SCE, 2015

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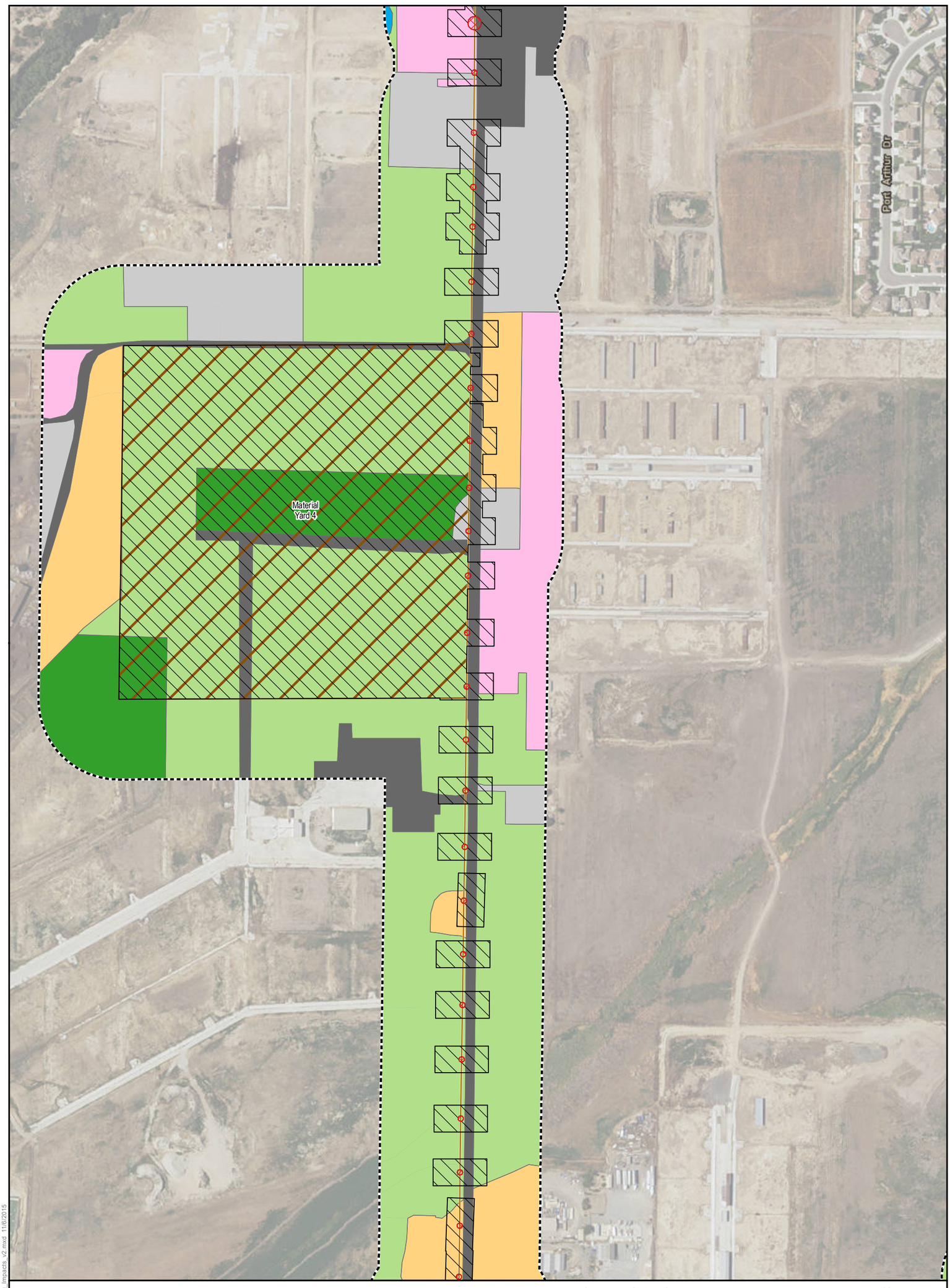

Attachment 4.4-A: Vegetation Communities Map 8 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Permanent Impact
Temporary Impact
Substation
Study Area
Material Yard
Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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INSIGNIA ENVIRONMENTAL

1:4,200
0 200 400 Feet

N

Sources: Insignia, 2015; SCE, 2015

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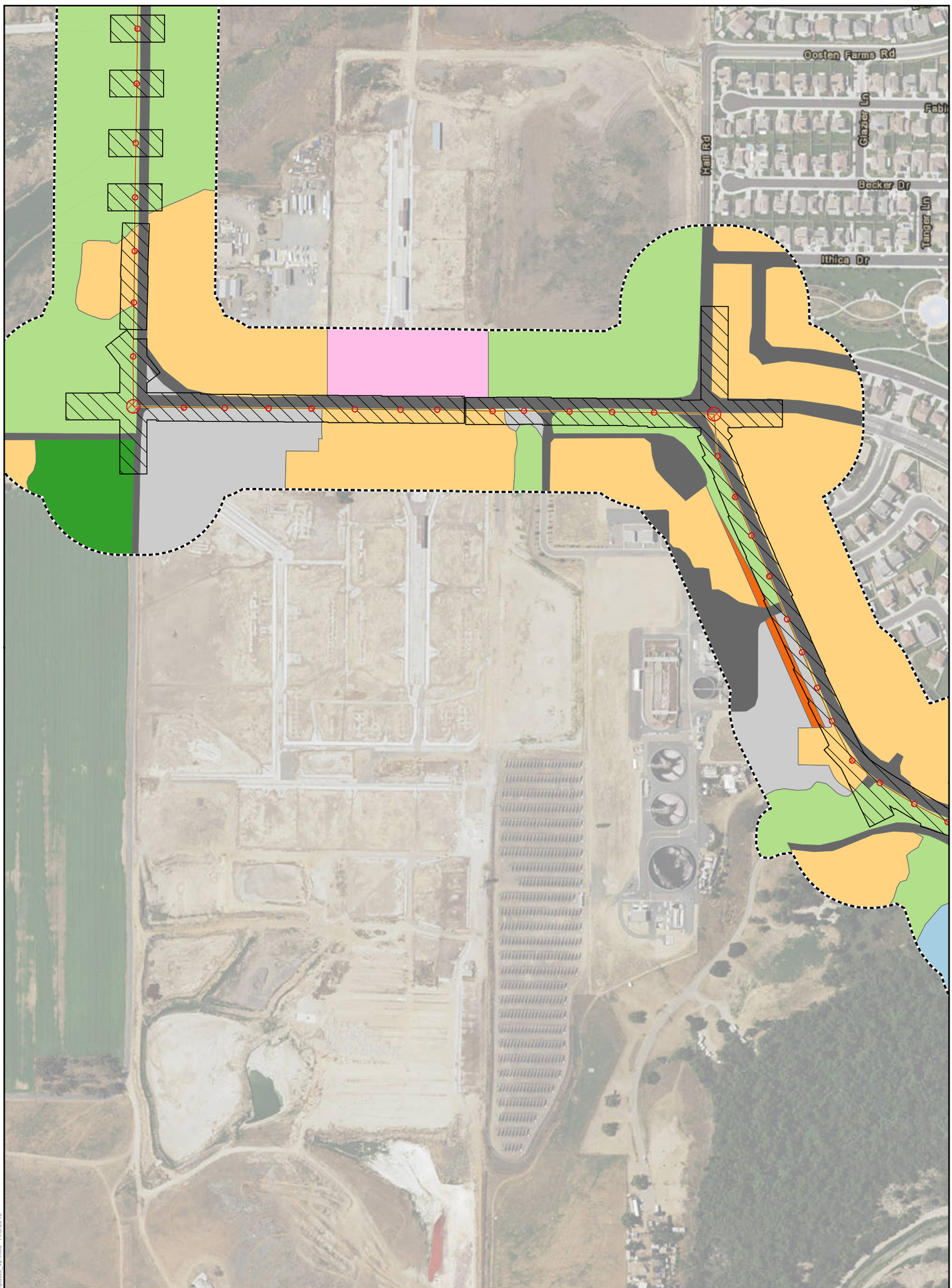

Attachment 4.4-A: Vegetation Communities Map 9 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
- Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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INSIGNIA ENVIRONMENTAL

1:4,200
0 200 400 Feet

Sources: Insignia, 2015; SCE, 2015

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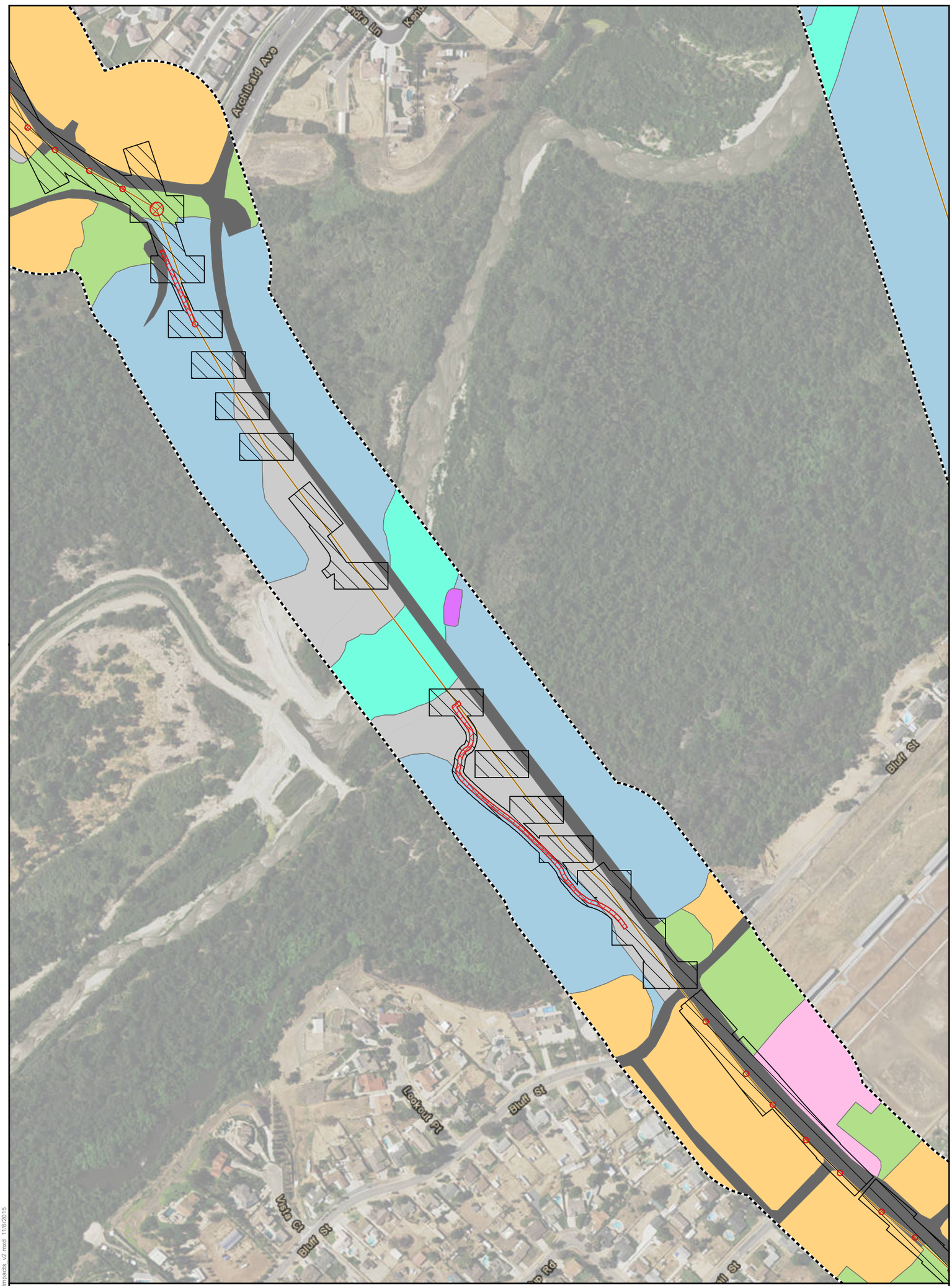

Attachment 4.4-A: Vegetation Communities Map 10 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
- Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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INSIGNIA ENVIRONMENTAL

1:4,200
0 200 400 Feet

N

Sources: Insignia, 2015; SCE, 2015

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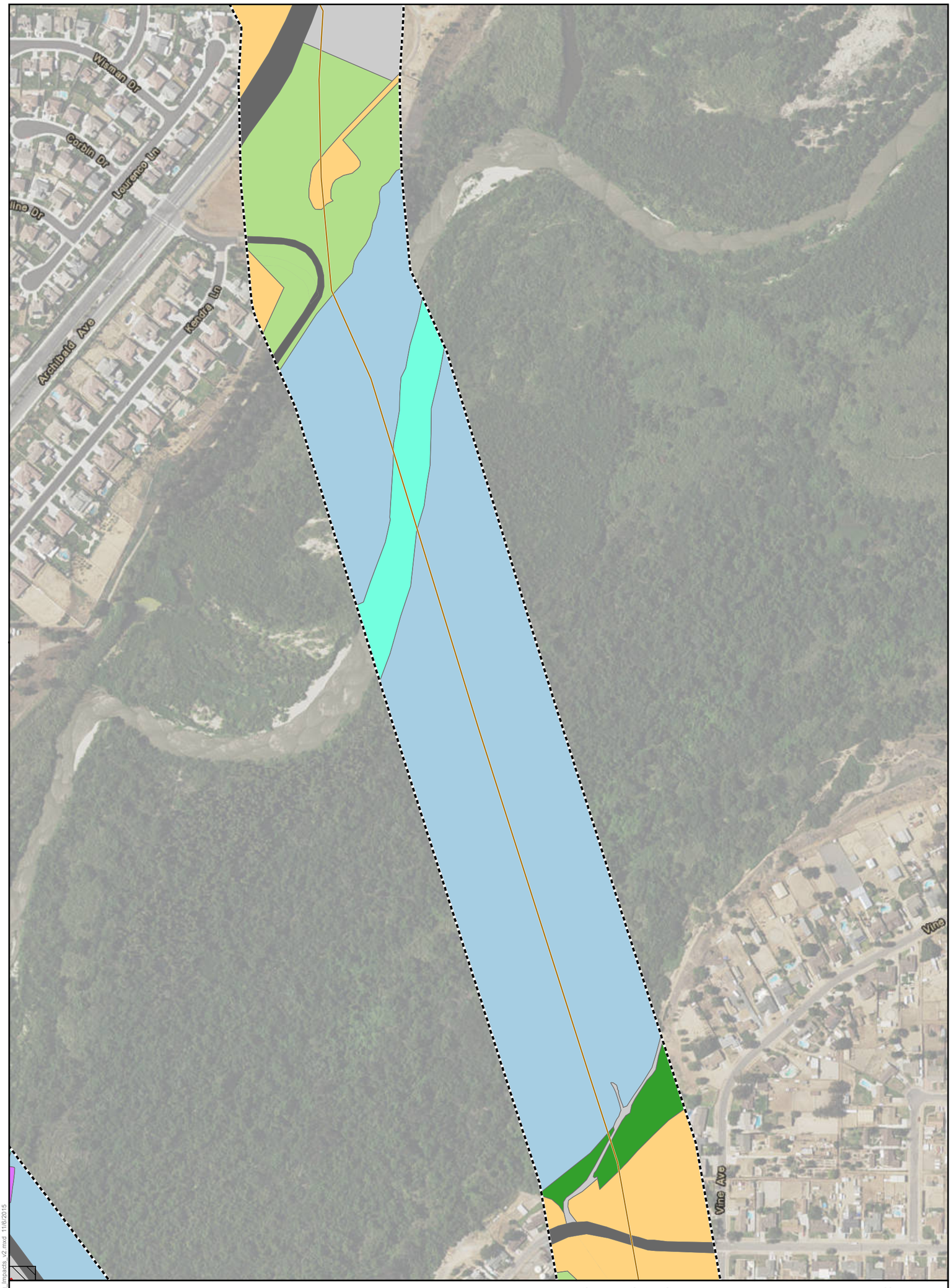

Attachment 4.4-A: Vegetation Communities Map 11 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Permanent Impact
Temporary Impact
Substation
Study Area
Material Yard
Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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INSIGNIA ENVIRONMENTAL

1:4,200
0 200 400 Feet

N

Sources: Insignia, 2015; SCE, 2015

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Attachment 4.4-A: Vegetation Communities Map 12 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
- Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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INSIGNIA ENVIRONMENTAL

1:4,200
0 200 400 Feet

N

Sources: Insignia, 2015; SCE, 2015

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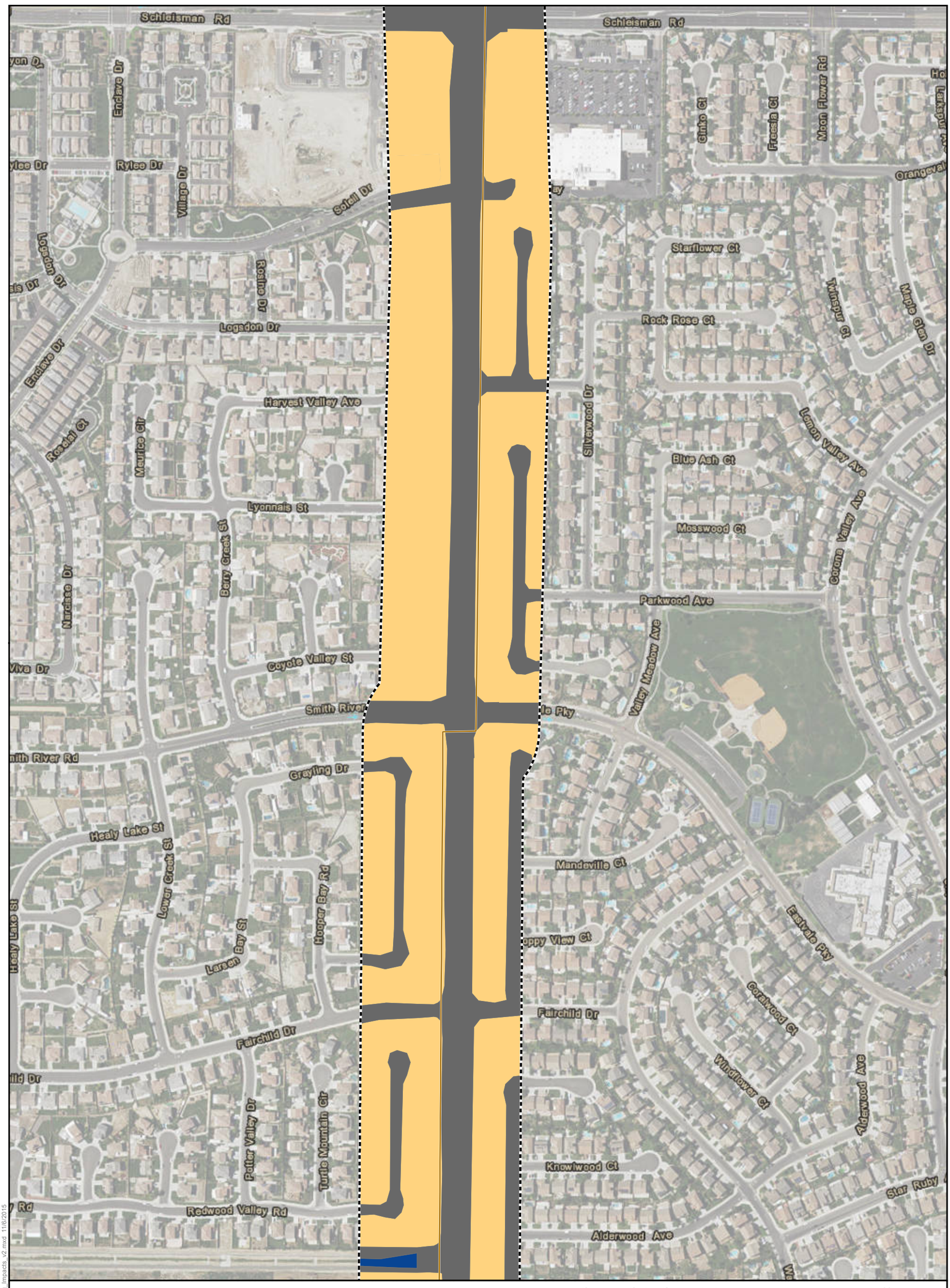

Attachment 4.4-A: Vegetation Communities Map 13 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
- Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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INSIGNIA ENVIRONMENTAL

1:4,200

0 200 400 Feet

N

Sources: Insignia, 2015; SCE, 2015

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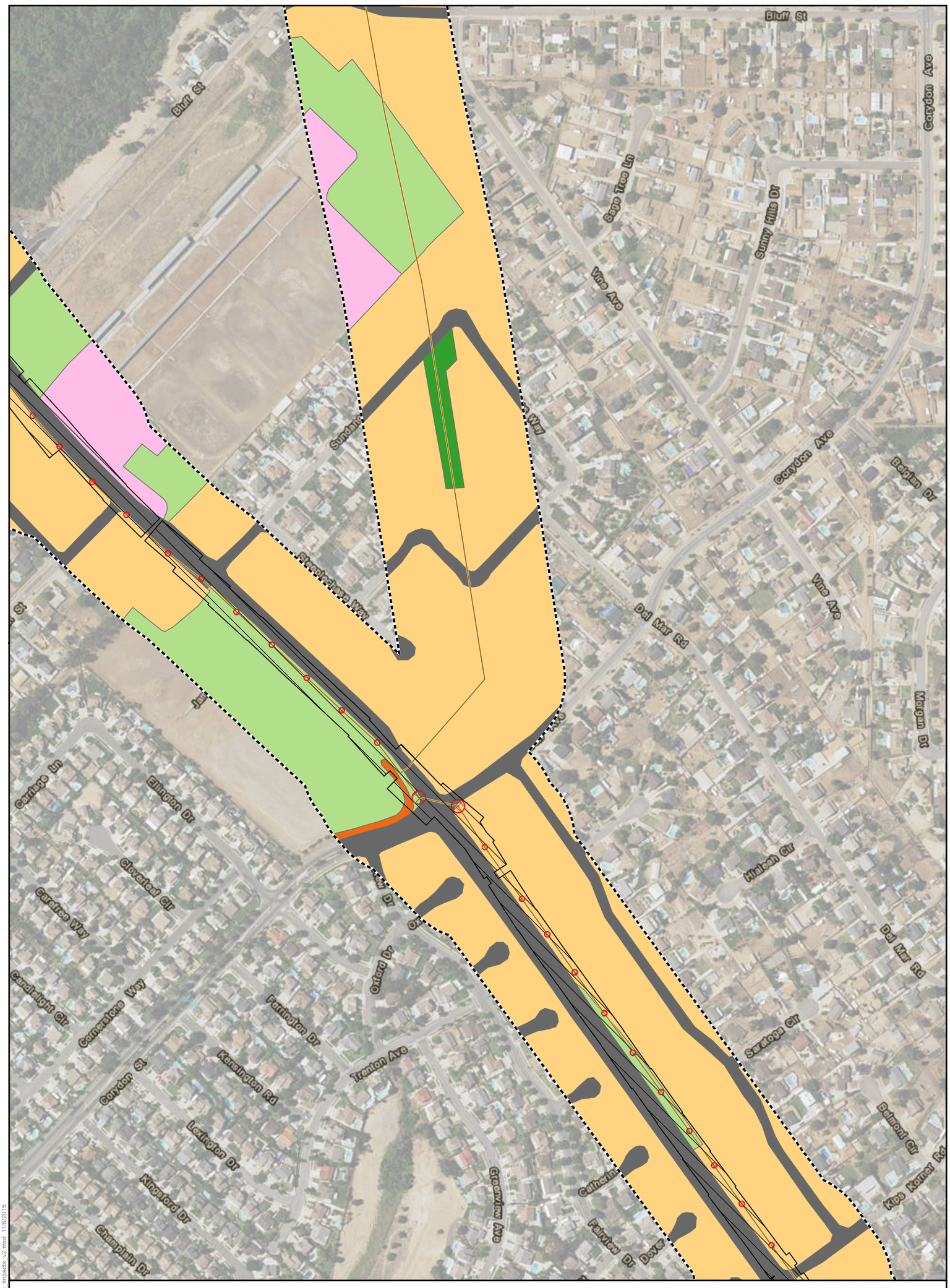

Attachment 4.4-A: Vegetation Communities Map 14 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
- Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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INSIGNIA ENVIRONMENTAL

1:4,200
0 200 400 Feet

N

Sources: Insignia, 2015; SCE, 2015

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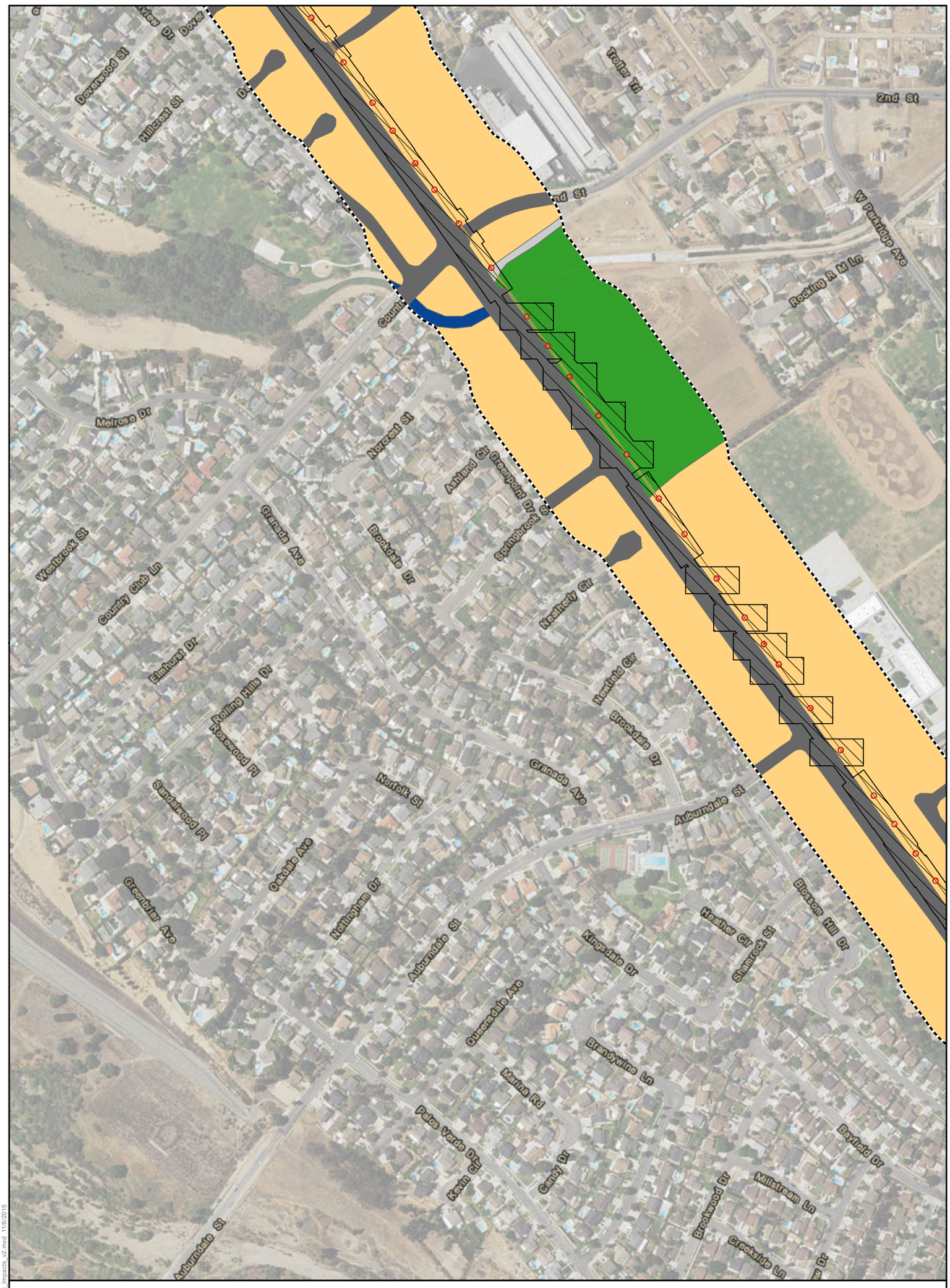

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Attachment 4.4-A: Vegetation Communities Map 15 of 24

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
- Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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INSIGNIA ENVIRONMENTAL

1:4,200

0 200 400 Feet

N

Sources: Insignia, 2015; SCE, 2015

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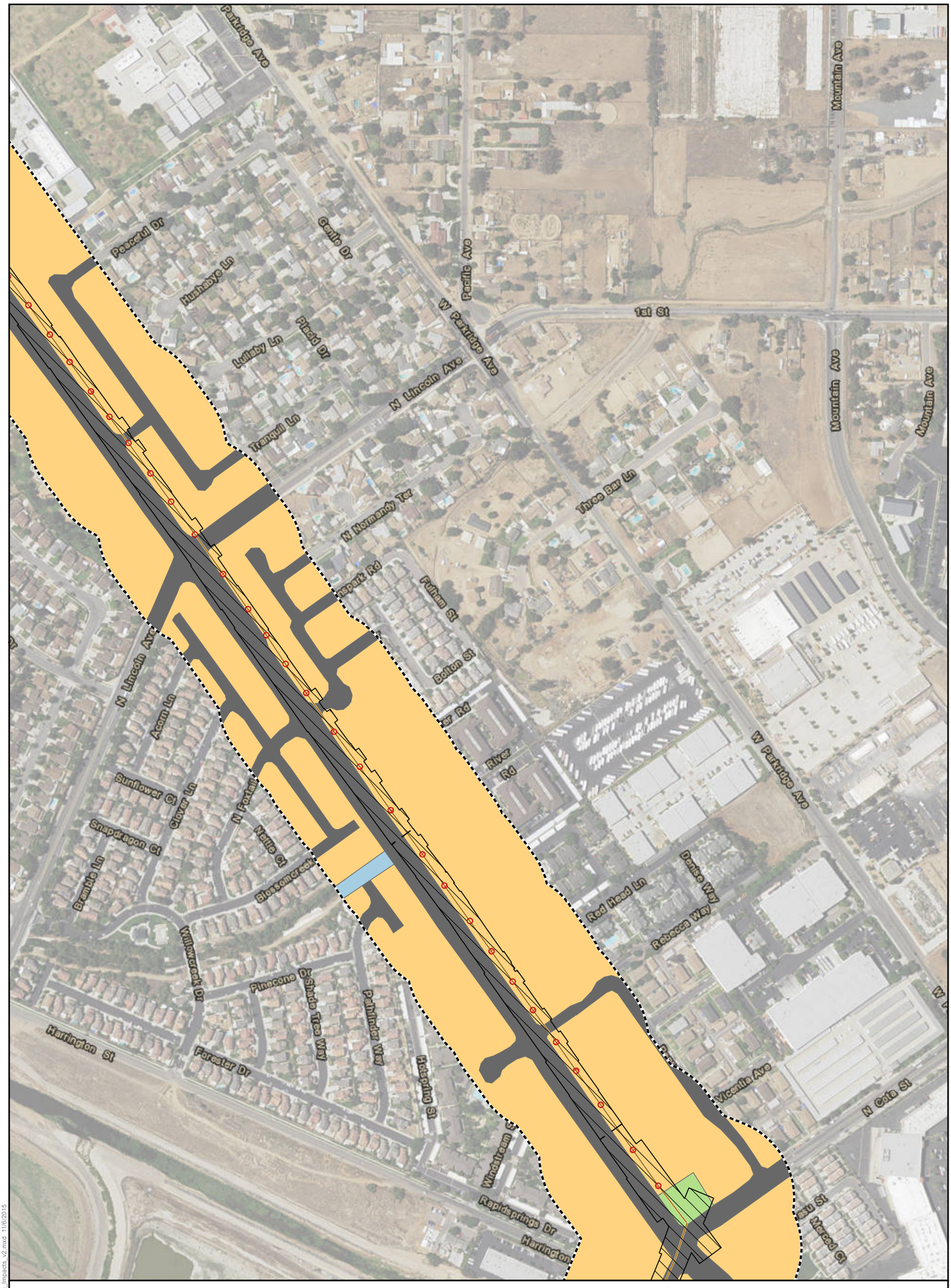


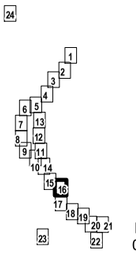
Attachment 4.4-A: Vegetation Communities Map 16 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
- Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)



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INSIGNIA ENVIRONMENTAL

1:4,200
0 200 400 Feet

Sources: Insignia, 2015; SCE, 2015

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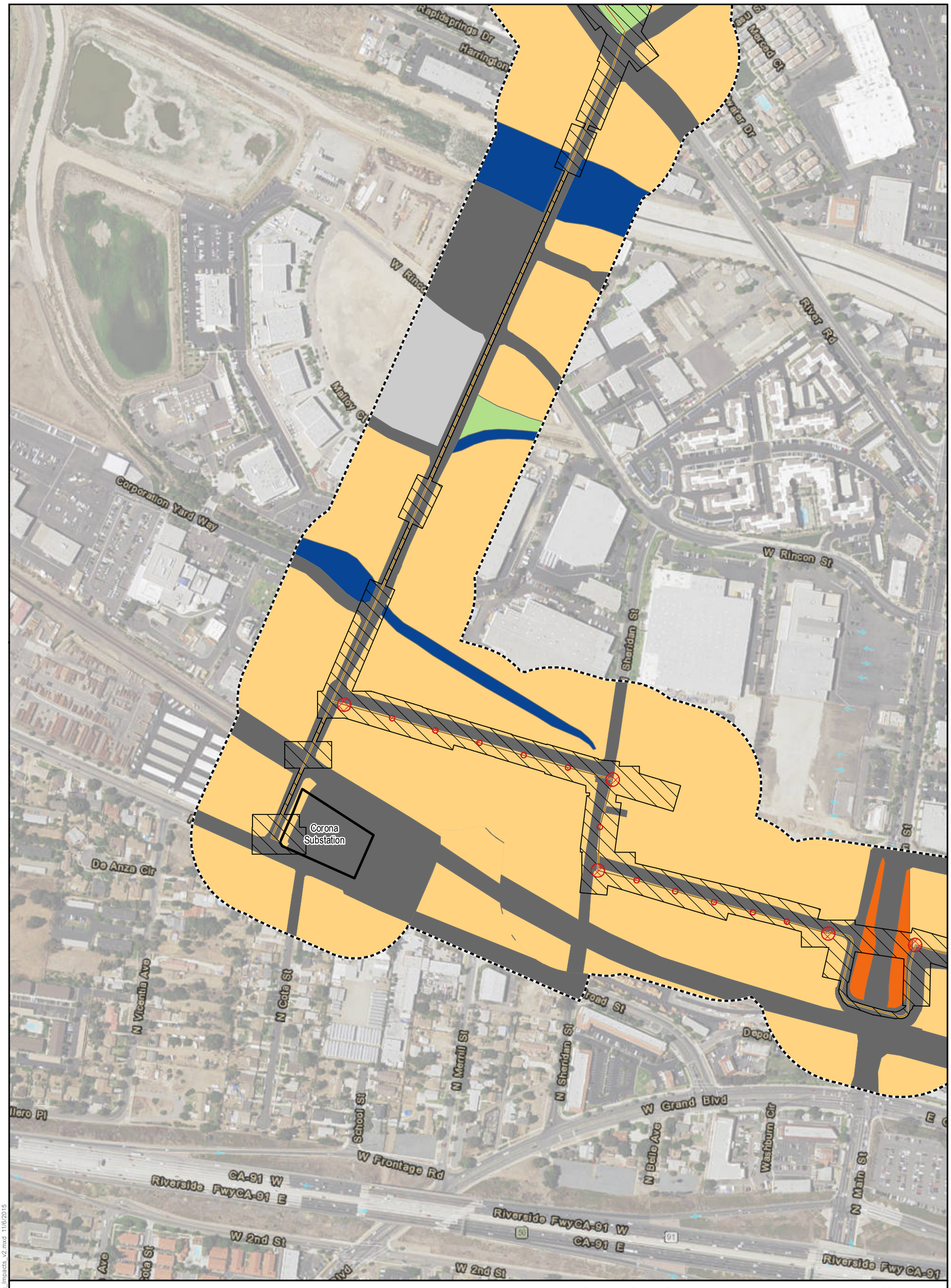

Attachment 4.4-A: Vegetation Communities Map 17 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
- Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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INSIGNIA ENVIRONMENTAL

1:4,200
0 200 400 Feet

N

Sources: Insignia, 2015; SCE, 2015

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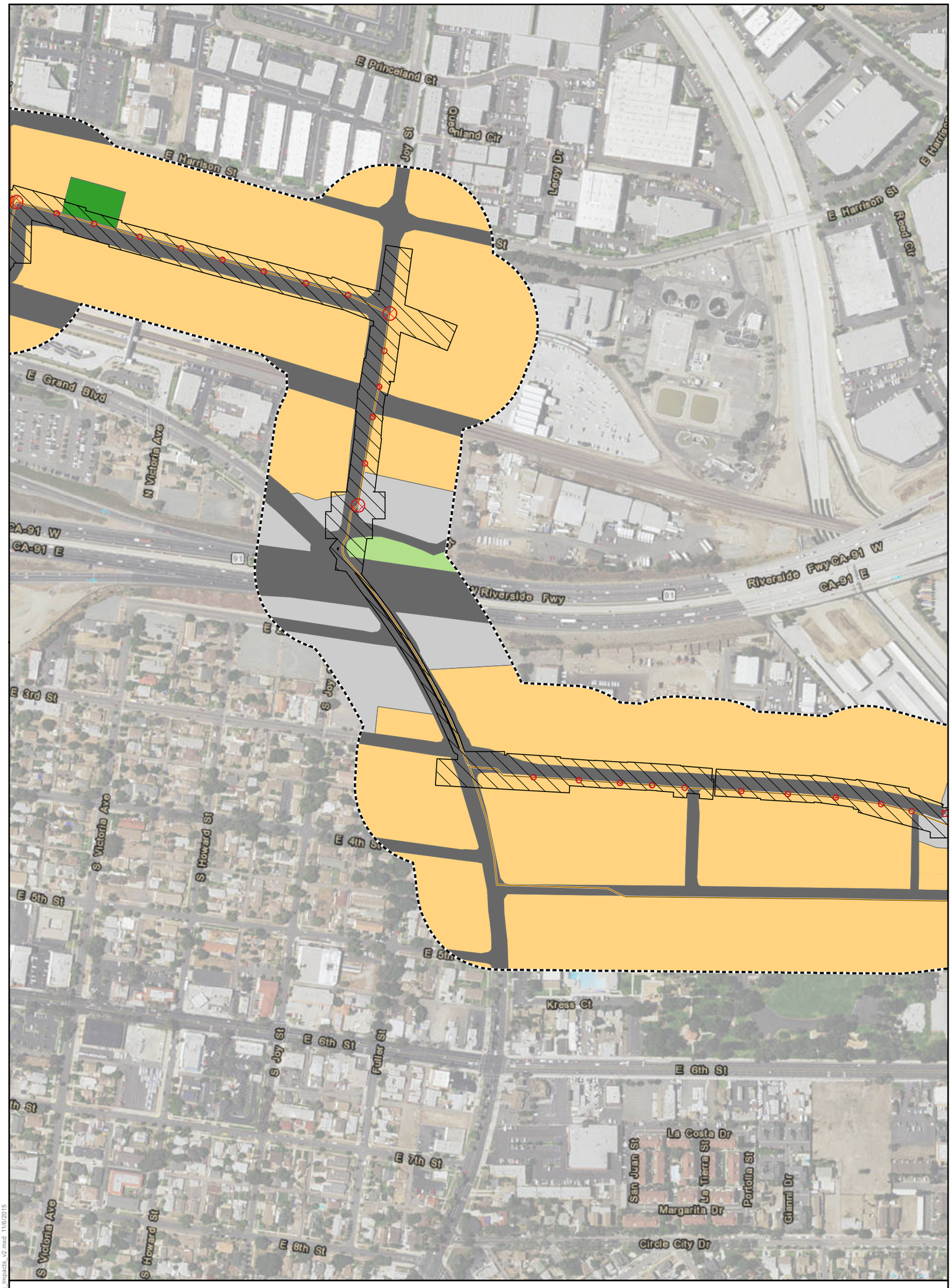

Attachment 4.4-A: Vegetation Communities Map 18 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
- Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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INSIGNIA ENVIRONMENTAL

1:4,200
0 200 400 Feet

Sources: Insignia, 2015; SCE, 2015

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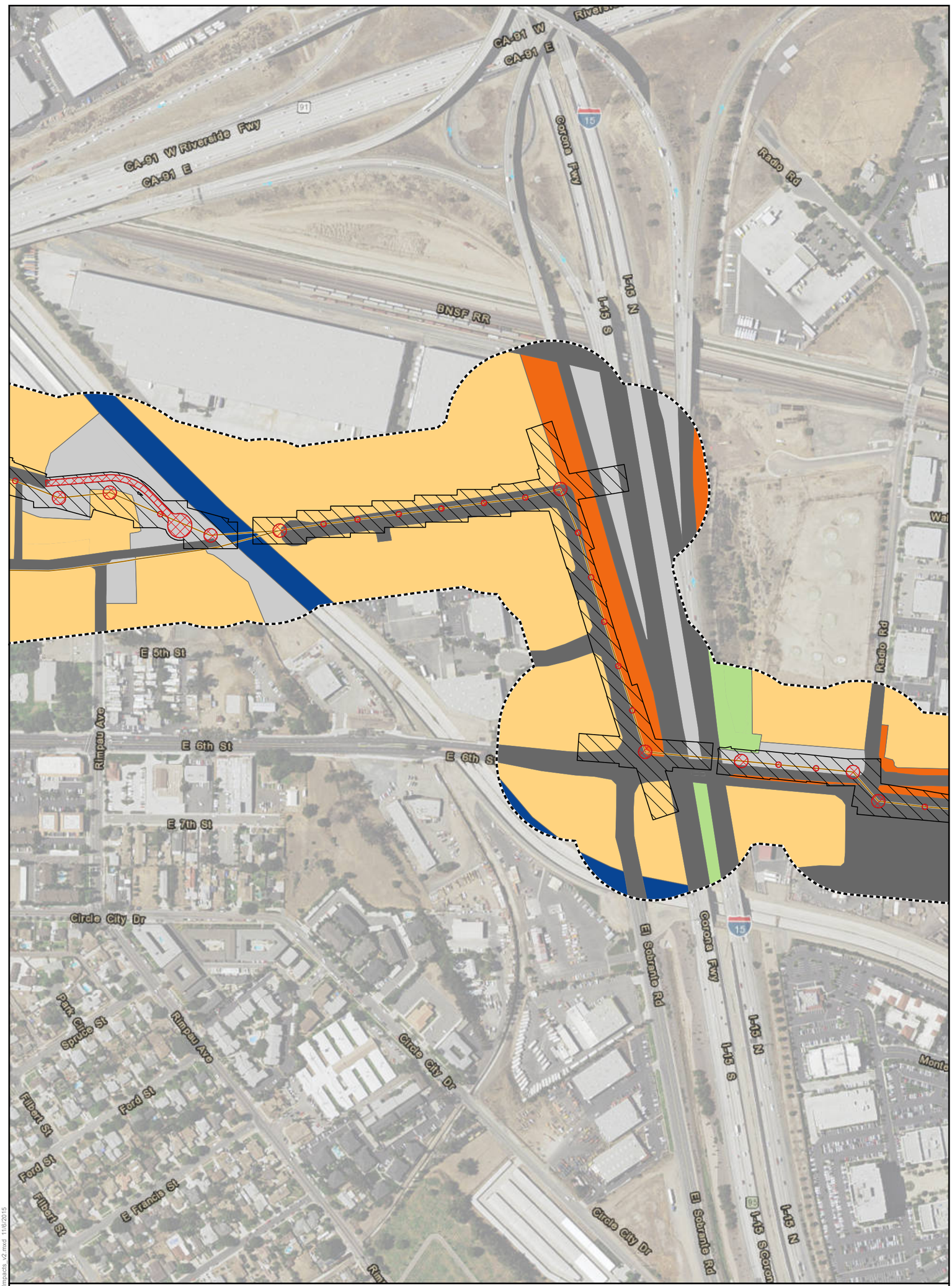

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Attachment 4.4-A: Vegetation Communities Map 19 of 24

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
- Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

Sources: Insignia, 2015; SCE, 2015

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INSIGNIA ENVIRONMENTAL

1:4,200

0 200 400 Feet

N

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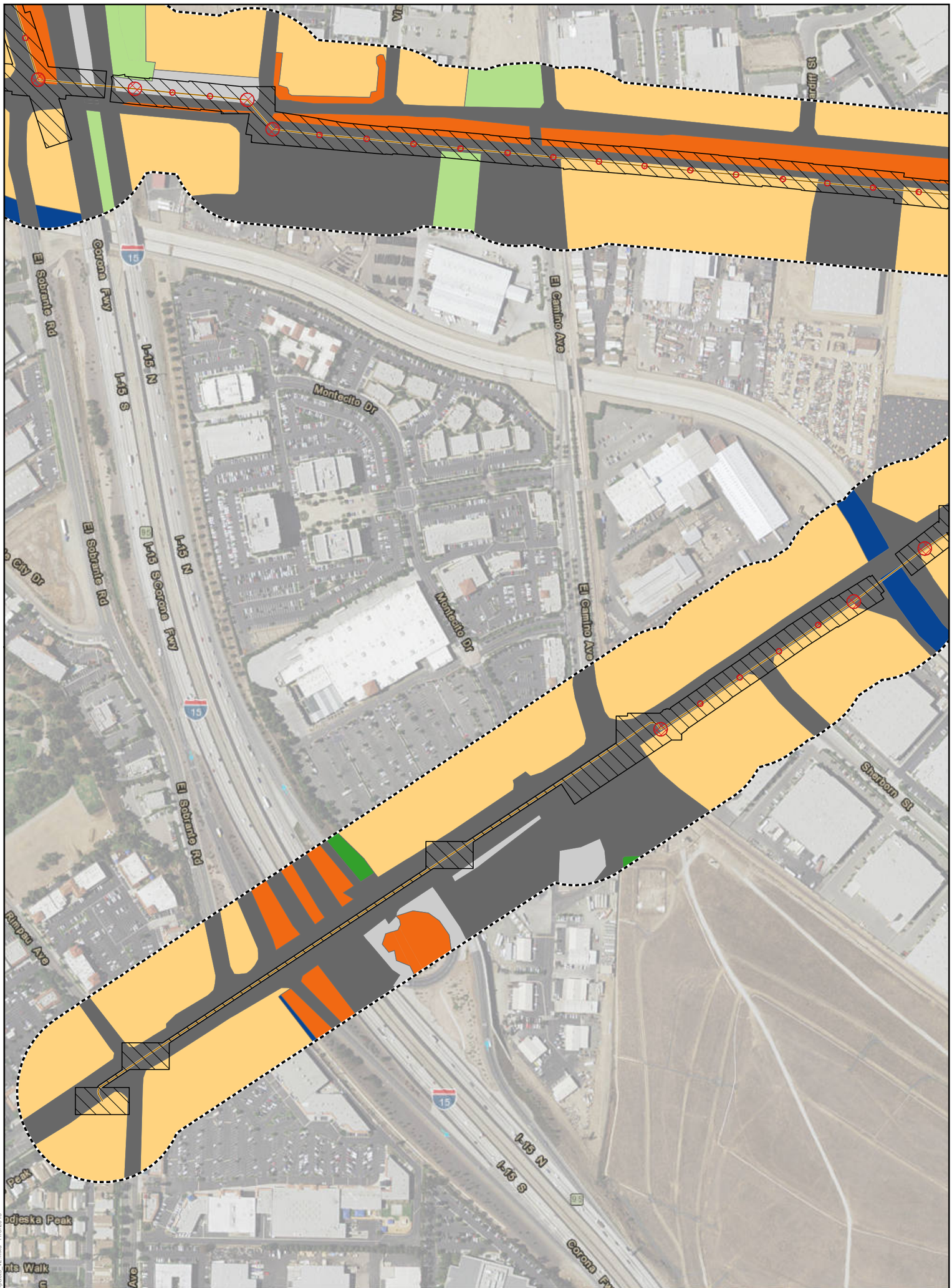

Attachment 4.4-A: Vegetation Communities Map 20 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Permanent Impact
Temporary Impact
Substation
Study Area
Material Yard
Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

1:4,200
0 200 400 Feet

Sources: Insignia, 2015; SCE, 2015

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INSIGNIA ENVIRONMENTAL

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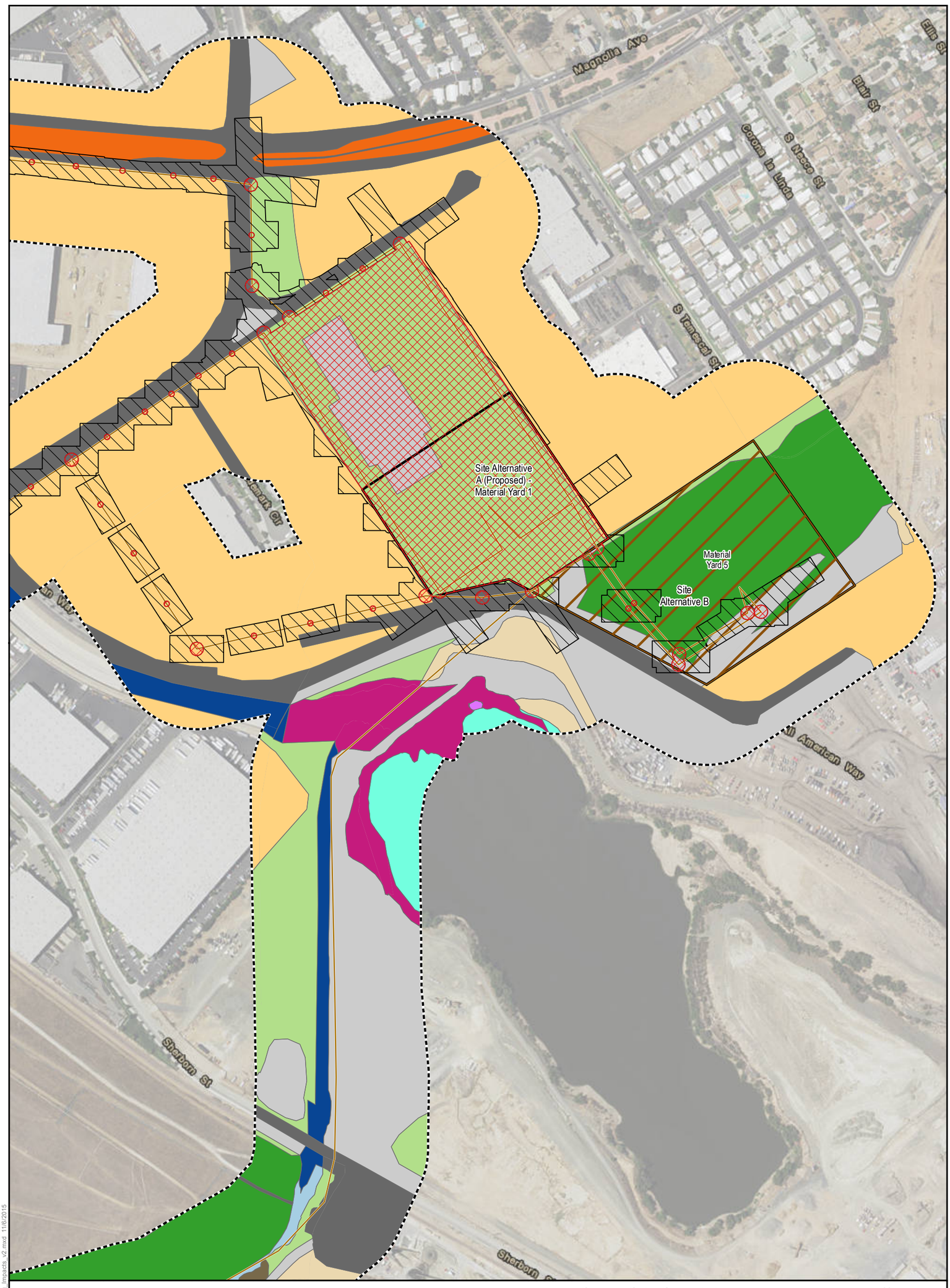

Attachment 4.4-A: Vegetation Communities Map 21 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
- Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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INSIGNIA ENVIRONMENTAL

1:4,200

0 200 400 Feet

N

Sources: Insignia, 2015; SCE, 2015

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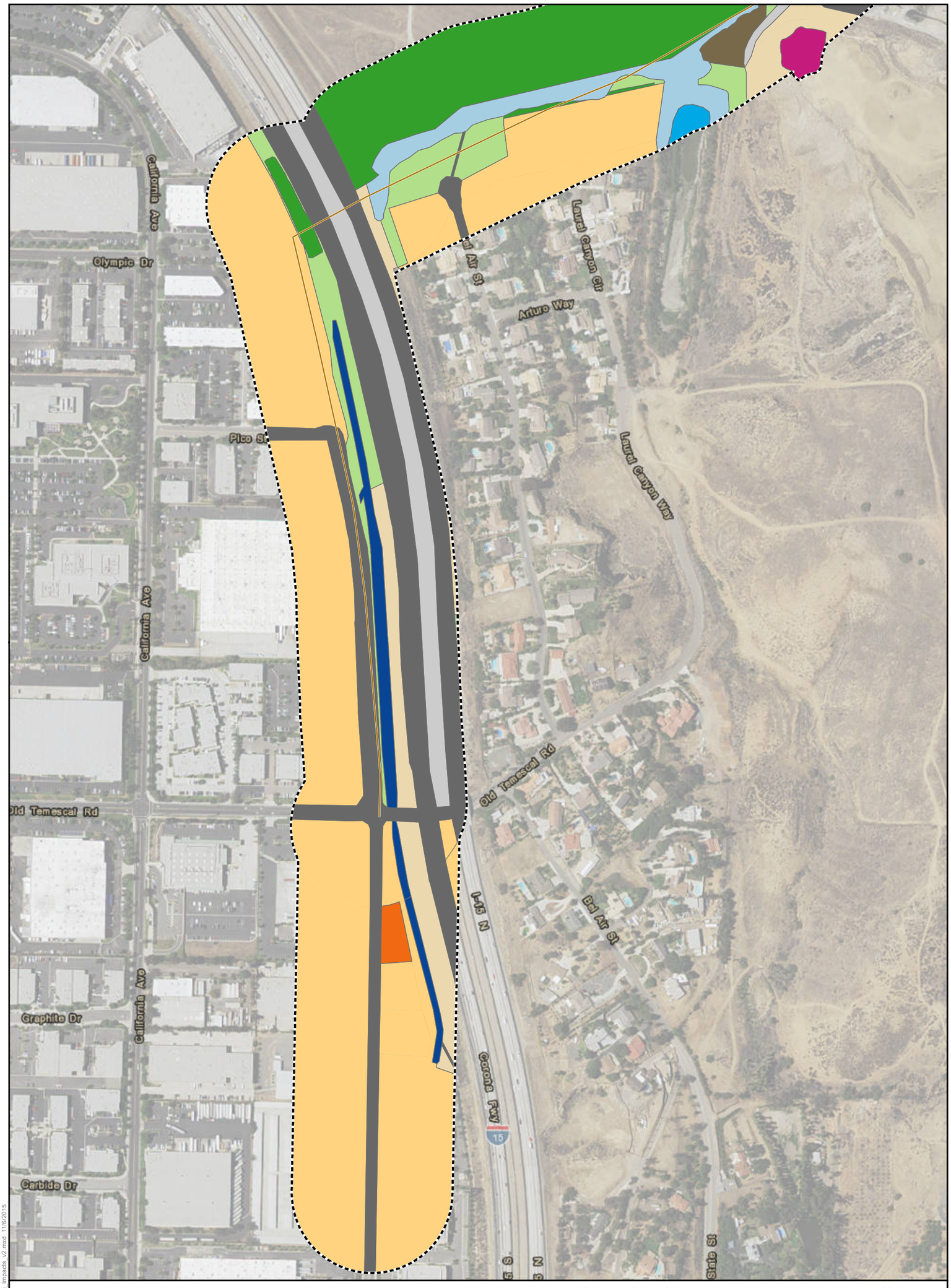

Attachment 4.4-A: Vegetation Communities Map 22 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Permanent Impact
Temporary Impact
Substation
Study Area
Material Yard
Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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Sources: Insignia, 2015; SCE, 2015

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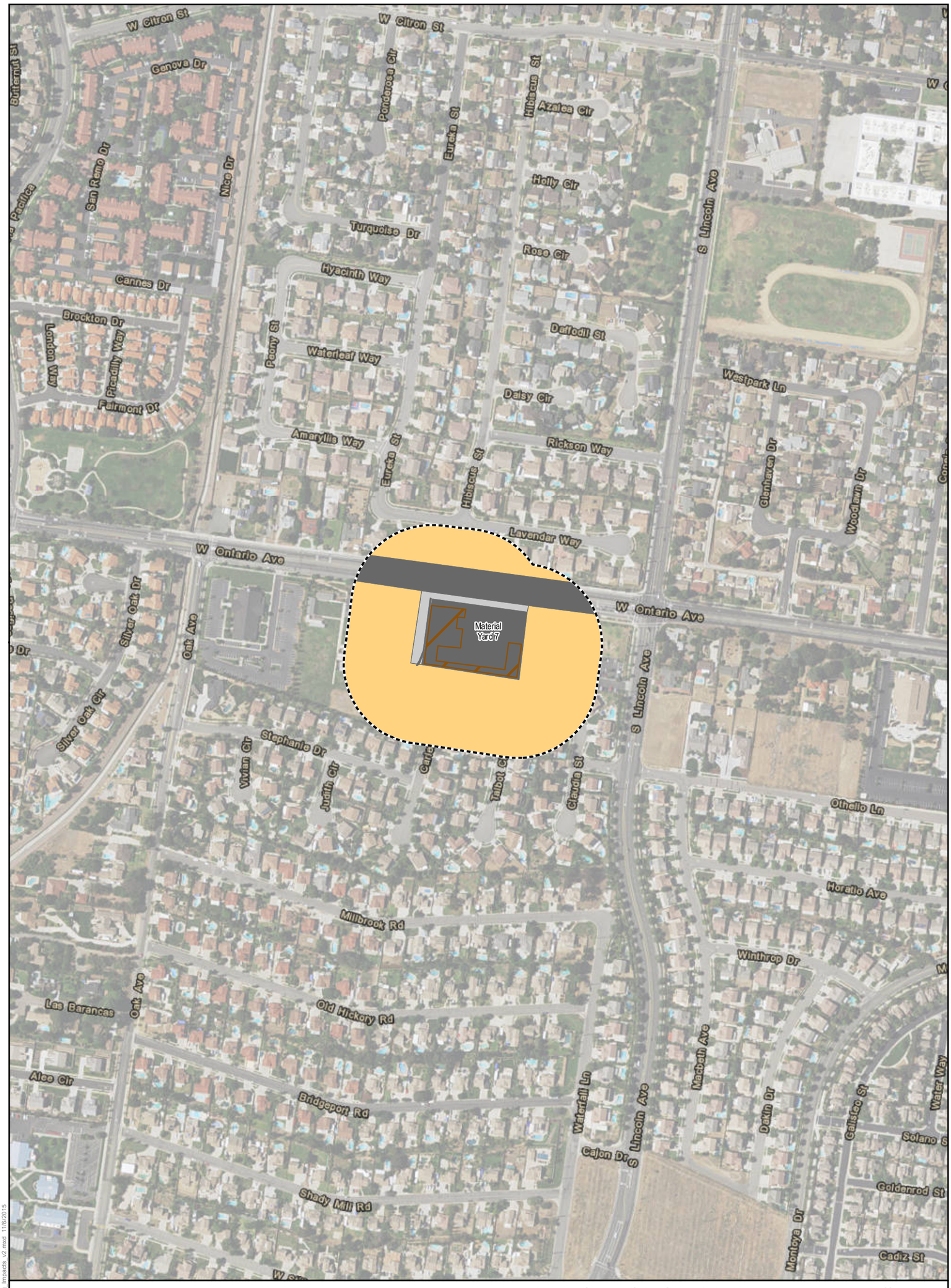


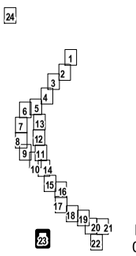
Attachment 4.4-A: Vegetation Communities Map 23 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
- Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub (MSHCP Riparian/Riverine)
- Disturbed Riversidian Sage Scrub (MSHCP Riparian/Riverine)
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest (MSHCP Riparian/Riverine)
- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)



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Sources: Insignia, 2015; SCE, 2015

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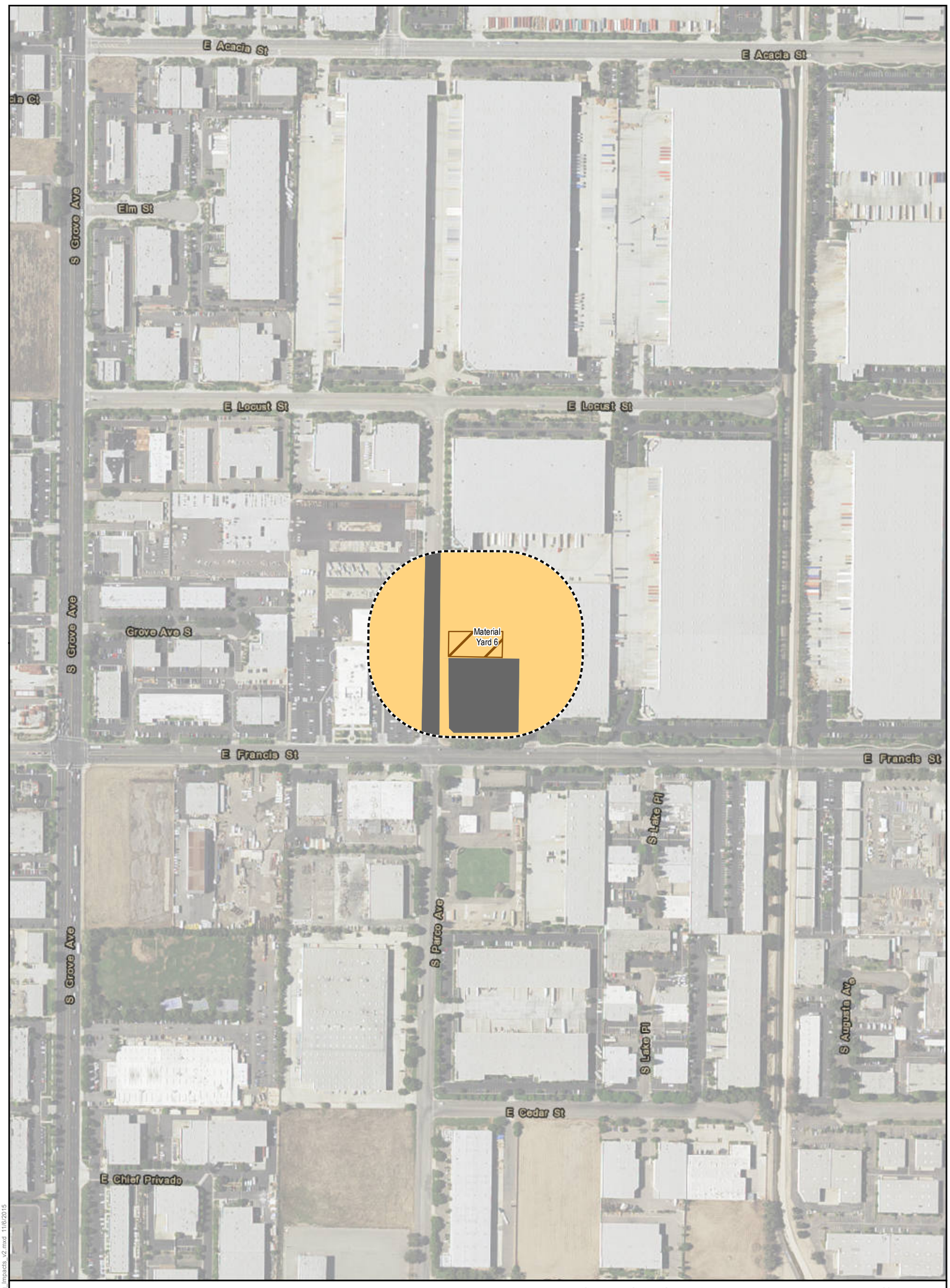

Attachment 4.4-A: Vegetation Communities Map 24 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Permanent Impact
- Temporary Impact
- Substation
- Study Area
- Material Yard
- Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
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- Disturbed Mule Fat Scub (MSHCP Riparian/Riverine)
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- Riversidian Sage Scrub
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- Freshwater Marsh (MSHCP Riparian/Riverine)
- Impoundment
- Flood Control Channel
- Open Water (MSHCP Riparian/Riverine)

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Sources: Insignia, 2015; SCE, 2015

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ATTACHMENT 4.4-B: HABITAT ASSESSMENT

HABITAT ASSESSMENT

for the

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Prepared for:

SOUTHERN CALIFORNIA EDISON®
An *EDISON INTERNATIONAL*® Company

Prepared by:

INSIGNIA ENVIRONMENTAL

June 2015

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ATTACHMENTS

1 – INTRODUCTION

This Habitat Assessment addresses the biological resources likely to occur in the vicinity of Southern California Edison Company's (SCE's) Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project (Proposed Project). The purpose of this document is to describe any changes to biological resources that have occurred since the preparation of the Biological Technical Report (BTR) by BonTerra Consulting in September 2012.[1] The Proposed Project components that have been revised since the preparation of the BTR include the alternative Circle City Substation site, proposed Source Line Route, and three alternative source line routes. This Habitat Assessment provides a description of additional Proposed Project components that are not included in the BTR, an updated description of dominant plant communities and potential habitats for special-status plant and wildlife species within the Study Area[2], and updated recommendations for measures to reduce or eliminate potential impacts to biological resources during the Proposed Project's planned work activities.

2 – PROJECT OVERVIEW

SCE proposes to conduct the following activities as part of the Proposed Project:

- construct a new 66/12 kV distribution substation (Circle City Substation) with four new 66 kV subtransmission source lines, six new underground 12 kV distribution getaways, and a new 66 kV subtransmission line (Mira Loma-Jefferson 66 kV Subtransmission Line);
- upgrade the existing Mira Loma Substation;
- relocate approximately 1.9 miles of an existing overhead 33 kV distribution line to an underground position; and
- install telecommunication facilities to connect the Proposed Project to SCE's existing telecommunications system.

The purpose of the Proposed Project is to serve current and projected demand for electricity, and to maintain electric system reliability in the Electrical Needs Area. Further detail regarding the location of the Proposed Project and additional Proposed Project components is provided in the following sections. Figure 1: Project Overview Map provides an overview of the Proposed Project.

[1] Six Proposed Project components—Mira Loma Substation, Corona Substation, Substation Site Alternative A (i.e., the proposed alternative), the proposed Mira Loma-Jefferson 66 Kilovolt (kV) Subtransmission Line route, and two alternative Mira Loma-Jefferson 66 kV Subtransmission Line routes—are described in the BTR. As such, descriptions of these Proposed Project components are not provided in this Habitat Assessment.

[2] The Study Area, in accordance with the BTR, consisted of a 300-foot buffer around all proposed and alternative Mira Loma-Jefferson 66 kV Subtransmission Line routes, source line routes, substations, and Proposed Project components. Section 3.1 Field Survey provides a more detailed description of the Study Area for the 2015 Habitat Assessment field survey (hereinafter referred to as the "2015 Study Area"). The Study Area for the BTR is referred to as the "2012 Study Area."

2.0 SITE DESCRIPTION

The Proposed Project extends from the City of Ontario and the City of Chino in San Bernardino County south through the City of Eastvale, the City of Norco, and the City of Corona, which are all in Riverside County.

The Proposed Project is located between the San Gabriel Mountains to the north and the Santa Ana Mountains to the south on the United States (U.S.) Geological Survey's (USGS's) Guasti, Corona North, and Corona South 7.5-minute quadrangle maps. Topography in the Proposed Project vicinity is generally flat, with an approximate range in elevation from 520 to 890 feet above mean sea level (amsl). Land uses in the immediate Proposed Project vicinity are primarily agricultural (e.g., croplands and dairies) in the north and residential/commercial in the south. The Prado Flood Control Basin, near the center of the Proposed Project, is created by the Prado Dam and is located at the confluence of the Santa Ana River, Mill Creek, Chino Creek, and Temescal Creek. The following soil series have been mapped in the Study Area:

- Arbuckle,
- Buchenau,
- Cajalco,
- Chino,
- Chualar,
- Cieneba,
- Cortina,
- Delhi,
- Dello,
- Domino,
- Garretson,
- Grangeville,
- Greenfield,
- Hanford,
- Hilmar,
- Metz,
- Pachappa,
- Placentia,
- Ramona,
- San Emigdio,
- Temescal,
- Tujunga, and
- Waukena.

Gravel pits, riverwash, rough broken land, terrace escarpments, and water have also been mapped.[3]

[3] The soil series "water" represents areas of open water within the 2015 Study Area, such as the quarry lake and Santa Ana River. Figure 3: Soils Map depicts the locations within the 2015 Study Area that are mapped as this soil series.

Figure 1: Mira Loma-Jefferson 66 kV Subtransmission Line Routes Map 1 of 2

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Subtransmission Line Route Alternative 1 - Overhead (Proposed)
- Subtransmission Line Route Alternative 1 - Underground (Proposed)
- Subtransmission Line Route Alternative 2 - Underground*
- Subtransmission Line Route Alternative 3 - Overhead
- Subtransmission Line Route Alternative 3 - Underground
- Subtransmission Line - Underground Crossing
- County Boundary
- Substation

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*Note: Except for the underground portion indicated, Alternative Route 2 would utilize the same route as the Alternative Route 1/Proposed Route.

Sources: Insignia, 2015; SCE, 2015

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Figure 1:
Alternative Substation Sites and Source Line Routes Map 2 of 2

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- Undergrounding
- Source Line Route Alternative 1 (Proposed)
- Source Line Route Alternative 2
- Source Line Route Alternative 3
- Source Line Route Alternative 4
- Source Line Route Alternative Extensions to Substation Site Alternative B

Corona Substation

Site Alternative A (Proposed)

Site Alternative B

DETAIL

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Sources: Insignia, 2015; SCE, 2015

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2.0.0 Substation Site Alternative B

Substation Site Alternative B would be located on an approximately 12.5-acre, privately owned parcel. The parcel is located south of Leeson Lane, east of All American Way, and west of Temescal Street in the City of Corona in Riverside County. The parcel is currently vacant and is bounded by All American Way on the west, mixed vacant land and an asphalt production facility to the south, and vacant land to the east. A Waste Management facility, the terminus of Temescal Street, and a mobile home park border the parcel to the north. The parcel is designated General Industrial on the City of Corona General Plan map and is zoned Light Manufacturing (M1). The site is generally flat, and SCE would establish vehicular access to Substation Site Alternative B from Temescal Street or an easement to Leeson Lane. Figure 1: Project Overview Map depicts the location of Substation Site Alternative B.

2.0.1 Source Line Routes

The nearest 66 kV subtransmission lines to Substation Site Alternative A (Proposed) and Substation Site Alternative B are the Mira Loma-Corona-Pedley and the Chase-Corona-Databank 66 kV subtransmission lines. Each of these 66 kV subtransmission lines would be routed in and out of the new substation. Two source line segments (Segments 1 and 2) would accommodate the connection of either substation site to the Mira Loma-Corona-Pedley 66 kV Subtransmission Line, and two source line segments (Segments 3 and 4) would accommodate the connection of either substation site to the Chase-Corona-Databank 66 kV Subtransmission Line. Various combinations of the segments constitute the four source line routes, which are also described in the following subsections. The locations of the four source line routes are depicted in Figure 1: Project Overview Map. Substation Site Alternative A (Proposed) and Substation Site Alternative B are within close proximity to each other; therefore, the four source line routes described in the following subsections are suitable for either of the substation site alternatives.

Source Line Segments

Source Line Segment 1

Source Line Segment 1 would connect to the southern portion of the Mira Loma-Corona-Pedley 66 kV Subtransmission Line at the intersection of West Harrison Street and North Cota Street. The new 66 kV segment would then extend east along Harrison Street to Sheridan Street; south along Sheridan Street to West Blaine Street; and east along West Blaine Street to the west side of Main Street, where the new 66 kV segment would extend underground along West Blaine Street to cross the Main Street overpass. After crossing the overpass, Segment 1 would rise and extend overhead along West Blaine Street to Joy Street, and travel south along Joy Street to East Grand Boulevard, at which point the new 66 kV segment would extend underground in a southeasterly direction along East Grand Boulevard to East 3rd Street. Segment 1 would then rise and extend overhead along East 3rd Street, crossing vacant land in a southeasterly direction until Quarry Street dead-ends on the west side of the Temescal Wash flood control channel. Segment 1 would then span the Temescal Wash flood control channel and extend as follows, east along Quarry Street to El Sobrante Road, then travel south along El Sobrante Road to East 6th Street. The new segment would then cross over Interstate (I-) 15 and extend easterly along East 6th Street to Magnolia Avenue, where it would turn south along Magnolia Avenue and then east along Leeson Lane to Substation Site Alternative A, or continue south through private property to enter Substation Site Alternative B. Source Line Segment 1 would be approximately 3.4 miles in

length (3.0 miles aboveground and 0.4 mile underground) to Substation Site Alternative A, and approximately 3.6 miles in length (3.2 miles aboveground and 0.4 mile underground) to Substation Site Alternative B.

Source Line Segment 2

Source Line Segment 2 would connect to the southern portion of the Mira Loma-Corona-Pedley 66 kV Subtransmission Line at the intersection of West Harrison Street and North Cota Street. The new 66 kV segment would then extend east along Harrison Street to Sheridan Street; south along Sheridan Street to West Blaine Street; and east along West Blaine Street to the west side of Main Street, where Segment 2 would extend underground along West Blaine Street to cross the Main Street overpass. After crossing the overpass, Segment 2 would rise and extend overhead along West Blaine Street, then travel south along Joy Street to East Grand Boulevard, at which point the new 66 kV segment would extend underground in a southeasterly direction along East Grand Boulevard to Quarry Street for approximately 500 feet. Segment 2 would then rise and extend overhead along Quarry Street to where the street dead-ends on the west side of the Temescal Wash flood control channel. The new 66 kV segment would then span the Temescal Wash flood control channel and extend as follows, east along Quarry Street, then travel south along El Sobrante Road to East 6th Street. The new subtransmission facilities would travel underground within East 6th Street under I-15 in an easterly direction, then turn south along Magnolia Avenue and east along Leeson Lane to Substation Site Alternative A, or continue south through private property to enter Substation Site Alternative B. Source Line Segment 2 would be approximately 3.5 miles in length (1.6 miles aboveground and 1.9 miles underground) to Substation Site Alternative A, and approximately 3.6 miles in length (1.6 miles aboveground and 2.0 miles underground) to Substation Site Alternative B.

Source Line Segment 3

Source Line Segment 3 would connect to the Chase-Corona-Databank 66 kV Subtransmission Line at the intersection of Magnolia Avenue and Rimpau Avenue. The new underground 66 kV segment would then extend easterly along Magnolia Avenue, cross I-15 within existing bridge cells, and continue underground to the eastern side of the BNSF Railway Company right-of-way, at which point Segment 3 would rise and extend overhead along Magnolia Avenue to Leeson Lane, where the segment would enter Substation Site Alternative A. Alternatively, approximately 0.3 mile after Segment 3 would rise to an overhead position, the segment would turn south and traverse the boundary of an industrial park to All American Way and enter Substation Site Alternative B. Source Line Segment 3 would be approximately 1.3 miles in length (0.8 mile aboveground and 0.5 mile underground) to Substation Site Alternative A, and approximately 1.4 miles in length (0.9 mile aboveground and 0.5 mile underground) to Substation Site Alternative B.

Source Line Segment 4

Source Line Segment 4 would connect to the Chase-Corona-Databank 66 kV Subtransmission Line at the intersection of Old Temescal Road and Compton Avenue. Segment 4 would then extend north along Compton Avenue to Pico Street, and continue north along existing facilities within private commercial property to a proposed I-15 crossing. Segment 4 would then cross I-15 and extend in a northeasterly direction across vacant land to Sherborn Street, where the segment would curve north, paralleling the Temescal Wash flood control channel on the property

bordering the eastern side. Where the Temescal Wash flood control channel turns west, the proposed segment would continue northeasterly across the north side of a small body of water. Segment 4 would continue across All American Way and would either terminate at Substation Site Alternative A or Substation Site Alternative B. Source Line Segment 4 would be approximately 1.5 miles in length to Substation Site Alternative A, and approximately 1.5 miles in length to Substation Site Alternative B.

Source Line Routes

The following subsections described the proposed and alternative source line routes, and the segment combinations that make up the route alternatives. Source Line Route Alternative 1 is the proposed route, and the other routes are the alternatives.

Source Line Route Alternative 1

Source Line Route Alternative 1 combines Source Line Segment 1 and Source Line Segment 3. Source Line Route Alternative 1 would be approximately 4.7 miles in length (3.8 miles aboveground and 0.9 mile underground) to Substation Site Alternative A, and approximately 5.0 miles in length (4.1 miles aboveground and 0.9 mile underground) to Substation Site Alternative B.

Source Line Route Alternative 2

Source Line Route Alternative 2 combines Source Line Segment 2 and Source Line Segment 4. Source Line Route Alternative 2 would be approximately 5.1 miles in length (3.2 miles aboveground and 1.9 miles underground) to Substation Site Alternative A, and approximately 5.2 miles in length (3.2 miles aboveground and 2.0 miles underground) to Substation Site Alternative B.

Source Line Route Alternative 3

Source Line Route Alternative 3 combines Source Line Segment 1 and Source Line Segment 4. Source Line Route Alternative 3 would be approximately 5.1 miles in length (4.7 miles aboveground and 0.4 mile underground) to Substation Site Alternative A, and approximately 5.2 miles in length (4.8 miles aboveground and 0.4 mile underground) to Substation Site Alternative B.

Source Line Route Alternative 4

Source Line Route Alternative 4 combines Source Line Segment 2 and Source Line Segment 3. Source Line Route Alternative 4 would be approximately 4.7 miles in length (2.4 miles aboveground and 2.3 miles underground) to Substation Site Alternative A, and approximately 5.1 miles in length (2.6 miles aboveground and 2.5 miles underground) to Substation Site Alternative B.

2.0.2 Material Yards

Construction of the Proposed Project would require the establishment of temporary material yards. Seven potential material yard locations have been determined, as depicted in Attachment A: Vegetation Communities Map. Two potential staging yards—Material Yard #6 at the Ontario Service Center and Material Yard #7 at Jefferson Substation—were not included in surveys to

support the BTR and are therefore described in this Habitat Assessment. Material Yard #6 and Material Yard #7 are depicted on pages 23 and 24 of Attachment A: Vegetation Communities Map, respectively.

3 – METHODOLOGY

Updated data regarding biological resources for the Proposed Project were obtained through literature and database reviews of applicable reference material. In addition, a reconnaissance-level field survey was conducted for the updated Proposed Project. The findings of this research and fieldwork are provided in the subsections that follow.

3.0 LITERATURE AND DATABASE REVIEW

A desktop-level review for the Habitat Assessment included a review of the BTR for the Proposed Project and a study of aerial photographs, USGS topographic maps, and Natural Resources Conservation Service (NRCS) Soil Survey Maps. The review also included database searches of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants, as well as the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) for special-status plant species, wildlife species, and habitats with potential to occur in the vicinity of the Proposed Project. The searches included the Ontario, Guasti, Fontana, Prado Dam, Corona North, Riverside West, Blackstar Canyon, Corona South, and Lake Mathews USGS quadrangles. Special-status plant species were considered to be any plant species with federal or state listing status and/or a CNPS California Rare Plant Rank (CRPR) of 1B or 2 through 4. Special-status wildlife species were considered to be any federally- or state-listed—or proposed to be listed—threatened or endangered species, California Species of Special Concern, and/or fully protected species. The Assessor's Parcel Numbers for the parcels within Riverside County were not rerun through the Riverside County Conservation Summary Report Generator for the MSHCP (i.e., Multiple Species Habitat Conservation Plan), as the change in the Proposed Project's footprint would not warrant a change to the MSHCP jurisdiction. Critical habitat designations provided by the U.S. Fish and Wildlife Service (USFWS) were reviewed to identify any designated critical habitat located in the vicinity of the Proposed Project.

3.1 FIELD SURVEY

After the literature and database searches had been completed, updated lists of special-status plant and wildlife species with a potential to occur within the Proposed Project vicinity were prepared for use in the field. Insignia Environmental (Insignia) biologists Yasmine Akky and Nick Fisher then conducted a reconnaissance-level field survey from March 9 to March 12, 2015. The entire 2015 Study Area was surveyed, with the exception of one impoundment that could not be verified due to access issues. This area is depicted on page 2 of Attachment A: Vegetation Communities Map. Areas that could be viewed and accurately mapped from the road were addressed in that manner; areas that required further assessment were covered on foot. During the survey, the biologists confirmed and updated the vegetation communities mapped in the BTR, and they documented dominant plant communities, wildlife and plant species observed, and potential habitat for sensitive plant and wildlife species. While hydrologic features were documented, the field survey did not include a formal delineation of waters that fall under the

jurisdiction of the U.S. Army Corps of Engineers (USACE), CDFW, and Regional Water Quality Control Board (RWQCB).

The 2015 Study Area for the field survey is consistent with the 2012 Study Area described in the BTR and consists of the following:

1. a 300-foot buffer around all substation sites (i.e., the existing Mira Loma Substation, the existing Corona Substation, the proposed Substation Site Alternative A, and Substation Site Alternative B);

2. a 300-foot buffer on either side of the proposed Mira Loma-Jefferson 66 kV Subtransmission Line route, the two alternative proposed Mira Loma-Jefferson 66 kV Subtransmission Line routes, the proposed Source Line Route, and the three alternative source line routes; and

3. a 300-foot buffer around all proposed material yards, access roads, guard structures, and pulling sites for the proposed routes.

The 2015 Study Area and the 2012 Study Area are shown on Attachment A: Vegetation Communities Map. Areas surveyed in 2015 that were not surveyed in 2012 are indicated on the map. As the buffer surrounding Source Line Segment 4 is the only portion of the southern 2015 Study Area that is not along the proposed Source Line Route, this area is referred to as "the alternative source line" throughout the document.

4 – RESULTS

4.0 LITERATURE AND DATABASE REVIEW

The results of the literature and database review are consistent with the results presented in the BTR, with the exception of the following changes:

- the addition of one special-status wildlife species—Coast Range newt (*Taricha torosa torosa*)—with the potential to occur within 5 miles of the Proposed Project;

- the addition of one special-status plant species—lucky morning-glory (*Calystegia felix*)—with the potential to occur within 5 miles of the Proposed Project;

- the addition of proposed critical habitat for western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) along the proposed and alternative Mira Loma-Jefferson 66 kV Subtransmission Line routes; and

- the addition of Tujunga soil series near Material Yard #6 at the Ontario Service Center.

Figure 2: Critical Habitat Map depicts the areas where the Proposed Project crosses critical habitat, and Figure 3: Soils Map depicts the soils that are located throughout the Proposed Project.

4.1 FIELD SURVEY

4.1.0 Vegetation Communities

As discussed in the BTR, 16 vegetation communities[4] occur in the Study Area, including the following:

- agricultural field,
- dairy,
- developed,
- disturbed mule fat scrub,
- disturbed,
- disturbed Riversidian sage scrub,
- non-native grassland,
- ornamental,
- ornamental/developed,
- Riversidian sage scrub,
- ruderal,
- willow riparian forest,
- flood control channel,
- impoundment,
- freshwater marsh, and
- open water.

The vegetation community composition with the 2015 Study Area presented in this Habitat Assessment differs from the 2012 BTR, as the 2015 Study Area was decreased by 177.61 acres to compensate for the removal of alternative project components. Attachment A: Vegetation Communities Map depicts both the 2012 Study Area and the 2015 Study Area and highlights the difference between the two. Table 1: Vegetation Communities Mapped within the Study Area quantifies the difference in vegetation communities between the 2012 Study Area and the 2015 Study Area.

In addition, a high level of development in the region of the Proposed Project has resulted in changes in vegetation composition since the preparation of the BTR. Disturbed Riversidian sage scrub, non-native grassland, willow riparian forest, freshwater marsh, agricultural fields, dairies, developed, and disturbed areas have decreased; conversely, disturbed mule fat scrub, ruderal, and ornamental/developed areas have increased. An updated map of the vegetation communities within the 2015 Study Area is provided in Attachment A: Vegetation Communities Map. Table 1: Vegetation Communities Mapped within the Study Area provides the total acreage of each mapped vegetation community and compares them with acreages provided in the BTR. These vegetation communities are described in greater detail in the following subsections.

[4] Nomenclature for vegetation communities is consistent with the BTR, which generally follows descriptions in the Western Riverside County MSHCP.

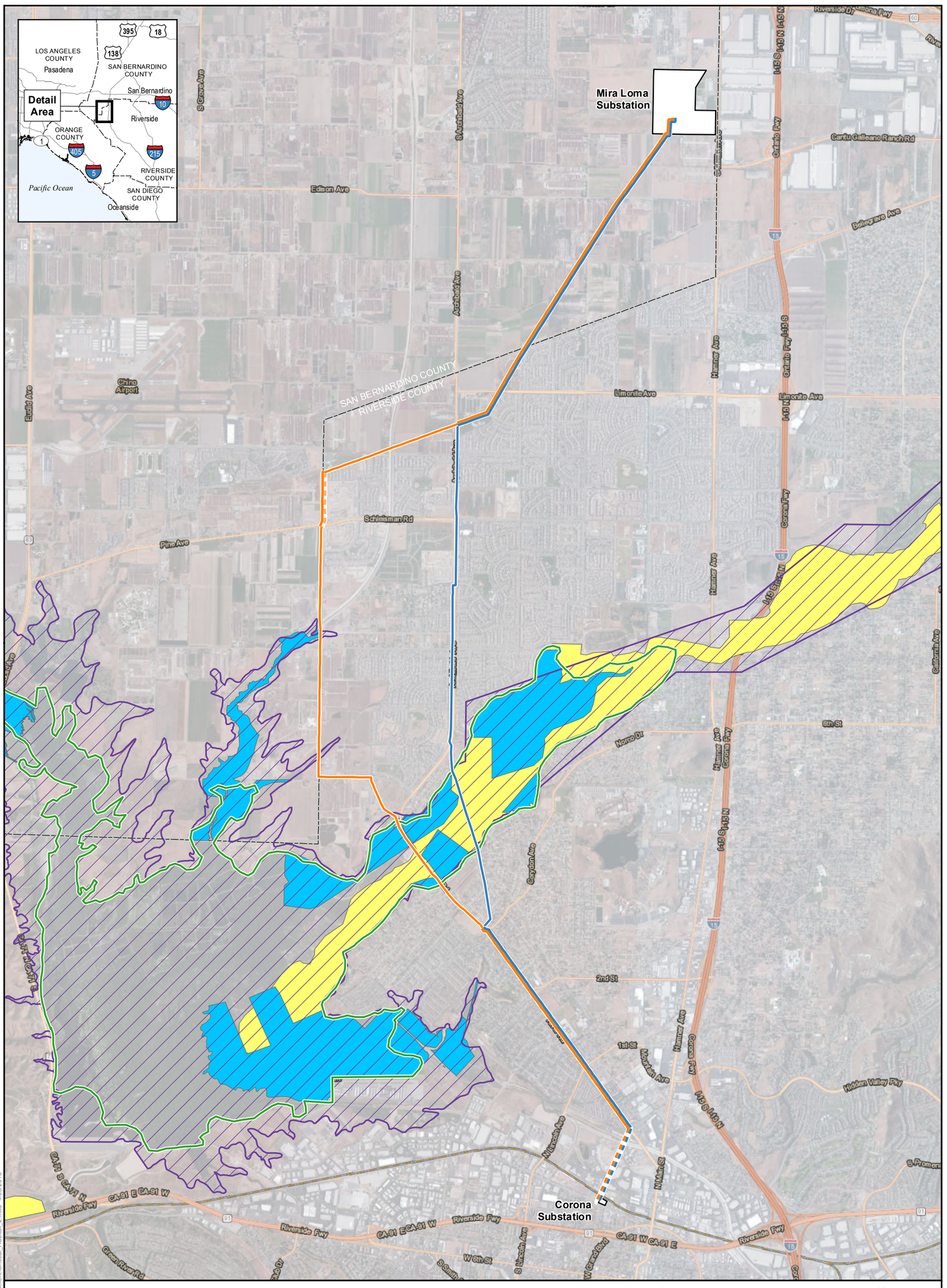

Figure 2: Critical Habitat

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Subtransmission Line Route Alternative 1 - Overhead (Proposed)
- Subtransmission Line Route Alternative 1 - Underground (Proposed)
- Subtransmission Line Route Alternative 2 - Underground*
- Subtransmission Line Route Alternative 3 - Overhead
- Subtransmission Line Route Alternative 3 - Underground

Critical Habitat

- Least Bell's vireo (1994 Final)
- Southwestern willow flycatcher (2013 Final)
- Santa Ana sucker (2010 Final)
- Yellow-billed Cuckoo (2014 Proposed)

- Substation

*Note: Except for the underground portion indicated, Alternative Route 2 would utilize the same route and construction techniques as the Proposed Route.

Sources: Insignia, 2015; NRCS, 2008; SCE, 2015

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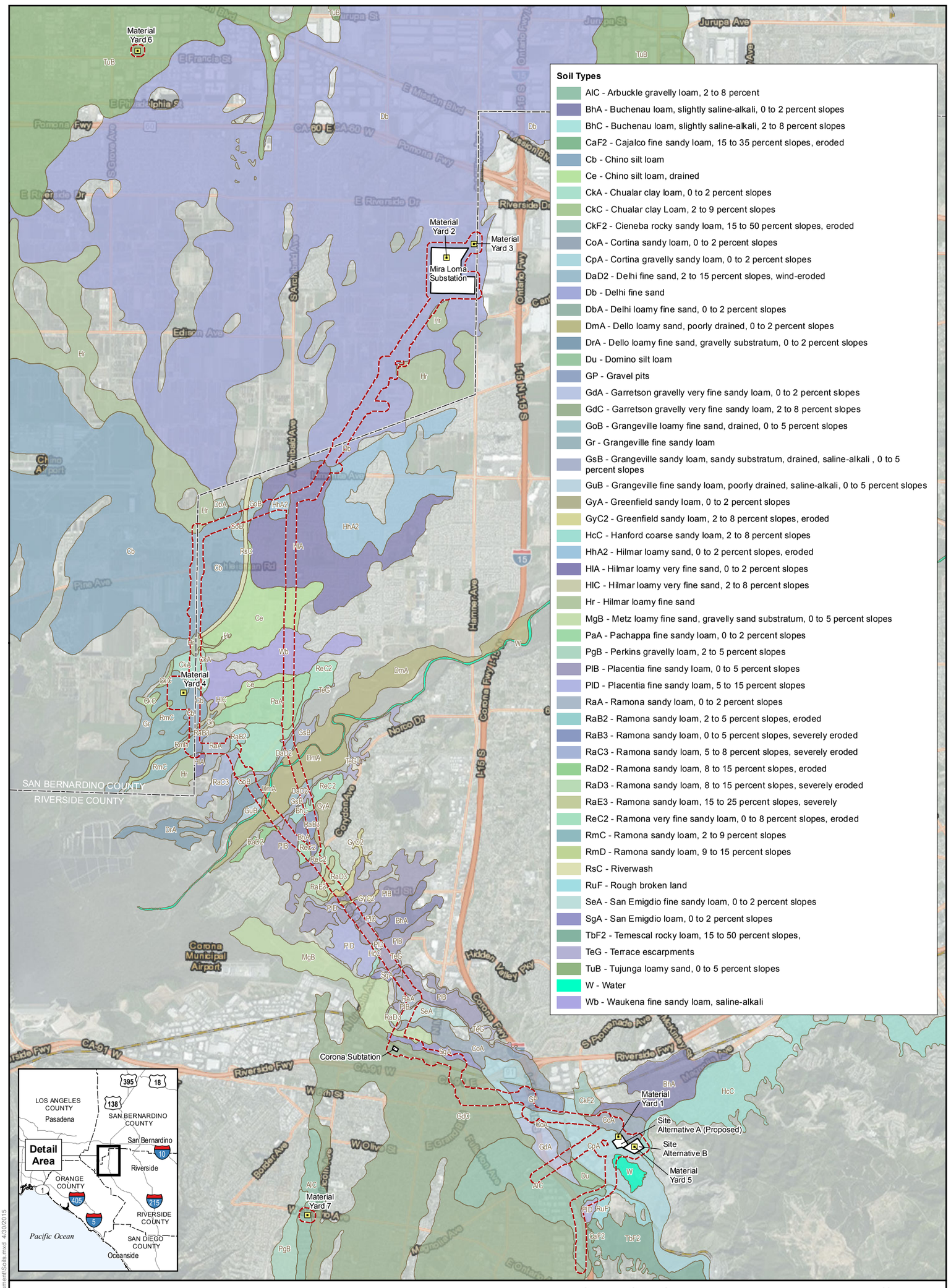

Figure 3: Soils Map

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- 2015 Study Area
- Substation
- County Boundary
- Material Yard

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Sources: Insignia, 2015; SCE, 2015; U.S. Department of Agriculture, Natural Resources Conservation Service, 2013

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Table 1: Vegetation Communities Mapped within the Study Area

Vegetation Communities	Amount in 2012 Study Area (acres)	Amount in 2015 Study Area (acres)	Total New Amount (acres)
Agricultural Field	133.72	40.76	-92.96
Dairy	118.47	68.67	-49.80
Developed	452.69	410.25	-42.44
Disturbed	192.79	171.37	-21.42
Disturbed Mule Fat Scrub	1.57	5.30	3.73
Disturbed Riversidian Sage Scrub	6.89	6.77	-0.12
Non-Native Grassland	139.33	66.31	-73.02
Ornamental	38.14	25.26	-12.88
Ornamental/Developed	752.01	796.47	44.46
Riversidian Sage Scrub	0.63	0.63	--
Ruderal	235.04	322.43	87.39
Willow Riparian Forest	83.33	75.82	-7.51
Freshwater Marsh	0.32	0.21	-0.11
Impoundment	20.49	21.88	1.39
Flood Control Channel	24.88	21.39	-3.49
Open Water	21.39	10.56	-10.83
Total	**2,221.69**	**2,044.08**	**-177.61**

Agricultural Field

Agricultural fields include active row crops and tilled land. Ruderal species (e.g., shortpod mustard [*Hirschfeldia incana*], wild oats [*Avena* sp.], and cheeseweed [*Malva parviflora*]) or unvegetated areas may be present along the margins of the fields; however, these areas were generally too small to be mapped separately. As discussed in the BTR, agricultural fields occur at the northern end of the Study Area along the proposed and alternative Mira Loma-Jefferson 66 kV Subtransmission Line routes.

Dairy

Dairies are primarily unvegetated fields with associated structures (e.g., cattle pens). Domestic cattle (*Bos taurus*) are present in these areas. As discussed in the BTR, dairies occur at the northern end of the Study Area along the proposed and alternative Mira Loma-Jefferson 66 kV Subtransmission Line routes.

Developed

Developed areas consist of paved roads and utility structures that do not contain landscaped areas. No vegetation was present in these areas. Developed areas that contained vegetation adjacent to structures were mapped as "Ornamental/Developed." As discussed in the BTR, developed areas occur throughout the Study Area.

Disturbed

Disturbed areas consist of bare ground and contain little to no vegetation. They have been heavily disturbed by activities such as grading. As discussed in the BTR, disturbed areas are located throughout the Study Area.

Disturbed Mule Fat Scrub

Disturbed mule fat scrub is dominated by scattered mule fat (*Baccharis salicifolia*) with other species present, including water cress (*Nasturtium officinale* [*Rorippa nasturtium-aquaticum*]), broad-leaved peppergrass (*Lepidium latifolium*), and Spanish sunflower (*Pulicaria paludosa*). As discussed in the BTR, this vegetation type occurs along the alternative source line route around the quarry lake adjacent to this route. An additional patch of disturbed mule fat scrub was documented during the 2015 field surveys along the alternative source line route southwest of Sherborn Street.

Disturbed Riversidian Sage Scrub

Disturbed Riversidian sage scrub within the Study Area is dominated by a very sparse cover of California buckwheat (*Eriogonum fasciculatum*) and/or brittlebush (*Encelia farinosa*), and is intermixed with non-native vegetation, including tree tobacco (*Nicotiana glauca*). As discussed in the BTR, disturbed Riversidian sage scrub occurs near the southern end of the alternative source line route adjacent to I-15 and around the quarry lake adjacent to this route. A portion of this vegetation community that is adjacent to I-15 has been seeded. An additional area of disturbed Riversidian sage scrub was documented during the 2015 field survey, near Substation Site Alternative B.

Non-Native Grassland

Non-native grassland within the Study Area is dominated by a variety of non-native species, including ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), wild oats, foxtail fescue (*Festuca myuros* [*Vulpia myuros*]), rancher's fiddleneck (*Amsinckia menziesii*), common horseweed (*Erigeron canadensis* [*Conyza canadensis*]), and foxtail barley (*Hordeum murinum*). The proportion of each species varies by patch. Ruderal species, such as shortpod mustard and cheeseweed, are present in lesser densities. As discussed in the BTR, this vegetation type is scattered throughout the Study Area.

Ornamental

Ornamental vegetation includes landscaping (e.g., crape myrtle [*Lagerstroemia indica*], day lily [*Hemerocallis fulva*], and turf grass) in the center median or roads; nurseries; landscaped parks; and gum tree (*Eucalyptus* sp.) windrows adjacent to roads. As discussed in the BTR, ornamental vegetation is scattered throughout the Study Area.

Ornamental/Developed

Ornamental/developed areas include residential and commercial development and associated ornamental landscaping. A large variety of ornamental species occur in these areas including, but not limited to, the following:

- Peruvian pepper tree (*Schinus molle*),
- Brazilian pepper tree (*Schinus terebinthifolius*),
- sweet gum (*Liquidambar styraciflua*),
- flowering plum (*Prunus* sp.),
- gum tree,
- fan palm (*Washingtonia robusta*) and date palm (*Phoenix* sp.),
- day lily,
- India hawthorn (*Raphiolepis indica*),
- roses (*Rosa* spp.),
- African fountain grass (*Pennisetum setaceum*), and
- turf grass.

As discussed in the BTR, ornamental/developed areas occur throughout the Study Area.

Riversidian Sage Scrub

Riversidian sage scrub is dominated by California buckwheat and California sagebrush (*Artemisia californica*). Consistent with the BTR, this vegetation type occurs near the southern end of the alternative source line route on a slope above the banks of a man-altered drainage.

Ruderal

Ruderal (i.e., weedy) communities are assemblages of plants that thrive in waste areas, roadsides, and other sites that have been disturbed by human activity. Ruderal vegetation within the Study Area is dominated by a mixture of primarily non-native herbs and grasses. Dominant species, which vary by patch, include shortpod mustard, rancher's fiddleneck, western sunflower (*Helianthus annuus*), cheeseweed, ripgut grass, and wild oats. Other species present in lesser densities include Russian thistle (*Salsola tragus*), white nightshade (*Solanum americanum*), London rocket (*Sisymbrium irio*), and foxtail barley. As discussed in the BTR, this vegetation type is scattered throughout the Study Area and sometimes intergrades with non-native grassland.

Willow Riparian Forest

Willow riparian forest is dominated by large trees, primarily Goodding's black willow (*Salix gooddingii*) and red willow (*Salix laevigata*). The understory is dominated by mule fat in some areas, and a mixture of mule fat, tree tobacco, and giant reed (*Arundo donax*) in other areas. Other large trees present in this vegetation community include the following:

- gum tree,
- narrow-leaved willow (*Salix exigua*),
- western sycamore (*Platanus racemosa*),
- coast live oak (*Quercus agrifolia*),

- Fremont cottonwood (*Populus fremontii*),
- blue elderberry (*Sambucus nigra* ssp. *caerulea* [*Sambucus mexicana*]), and
- tree of heaven (*Ailanthus altissima*).

Open water occurs in some places under the tree canopy, but was not mapped as a separate vegetation type. As discussed in the BTR, this vegetation type occurs along the proposed and alternative Mira Loma-Jefferson 66 kV Subtransmission Line routes within the Prado Flood Control Basin and other drainages. Willow riparian forest also occurs along the alternative source line route within a drainage.

Freshwater Marsh

Freshwater marsh in the Study Area is dominated by cattails (*Typha* sp.). The BTR documents this vegetation type in a patch along the proposed Mira Loma-Jefferson 66 kV Subtransmission Line. However, this area was not identified during the 2015 field surveys, and instead was identified as non-native grassland, as indicated on page 6 of Attachment A: Vegetation Communities Map. In addition, two patches of freshwater marsh—one along the proposed and alternative Mira Loma-Jefferson 66 kV Subtransmission Line routes in the Prado Flood Control Basin (on page 10) and one along the alternative source line route around the quarry lake (on page 21)—were documented during the 2015 field survey.

Impoundment

Impoundments are man-made reservoirs used to store water. Although the surface of these features can be bare ground, ruderal vegetation, or open water, impoundments are mapped separately because their composition fluctuates throughout the year and from year to year.

As discussed in the BTR, impoundments have been primarily constructed in the northern portion of the Study Area and are associated with active or abandoned agricultural fields or dairies. One impoundment was also identified at the southern end of the alternative source line route.

Flood Control Channel

Flood control channels occur along all routes in the Study Area. These channels are concrete-lined or have earthen bottoms. They may contain open water and small amounts of vegetation.

Open Water

As discussed in the BTR, the Santa Ana River and the quarry lake adjacent to the alternative source line route have been mapped as open water. These open water areas occur where emergent vegetation or a tree canopy are absent.

4.1.1 Potentially Jurisdictional Hydrologic Features

Multiple streams cross the Study Area, as shown on Figure 2: USGS 7.5-Minute Quadrangle of the BTR. The Santa Ana River and the Prado Flood Control Basin are the most prominent jurisdictional features in the Study Area, and would be crossed by the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 1, as well as Alternative 2 and Alternative 3. Cucamonga Creek crosses the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 1, as well as Alternative 3. Other unnamed blue-line

streams cross the proposed Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 1, in addition to Alternative 2, Alternative 3, the proposed Source Line Route, and the alternative source line routes.

The 2015 field survey identified 14 additional hydrologic features that were not presented in the BTR. These features may be subject to the jurisdiction of the USACE, CDFW, and/or RWQCB. In addition, Insignia biologists made adjustments to the location and area of two jurisdictional hydrologic features that had been previously mapped in the BTR. Table 2: Modified and New Hydrologic Features within the Study Area describes the location of each modified or new hydrologic feature documented during the 2015 field survey and provides preliminary jurisdictional determinations for the new hydrologic features. Attachment B: Jurisdictional Resources Map provides the locations of the new and modified hydrologic features, along with the delineated resources presented in the BTR. Attachment C: Potentially Jurisdictional Waters – Representative Photographs depicts photographs of several of the newly identified hydrologic features.

4.1.2 Special-Status Plant Species

The BTR identified 39 special-status plant species with the potential to occur in the vicinity of the Proposed Project. A list of these species, their listing status, habitat, and potential to occur in the 2012 Study Area is provided in the BTR. No special-status plant species were identified during the 2015 field survey or the 2010, 2011, 2012, or 2013 focused special-status plant surveys. The results of the 2010, 2011, and 2012 focused special-status plant species surveys are presented in the BTR, and the results of the 2013 special-status plant species survey are presented in Attachment D: Wildlife Species Observed.

The CNDDB query for special-status species within 5 miles of the Proposed Project identified one additional special-status plant species—lucky morning-glory—with the potential to occur in the vicinity of the Proposed Project. This species was not discussed in the BTR. As a result, further discussion of this species is presented in the following subsection.

Lucky Morning-glory

Lucky morning-glory has a CRPR of 3.1 and is not a federally or state-listed species. It typically blooms between March and September, and occurs at elevations between 100 and 800 feet amsl. This annual herb is historically associated with wetland and marshy habitats, but also can occur in drier locales. Potential habitats include alkaline meadows and seeps, as well as alluvial riparian scrub.

Three occurrences of lucky morning-glory are documented in the CNDDB within 1 mile of the Proposed Project. One occurrence was recorded in 1917, and two occurrences were recorded in 2012 and 2013. All three occurrences are presumed extant. Potentially suitable habitat for this species is present in the area surrounding the ponds in the northern portion of the Study Area. However, this species was not observed during the 2010, 2011, 2012, or 2013 focused plant surveys conducted during the appropriate bloom period. The Study Area for the 2012 focused plant survey matches that of the 2015 Study Area, with the exception of several urbanized areas. Therefore, if lucky morning-glory is present within the

Table 2: Modified and New Hydrologic Features within the Study Area

Feature ID	Location	Page Number in Attachment B	Description	Potential Jurisdiction
Modified Features				
5	Along the southern boundary of Mira Loma Substation extending south	1-2	Earthen ditch	USACE/RWQCB and CDFW in BTR
16	Northwest of the quarry lake	21	Flood control channel	USACE/RWQCB and CDFW in BTR
New Features				
1	Along the northern boundary of Mira Loma Substation	1	Concrete man-made ditch	Non-jurisdictional
2	Along the western boundary of Mira Loma Substation	1	Concrete man-made ditch	Non-jurisdictional
3	Along the southern and eastern boundaries of Mira Loma Substation	1	Concrete man-made ditch	Non-jurisdictional
4	Along the eastern boundary of Mira Loma Substation	1	Concrete man-made ditch	Non-jurisdictional
6	Between Hellman Avenue and the flood control channel	6	Earthen ditch	USACE/RWQCB and CDFW
7	South of Hereford Drive	7	Impoundment	RWQCB
8	Along Mira Loma-Jefferson 66 kV Subtransmission Line Route Alternative 3 north of the Prado Flood Control Basin	11	Swale	USACE/RWQCB
9	Along I-15 at the intersection with East 6th Street	19	Earthen drainage fed by two culverts	USACE/RWQCB and CDFW
10	Along the western boundary of I-15	20	Flood control channel	USACE/RWQCB and CDFW

Feature ID	Location	Page Number in Attachment B	Description	Potential Jurisdiction
11	Within Substation Site Alternative B	21	Earthen man-made ditch	USACE/RWQCB and CDFW
12	Along the middle of the center divider on East 6th Street	21	Concrete man-made ditch	Non-jurisdictional
13	East of Sherborn Street in a patch of non-native grassland	21	Concrete man-made ditch	USACE/RWQCB and CDFW
14	At the end of Bel Air Street, west of I-15	22	Concrete man-made ditch	USACE/RWQCB and CDFW
15	Along the eastern boundary of Material Yard #7 at Jefferson Substation	23	Concrete man-made ditch	Non-jurisdictional

Study Area, it would have been detectable during the 2012 special-status plant species survey. As a result, this species is not expected to occur.

4.1.3 Special-status Wildlife Species

The BTR identified 57 special-status wildlife species with the potential to occur in the vicinity of the Proposed Project. A list of these species, their listing status, habitat, and potential to occur in the Study Area is provided in the BTR. The two new patches of freshwater marsh discussed in Section 4.1.0 Vegetation Communities affect the potential for tricolored blackbird (*Agelaius tricolor*) to occur within the Study Area, and this species is discussed in the following subsections. The remaining wildlife species assessments are consistent with the results presented in the BTR. These special-status wildlife species are not further discussed in this report. No special-status wildlife species were identified during the 2015 field survey. All wildlife species observed during the 2015 field survey are described in Attachment D: Wildlife Species Observed.

The CNDDB query for special-status species within 5 miles of the Proposed Project identified one additional special-status wildlife species—Coast Range newt—with the potential to occur in the vicinity of the Proposed Project. This species was not discussed in the BTR, but further discussion of this species is presented in the following subsection.

Coast Range Newt

Coast Range newt—a California Species of Special Concern—is a stocky, medium-sized salamander that displays rough, grainy, yellow or brown skin in the terrestrial phase. This species occurs primarily in wet forests, oak forests, chaparral, and rolling grassland. In Southern California, Coast Range newt can be found in drier chaparral, oak woodland, and grasslands. Coast Range newt generally breeds in ponds, reservoirs, and slow-moving streams. The geographic range of this species extends along the coast and Coast Range mountains from Mendocino County south to San Diego County. Coast Range newt occurs in areas where elevation ranges from near sea level to approximately 6,000 feet amsl. During the dry period, this species generally lives under woody or leafy debris, in rock crevices, or in animal burrows. Coast Range newt typically does not move during this terrestrial phase. Though this species can travel up to 3,300 feet during migrations to and from breeding ponds during wet periods, home ranges are usually smaller.

Two occurrences of Coast Range newt have been documented within 5 miles of the Proposed Project. Both occurrences—one recorded in 1997 and one in 1999—were identified at the same location in the Santa Ana Mountains, in the Black Star Canyon USGS 7.5-minute quadrangle, and are presumed extant. The Proposed Project is more than 2 miles from the Santa Ana Mountains or any coast mountain range, and suitable habitat in the form of oak forests or chaparral do not occur within the Study Area. In addition, the non-native grassland present within the Study Area is present in small, discontinuous patches. The Western Riverside County MSHCP cites the known local distribution of Coast Range newt to be restricted to the Santa Ana Mountains. Suitable habitat for Coast Range newt within the Study Area is present in the Santa Ana River. However, the Proposed Project is outside of the distribution for Coast Range newt described in the MSHCP. As the Santa Ana River flows to a location adjacent to the Santa Ana Mountain range and provides suitable habitat for the Coast Range newt, there is a low potential

for this species to occur along the proposed and alternative 66 kV Mira Loma-Jefferson 66 kV Subtransmission Line routes.

Tricolored Blackbird

The BTR determined that marginally suitable breeding habitat for the tricolored blackbird is present in the Prado Flood Control Basin, resulting in a low potential for this species to breed along the proposed and alternative Mira Loma-Jefferson 66 kV Subtransmission Line routes. Most of the marginally suitable breeding habitat remains intact within the Study Area (i.e., willow riparian forest). However, as discussed in Section 4.1.0 Vegetation Communities, two additional patches of freshwater marsh were mapped on pages 10 and 21 of Attachment A: Vegetation Communities Map. As presented in the BTR, tricolored blackbird generally breeds in marsh vegetation that contains cattails. Both patches of freshwater marsh identified during the 2015 field survey occur in heavily populated areas. As tricolored blackbirds are particularly sensitive to human disturbance while breeding, these areas provide only marginal suitable breeding habitat. As a result, tricolored blackbird has a low potential to occur for breeding along the alternative source line route within the additional freshwater marsh.

5 – CONCLUSIONS

A high level of development in the region of the Proposed Project has resulted in changes in vegetation composition since the preparation of the BTR. Disturbed Riversidian sage scrub, non-native grassland, willow riparian forest, freshwater marsh, agricultural fields, dairies, developed, and disturbed areas have decreased; conversely, disturbed mule fat scrub, ruderal, and ornamental/developed areas have increased. During the 2015 field survey, 14 additional potentially jurisdictional hydrologic features were identified, and two hydrologic features were modified.

Additional freshwater marsh habitat along the alternative source line route was identified for tricolored blackbird, a special-status wildlife species that was considered as having a low potential to occur in the BTR. This species has a low potential to breed in this newly identified habitat. Two additional special-status species that were not considered in the BTR—lucky morning-glory and Coast Range newt—were identified in the CNDDB query for special-status species to occur within 5 miles of the Proposed Project. As a result, these species were assessed for their potential to occur within the Study Area. Coast Range newt was determined to have a low potential to occur along the proposed and alternative 66 kV Mira Loma-Jefferson 66 kV Subtransmission Line routes, and lucky morning-glory is not expected to occur within the Study Area.

The BTR provides recommended mitigation measures to minimize potential impacts to biological resources. Collectively, these mitigation measures are sufficient to address the changes presented in this Habitat Assessment. As a result, no further recommendations are necessary to minimize potential impacts to special-status plant and wildlife species and their habitats or jurisdictional water features.

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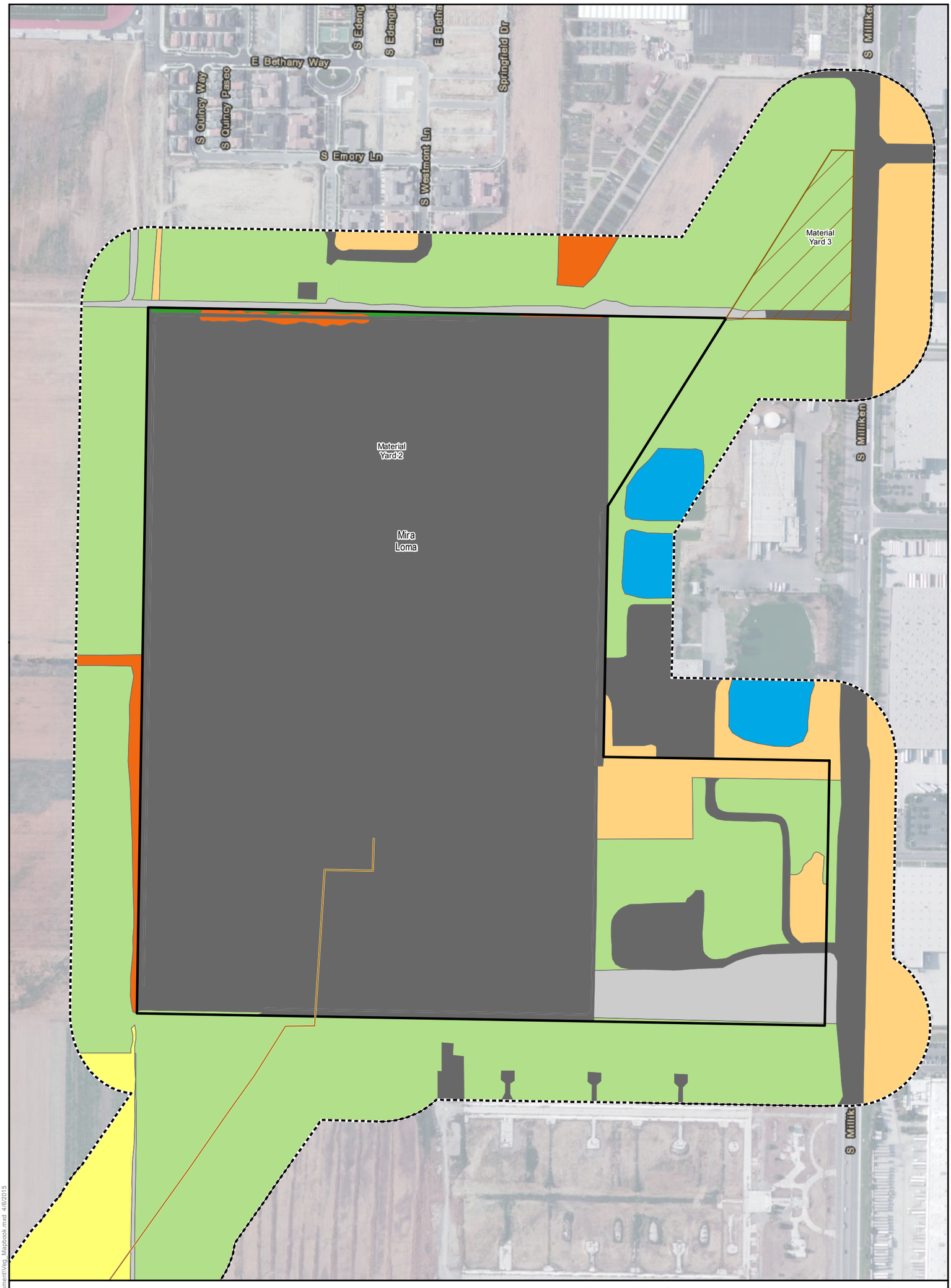
ATTACHMENT A: VEGETATION COMMUNITIES MAP



Attachment A: Vegetation Communities Map 1 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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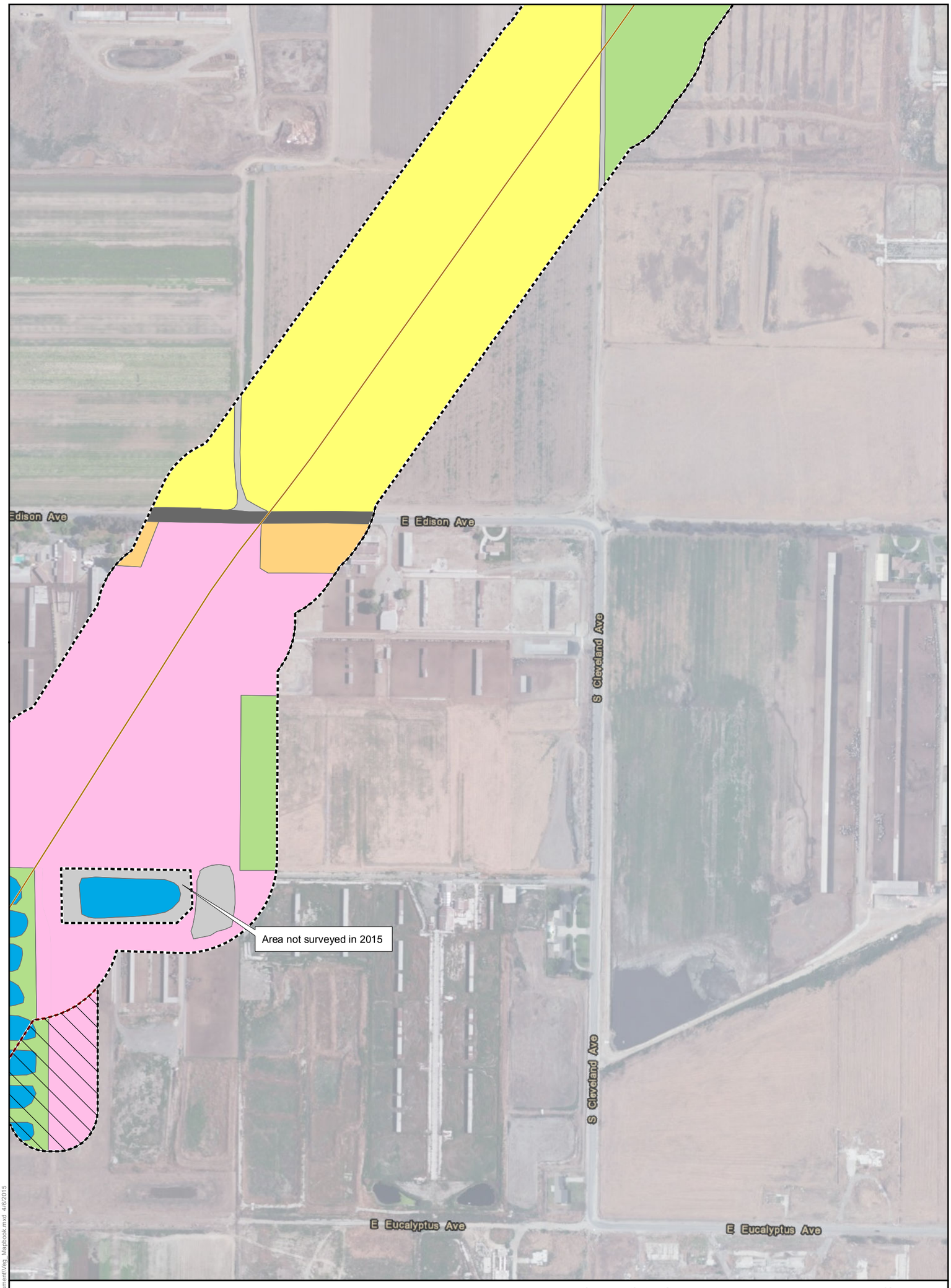


Attachment A: Vegetation Communities Map 2 of 24

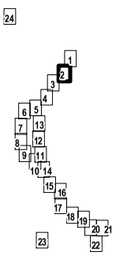
Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water



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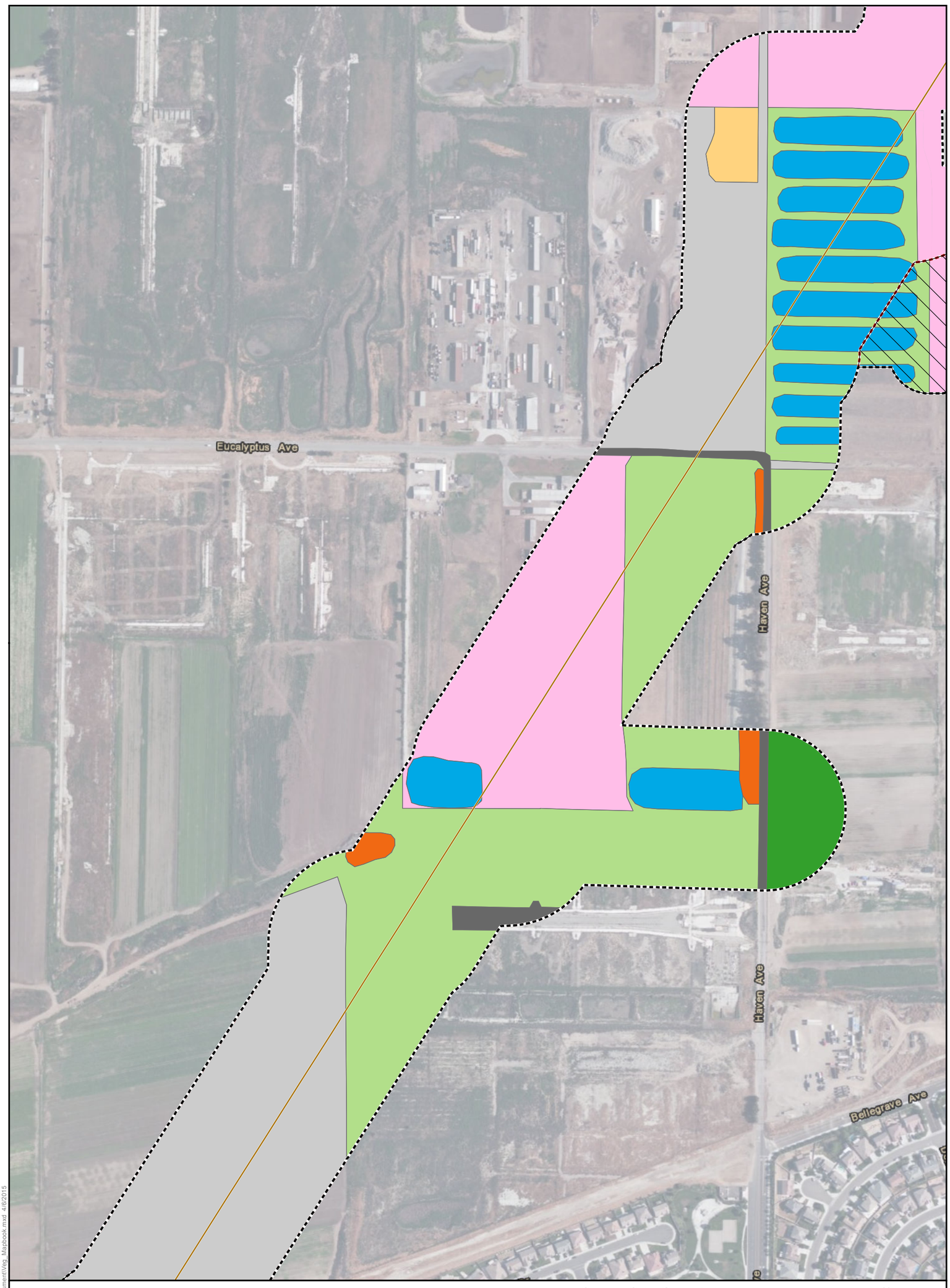

Attachment A: Vegetation Communities Map 3 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Substation
2015 Study Area
2012 Study Area
2015 Study Area Outside 2012 Study Area
Material Yard
Proposed Project and Alternative Alignments

Vegetation Types
Agricultural Field
Dairy
Developed
Disturbed
Disturbed Mule Fat Scrub
Disturbed Riversidian Sage Scrub
Non-native Grassland
Ornamental
Ornamental/Developed
Riversidian Sage Scrub
Ruderal
Willow Riparian Forest
Freshwater Marsh
Impoundment
Flood Control Channel
Open Water

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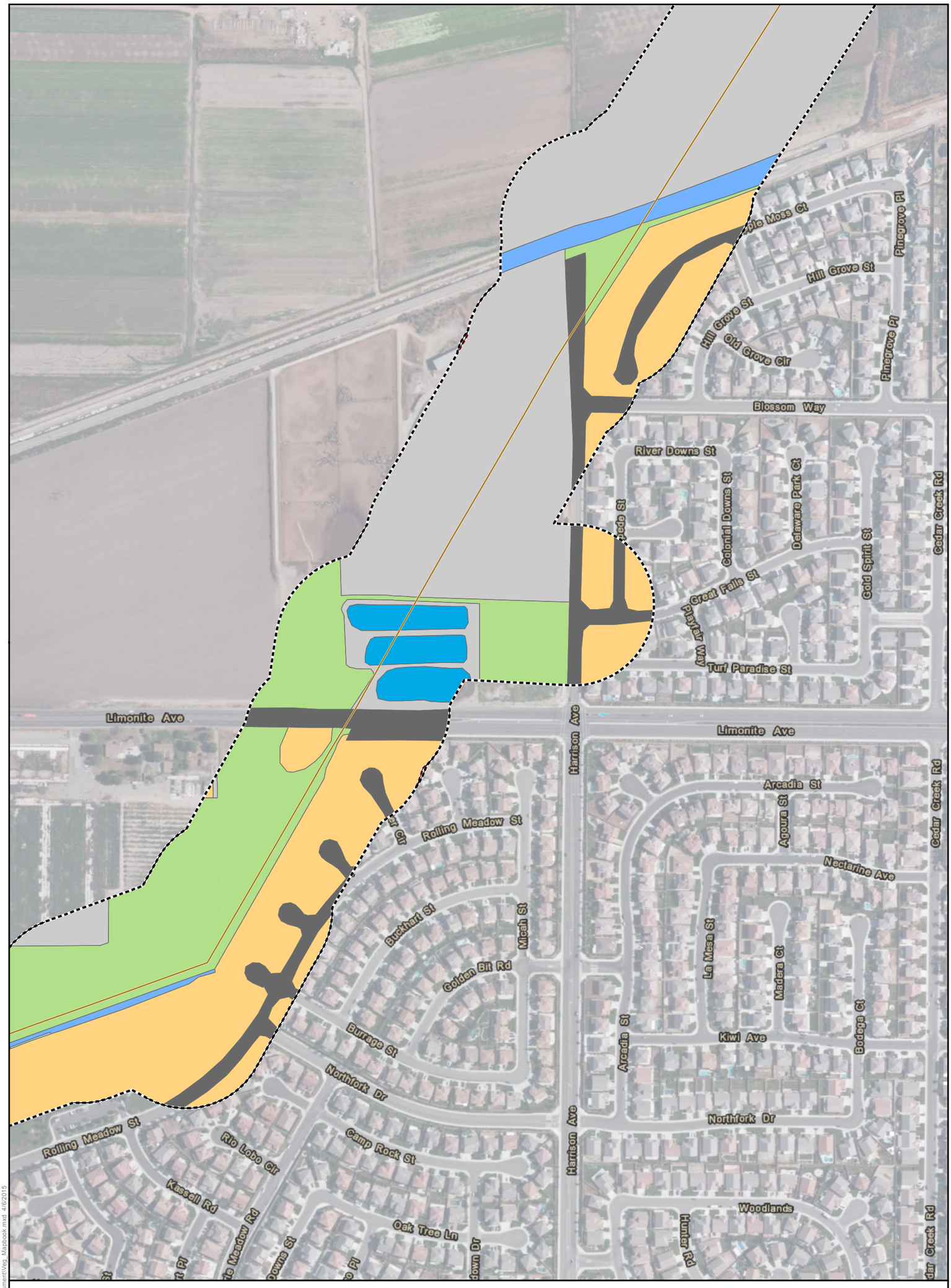

Attachment A: Vegetation Communities Map 4 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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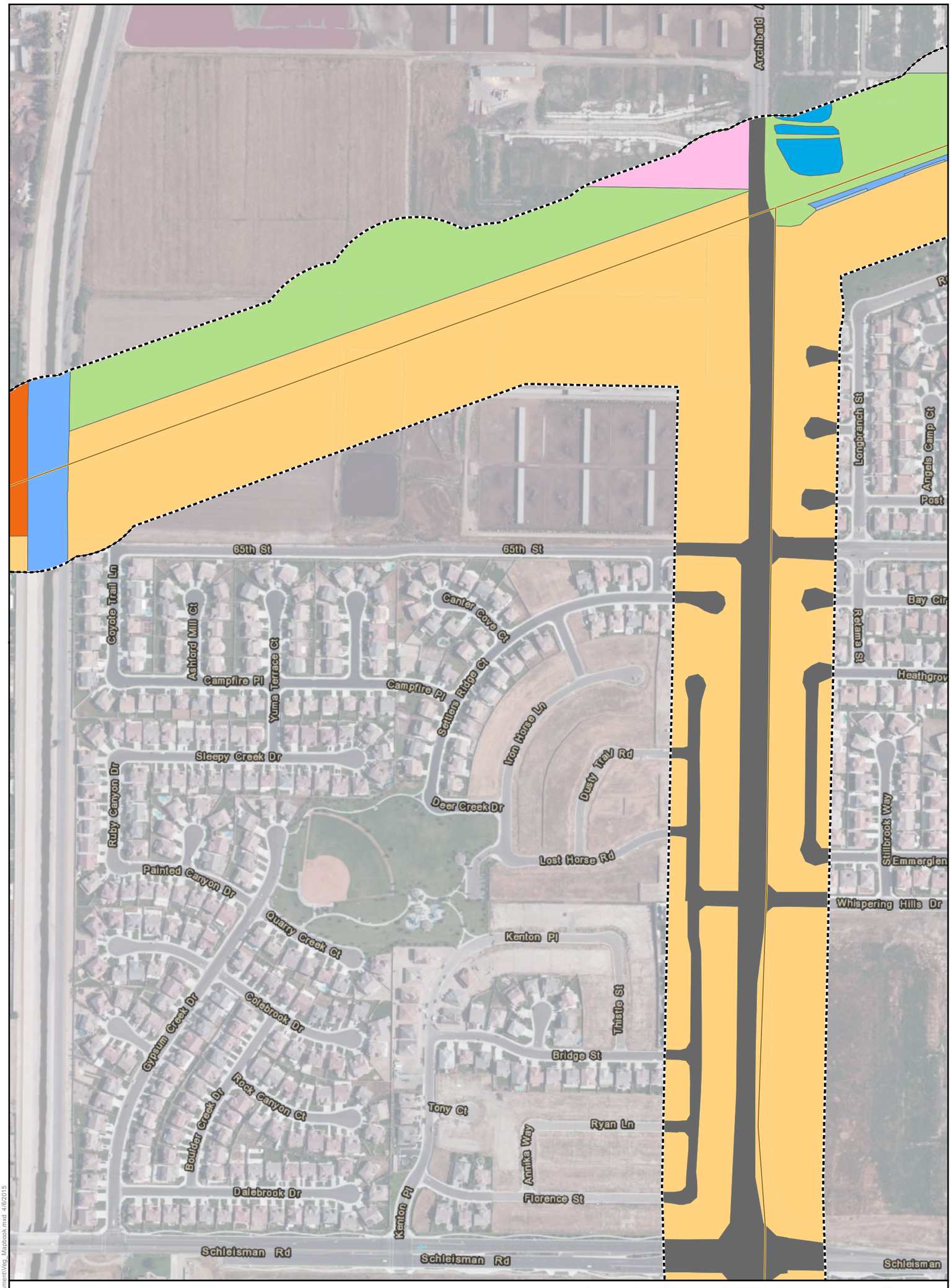

Attachment A: Vegetation Communities Map 5 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
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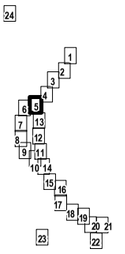
- Flood Control Channel
- Open Water



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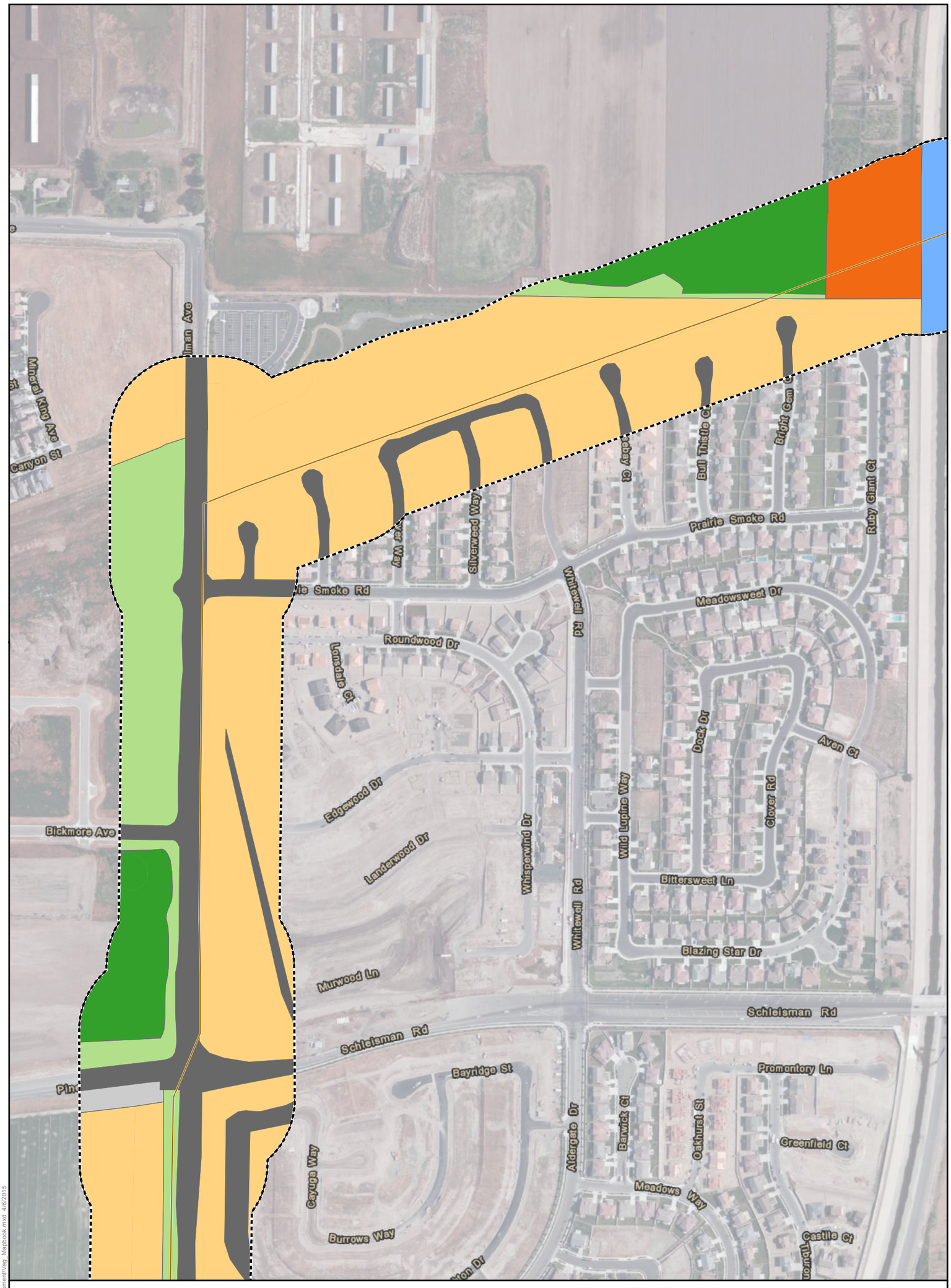

Attachment A: Vegetation Communities Map 6 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
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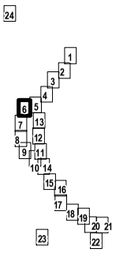
- Open Water



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INSIGNIA ENVIRONMENTAL

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Sources: Insignia, 2015; SCE, 2015

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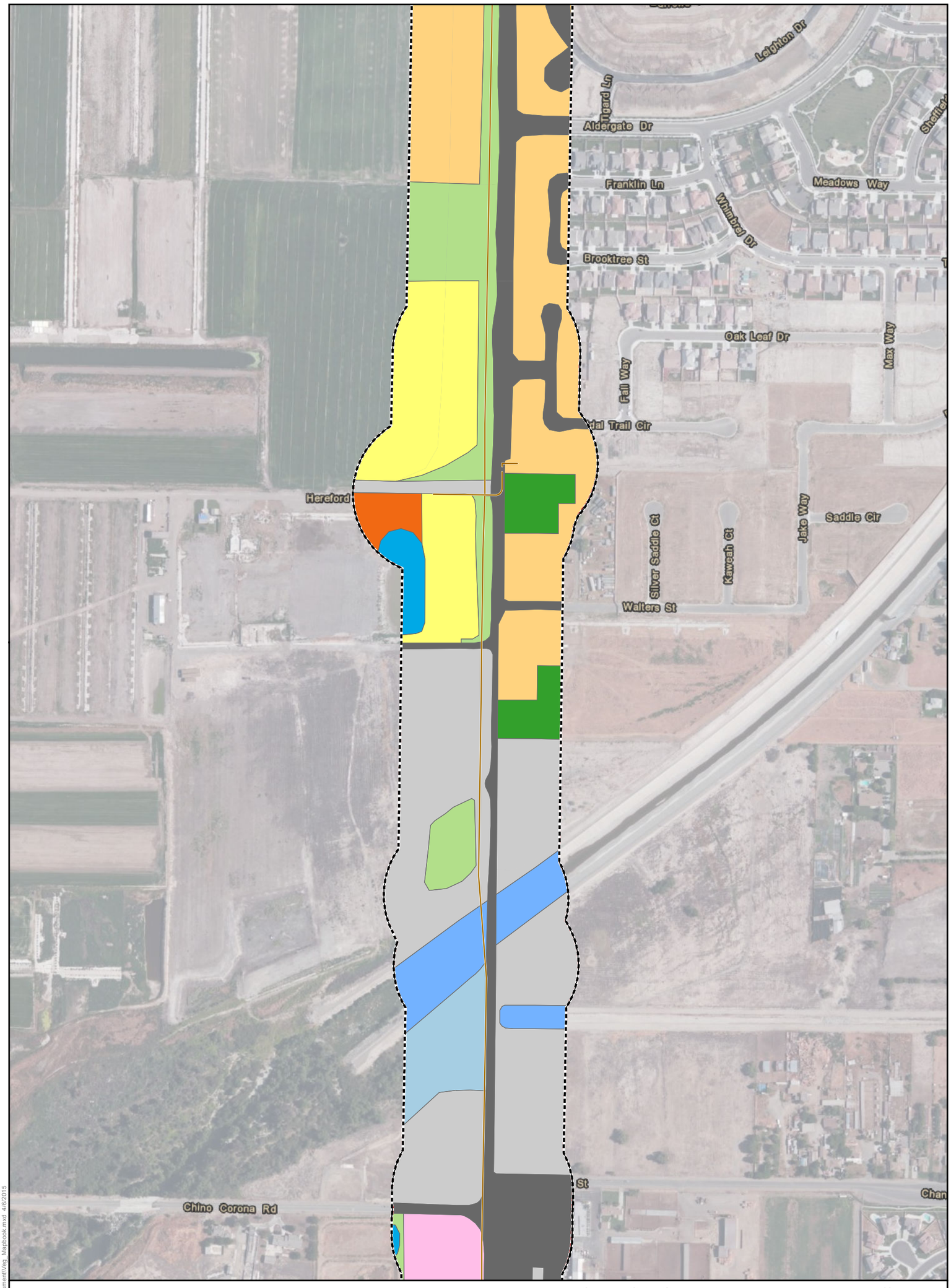

Attachment A: Vegetation Communities Map 7 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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INSIGNIA ENVIRONMENTAL

1:4,200
0 200 400 Feet

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Sources: Insignia, 2015; SCE, 2015

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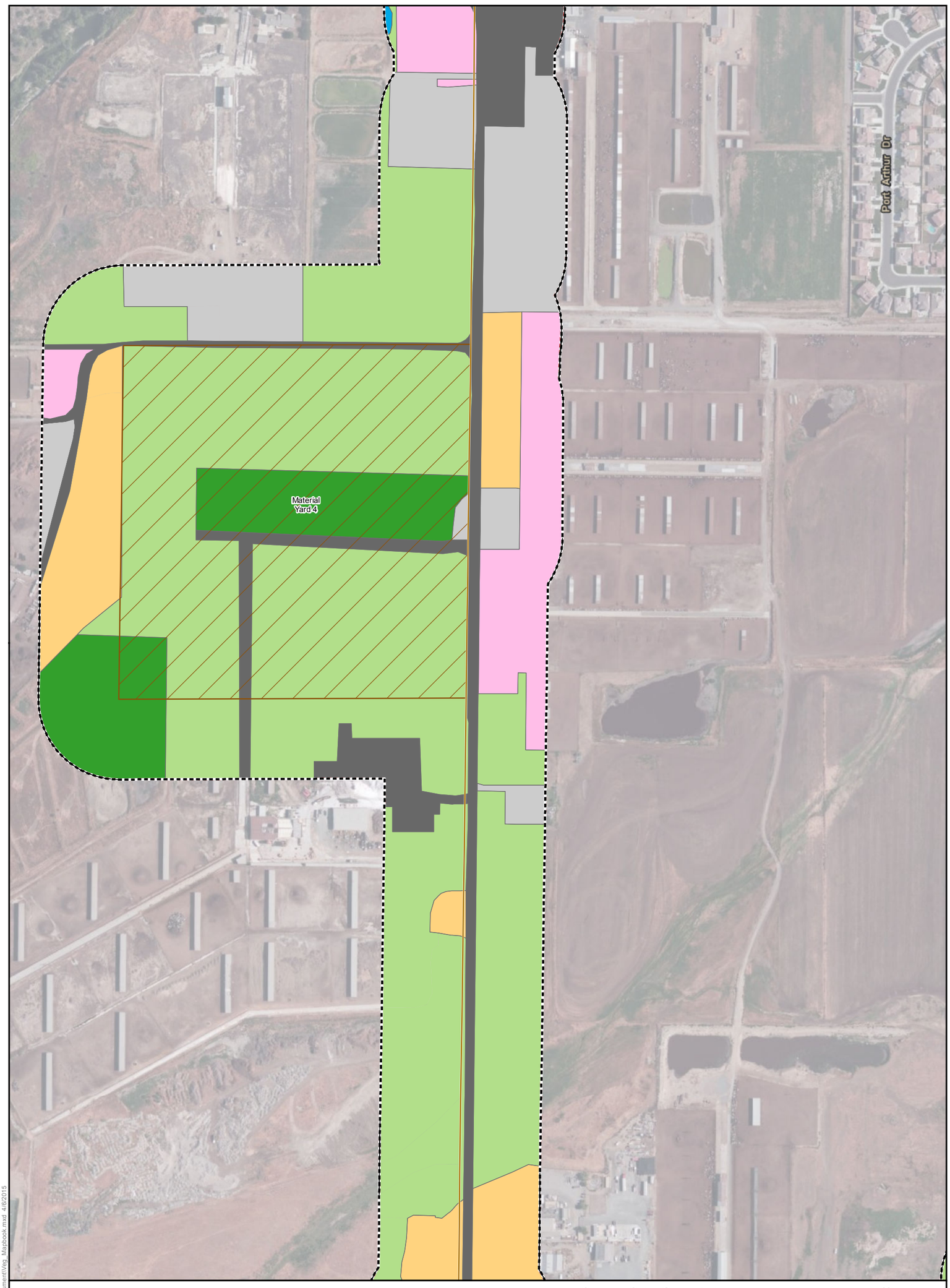

Attachment A: Vegetation Communities Map 8 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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INSIGNIA ENVIRONMENTAL

1:4,200

0 200 400 Feet

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Sources: Insignia, 2015; SCE, 2015

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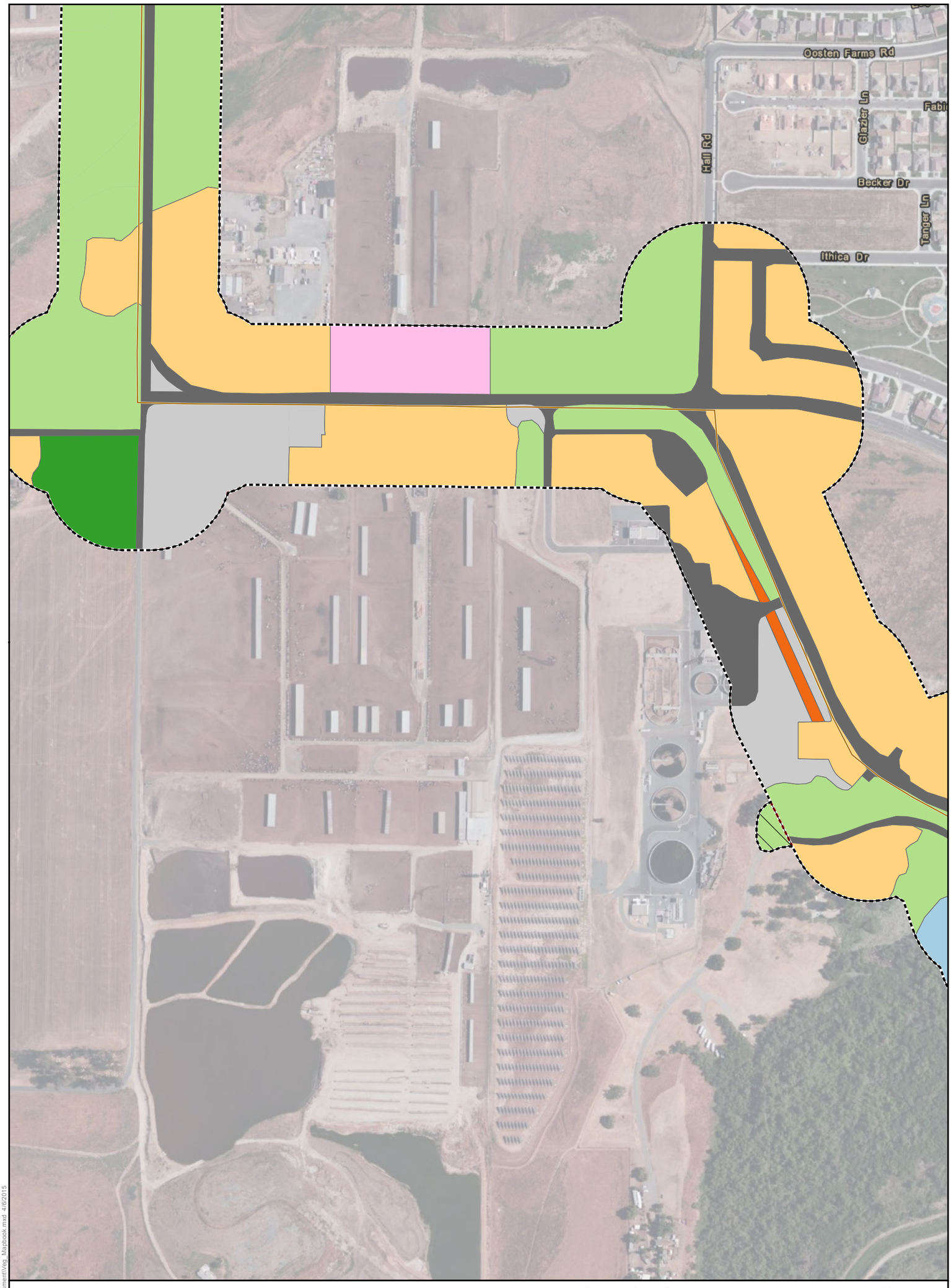

Attachment A: Vegetation Communities Map 9 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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INSIGNIA ENVIRONMENTAL

1:4,200

0 200 400 Feet

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Sources: Insignia, 2015; SCE, 2015

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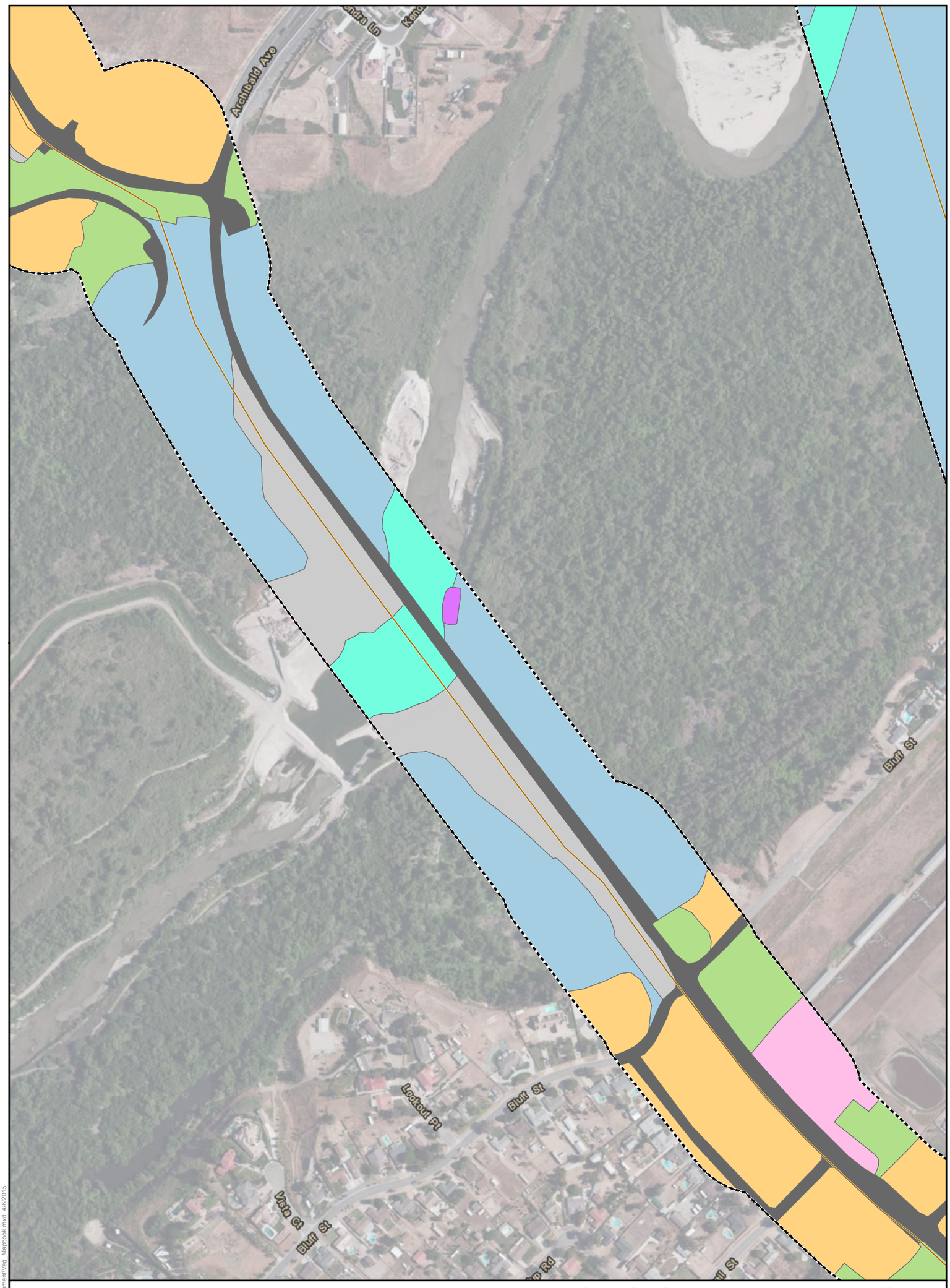

Attachment A: Vegetation Communities Map 10 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

Sources: Insignia, 2015; SCE, 2015

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INSIGNIA ENVIRONMENTAL

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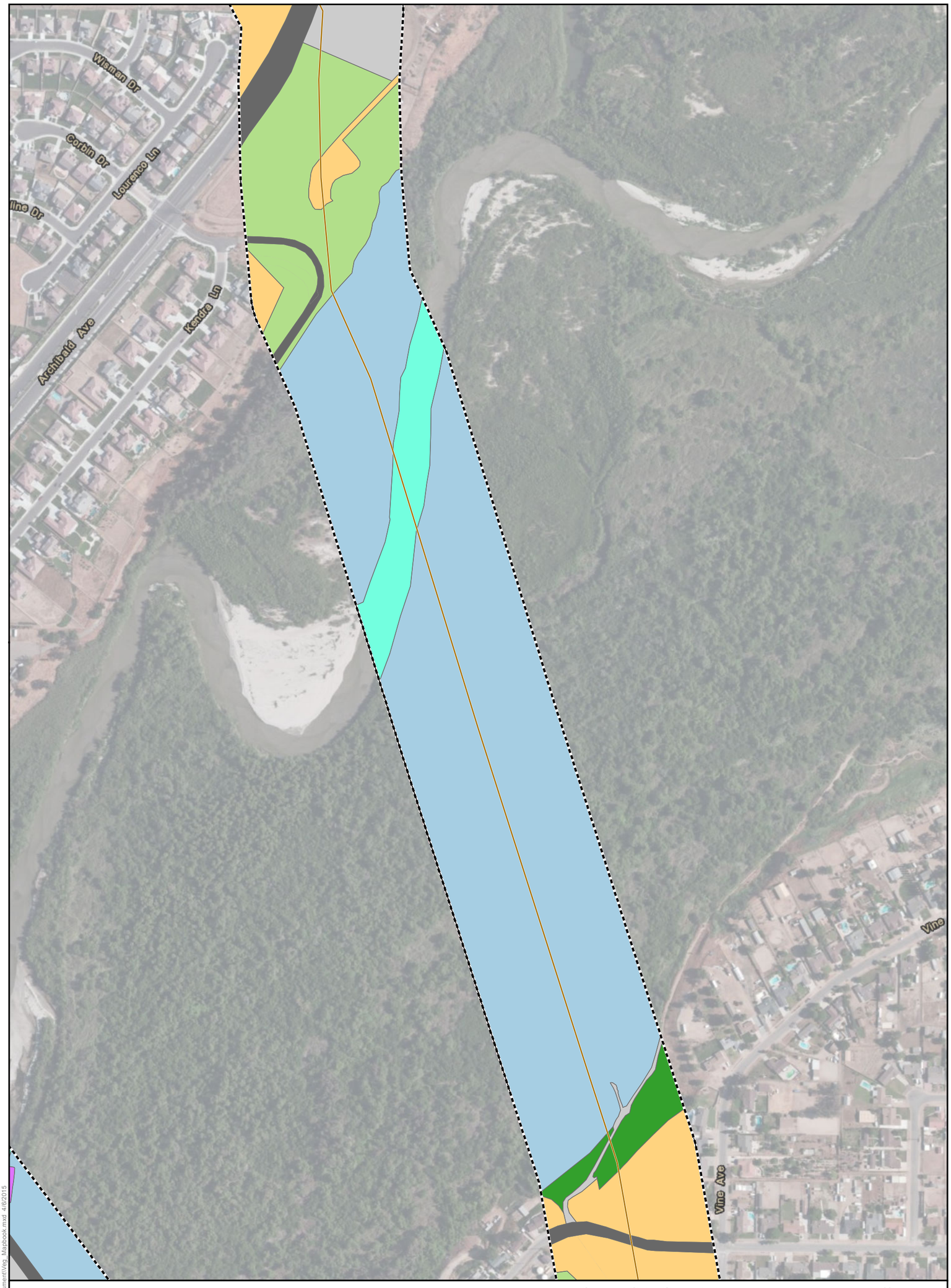

Attachment A: Vegetation Communities Map 11 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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1:4,200

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Sources: Insignia, 2015; SCE, 2015

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Attachment A: Vegetation Communities Map 12 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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INSIGNIA ENVIRONMENTAL

1:4,200

0 200 400 Feet

N

Sources: Insignia, 2015; SCE, 2015

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Attachment A: Vegetation Communities Map 13 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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INSIGNIA ENVIRONMENTAL

1:4,200

0 200 400 Feet

Sources: Insignia, 2015; SCE, 2015

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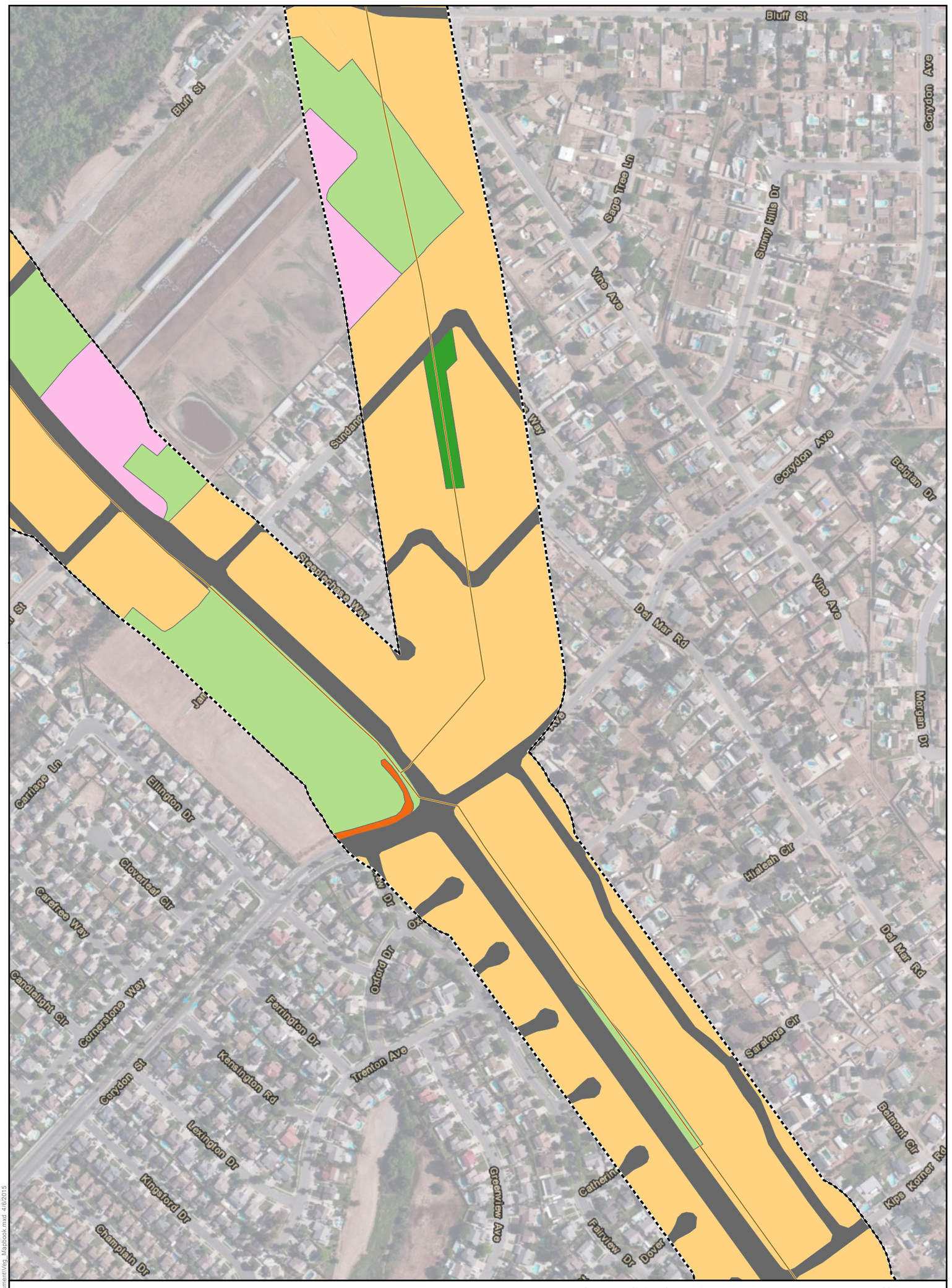

Attachment A: Vegetation Communities Map 14 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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1:4,200
0 200 400 Feet

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Sources: Insignia, 2015; SCE, 2015

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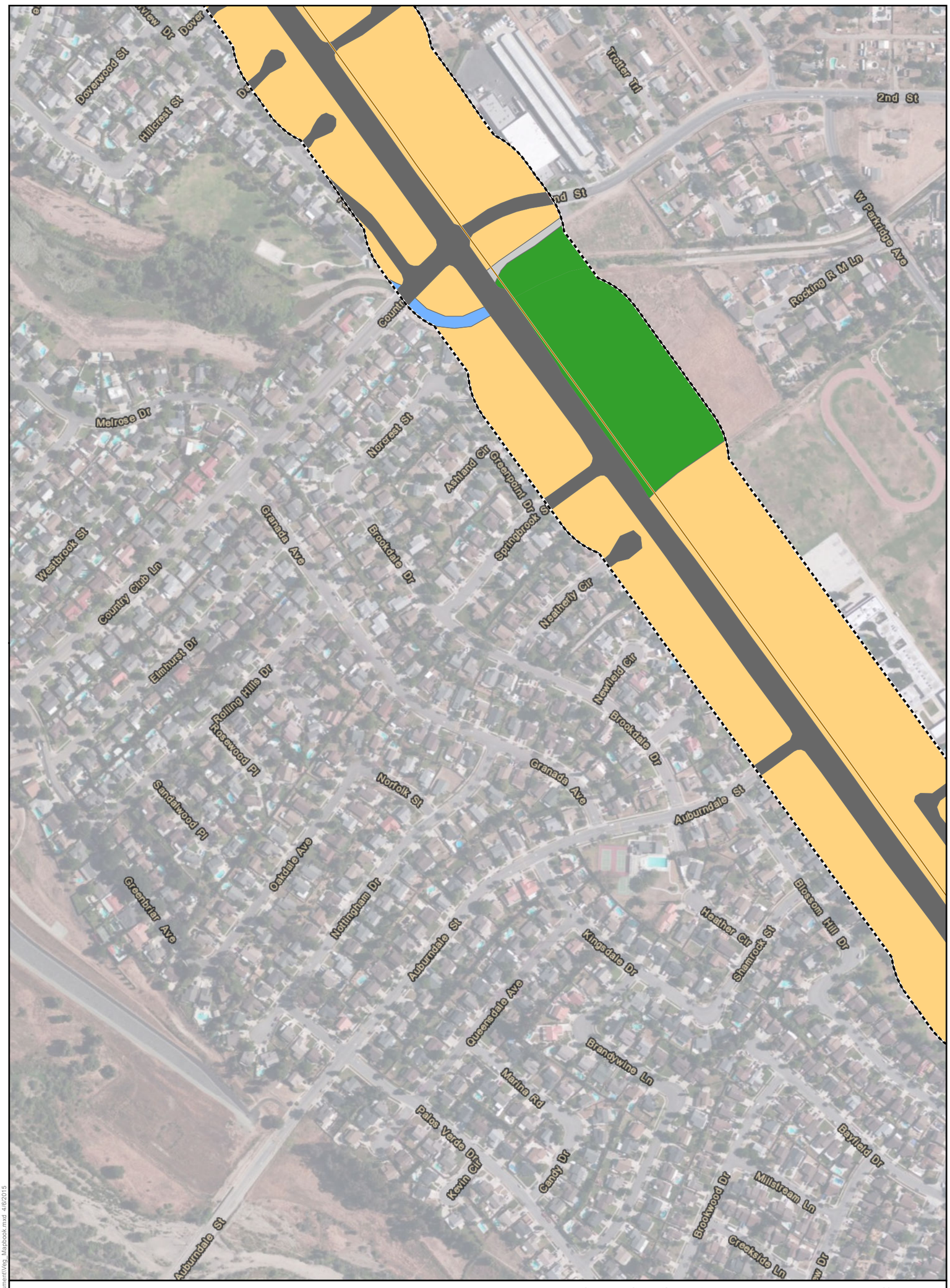

Attachment A: Vegetation Communities Map 15 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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1:4,200
0 200 400 Feet

Sources: Insignia, 2015; SCE, 2015

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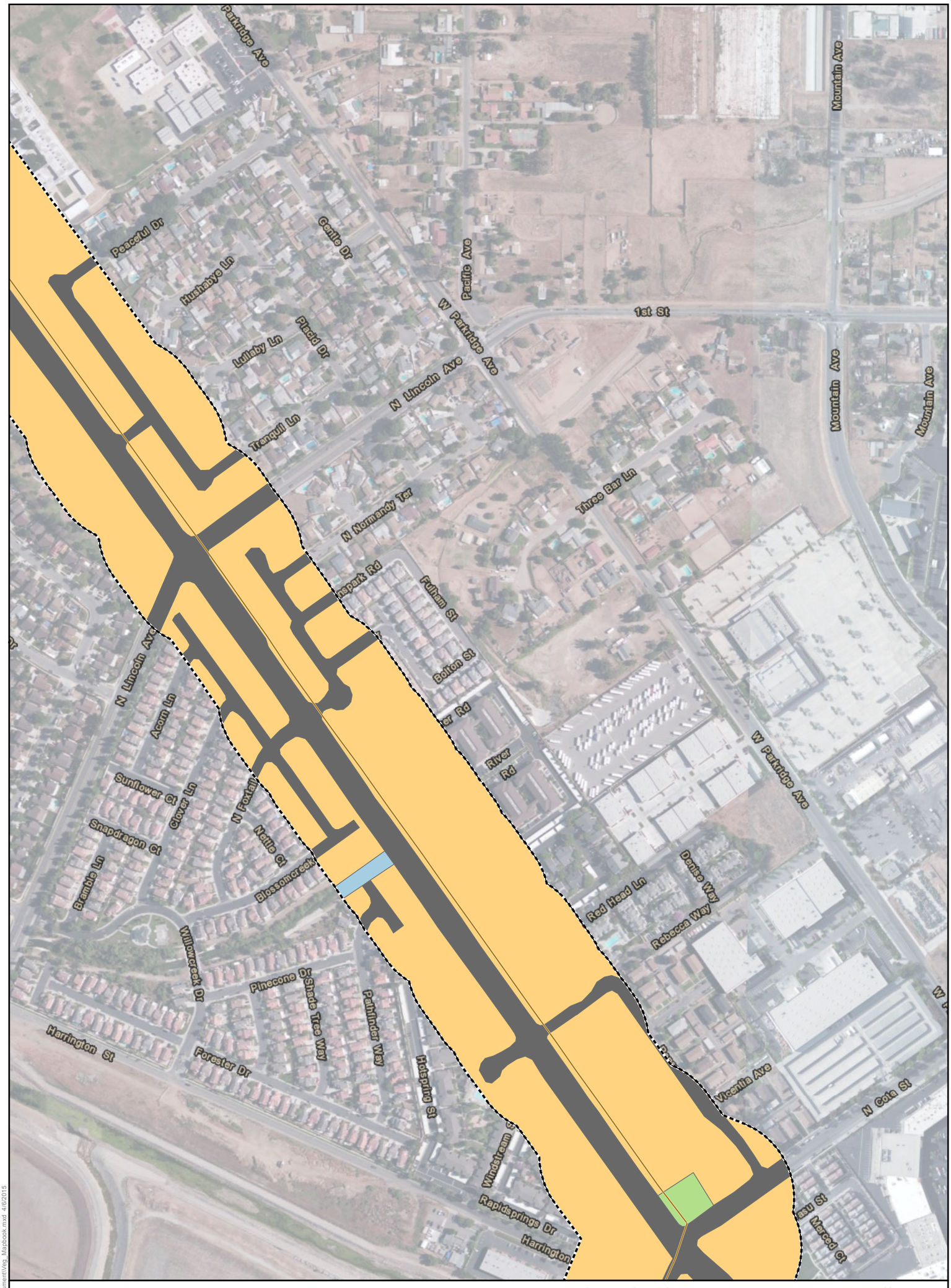

Attachment A: Vegetation Communities Map 16 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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1:4,200

0 200 400 Feet

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Sources: Insignia, 2015; SCE, 2015

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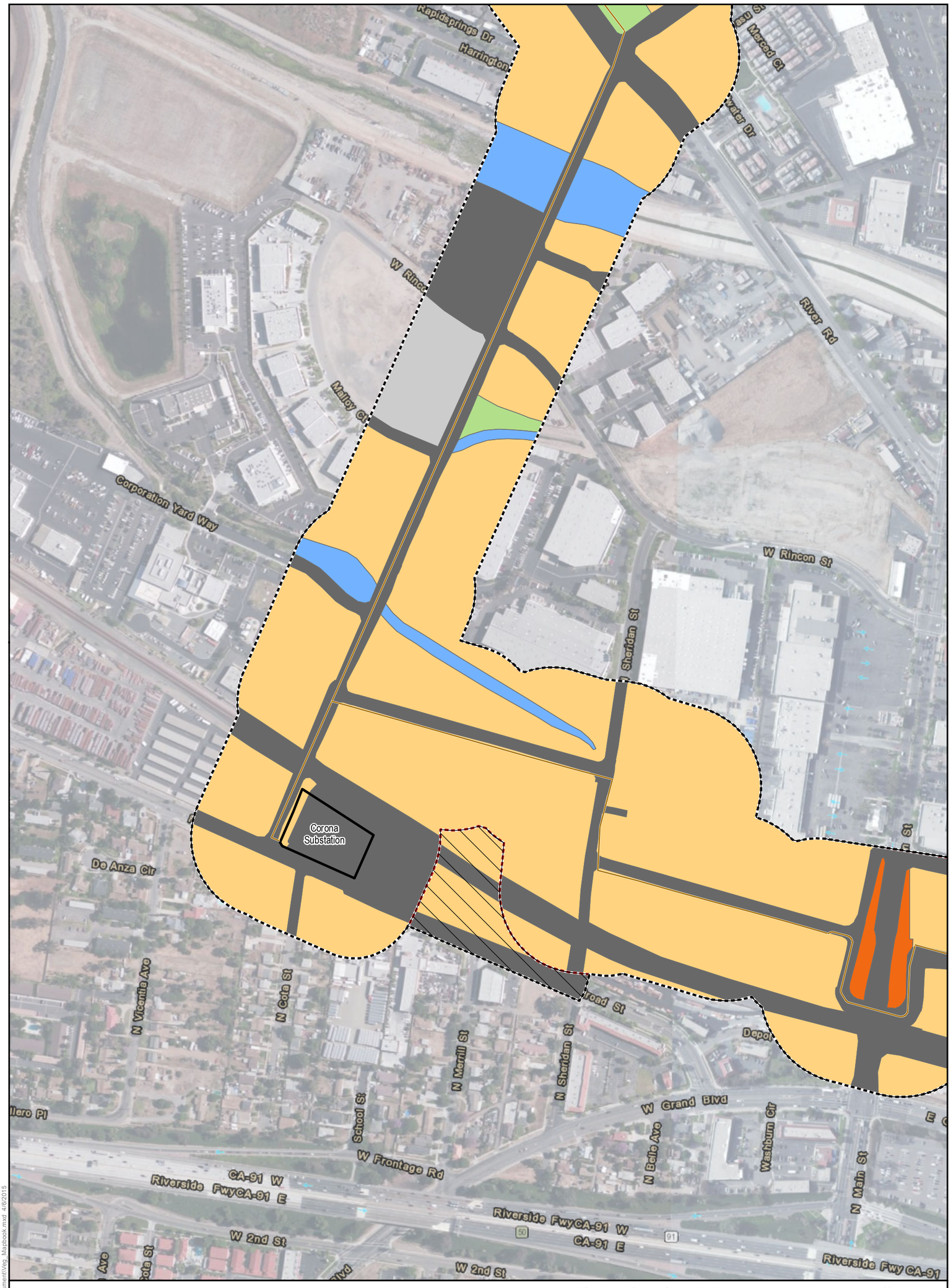

Attachment A: Vegetation Communities Map 17 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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INSIGNIA ENVIRONMENTAL

1:4,200

0 200 400 Feet

Sources: Insignia, 2015; SCE, 2015

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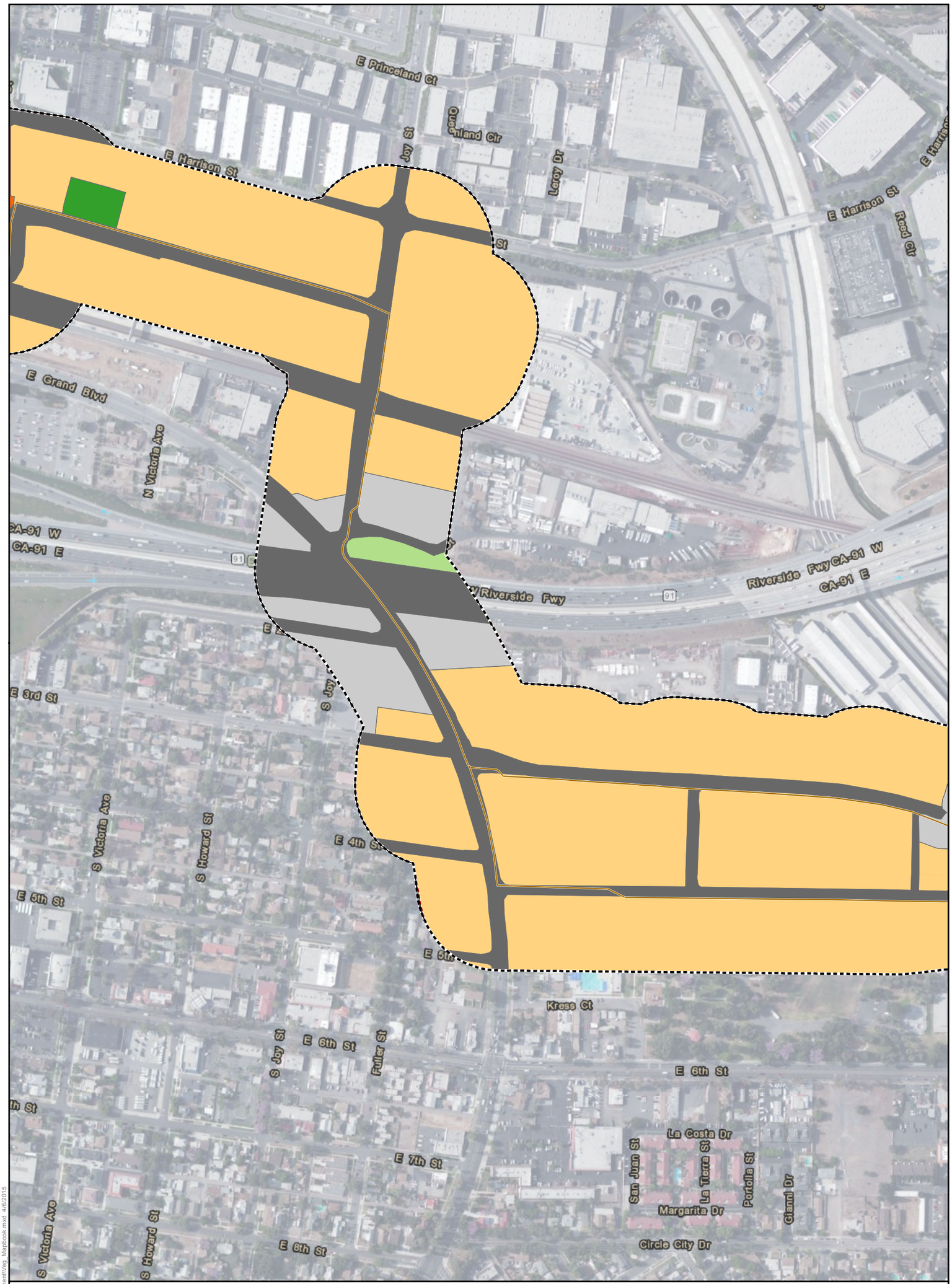

Attachment A: Vegetation Communities Map 18 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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0 200 400 Feet

Sources: Insignia, 2015; SCE, 2015

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Attachment A: Vegetation Communities Map 19 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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INSIGNIA ENVIRONMENTAL

1:4,200
0 200 400 Feet

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Sources: Insignia, 2015; SCE, 2015

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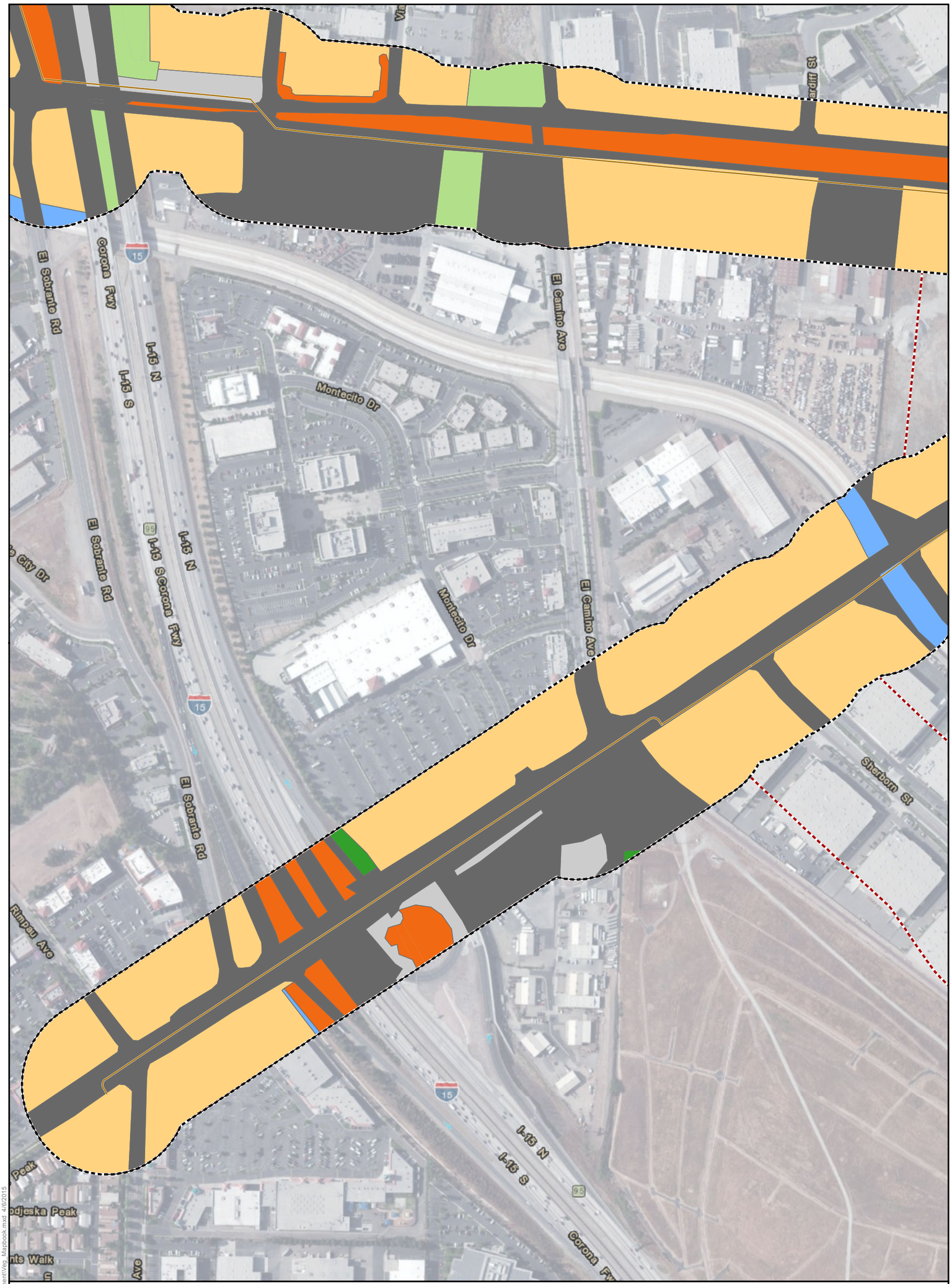

Attachment A: Vegetation Communities Map 20 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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INSIGNIA ENVIRONMENTAL

1:4,200

0 200 400 Feet

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Sources: Insignia, 2015; SCE, 2015

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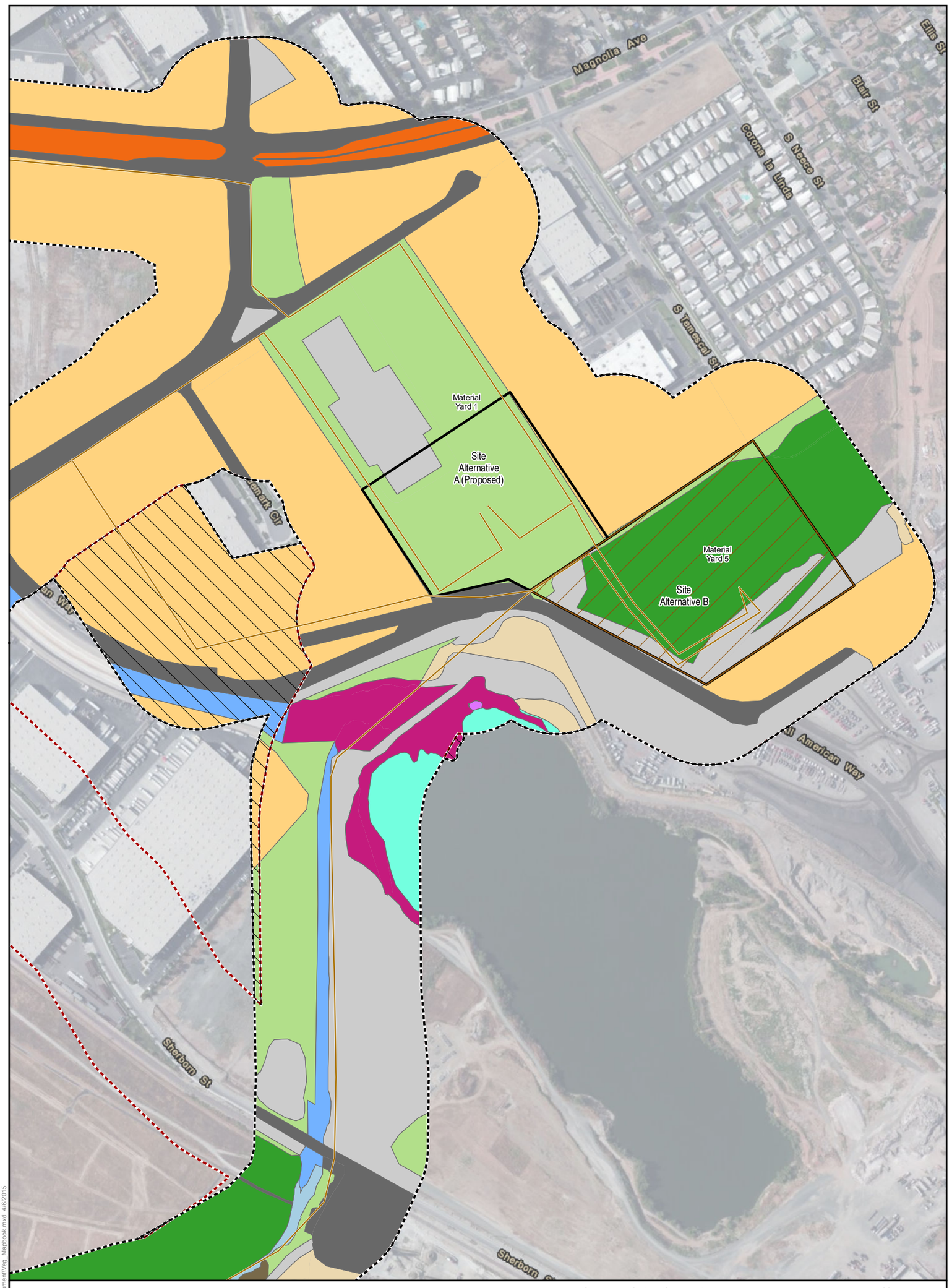

Attachment A: Vegetation Communities Map 21 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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INSIGNIA ENVIRONMENTAL

1:4,200

0 200 400 Feet

N

Sources: Insignia, 2015; SCE, 2015

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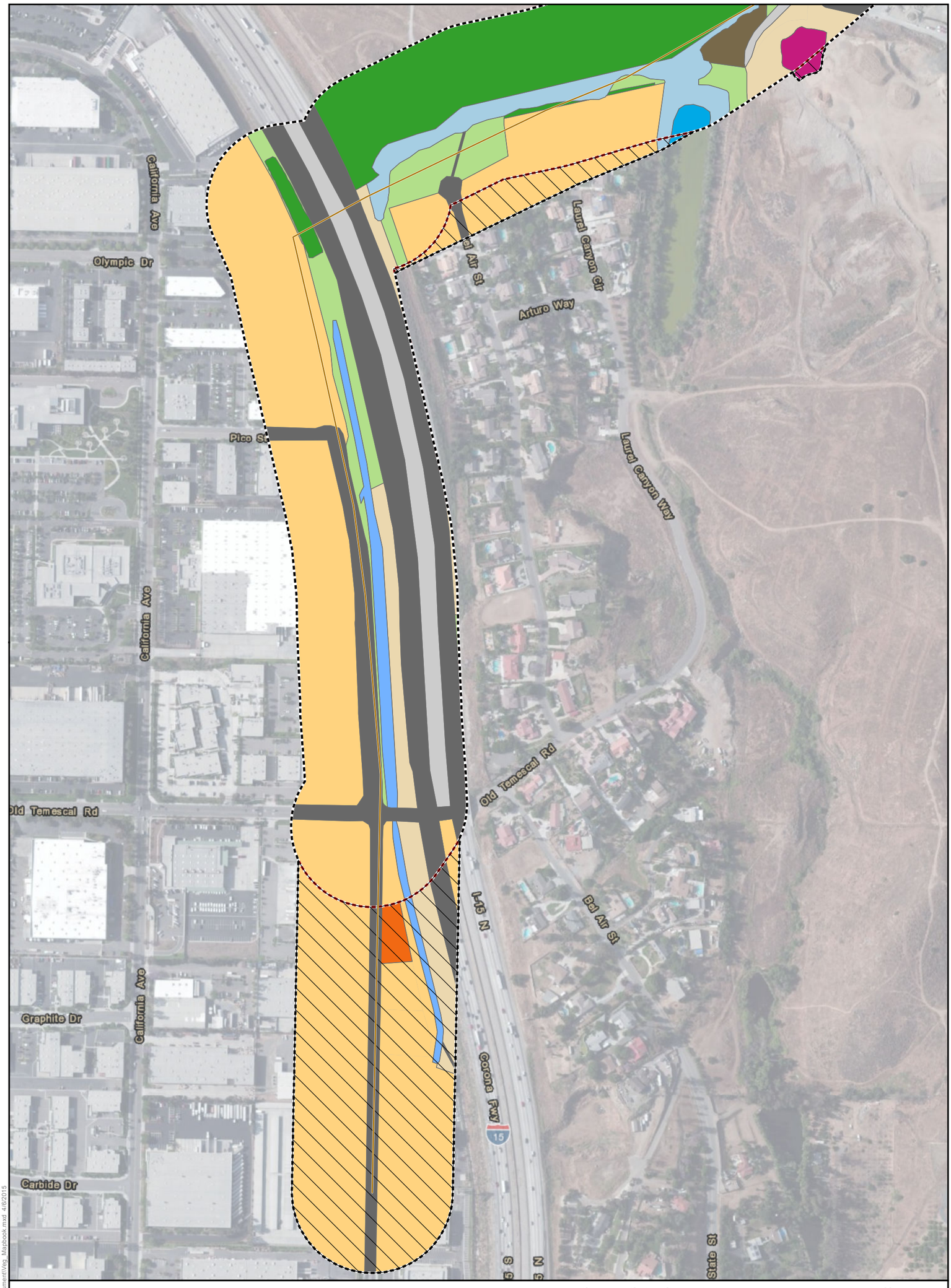

Attachment A: Vegetation Communities Map 22 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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1:4,200

0 200 400 Feet

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Sources: Insignia, 2015; SCE, 2015

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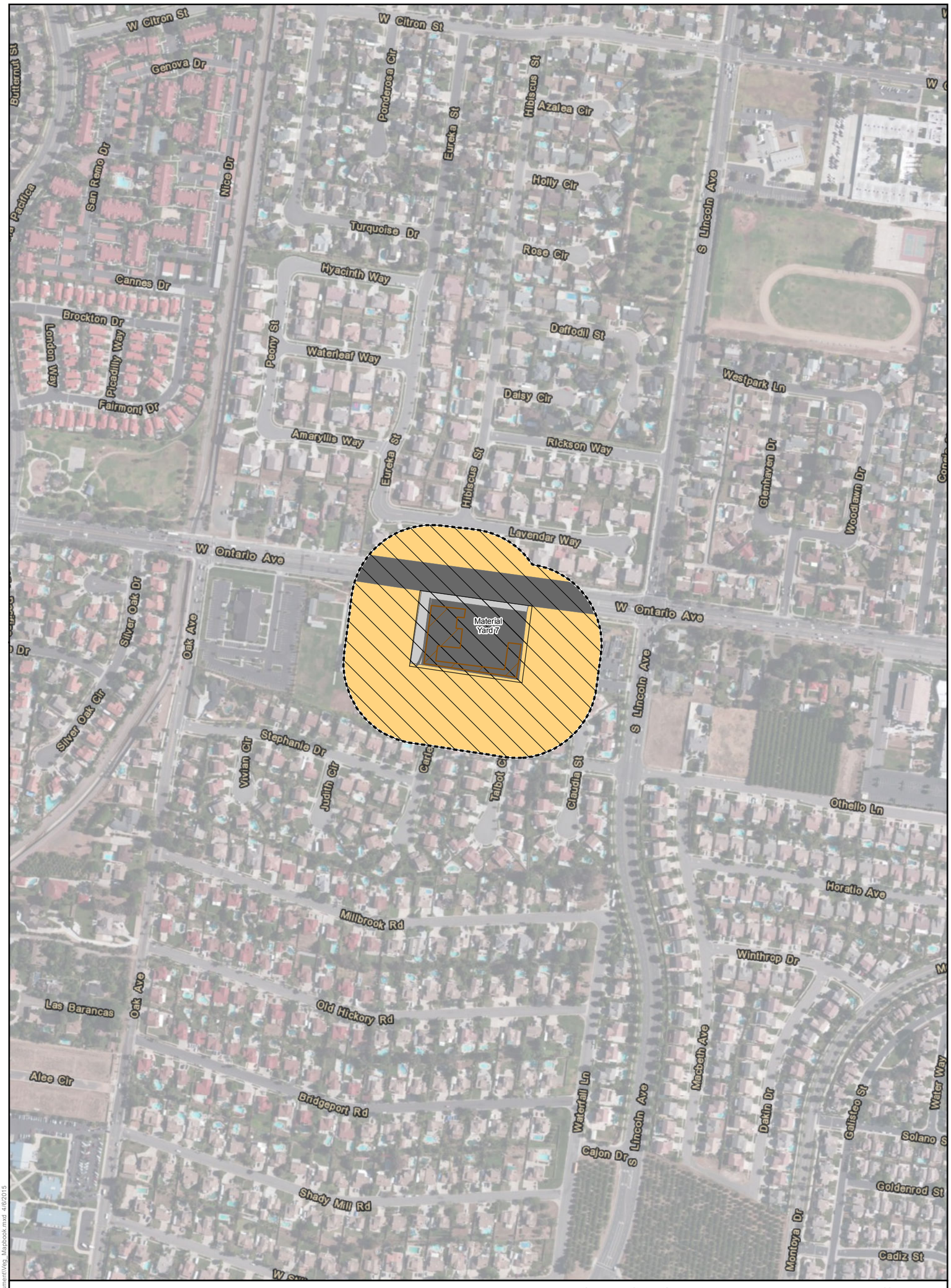

Attachment A: Vegetation Communities Map 23 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard
- **Proposed Project and Alternative Alignments**

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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INSIGNIA ENVIRONMENTAL

1:4,200
0 200 400 Feet

Sources: Insignia, 2015; SCE, 2015

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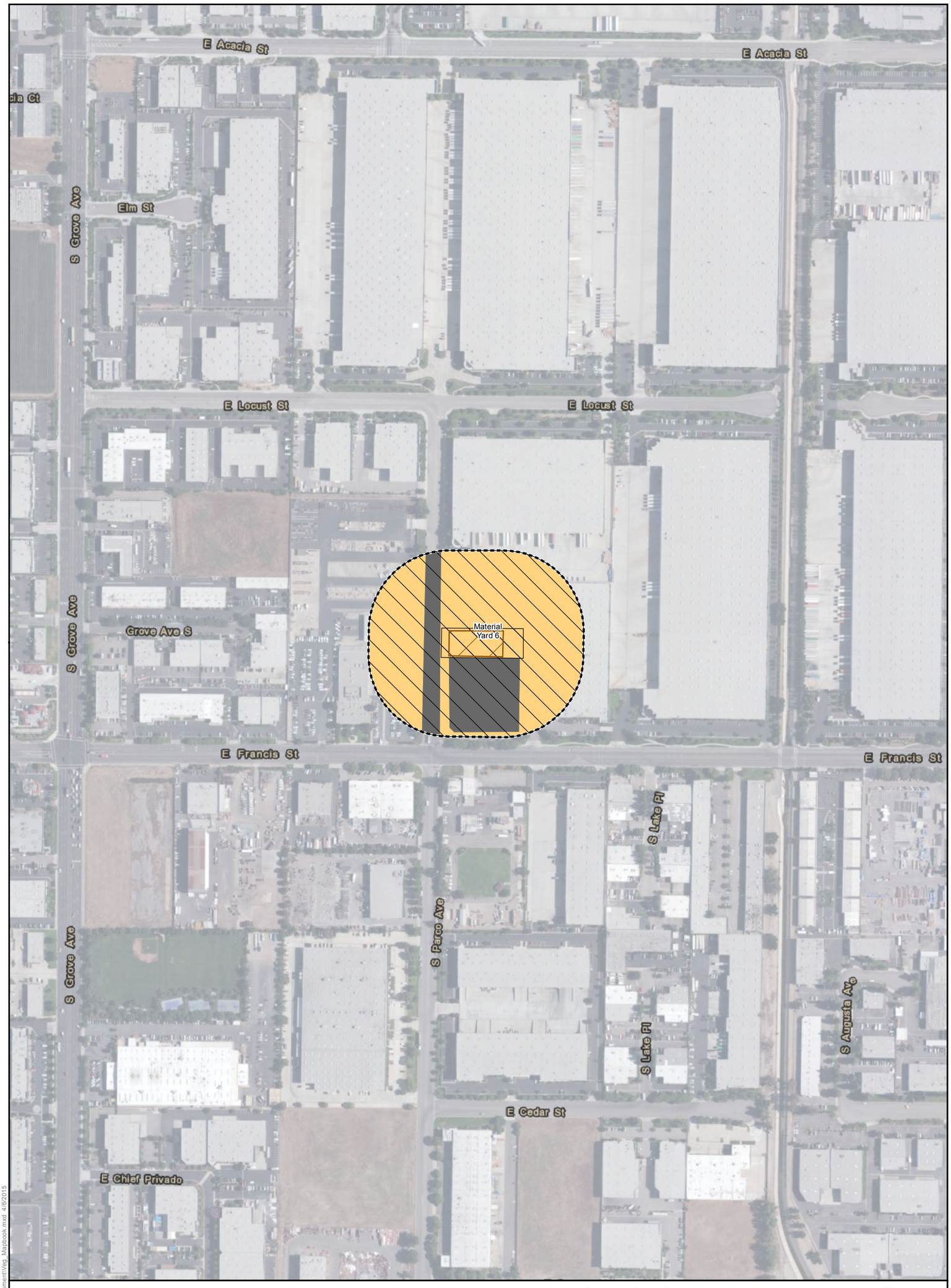

Attachment A: Vegetation Communities Map 24 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- 2015 Study Area Outside 2012 Study Area
- Material Yard

Proposed Project and Alternative Alignments

Vegetation Types

- Agricultural Field
- Dairy
- Developed
- Disturbed
- Disturbed Mule Fat Scrub
- Disturbed Riversidian Sage Scrub
- Non-native Grassland
- Ornamental
- Ornamental/Developed
- Riversidian Sage Scrub
- Ruderal
- Willow Riparian Forest
- Freshwater Marsh
- Impoundment
- Flood Control Channel
- Open Water

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INSIGNIA ENVIRONMENTAL

1:4,200

0 200 400 Feet

N

Sources: Insignia, 2015; SCE, 2015

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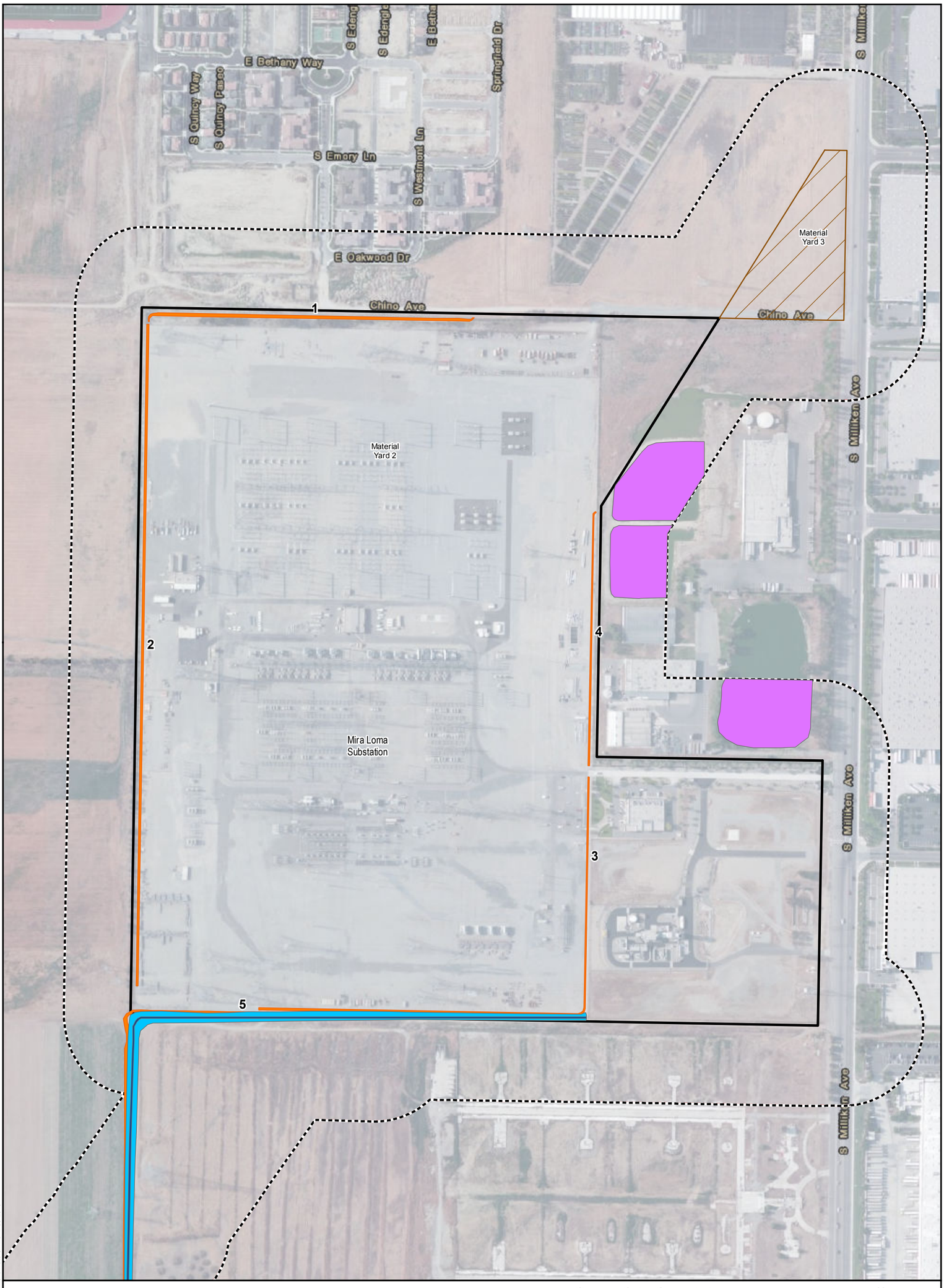
ATTACHMENT B: JURISDICTIONAL RESOURCES MAP



Attachment B: Jurisdictional Resources Map 1 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

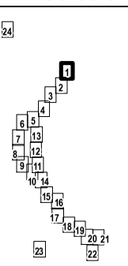
- Substation
- 2015 Study Area
- 2012 Study Area
- Material Yard

2012 Biological Technical Report

"Waters of the U.S."
- Open Water
- Other "Waters of the U.S."
- Wetland

"Waters of the State"
- Other "Waters of the State"
- Impoundment

2015 Habitat Assessment
- Potentially Jurisdictional Waters



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INSIGNIA ENVIRONMENTAL

1:4,200

0 200 400 Feet

Sources: Insignia, 2015; SCE, 2015

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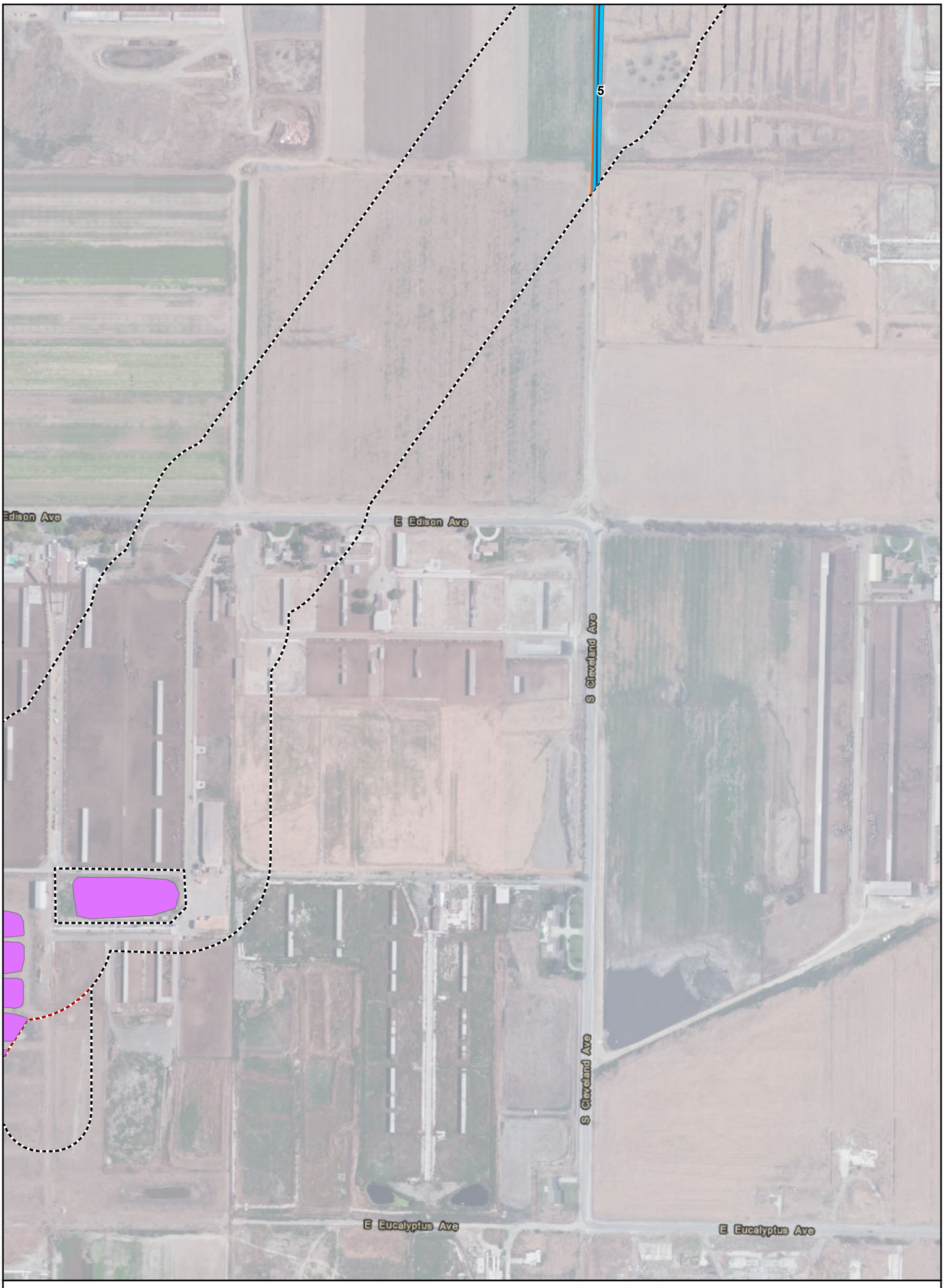


Attachment B: Jurisdictional Resources Map 2 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

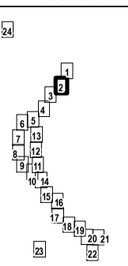
- Substation
- 2015 Study Area
- 2012 Study Area
- Material Yard

2012 Biological Technical Report

"Waters of the U.S."
- Open Water
- Other "Waters of the U.S."
- Wetland

"Waters of the State"
- Other "Waters of the State"
- Impoundment

2015 Habitat Assessment
- Potentially Jurisdictional Waters



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Sources: Insignia, 2015; SCE, 2015

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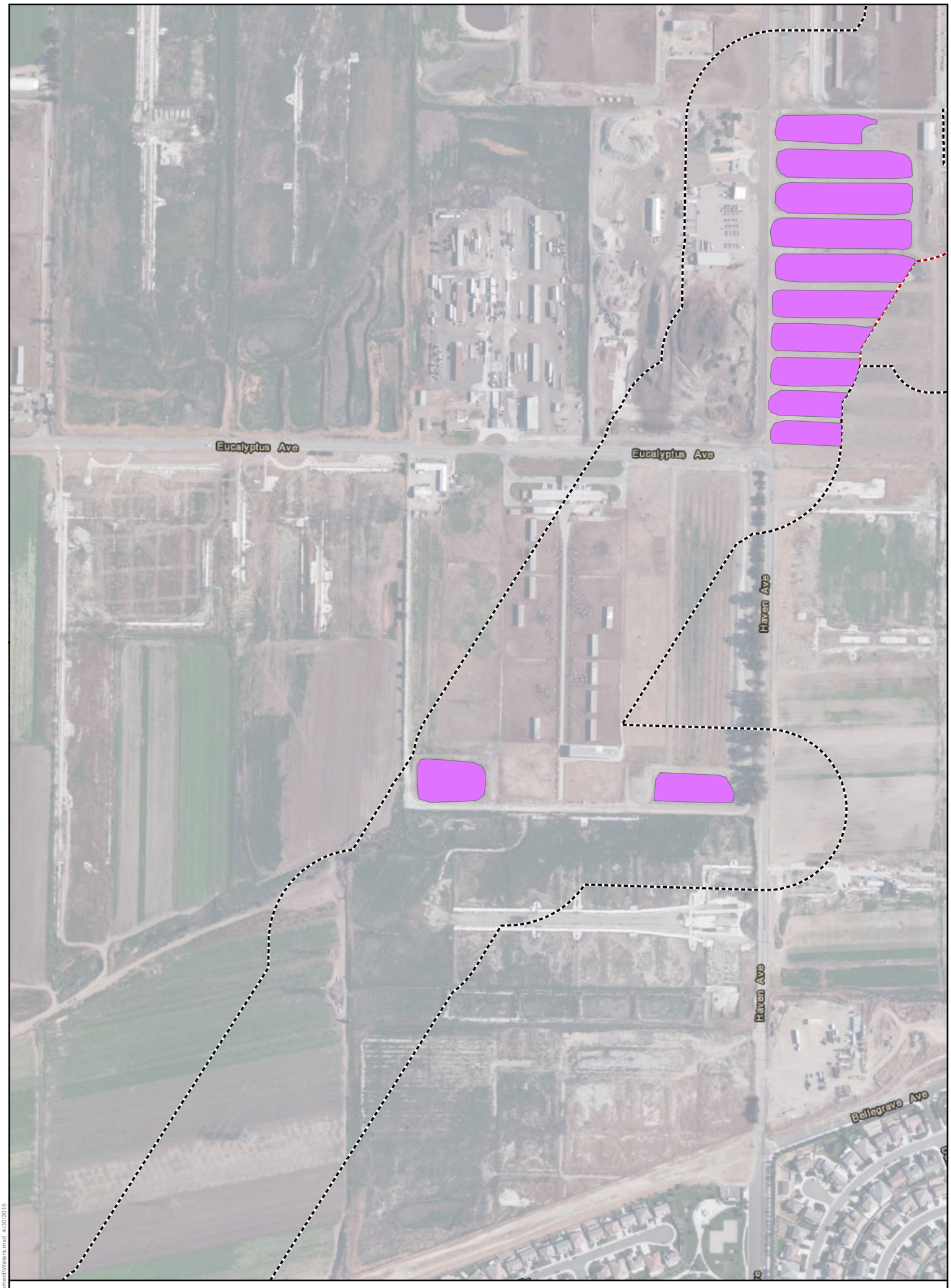

Attachment B: Jurisdictional Resources Map 3 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Substation
2015 Study Area
2012 Study Area
Material Yard

2012 Biological Technical Report

"Waters of the U.S."
- Open Water
- Other "Waters of the U.S."
- Wetland

"Waters of the State"
- Other "Waters of the State"
- Impoundment

2015 Habitat Assessment
- Potentially Jurisdictional Waters

Sources: Insignia, 2015; SCE, 2015

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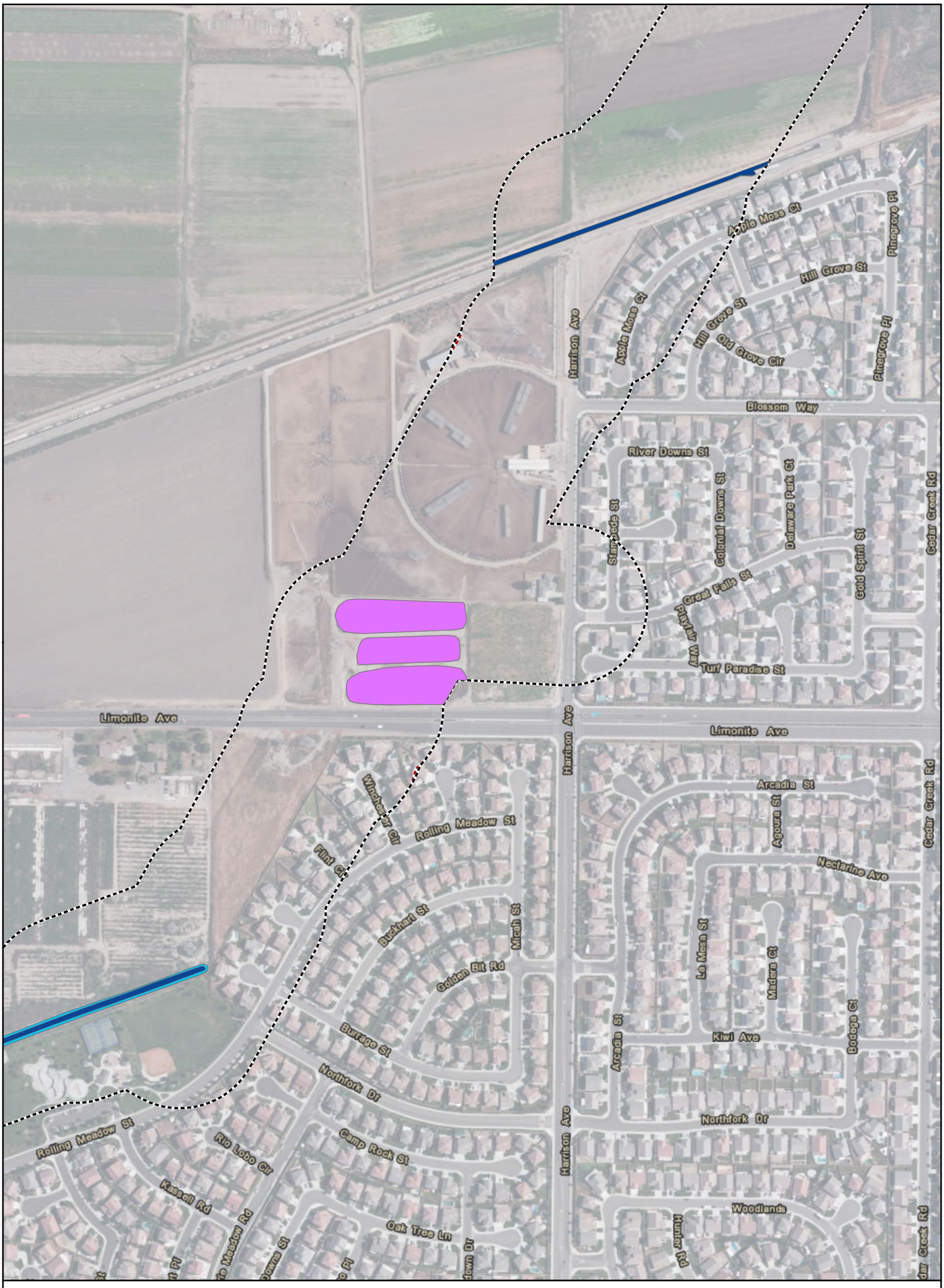

Attachment B: Jurisdictional Resources Map 4 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- Material Yard

2012 Biological Technical Report

"Waters of the U.S."
- Open Water
- Other "Waters of the U.S."
- Wetland

"Waters of the State"
- Other "Waters of the State"
- Impoundment

2015 Habitat Assessment
- Potentially Jurisdictional Waters

Sources: Insignia, 2015; SCE, 2015

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Attachment B: Jurisdictional Resources Map 5 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- Material Yard

2012 Biological Technical Report

"Waters of the U.S."
- Open Water
- Other "Waters of the U.S."
- Wetland

"Waters of the State"
- Other "Waters of the State"
- Impoundment

2015 Habitat Assessment
- Potentially Jurisdictional Waters

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Sources: Insignia, 2015; SCE, 2015

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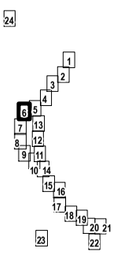
Attachment B: Jurisdictional Resources Map 6 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Substation
2015 Study Area
2012 Study Area
Material Yard

2012 Biological Technical Report
"Waters of the U.S."
Open Water
Other "Waters of the U.S."
Wetland
"Waters of the State"
Other "Waters of the State"
Impoundment

2015 Habitat Assessment
Potentially Jurisdictional Waters



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Sources: Insignia, 2015; SCE, 2015

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Attachment B: Jurisdictional Resources Map 7 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Substation
2015 Study Area
2012 Study Area
Material Yard

2012 Biological Technical Report

"Waters of the U.S."
- Open Water
- Other "Waters of the U.S."
- Wetland

"Waters of the State"
- Other "Waters of the State"
- Impoundment

2015 Habitat Assessment
- Potentially Jurisdictional Waters

Sources: Insignia, 2015; SCE, 2015

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Attachment B: Jurisdictional Resources Map 8 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Substation
2015 Study Area
2012 Study Area
Material Yard

2012 Biological Technical Report
"Waters of the U.S."
Open Water
Other "Waters of the U.S."
Wetland
"Waters of the State"
Other "Waters of the State"
Impoundment

2015 Habitat Assessment
Potentially Jurisdictional Waters

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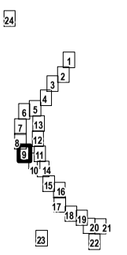
Attachment B: Jurisdictional Resources Map 9 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Substation
2015 Study Area
2012 Study Area
Material Yard

2012 Biological Technical Report
"Waters of the U.S."
Open Water
Other "Waters of the U.S."
Wetland
"Waters of the State"
Other "Waters of the State"
Impoundment

2015 Habitat Assessment
Potentially Jurisdictional Waters



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Sources: Insignia, 2015; SCE, 2015

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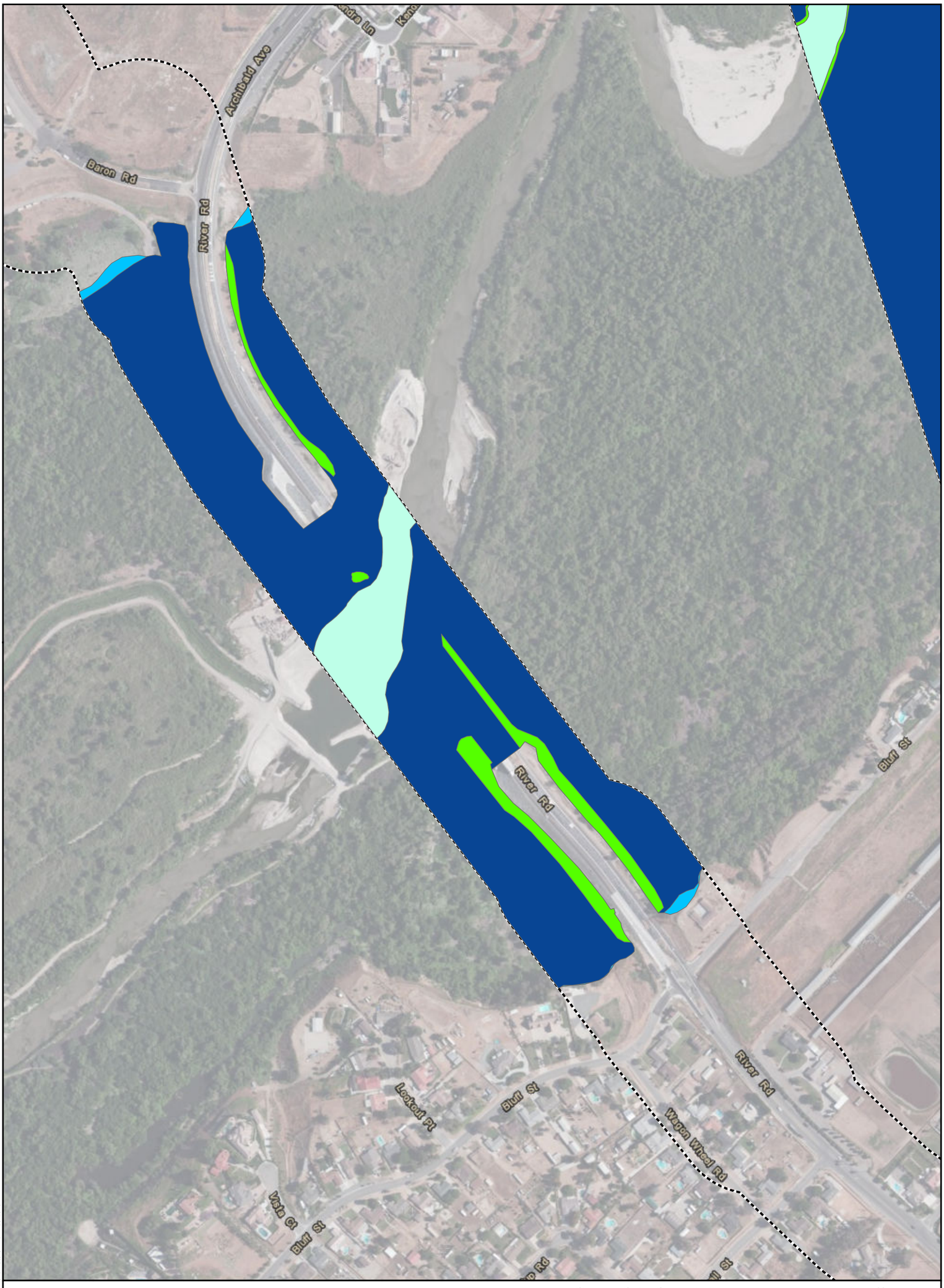

Attachment B: Jurisdictional Resources Map 10 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- Material Yard

2012 Biological Technical Report

"Waters of the U.S."
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- Other "Waters of the State"
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2015 Habitat Assessment
- Potentially Jurisdictional Waters

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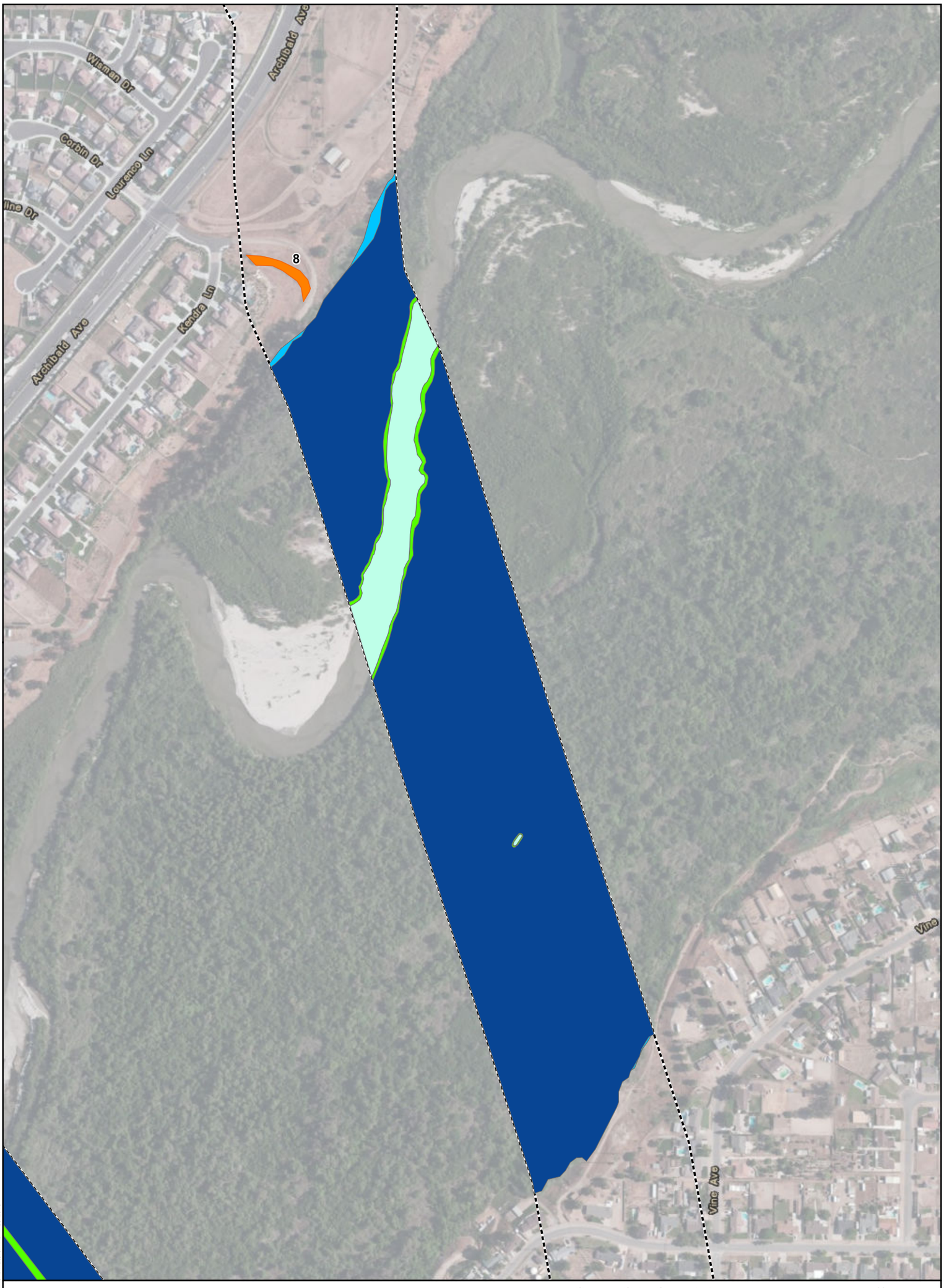


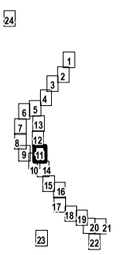
Attachment B: Jurisdictional Resources Map 11 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Substation
2015 Study Area
2012 Study Area
Material Yard

2012 Biological Technical Report
"Waters of the U.S."
Open Water
Other "Waters of the U.S."
Wetland
"Waters of the State"
Other "Waters of the State"
Impoundment

2015 Habitat Assessment
Potentially Jurisdictional Waters



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Attachment B: Jurisdictional Resources Map 12 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- Material Yard

2012 Biological Technical Report

"Waters of the U.S."
- Open Water
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- Wetland

"Waters of the State"
- Other "Waters of the State"
- Impoundment

2015 Habitat Assessment
- Potentially Jurisdictional Waters

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Attachment B: Jurisdictional Resources Map 13 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- Material Yard

2012 Biological Technical Report

"Waters of the U.S."
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- Wetland

"Waters of the State"
- Other "Waters of the State"
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2015 Habitat Assessment
- Potentially Jurisdictional Waters

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Sources: Insignia, 2015; SCE, 2015

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Attachment B: Jurisdictional Resources Map 14 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- Material Yard

2012 Biological Technical Report

"Waters of the U.S."
- Open Water
- Other "Waters of the U.S."
- Wetland

"Waters of the State"
- Other "Waters of the State"
- Impoundment

2015 Habitat Assessment
- Potentially Jurisdictional Waters

Sources: Insignia, 2015; SCE, 2015

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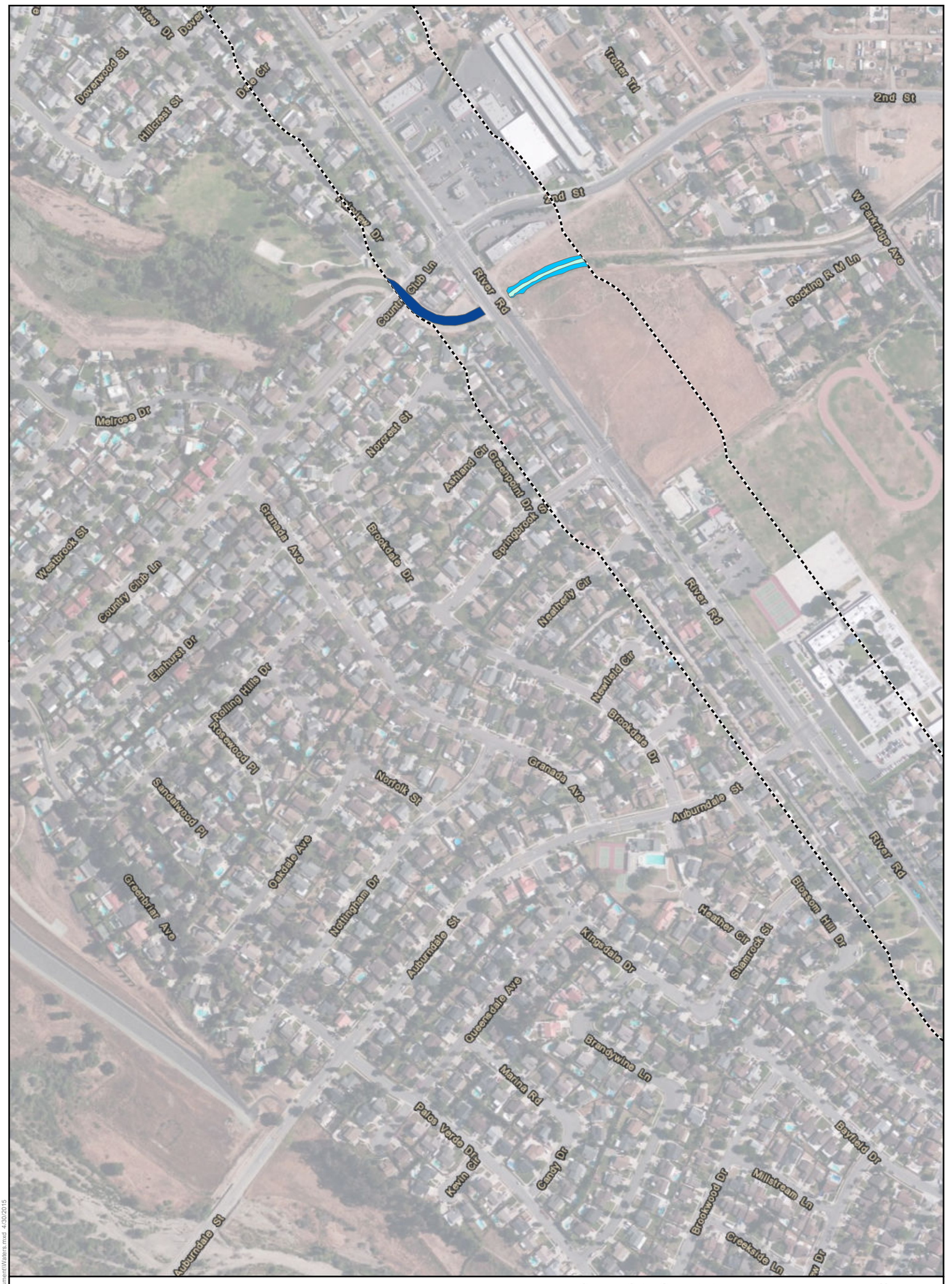

Attachment B: Jurisdictional Resources Map 15 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- Material Yard

2012 Biological Technical Report

"Waters of the U.S."
- Open Water
- Other "Waters of the U.S."
- Wetland

"Waters of the State"
- Other "Waters of the State"
- Impoundment

2015 Habitat Assessment
- Potentially Jurisdictional Waters

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Sources: Insignia, 2015; SCE, 2015

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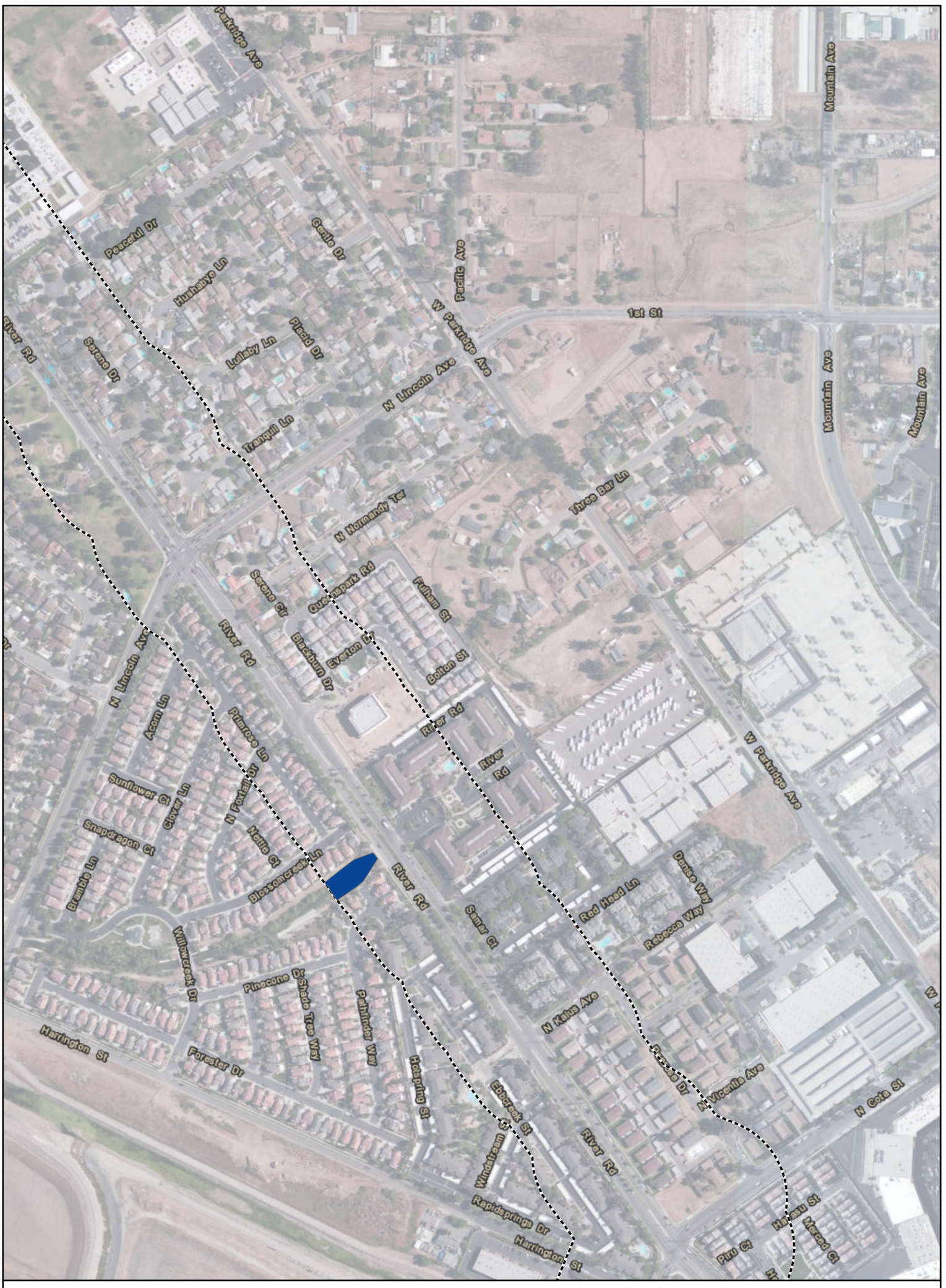

Attachment B: Jurisdictional Resources Map 16 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Substation
2015 Study Area
2012 Study Area
Material Yard

2012 Biological Technical Report
"Waters of the U.S."
Open Water
Other "Waters of the U.S."
Wetland
"Waters of the State"
Other "Waters of the State"
Impoundment

2015 Habitat Assessment
Potentially Jurisdictional Waters

Sources: Insignia, 2015; SCE, 2015

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Attachment B: Jurisdictional Resources Map 17 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Substation
2015 Study Area
2012 Study Area
Material Yard

2012 Biological Technical Report

"Waters of the U.S."
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- Wetland

"Waters of the State"
- Other "Waters of the State"
- Impoundment

2015 Habitat Assessment
- Potentially Jurisdictional Waters

Sources: Insignia, 2015; SCE, 2015

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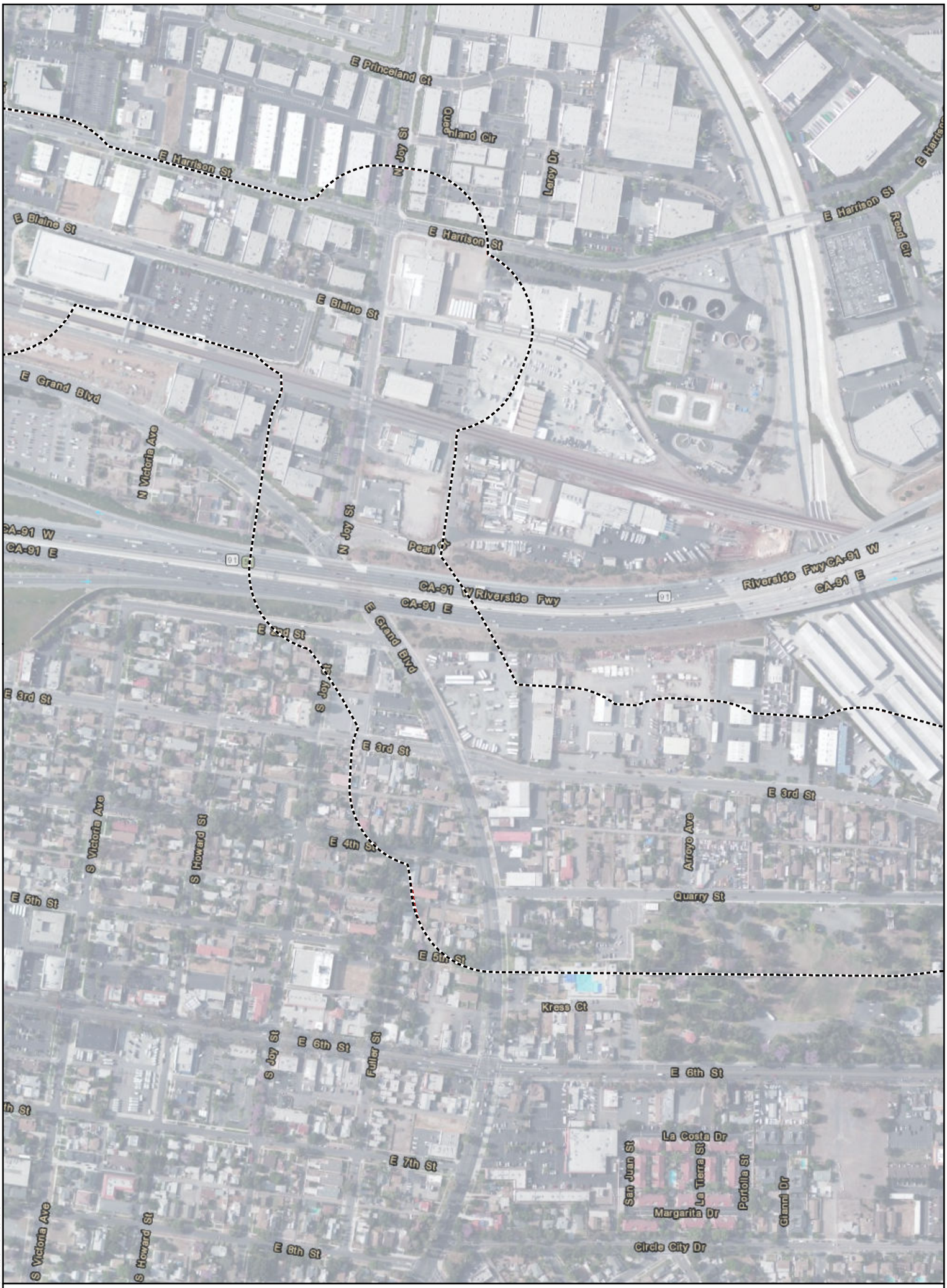

Attachment B: Jurisdictional Resources Map 18 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- Material Yard

2012 Biological Technical Report

"Waters of the U.S."
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"Waters of the State"
- Other "Waters of the State"
- Impoundment

2015 Habitat Assessment
- Potentially Jurisdictional Waters

Sources: Insignia, 2015; SCE, 2015

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Attachment B: Jurisdictional Resources Map 19 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Substation
2015 Study Area
2012 Study Area
Material Yard

2012 Biological Technical Report

"Waters of the U.S."
- Open Water
- Other "Waters of the U.S."
- Wetland

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- Other "Waters of the State"
- Impoundment

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- Potentially Jurisdictional Waters

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Attachment B: Jurisdictional Resources Map 20 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- Material Yard

2012 Biological Technical Report

"Waters of the U.S."
- Open Water
- Other "Waters of the U.S."
- Wetland

"Waters of the State"
- Other "Waters of the State"
- Impoundment

2015 Habitat Assessment
- Potentially Jurisdictional Waters

Sources: Insignia, 2015; SCE, 2015

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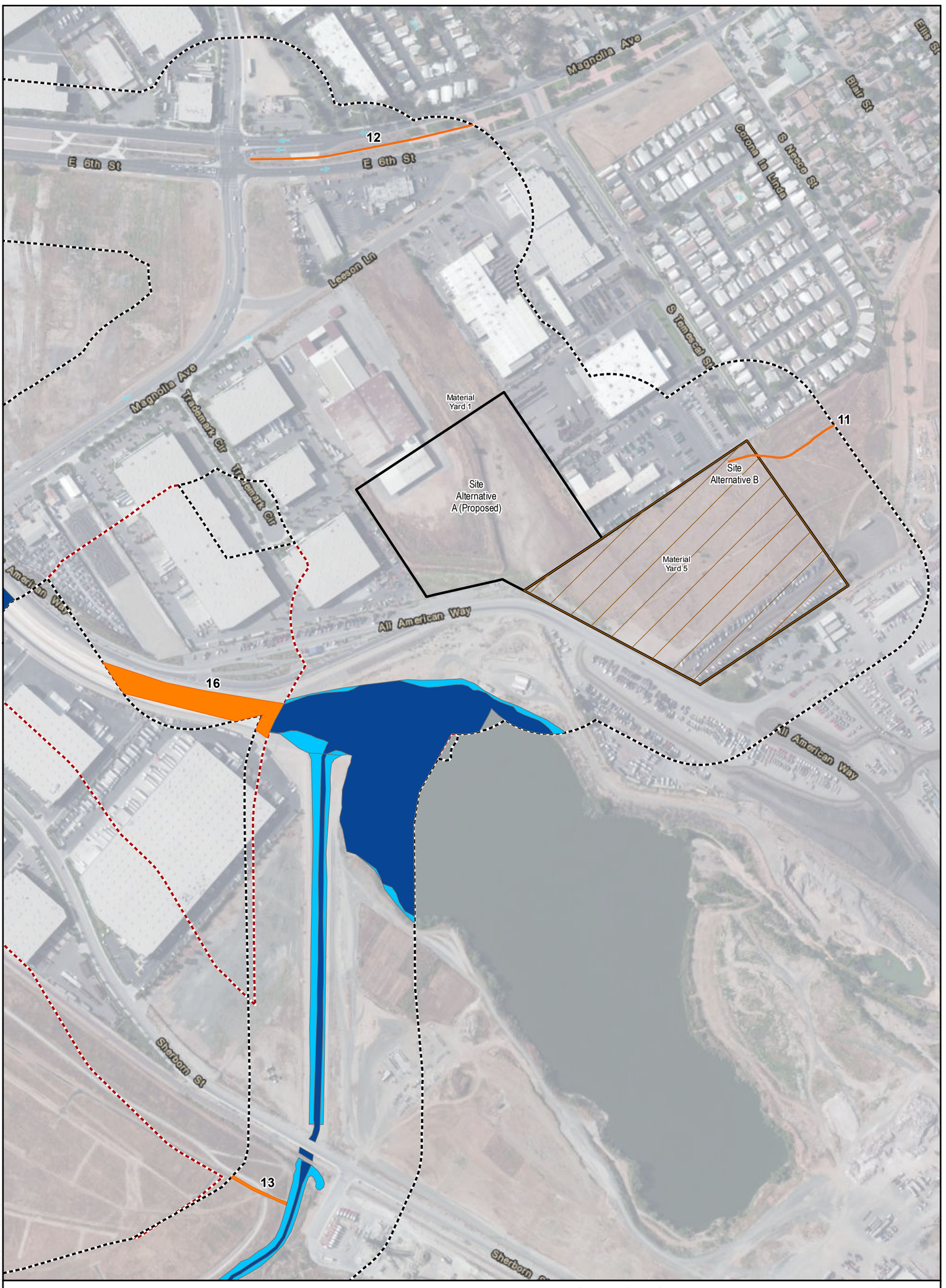

Attachment B: Jurisdictional Resources Map 21 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- Material Yard

2012 Biological Technical Report

"Waters of the U.S."
- Open Water
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- Other "Waters of the State"
- Impoundment

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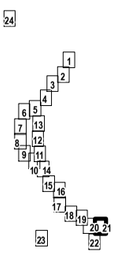
- Potentially Jurisdictional Waters



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Sources: Insignia, 2015; SCE, 2015

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Attachment B: Jurisdictional Resources Map 22 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Substation
2015 Study Area
2012 Study Area
Material Yard

2012 Biological Technical Report

"Waters of the U.S."

Open Water
Other "Waters of the U.S."
Wetland

"Waters of the State"

Other "Waters of the State"
Impoundment

2015 Habitat Assessment

Potentially Jurisdictional Waters

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Sources: Insignia, 2015; SCE, 2015

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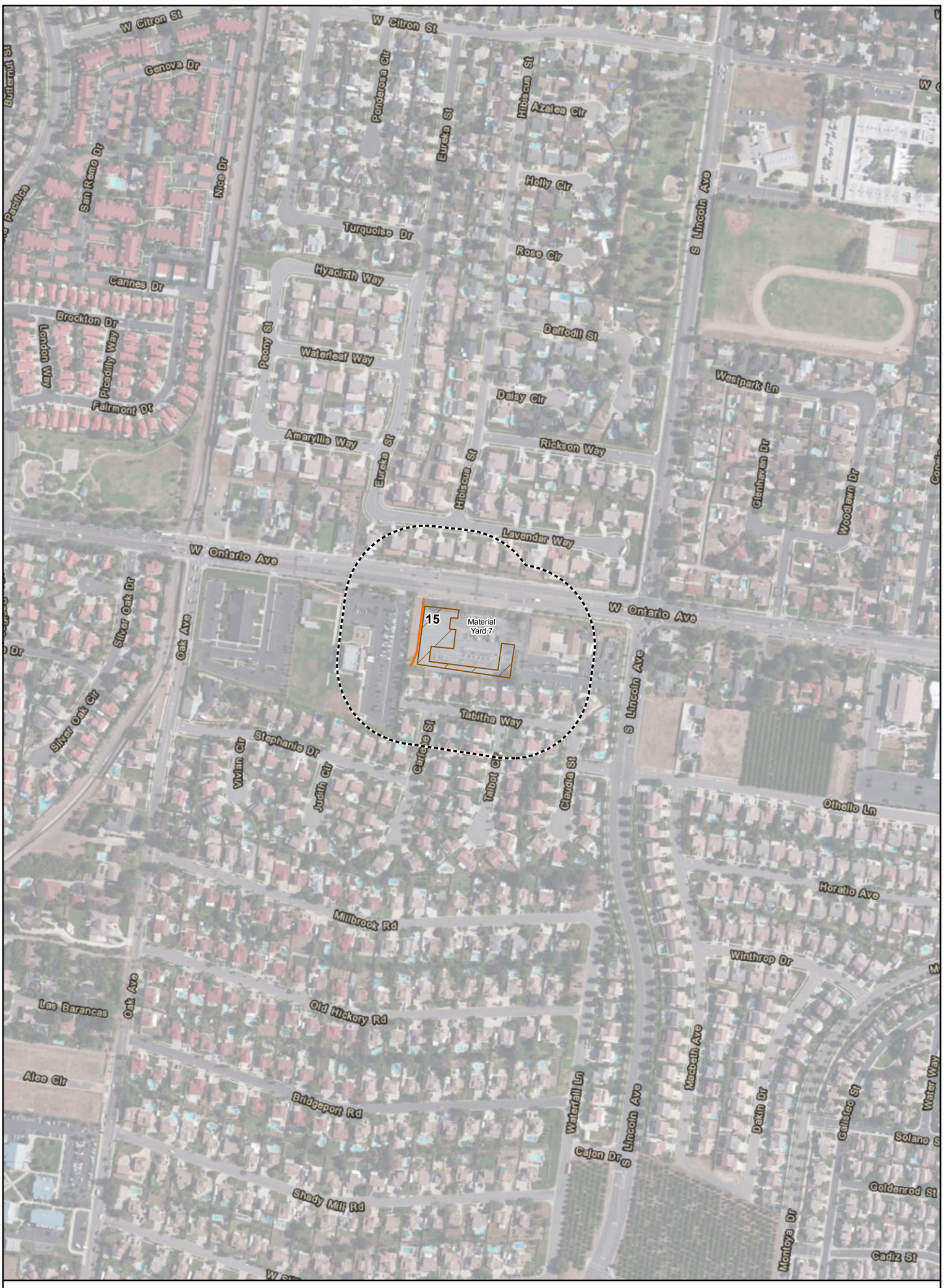

Attachment B: Jurisdictional Resources Map 23 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Substation
2015 Study Area
2012 Study Area
Material Yard

2012 Biological Technical Report
"Waters of the U.S."
Open Water
Other "Waters of the U.S."
Wetland
"Waters of the State"
Other "Waters of the State"
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2015 Habitat Assessment
Potentially Jurisdictional Waters

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Attachment B: Jurisdictional Resources Map 24 of 24

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

- Substation
- 2015 Study Area
- 2012 Study Area
- Material Yard

2012 Biological Technical Report

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Sources: Insignia, 2015; SCE, 2015

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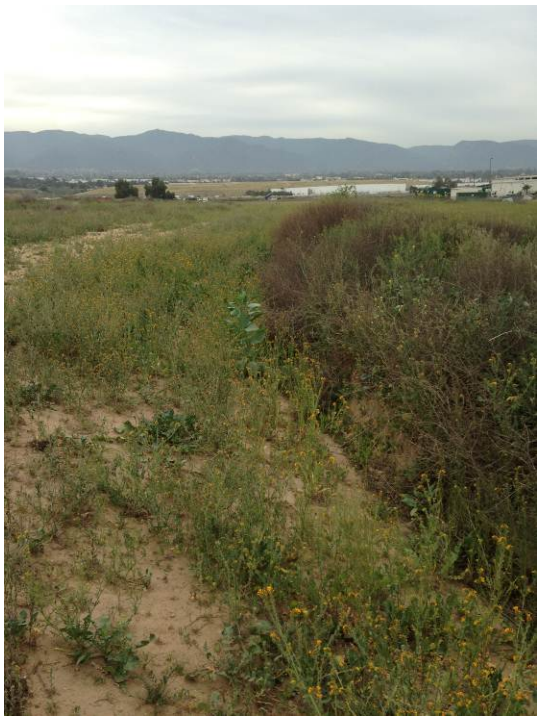
ATTACHMENT C: POTENTIALLY JURISDICTIONAL WATERS – REPRESENTATIVE PHOTOGRAPHS

ATTACHMENT C: POTENTIALLY JURISDICTIONAL WATERS – REPRESENTATIVE PHOTOGRAPHS

Photograph 1:
Feature 8 looking downstream facing southeast

Photograph 2:
Feature 8 looking upstream facing northwest



Photograph 3:
Feature 11 looking downstream facing southwest

Photograph 4:
Feature 11 looking upstream facing northeast

ATTACHMENT D: WILDLIFE SPECIES OBSERVED

ATTACHMENT D: WILDLIFE SPECIES OBSERVED

Reptiles

Red-eared slider	*Trachemys scripta elegans*
Western skink	*Plestiodon skiltonianus*

Birds

Great blue heron	*Ardea herodias*
Snowy egret	*Egretta thulla*
Great egret	*Ardea alba*
Common gallinule	*Gallinula galeata*
Belted kingfisher	*Megaceryle alcyon*
Horned lark	*Eremophila alpestris*
Lesser goldfinch	*Carduelis psaltria*
Barn swallow	*Hirundo rustica*
Great-tailed grackle	*Quiscalus mexicanus*
Red-winged blackbird	*Agelaius phoeniceus*
Osprey	*Pandion haliaetus*
Black necked stilt	*Himantopus mexicanus*
Northern shoveler	*Anas clypeata*
Western grebe	*Aechmophorus occidentalis*
Bufflehead	*Bucephala albeola*
Eared grebe	*Podiceps nigricollis*
Mallard	*Anas platyrhynchos*
Common yellowthroat	*Geothlypis trichas*
Northern flicker	*Colaptes auratus*
Killdeer	*Charadrius vociferus*
Turkey vulture	*Cathartes aura*
Red-tailed hawk	*Buteo jamaicensis*
Red shouldered hawk	*Buteo lineatus*
American kestrel	*Falco sparverius*
American coot	*Fulica americana*
Mourning dove	*Zenaida macroura*
Anna's hummingbird	*Calypte anna*
Black phoebe	*Sayornis nigricans*
Say's phoebe	*Sayornis saya*
Western kingbird	*Tyrannus verticalis*
Loggerhead shrike	*Lanius ludovicianus*
Western scrub-jay	*Aphelocoma californica*
American crow	*Corvus brachyrhynchos*
Common raven	*Corvus corax*
Northern mockingbird	*Mimus polyglottos*
European starling	*Sturnus vulgaris*
Yellow-rumped warbler	*Dendroica coronata*
Song sparrow	*Melospiza melodia*
White-crowned sparrow	*Zonotrichia leucophrys*
House sparrow	*Passer domesticus*
House finch	*Carpodacus mexicanus*

Mammals

Audubon's cottontail	*Sylvilagus audubonii*
California ground squirrel	*Spermophilus beecheyi*
Eastern fox squirrel	*Sciurus niger*
Botta’s pocket gopher	*Thomomys bottae*
Coyote	*Canis latrans*
Raccoon	*Procyon lotor*
Striped skunk	*Mephitis mephitis*