Supplemental Jurisdictional Delineation Report

for the

Mesa 500 kilovolt Substation Project

Prepared for:

SOUTHERN CALIFORNIA EDISON®
An *EDISON INTERNATIONAL*® Company

Prepared by:

INSIGNIA ENVIRONMENTAL

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1 – INTRODUCTION

Southern California Edison Company (SCE) retained Insignia Environmental (Insignia) to review and verify the wetlands and waters on the Mesa 500 kilovolt (kV) Substation Project (Proposed Project) sites, which were previously mapped for the Tehachapi Renewable Transmission Project (TRTP). The Proposed Project area overlaps with portions of Segments 7, 8, 9, and 11 of the TRTP. In addition, Insignia documented any previously unmapped water features that were identified in the Proposed Project area. The Proposed Project area is located primarily in the city of Monterey Park, with additional components in Montebello, Rosemead, South El Monte, Commerce, Bell Gardens, and Pasadena, and in portions of unincorporated Los Angeles.

The purpose of this report is to provide the following:

- A summary of the methods and findings of the TRTP jurisdictional waters and wetlands delineation surveys
- Information regarding any changes to the TRTP findings documented by Insignia during June, September, and December 2014 site visits to the Proposed Project area
- Information on additional water features that were identified in the Proposed Project area

2 – PROJECT OVERVIEW

The main activity associated with the Proposed Project involves the construction of the proposed, approximately 69.4-acre 500/220/66/16 kV Mesa Substation and demolition of the existing, approximately 21.6-acre 220/66/16 kV Mesa Substation on SCE fee-owned property. The proposed Mesa Substation would be a staffed substation operating at 3,360 megavolt-ampere (MVA) with a potential capacity of 4,480 MVA at 500/220 kV, 1,120 MVA at 220/66 kV, and 112 MVA at 66/16 kV. The existing Mesa Substation occupies approximately 21.6 acres, which are within the same approximately 69.4-acre property on which the proposed Mesa Substation would be constructed.

SCE currently operates various 220 kV transmission lines, 66 kV subtransmission lines, 16 kV distribution lines, and telecommunications lines that connect to the existing Mesa Substation. As part of the Proposed Project, SCE would replace existing structures and lines as necessary, to allow these existing circuits to connect to the proposed Mesa Substation configuration. In addition, the Proposed Project involves the loop-in of one existing 500 kV circuit and two existing 220 kV circuits.

An overview of the Proposed Project area is provided in Figure 1: Project Overview Map. The Proposed Project would include the following main components:

- Demolition of the existing Mesa Substation and construction of the proposed Mesa Substation within the City of Monterey Park

- Removal, relocation, modification, and/or construction of transmission, subtransmission, distribution, and telecommunications structures within the cities of Monterey Park,

Montebello, Rosemead, South El Monte, and Commerce, and in portions of unincorporated Los Angeles County

- Conversion of an existing street source line from overhead to underground between three street lights on Loveland Street within the City of Bell Gardens
- Installation of a temporary 220 kV line loop-in at Goodrich Substation within the City of Pasadena

3 – PROJECT BACKGROUND

Prior to the formal wetland delineation conducted by Insignia for the Proposed Project, several formal delineations were conducted for the TRTP that covered the majority of the Proposed Project area. A jurisdictional waters and wetlands delineation survey was conducted for Segment 7 and Segment 8 of the TRTP from September to November 2009 by ICF International (ICF). In addition, ICF conducted jurisdictional waters and wetlands delineation surveys for Segment 11 of the TRTP from November 2009 to July 2010, and also on April 4 and 5, 2011. During these surveys, all wetlands and waters that potentially met the United States (U.S.) Army Corps of Engineers (USACE), State Water Resources Control Board (SWRCB), and California Department of Fish and Wildlife (CDFW) guidance criteria for jurisdictional waters were delineated. An in-depth discussion of the survey methods and results, as well as field data forms and photographs, were previously submitted to the USACE in 2010 with the *Jurisdictional Delineation Report for the Tehachapi Renewable Transmission Project: Segments 7 and 8* and the *Jurisdictional Delineation Report for the Tehachapi Renewable Transmission Project: Segments 6 and 11*. In addition, based on changes to the final engineering design for the TRTP, ICF prepared the *Tehachapi Renewable Transmission Project Segment 11A Goodrich to Mesa Transmission Line Jurisdictional Delineation and Impact Analysis Report*, which documented additional waters and wetlands on Segment 11 of the TRTP.

4 – METHODOLOGY OVERVIEW

4.0 LITERATURE REVIEW

4.0.0 TRTP Wetland Delineations

Before conducting the TRTP wetland delineations, ICF conducted a review of relevant literature pertaining to the TRTP prior to the initiation of the jurisdictional waters and wetlands delineation. The literature review included a review of aerial photographs of the TRTP, as well as U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles to identify potential drainage features in the TRTP survey area based on site characteristics, such as changes in vegetation types, topographic changes, or visible drainage patterns. In addition, ICF reviewed the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey soil survey maps (NRCS 2014). During this review, it was determined that specific soil series were not available throughout much of the TRTP alignment. Therefore, ICF was unable to determine if any soil series mapped on the Field Office Official List of Hydric Soil Map Units were present. More general soil information was obtained from the State Soil Geographic Database.

Temporary 220 kV line loop-in at Goodrich Substation

Mesa Substation and associated transmission, subtransmission, distribution, and telecommunications lines

New telecommunications line from transmission tower M40-T3 to Mesa Substation

New telecommunications line from transmission tower M38-T5 to Mesa Substation

Telecommunications line re-route between Mesa and Harding substations

Replacement of an existing lattice steel tower on the Goodrich-Laguna Bell 220 kV Transmission Line

Street light source line conversion from overhead to underground within Loveland Street

Figure 1:
Project Overview Map
Mesa 500 kV Substation Project

Main Component Study Areas

- Mesa Substation Study Area
- Proposed Telecommunications Study Area
- Goodrich Substation Study Area
- Goodrich-Laguna Bell 220 kV Tower Replacement Study Area
- Distribution Street Light Undergrounding Study Area

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4.0.1 Insignia Wetland Delineation

Before conducting the wetland delineation for the Proposed Project area in June, September, and December 2014, Insignia biologists reviewed U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory maps (USFWS 2014) and color aerial photographs (both recent and past) of the survey area and surrounding area. In order to verify the wetlands and waters that were documented for the TRTP, Insignia conducted a review of relevant literature pertaining to the Proposed Project prior to the site visit. The literature review included an analysis of the following reports (hereafter referred to as the "TRTP reports"):

- *Revised Biological Specialist Report for the Tehachapi Renewable Transmission Project*
- *Jurisdictional Delineation Report for the Tehachapi Renewable Transmission Project: Segments 7 and 8*
- *Jurisdictional Delineation Report for the Tehachapi Renewable Transmission Project: Segments 6 and 11*
- *Tehachapi Renewable Transmission Project Segment 11A Goodrich to Mesa Transmission Line Jurisdictional Delineation and Impact Analysis Report*, which documented additional waters and wetlands on Segment 11 of the TRTP

The biologists also reviewed the soil survey of the study area from the USDA NRCS Web Soil Survey (NRCS 2014) in the El Monte and Mount Wilson USGS 7.5-minute quadrangles. The following USGS topographic maps were also reviewed for historical hydrological information:

- Pasadena (1896, 1900)
- Los Angeles (1894, 1900, 1949, 1955, 1959, 1966, 1975, 1979)
- Southern California Sheet No 1 (1901, 1904)
- Alhambra (1924, 1926)
- El Monte (1953, 1966, 1972, 1981, 1991, 1994)
- Sierra Madre (1928, 1933, 1941)
- Mount Wilson (1953, 1966, 1972, 1988, 1991, 1995)

4.1 JURISDICTIONAL DELINEATION AND VERIFICATION

4.1.0 Tehachapi Renewable Transmission Project Wetland Delineations

ICF wetland biologists performed the field investigation for the delineation from September to November 2009; November 2009 to July 2010; and on April 4 and 5, 2011. The delineation was conducted in accordance with the USACE's *Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Supplement) (USACE 2008a). During the delineation work, the TRTP was evaluated to identify wetlands and waters and their connection to off-site hydrological resources. Wetlands were identified by observing the presence of wetland parameters, including hydrophytic vegetation, wetland hydrology, and hydric soils. Waters were delineated by identifying the ordinary high water mark (OHWM) of the feature, the top of bank (TOB), and if applicable, the extent of riparian vegetation. Data was recorded on wetland field

data forms, and a submeter-accurate Global Positioning System (GPS) unit was used to record the boundaries and/or centerlines of the wetlands and waters.

4.1.1 Insignia Wetland Delineation

A preliminary jurisdictional wetland delineation of the Proposed Project area was conducted by the following Insignia biologists on the following dates:

- June 3 and 4, 2014 by Isabelle de Geofroy and Lauren Huff
- June 18 and 19, 2014 by Lauren Huff
- September 4 and 5, 2014 by Lauren Huff and Sheryl Creer
- December 15 through December 18, 2014 by Isabelle de Geofroy and Christina Sousa

The purpose of the delineation was to verify the jurisdictional waters and wetlands identified for the TRTP and to document any additional waters and wetlands in the Proposed Project area. The wetland delineation was conducted according to the USACE's *Wetlands Delineation Manual* (Environmental Laboratory 1987) in conjunction with the Arid West Supplement (USACE 2008a). Nomenclature used for plant names follows *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin 2012). Nomenclatural changes made after the publication date of this manual follow the Jepson eFlora (2014) website. Vegetation, hydrology, and soils information were taken at 12 data points to verify the boundaries of the wetlands identified in the Proposed Project site. Data points were mapped using a Trimble Pro-XR GPS unit with submeter accuracy. The delineation map was made from the GPS files using ArcMap 10.1. All spatial data were projected into the California State Plane, NAD 83 coordinate system, Zone 5. Using GPS technology, the boundaries (within 30 inches) of each delineated wetland were transferred to an aerial photograph of the Proposed Project area.

For an area to be defined as a wetland under normal circumstances, the USACE's routine on-site determination methods call for the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. Evidence supporting the jurisdictional determination at each data point was recorded on field data forms. Photographs were also taken at each data point.

The vegetation communities and descriptions documented in the TRTP reports were confirmed. The location, OHWM width (if applicable), and TOB width (if applicable) of all water features observed were recorded using a submeter-accurate GPS unit. For the sake of consistency, nomenclature from the TRTP delineation reports was used to identify the mapped features. For this reason, 2 of the 8 drainages have been mapped into segments. One ephemeral drainage has been mapped as three segments with feature identification (ID) numbers 7-38-S-1, 7-39-S-1, and 11-138-S-100. A second ephemeral drainage has been mapped as two segments, with feature ID numbers 11-136-S-100 and 11-136-S-101.

A preliminary wetland delineation map and a Request for an Approved Jurisdictional Determination were prepared in compliance with the following USACE documents:

- The 2001 Minimum Standards for Acceptance for Preliminary Delineations
- The 2007 Jurisdictional Determination Form Instructional Guidebook
- The 2012 Final Map and Drawing Standards for the South Pacific Division Regulatory Program

5 – RESULTS

5.0 ENVIRONMENTAL SETTING

The Proposed Project is located within the Los Angeles River Hydrological Unit. The elevation of the Proposed Project ranges from 130 feet to 750 feet above mean sea level, with the lower elevations in the southwest portion of the Proposed Project area, and the higher elevations at the northeast portion of the Proposed Project area. Between 1981 and 2010, rainfall records from the nearest climatological station (which is in the City of Montebello) to the Proposed Project area show an average annual rainfall of approximately 15.3 inches. Between 1981 and 2010, the average annual temperature for this area was approximately 67.4 degrees Fahrenheit (°F), with a minimum temperature of 55.4°F and a maximum temperature of 79.4°F.

Vegetation community descriptions and their locations within the TRTP survey boundaries were taken from the TRTP analysis provided in the *Revised Biological Specialist Report for the Tehachapi Renewable Transmission Project.* Vegetation communities were added or revised by Insignia following surveys. The majority of the plant communities were characterized according to R.F. Holland's *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986). The remaining plant communities were characterized by TRTP or by Insignia. Vegetation communities that were observed during the 2014 field visits include the following:

- California annual grassland
- California walnut woodland
- Coast live oak woodland
- Coastal sage scrub
- Disturbed/developed areas
- Mulefat scrub
- Non-native giant reed
- Non-native woodland
- Riparian woodland
- Ruderal
- Southern sycamore-alder riparian woodland
- Ephemeral drainages
- Intermittent drainage
- Man-induced wetlands

Riparian vegetation generally consisted of native species (e.g., willow [*Salix* spp.] and mulefat [*Baccharis salicifolia*]) and non-native species (e.g., Brazilian pepper tree [*Schinus terebinthifolius*], date palm [*Phoenix dactylifera*], English walnut [*Juglans regia*], Chinese elm [*Ulmus parvifola*], and Mexican fan palm [*Washingtonia robusta*]).

5.1 WETLANDS AND WATERS

A preliminary wetland delineation map of the Proposed Project area is depicted in Attachment A: Preliminary Wetland Delineation Map. Photographs of hydrological features are included as Attachment B: Photographs of Hydrological Features. No jurisdictional waters were identified by Insignia on the Goodrich Substation site. On the Mesa Substation site, Insignia biologists visited

20 water features previously documented for the TRTP. Of these, field conditions for 15 features were different than described in the TRTP reports. In addition, Insignia mapped 17 new water features in the portion of the Proposed Project area that was outside of the original TRTP survey area. Table 1: Wetlands and Waters provides the following information:

- A description of each wetland and water feature described in the TRTP reports
- A description of each wetland and water feature documented by Insignia during the June, September, and December 2014 site visits
- A description of any additions and changes to the wetlands and waters observed by Insignia since the preparation of the TRTP reports
- Information regarding the acreage of wetlands and waters that fall within the jurisdiction of the USACE, SWRCB, and/or CDFW in the TRTP reports

Table 1: Wetlands and Waters

Feature Number	Insignia Mapbook Page(s) (TRTP Mapbook Page[s][1])	Approximate Jurisdiction Insignia Estimate (TRTP Estimate) (Acres)			Insignia Vegetation Type Description (TRTP Vegetation Type Description)	Insignia Feature Type (TRTP Feature Type)	Insignia Description	Insignia Verification (Change/No Change from TRTP Conditions)
		CDFW	USACE	SWRCB				
7-39-S-7	1, 2 (Not Applicable [N/A])	N/A (N/A)	N/A (N/A)	N/A (N/A)	Non-native woodland (Not described)	Man-made ditch (Not described)	This feature is a man-made concrete-lined ditch that collects direct precipitation and runoff. This ditch drains into the storm water system.	**Change.** This is a new feature that was not previously identified in the TRTP reports.
7-39-S-5	2 (N/A)	0.24 (N/A)	0.04 (N/A)	0.04 (N/A)	Ruderal/Disturbed/ Developed (Not described)	Ephemeral drainage (Not described)	This feature is an ephemeral drainage surrounded by disturbed riparian woodland. Water enters this feature through a large box culvert under Via Campo Road. This feature continues to flow southwest and across an existing access road via sheet flow. To the west of the access road, the drainage is ephemeral. The drainage exits the Proposed Project area to the west under a fence. A retaining wall was constructed on the east bank of this drainage just east of the existing access road. The average OHWM width for this feature is approximately 2 feet. The average OHWM depth for this feature is approximately 2 inches. The average TOB width for this feature is approximately 10 feet. The average TOB depth for this feature is approximately 5 feet.	**Change.** This is a new feature that was not previously identified in the TRTP reports because it is outside the limits of the TRTP survey area.
11-94-S-5	3, 4, 6, 7 (11-93, 94)	1.16 (N/A)	0.27 (N/A)	0.27 (N/A)	Disturbed/Developed/ Riparian-disturbed/ Non-native woodland (Not described)	Ephemeral drainage (Not described)	This drainage is depicted as intermittent on the 1924 USGS topographic maps. Historically, the drainage connected to the Los Angeles River. The 1981 USGS topographic map for El Monte also depicts this drainage, which has since been partially channelized where it parallels the Mesa Substation footprint. The western portion of the drainage is dirt-lined and is surrounded by ornamental/non-native vegetation. This drainage is fed by runoff from Mesa Substation via a man-made ditch (Feature 11-94-S-1). It also receives runoff from Potrero Grande Drive, surrounding lands, and direct precipitation. It flows northeast to southwest, where it closely follows the perimeter of the substation footprint. To the west of Mesa Substation, the drainage flows through a series of culverts under SCE access roads, and into a culvert under East Markland Drive. It then continues to the west of East Markland Drive where it meets a raised landform and dissipates.	**Change.** The conditions of this feature were verified to be similar to those described in the TRTP reports. However, this drainage was combined with 11-94-S-1. This portion of the drainage is not concrete-lined and appears to be historical.

[1] TRTP mapbook page numbers starting with “7-” are taken from ICF 2010b; pages starting with “11-” are taken from ICF 2010a; and pages starting with “11A-” are taken from ICF 2011.

Feature Number	Insignia Mapbook Page(s) (TRTP Mapbook Page[s][1])	Approximate Jurisdiction Insignia Estimate (TRTP Estimate) (Acres)			Insignia Vegetation Type Description (TRTP Vegetation Type Description)	Insignia Feature Type (TRTP Feature Type)	Insignia Description	Insignia Verification (Change/No Change from TRTP Conditions)
		CDFW	USACE	SWRCB				
11-94-S-2	3, 4, 6 (N/A)	0.05 (N/A)	0.02 (N/A)	0.02 (N/A)	Disturbed/Developed/ Non-native woodland (Not described)	Ephemeral drainage (Not described)	This feature is an ephemeral drainage that enters the Proposed Project area at Potrero Grande Drive and flows south until it connects with Feature 11-94-S-1. The feature is surrounded by ornamental vegetation. The average OHWM width for this feature is approximately 2 feet. The average OHWM depth for this feature is approximately 2 inches. The average TOB width for this feature is approximately 7 feet. The average TOB depth for this feature is approximately 3 feet.	**Change.** This feature was not described in the TRTP reports; however, it was mapped during the TRTP surveys as an "Other Potential (Avoid)" feature.
7-38-S-1 7-39-S-1 11-138-S-100	4, 7, 8 (7-43, 7-45, 11A-136)	0.13 (0.077)	0.01 (0.035)	0.01 (0.035)	Disturbed/Developed (Unvegetated/Disturbed and/or developed)	Ephemeral drainage (Concrete ephemeral drainage)	This drainage is a concrete-lined, constructed drain fed by runoff from the adjacent nursery and parking lot, and by direct precipitation. It flows southwest and empties into a culvert under Greenwood Avenue, discharging directly into 7-39-S-1.	**No Change.** This feature was verified to be similar to the conditions described in the TRTP reports.
		0.81 (0.514)	0.08 (0.049)	0.08 (0.049)	Ruderal (California annual grassland)	Ephemeral drainage (An urban canyon intermittent drainage that is unvegetated in portions and contains riprap with concrete in portions. This portion of the drainage has an adjacent wetland.)	This drainage is a continuation of Feature 7-38-S-1, and is depicted as intermittent on historical USGS topographic maps as far back as 1924. In the 1981 USGS topographic map for El Monte, this drainage is no longer mapped. It receives runoff from surrounding lands; direct precipitation; and, farther downstream, man-made ditch 11-94-S-1 and drainages 7-39-S-2 and 7-39-S-3. At the southwest corner of the Mesa Substation footprint, this drainage continues as Feature 11-138-S-100. The drainage is dirt-bottomed, but highly manipulated in places. Mulefat is growing intermittently along this drainage.	**Change**. This feature was completely dry at the time of the June 2014 site visit and was documented as an ephemeral drainage instead of an intermittent drainage. It is likely that hydrological conditions at the Proposed Project area have changed since this feature was described for the TRTP reports. In addition, TOB measurements may be different than those calculated for the TRTP reports.
		0.17 (0.154)	0.06 (0.06)	0.06 (0.06)	Disturbed/Developed (Ruderal-castor bean dominated)	Ephemeral drainage (Ephemeral drainage)	This feature is a manipulated ephemeral drainage. Feature 7-39-S-1 drains into this feature via two approximately 4-foot-diameter corrugated metal pipe (CMP) culverts. Two approximately 5-foot-diameter CMP culverts convey water downstream from this feature under an existing access road. This feature extends off site along the southern boundary of the Proposed Project area.	**Change.** This feature was verified to be similar to the conditions described in the TRTP reports. However, the feature extends farther west than the feature provided in the TRTP reports.
7-39-S-1	-- (7-45)	N/A (0.043)	N/A (N/A)	N/A (N/A)	Mulefat scrub (Mulefat scrub)	N/A (Riparian canopy)	The vegetation at the northern portion of the drainage is disturbed mulefat scrub.	**Change.** This vegetation was verified to be similar to the conditions described in the TRTP reports. However, the mulefat scrub is highly disturbed and sparse.

Feature Number	Insignia Mapbook Page(s) (TRTP Mapbook Page[s][1])	Approximate Jurisdiction Insignia Estimate (TRTP Estimate) (Acres)			Insignia Vegetation Type Description (TRTP Vegetation Type Description)	Insignia Feature Type (TRTP Feature Type)	Insignia Description	Insignia Verification (Change/No Change from TRTP Conditions)
		CDFW	USACE	SWRCB				
7-39-S-6	3 (N/A)	0.04 (N/A)	0.03 (N/A)	0.03 (N/A)	Disturbed/Developed (Not described)	Ephemeral drainage (Not described)	This feature is an ephemeral drainage. An approximately 3-foot-diameter CMP culvert is located at the east end of the drainage; however, the culvert does not appear to connect this feature to another water feature. This is likely due to ground disturbance in the area surrounding the feature. The feature extends to the west and connects to Feature 11-138-S-100. The average OHWM width for this feature is approximately 2 feet. The average OHWM depth for this feature is approximately 3 inches. The average TOB width for this feature is approximately 6 feet. The average TOB depth for this feature is approximately 1.5 feet.	**Change.** This feature was not described in the TRTP reports; however, it was mapped during the TRTP surveys as an "Other Potential (Avoid)" feature.
7-39-S-1	-- (7-45)	-- (0.050)	N/A (N/A)	N/A (N/A)	Ruderal (Ruderal wetland/ Disturbed and/or developed)	N/A (Riparian canopy)	Ruderal vegetation was observed along the majority of this drainage.	**Change.** This vegetation was verified to be similar to the conditions described in the TRTP reports. However, the vegetation is highly disturbed and sparse.
7-39-W-1	-- (7-45)	- (0.117)	N/A (0.117)	N/A (0.117)	N/A (Mulefat scrub)	Ephemeral drainage (Wetland associated with Feature 7-39-S-1)	The data point for this wetland was taken by ICF within Feature 7-39-S-1 where ponding occurs immediately downstream of a culvert that carries water from Feature 7-38-S-1 under Greenwood Avenue. The soils in this area were dry. In addition, there was no vegetation in the sample area. The previous description for Feature 7-39-S-1 provides more information.	**Change.** Conditions at this feature were verified to be similar to those described in the TRTP reports. However, this feature is part of ephemeral drainage 7-39-S-1.
11-94-S-1	4, 5, 6, 7 (11A-135, 136)	(N/A) (1.095)	(N/A) (0.371)	(N/A) (0.371)	Non-native woodland/ Disturbed/Developed/ Ruderal (Ornamental)	Man-made ditch (Ephemeral drainage)	This feature is a concrete perimeter drain constructed along the northern, eastern and southern borders of Mesa Substation, capturing and diverting storm water runoff from the substation. The drain is bifurcated on the eastern side of the substation, and runoff is discharged from northern and southern locations. Beyond these two discharge points run off is carried within separate earthen channels, both draining to the southwest. The northernmost channel retains the label 11-94-S-1, while the southern channel confluences with the southern reach of channel 7-39-S-1, described above. Runoff from the perimeter drain is discharged from the southern portion of the drain, where it confluences with Feature 7-39-S-1 and continues in the feature labeled7-39-S-1. Adjacent vegetation is ornamental, non-native woodland.	**Change.** The conditions of this feature were verified to be similar to those described in the TRTP reports. However, the TRTP reports combined the man-made portion of this ditch with the historical ephemeral drainage. This ditch is separate from Feature 11-94-S-5.

Feature Number	Insignia Mapbook Page(s) (TRTP Mapbook Page[s][1])	Approximate Jurisdiction Insignia Estimate (TRTP Estimate) (Acres)			Insignia Vegetation Type Description (TRTP Vegetation Type Description)	Insignia Feature Type (TRTP Feature Type)	Insignia Description	Insignia Verification (Change/No Change from TRTP Conditions)
		CDFW	USACE	SWRCB				
7-39-S-2	4, 5 (7-45)	0.35 (0.224)	0.05 (0.082)	0.05 (0.082)	Riparian woodland-disturbed/ Disturbed/Developed (California annual grassland/ Ruderal grassland)	Ephemeral drainage (An urban canyon intermittent drainage that contains riprap with concrete)	Flows from this drainage enter the Proposed Project area from the south, then travel via sheet flow to the northwest across an SCE access road. The drainage then becomes channelized and flows through a culvert to the west, where it connects to Feature 7-39-S-1. This drainage is fed by runoff from the landfill south of State Route 60, from direct precipitation, and from surrounding lands. The southern portion of Feature 7-39-S-2 is concrete- and riprap-lined in places, and dirt-lined in its eastern reach. The drainage supports riparian canopy mostly comprised of non-native trees and shrubs.	**Change.** This feature was completely dry at the time of the June 2014 site visit and was documented as an ephemeral drainage instead of an intermittent drainage. It is likely that hydrological conditions at the Proposed Project area have changed since this feature was described in the TRTP reports.
7-39-S-2	N/A (7-45)	N/A (0.117)	N/A (0.000)	N/A (0.117)	Ruderal (Ruderal wetland/ Ruderal grassland)	Ephemeral drainage (An urban canyon intermittent drainage that is densely vegetated with a mix of non-native and native riparian vegetation)	Ruderal vegetation was observed along the majority of this drainage.	**No Change.** This vegetation was verified to be similar to the conditions described in the TRTP reports.
7-39-S-3	5, 7 (7-43, 45)	0.35 (0.010)	0.34 (0.000)	0.34 (0.002)	Disturbed/Developed (Unvegetated/ Ruderal grassland)	Ephemeral drainage (An urban canyon intermittent drainage channel with a sandy bottom and concrete rubble)	Flows from this drainage enter the Proposed Project area via a culvert from a landfill to the southeast and empty into Feature 7-39-S-3. A portion of the drainage immediately downstream from the first culvert is lined with riprap and concrete. The remainder of the drainage is dirt-lined. This drainage is fed by runoff via a culvert from the landfill across Greenwood Avenue, from surrounding lands, and from direct precipitation. Mule fat is scattered along the dirt-lined portion of this drainage.	**Change.** This feature was completely dry during the June 2014 site visit and was documented as an ephemeral drainage instead of an intermittent drainage. Hydrological conditions near this feature have changed since this feature was described in the TRTP reports because the eastern slope above the drainage is no longer subject to irrigation. In addition, it is likely a USACE-jurisdictional feature because an OHWM is present throughout the majority of the drainage, water flows into this feature through a culvert under Greenwood Avenue, and the feature is connected to Feature 7-39-S-1.
7-39-S-3	5, 7 (7-43, 45)	N/A (0.046)	N/A (0.000)	N/A (0.024)	N/A (Ruderal wetland/ Ruderal grassland)	N/A (An urban canyon intermittent drainage that is sparsely vegetated with mostly non-native riparian vegetation)	See previous description.	See previous description.

Feature Number	Insignia Mapbook Page(s) (TRTP Mapbook Page[s][1])	Approximate Jurisdiction Insignia Estimate (TRTP Estimate) (Acres)			Insignia Vegetation Type Description (TRTP Vegetation Type Description)	Insignia Feature Type (TRTP Feature Type)	Insignia Description	Insignia Verification (Change/No Change from TRTP Conditions)
		CDFW	USACE	SWRCB				
7-39-W-2	5, 7 (7-43, 45)	N/A (0.120)	N/A (0.120)	N/A (0.120)	N/A (Mulefat scrub)	N/A (Wetland associated with Feature 7-39-S-2)	This area does not appear to be a wetland. The TRTP data sheet states that at the time of the September 2009 delineation, the eastern slope of the drainage was subject to irrigation associated with slope revegetation efforts. At the time of the June 2014 site visit, the irrigation system was no longer in place, and no hydrology or evidence of water ponding was observed in this area. Therefore, this area was determined to be a part of the drainage and is no longer considered a wetland. The previous description for Feature 7-39-S-3 provides more information.	**Change.** This wetland is no longer present. Hydrological conditions near this feature have changed since the feature was described in the TRTP reports. The eastern slope above the drainage is no longer subject to irrigation. This area should be remapped to be a part of Feature 7-39-S-3.
7-39A-S-2	5, 7 (N/A)	N/A (N/A)	N/A (N/A)	N/A (N/A)	Disturbed/Developed (Not described)	Erosional channel (Not described)	This feature is an erosional feature that has no connectivity to any other feature.	**N/A.** This feature was mapped during the TRTP delineations; however, it was not described in the TRTP reports. This feature is not USACE-jurisdictional because it is an erosional feature that drains wholly within an upland and is not connected to another water feature.
11-135-S-101	6 (11A-135)	N/A (0.015)	N/A (0.008)	N/A (0.008)	Developed/Disturbed/ Non-native woodland (Disturbed/Developed)	Man-made ditch (Ephemeral drainage)	This feature is a concrete man-made ditch. The feature runs along the top of a steep slope at the base of a row of ornamental trees. The feature collects runoff from the slope and directs it down into a storm drain along Potrero Grande Drive.	**Change.** This feature was verified to be similar to the conditions described in the TRTP reports. However, it is a man-made ditch and is therefore non-jurisdictional.
11-135-S-102	6 (11A-135)	N/A (0.061)	N/A (0.020)	N/A (0.020)	Disturbed/Developed (Disturbed/Developed)	Man-made ditch (Ephemeral drainage)	This feature is a concrete man-made ditch that collects runoff from a parking lot to the north of the Proposed Project area and directs it to a storm drain along Potrero Grande Drive.	**Change.** This feature was verified to be similar to the conditions described in the TRTP reports. However, it is a man-made ditch and is therefore non-jurisdictional.
11-136-S-100	7, 11 (11A-135)	0.11 (0.046)	0.02 (0.052)	0.02 (0.052)	Disturbed/Developed (Ruderal grassland/ Non-native woodland)	Ephemeral Drainage (Ephemeral drainage)	The southern portion of this drainage is a concrete ephemeral drainage. An approximately 3-foot-diameter concrete culvert carries water out of the Proposed Project area under Saturn Street. The upstream portion of this drainage appears to be an eroded ephemeral gully. Water from the gully passes under an existing access road through an approximately 2-foot-diameter CMP. OHWM and TOB measurements may be different than calculated for the TRTP reports. The northern portion of this drainage also contains riparian woodland.	**Change.** This feature was verified to be similar to the conditions described in the TRTP reports. However, Insignia's OHWM and TOB measurements may be different than what was calculated for the TRTP reports.
11-136-S-101		0.12 (N/A)	0.02 (N/A)	0.02 (N/A)	Disturbed/Developed (Not described)	Ephemeral drainage (Not described)	This drainage is a continuation of Feature 11-136-S-100, north of Saturn Street. This drainage is dirt-lined and is associated with a dense riparian canopy of black elderberry (*Sambucus nigra* ssp. *caerulea*), mulefat, Mexican fan palm, and Brazilian pepper tree. It exits the site to the south via a culvert at Potrero Grande Drive. Although the culvert outlet could not be located, the drainage most likely empties into a storm drain that appears to flow into the Rio Hondo and eventually into the Los Angeles River.	**Change.** This feature was not mapped in the TRTP reports.

Feature Number	Insignia Mapbook Page(s) (TRTP Mapbook Page[s][1])	Approximate Jurisdiction Insignia Estimate (TRTP Estimate) (Acres)			Insignia Vegetation Type Description (TRTP Vegetation Type Description)	Insignia Feature Type (TRTP Feature Type)	Insignia Description	Insignia Verification (Change/No Change from TRTP Conditions)
		CDFW	USACE	SWRCB				
11-134-S-100	8, 13, 15 (11-134)	N/A (0.034)	N/A (0.011)	N/A (0.011)	Ruderal (Ruderal grassland)	Man-made ditch (Ephemeral drainage)	This feature is a concrete man-made ditch. Concrete was broken or absent on portions of the ditch. The southern portion of this drainage passes under an existing access road via an approximately 2-foot-diameter CMP culvert. The downstream portion of this drainage exits the Proposed Project area via an approximately 2-foot-diameter CMP culvert.	**Change.** This feature was verified to be similar to the conditions described in the TRTP reports. However, it is a man-made ditch and is therefore non-jurisdictional.
Wetland (W) 1	8 Not Applicable (N/A)	N/A (N/A)	N/A (N/A)	N/A (N/A)	N/A (Not described)	Man-induced wetland (Not described)	This water feature appears to have developed as a result of a leaking underground irrigation pipe associated with Mejia's Nursery. A Mejia's Nursery employee stated that the pipe will be repaired. This feature contained a small amount of standing water, supporting wetland vegetation that included tall flatsedge (*Cyperus eragrostis*), broad-leaved cattail (*Typha latifolia*), and hairy willowherb (*Epilobium ciliatum*).	**Change.** This is a new feature that was not previously identified in the TRTP reports.
W2	8 (N/A)	N/A (N/A)	N/A (N/A)	N/A (N/A)	N/A (Not described)	Man-induced wetland (Not described)	This water feature appears to have developed as a result of a leaking underground irrigation pipe associated with Mejia's Nursery. A Mejia's Nursery employee stated that the pipe will be repaired. This feature supports wetland vegetation, including tall flatsedge, broad-leaved cattail, broadleaf pepperweed (*Lepidium latifolium*), and hairy willowherb.	**Change.** This is a new feature that was not previously identified in the TRTP reports.
W5	8 (N/A)	N/A (N/A)	N/A (N/A)	N/A (N/A)	N/A (Not described)	Man-induced wetland (Not described)	This water feature appears to have developed as a result of a leaking underground irrigation pipe associated with Mejia's Nursery. A Mejia's Nursery employee stated that the pipe will be repaired. This feature contained standing water. In addition, wetland vegetation was present, including tall flatsedge, broadleaf peppergrass, rabbit's-foot grass (*Polypogon monspeliensis*), and hairy willowherb.	**Change.** This is a new feature that was not previously identified in the TRTP reports.
W3	8 (N/A)	N/A (N/A)	N/A (N/A)	N/A (N/A)	N/A (Not described)	Man-induced wetland (Not described)	This water feature appears to have developed as a result of a leaking underground irrigation pipe associated with Mejia's Nursery. A Mejia's Nursery employee stated that the pipe will be repaired. This feature supports wetland vegetation, including tall flatsedge, broad-leaved cattail, broadleaf pepperweed, and hairy willowherb.	**Change.** This is a new feature that was not previously identified in the TRTP reports.
W4	8 (N/A)	N/A (N/A)	N/A (N/A)	N/A (N/A)	N/A (Not described)	Man-induced wetland (Not described)	This water feature appears to have developed as a result of a leaking underground irrigation pipe associated with Mejia's Nursery. A Mejia's Nursery employee stated that the pipe will be repaired. This feature contained standing water. In addition, wetland vegetation was present, including tall flatsedge, broadleaf peppergrass, rabbit's-foot grass, and hairy willowherb.	**Change.** This is a new feature that was not previously identified in the TRTP reports.

Feature Number	Insignia Mapbook Page(s) (TRTP Mapbook Page[s][1])	Approximate Jurisdiction Insignia Estimate (TRTP Estimate) (Acres)			Insignia Vegetation Type Description (TRTP Vegetation Type Description)	Insignia Feature Type (TRTP Feature Type)	Insignia Description	Insignia Verification (Change/No Change from TRTP Conditions)
		CDFW	USACE	SWRCB				
7-37-S-1	10 (7-42)	N/A (0.014)	N/A (0.014)	N/A (0.014)	Ruderal (Ruderal grassland)	Erosional channel (Incised ephemeral drainage)	This is an erosional feature that drains road runoff. The feature appears to end downhill, and no connectivity to another feature was observed during the June 3 and 4, 2014 site visit.	**Change.** This is an erosional feature that is not USACE-jurisdictional because it drains wholly within an upland, carries road runoff during significant storm events, and is not connected to another water feature.
11-136-S-102 11-136-S-103	11, 12 (N/A)	N/A (N/A)	N/A (N/A)	N/A (N/A)	Ruderal (Not described)	Man-made ditch (Not described)	This man-made ditch drains runoff from a residential area. It flows south, down a disturbed terraced hillside and drains into Feature 11-136-S-103. This man-made ditch flows west to east, parallel to a dirt access road. It is partially lined with cement and carries runoff from a disturbed terraced hillside and residential area.	**Change.** This is a new feature that was not previously identified in the TRTP reports because it is outside the limits of the TRTP survey area.
11-136-S-105	11, 12 (N/A)	N/A (N/A)	N/A (N/A)	N/A (N/A)	Ruderal (Not described)	Man-made ditch (Not described)	This man-made ditch drains runoff from a disturbed terraced hillside. It flows northwest to southeast.	**Change.** This is a new feature that was not previously identified in the TRTP reports because it is outside the limits of the TRTP survey area.
11-136-S-104	11, 12 (N/A)	N/A (N/A)	N/A (N/A)	N/A (N/A)	Ruderal (Not described)	Man-made ditch (Not described)	This man-made ditch flows northeast to southwest, draining a disturbed terraced hillside.	**Change.** This is a new feature that was not previously identified in the TRTP reports because it is outside the limits of the TRTP survey area.
7-39-S-10 7-39-S-9 7-39-S-8	25	N/A (N/A)	N/A (N/A)	N/A (N/A)	Non-native woodland (Not described)	Man-made ditch (Not described)	Feature 7-39-S-8 is a concrete- and riprap-lined ditch that drains runoff from a landfill. This feature flows from east to west, through a culvert under a dirt access road, and drains into Feature 7-39-S-9. This feature then flows from northeast to southwest, and converges with Feature 7-39-S-10 into the storm drain system. Feature 7-39-S-10 is a concrete-lined ditch that collects run-off from a gas facility. This feature flows from northwest to southeast and drains into a culvert under a paved access road where it then enters the storm drain system.	**Change.** This is a new feature that was not previously identified in the TRTP reports because it is outside the limits of the TRTP survey area.

Feature Number	Insignia Mapbook Page(s) (TRTP Mapbook Page[s][1])	Approximate Jurisdiction Insignia Estimate (TRTP Estimate) (Acres)			Insignia Vegetation Type Description (TRTP Vegetation Type Description)	Insignia Feature Type (TRTP Feature Type)	Insignia Description	Insignia Verification (Change/No Change from TRTP Conditions)
		CDFW	USACE	SWRCB				
7-39-S-11 (Rio Hondo)	39	1.04 (N/A)	0.15 (N/A)	0.15 (N/A)	Southern sycamore-alder riparian woodland/Non-native giant reed/Mulefat scrub (Not described)	Intermittent Drainage (Not described)	Rio Hondo is an intermittent drainage that traverses the Proposed Project area under North San Gabriel Road. This feature drains into the Los Angeles River approximately 9 miles to the southwest of North San Gabriel Road. The Rio Hondo is generally dry in the summer months, flowing after the start of winter rains. The bed of the drainage is sandy and sparsely vegetated with polygonum (*Polygonum* sp.). The banks are vegetated with giant reed (*Arundo donax*), Goodding's black willow (*Salix gooddingii*), mulefat, castor bean (*Ricinus communis*), dwarf nettle (*Urtica urens*), and California buckwheat (*Eriogonum fasciculatum*), among others. The average OHWM width for this feature is approximately 45 feet. The average OHWM depth for this feature is approximately 1.5 feet. The average TOB width for this feature is approximately 275 feet. The average TOB depth for this feature is approximately 16 feet.	**Change.** This is a new feature that was not previously identified in the TRTP reports because it is outside the limits of the TRTP survey area.
N/A	N/A (N/A)	N/A (N/A)	N/A (N/A)	N/A (N/A)	Ruderal (Not described)	Isolated man-made ditch (Other)	This feature is an isolated man-made concrete ditch. The feature conveys runoff from a steep slope into a topographic depression vegetated by giant reed.	**Change.** This feature was not described in the TRTP reports; however, it was mapped during the TRTP surveys as an "Other Potential (Avoid)" feature. This feature does not have connectivity to another water feature and is therefore non-jurisdictional.
N/A	N/A (N/A)	N/A (N/A)	N/A (N/A)	N/A (N/A)	Ruderal (Not described)	N/A (Other)	This feature is a topographic depression vegetated by giant reed. A sample pit was dug in this area and no hydric soils were present. In addition, no evidence of hydrology was observed. Therefore, this feature does not meet the USACE criteria for a wetland.	**Change.** This feature was not described in the TRTP reports; however, it was mapped during the TRTP surveys as an "Other Potential (Avoid)" feature. Insignia determined that this feature is an upland area and not a wetland.

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ATTACHMENT A: PRELIMINARY WETLAND DELINEATION MAP

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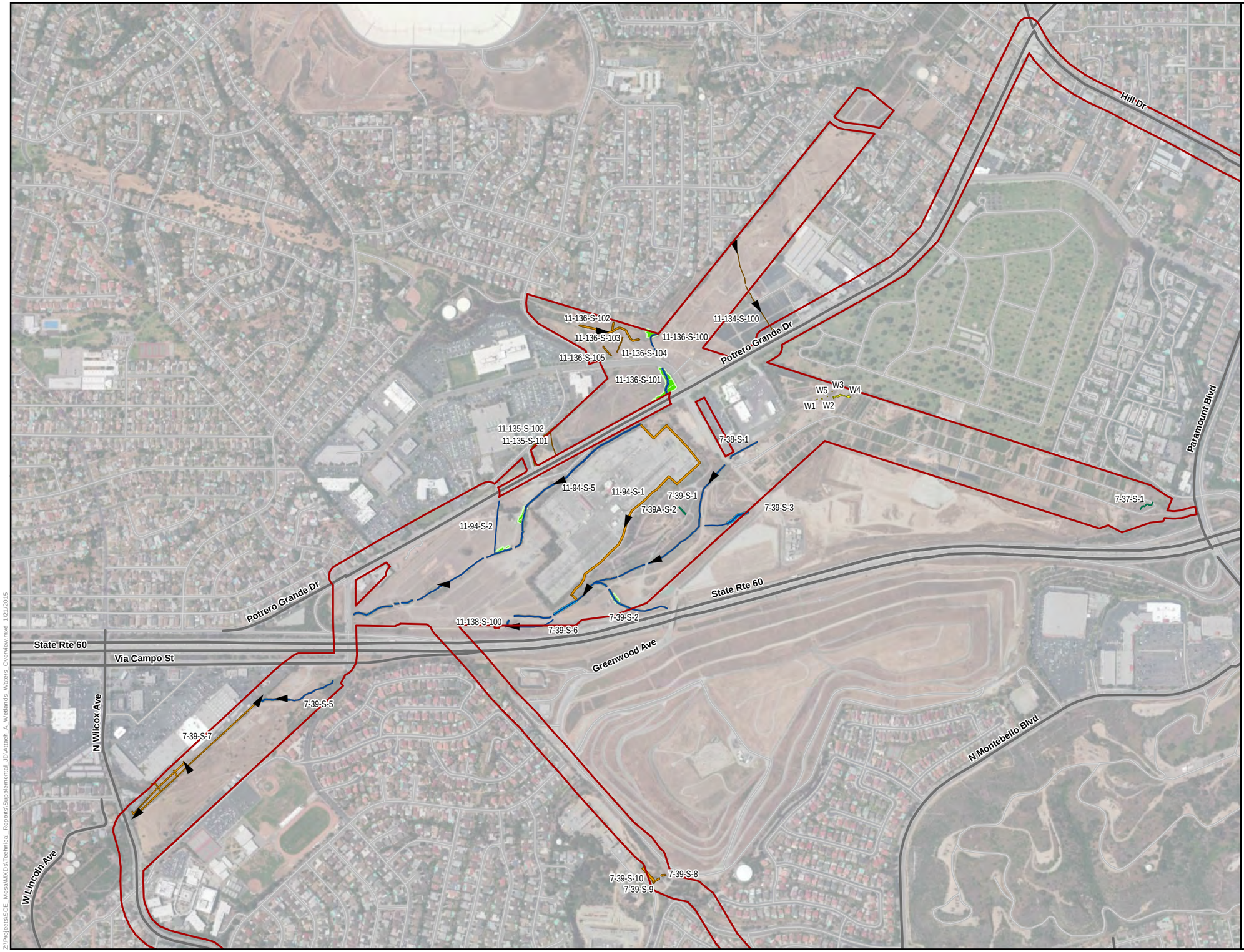

Attachment A: Preliminary Wetland Delineation Map Overview

Mesa 500 kV Substation Project

Survey Area/Proposed Project Area

Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

Top of Bank Width (3.10 acres)

Riparian (0.71 acre)

Non-Jurisdictional Waters

Man-Induced Wetland (0.04 acre)

Man-Made Ditch

Erosional Channel

Note: Some drainages mapped by the TRTP may be partially outside the survey area

*Please note that unnamed features in this report are labeled as "Other Potential (Avoid)". This designation was provided with the TRTP Geographic Information System data. The TRTP Jurisdictional Delineation Reports do not further describe these features.

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Attachment A:
Preliminary Wetland Delineation Map 1 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

- Top of Bank Width (3.10 acres)
- Riparian (0.71 acre)

Non-Jurisdictional Waters

- Man-Induced Wetland (0.04 acre)
- Man-Made Ditch
- Erosional Channel

Note: Some drainages mapped by the TRTP may be partially outside the survey area

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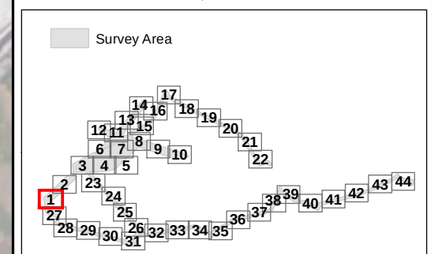

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Attachment A:
Preliminary Wetland Delineation Map 2 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

- Top of Bank Width (3.10 acres)
- Riparian (0.71 acre)

Non-Jurisdictional Waters

- Man-Induced Wetland (0.04 acre)
- Man-Made Ditch
- Erosional Channel

Note: Some drainages mapped by the TRTP may be partially outside the survey area

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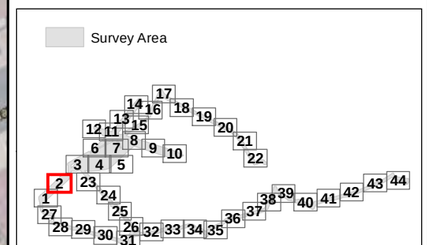

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Attachment A:
Preliminary Wetland Delineation Map 3 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

- Top of Bank Width (3.10 acres)
- Riparian (0.71 acre)

Non-Jurisdictional Waters

- Man-Induced Wetland (0.04 acre)
- Man-Made Ditch
- Erosional Channel

Note: Some drainages mapped by the TRTP may be partially outside the survey area

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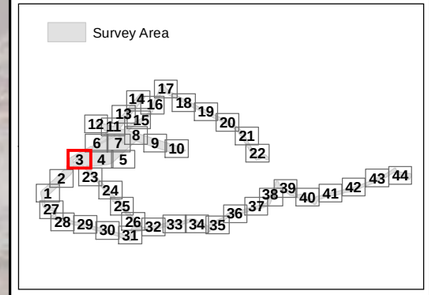

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Attachment A:
Preliminary Wetland Delineation Map 4 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

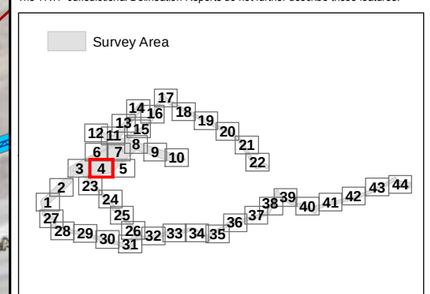
- Top of Bank Width (3.10 acres)
- Riparian (0.71 acre)

Non-Jurisdictional Waters

- Man-Induced Wetland (0.04 acre)
- Man-Made Ditch
- Erosional Channel

Note: Some drainages mapped by the TRTP may be partially outside the survey area

*Please note that unnamed features in this report are labeled as "Other Potential (Avoid)". This designation was provided with the TRTP Geographic Information System data. The TRTP Jurisdictional Delineation Reports do not further describe these features.



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Attachment A:
Preliminary Wetland Delineation Map 5 of 44

Mesa 500 kV Substation Project

7-39A-S-2
7-39-S-3
7-39-S-3
7-39-S-1
Greenwood Ave
Greenwood Ave
Pomona Fwy CA-60 W
CA-60 E
CA-60 E
Pomona Fwy CA-60 W
CA-60 W
Pomona Fwy CA-60 E
7-39-S-2
CA-60 W
Pomona Fwy
Greenwood Ave
CA-60 E

Survey Area/Proposed Project Area
Culvert
Sample Point
Storm Drain
Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

Top of Bank Width (3.10 acres)
Riparian (0.71 acre)

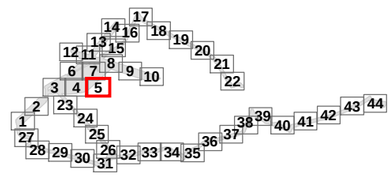
Non-Jurisdictional Waters

Man-Induced Wetland (0.04 acre)
Man-Made Ditch
Erosional Channel

Note: Some drainages mapped by the TRTP may be partially outside the survey area

*Please note that unnamed features in this report are labeled as "Other Potential (Avoid)". This designation was provided with the TRTP Geographic Information System data. The TRTP Jurisdictional Delineation Reports do not further describe these features.

Survey Area



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Attachment A: Preliminary Wetland Delineation Map 6 of 44

Mesa 500 kV Substation Project

Survey Area/Proposed Project Area
Culvert
Sample Point
Storm Drain
Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

Top of Bank Width (3.10 acres)
Riparian (0.71 acre)

Non-Jurisdictional Waters

Man-Induced Wetland (0.04 acre)
Man-Made Ditch
Erosional Channel

Note: Some drainages mapped by the TRTP may be partially outside the survey area

*Please note that unnamed features in this report are labeled as "Other Potential (Avoid)". This designation was provided with the TRTP Geographic Information System data. The TRTP Jurisdictional Delineation Reports do not further describe these features.

Survey Area

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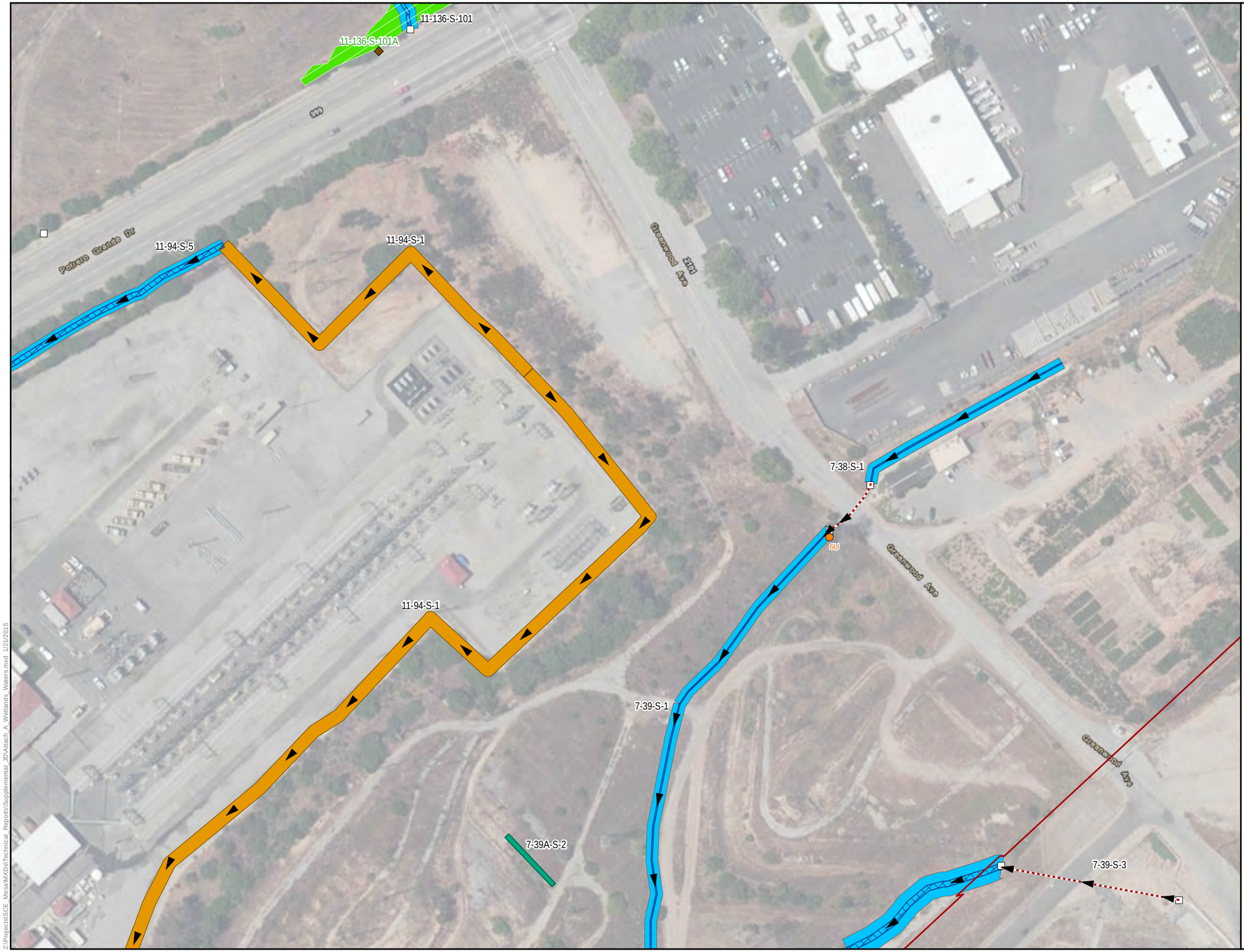
Attachment A:
Preliminary Wetland Delineation Map 7 of 44

Mesa 500 kV Substation Project



- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

- Top of Bank Width (3.10 acres)
- Riparian (0.71 acre)

Non-Jurisdictional Waters

- Man-Induced Wetland (0.04 acre)
- Man-Made Ditch
- Erosional Channel

Note: Some drainages mapped by the TRTP may be partially outside the survey area

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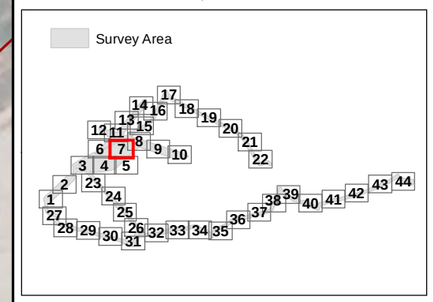

SOUTHERN CALIFORNIA EDISON
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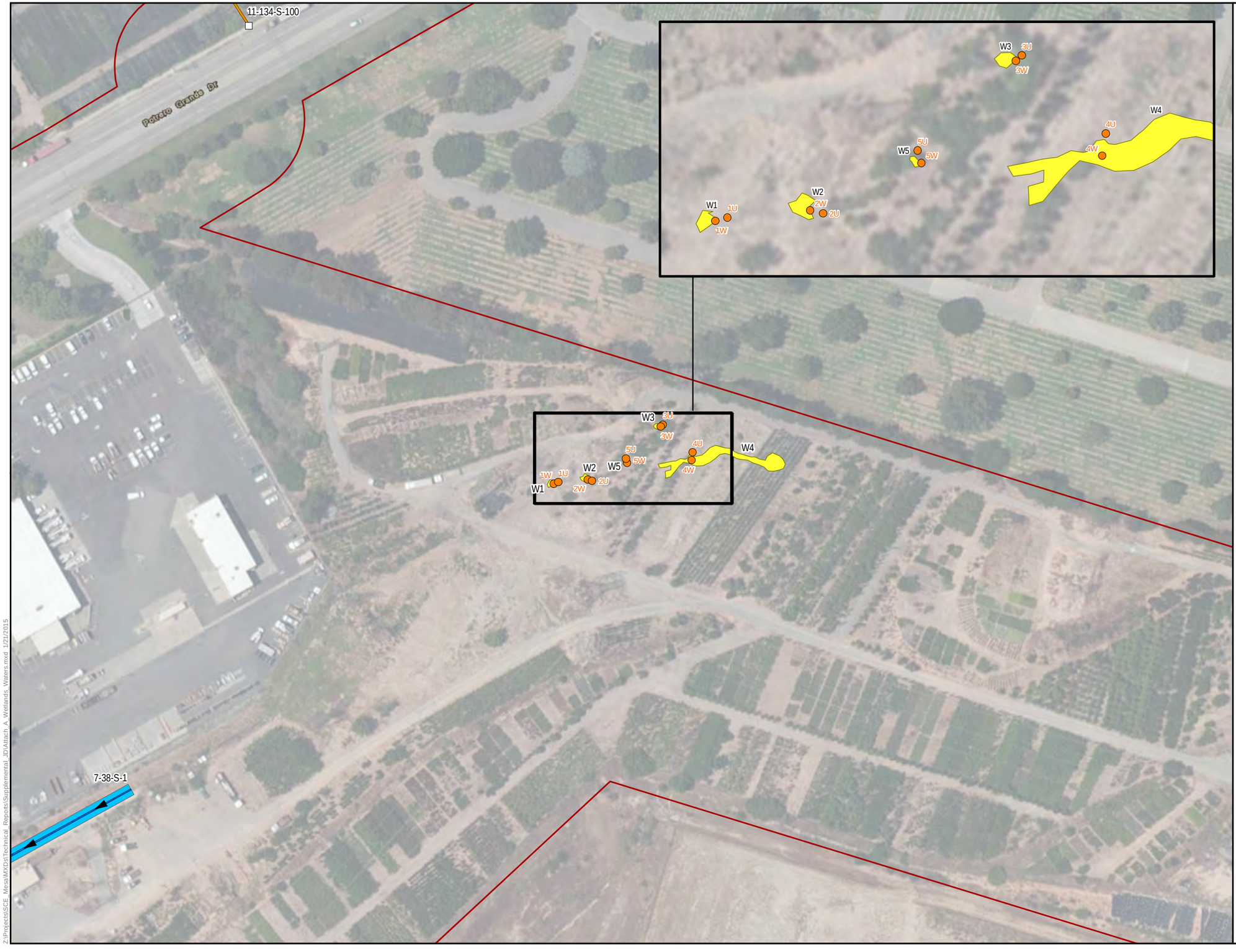
Attachment A:
Preliminary Wetland Delineation Map 8 of 44

Mesa 500 kV Substation Project



Survey Area/Proposed Project Area

Culvert

Sample Point

Storm Drain

Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

Top of Bank Width (3.10 acres)

Riparian (0.71 acre)

Non-Jurisdictional Waters

Man-Induced Wetland (0.04 acre)

Man-Made Ditch

Erosional Channel

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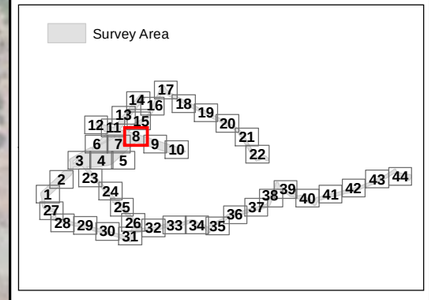

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Attachment A:
Preliminary Wetland Delineation Map 9 of 44

Mesa 500 kV Substation Project

Survey Area/Proposed Project Area
Culvert
Sample Point
Storm Drain
Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

Top of Bank Width (3.10 acres)
Riparian (0.71 acre)

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Man-Made Ditch
Erosional Channel

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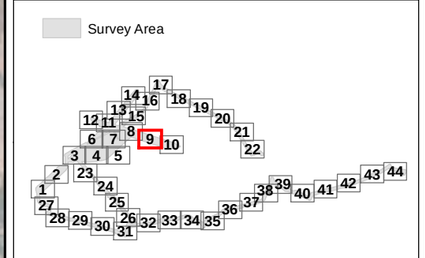

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Attachment A: Preliminary Wetland Delineation Map 10 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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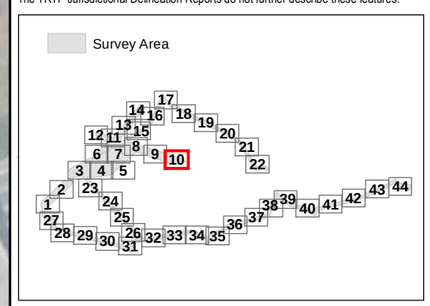

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Attachment A:
Preliminary Wetland Delineation Map 11 of 44

Mesa 500 kV Substation Project

Survey Area/Proposed Project Area

Culvert

Sample Point

Storm Drain

Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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Man-Made Ditch

Erosional Channel

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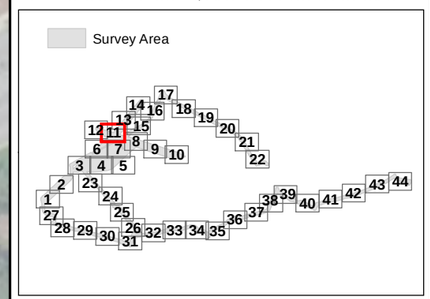

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Attachment A:
Preliminary Wetland Delineation Map 12 of 44

Mesa 500 kV Substation Project

Survey Area/Proposed Project Area

Culvert

Sample Point

Storm Drain

Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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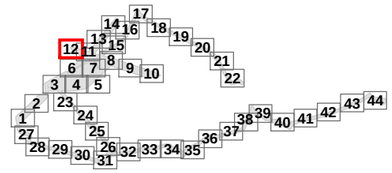
Survey Area



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Taylor Dr

Olive Pl

Palm Ave

Holly Oak

Clover Dr

S Grape Ave

Saturn St

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11-136-S-103

11-136-S-105

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Attachment A:
Preliminary Wetland Delineation Map 13 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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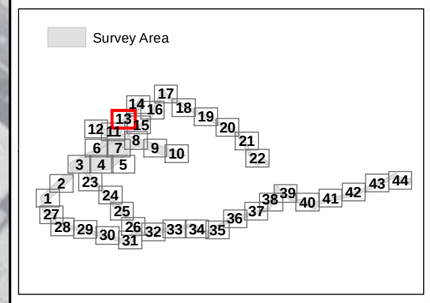

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Attachment A:
Preliminary Wetland Delineation Map 14 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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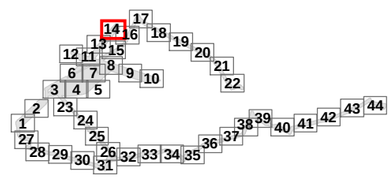
Survey Area



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Attachment A: Preliminary Wetland Delineation Map 15 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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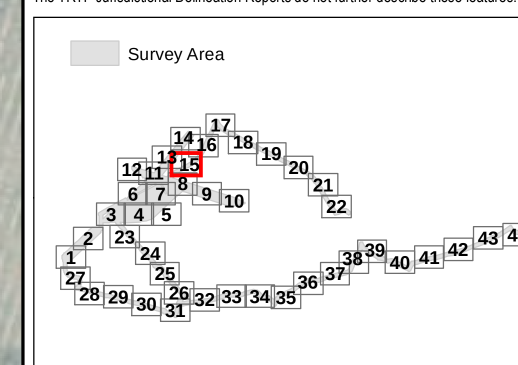

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Attachment A:
Preliminary Wetland Delineation Map 16 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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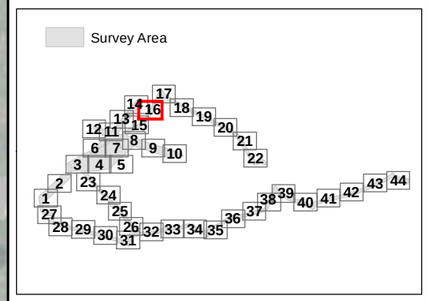

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Attachment A:
Preliminary Wetland Delineation Map 17 of 44

Mesa 500 kV Substation Project

Survey Area/Proposed Project Area

Culvert

Sample Point

Storm Drain

Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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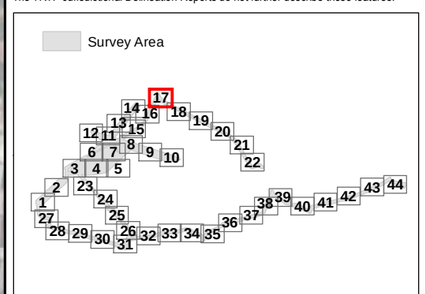

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Attachment A: Preliminary Wetland Delineation Map 18 of 44

Mesa 500 kV Substation Project

- 🟥 Survey Area/Proposed Project Area
- ☐···☐ Culvert
- ● Sample Point
- ◆ Storm Drain
- ► Flow Direction

Potential Waters of the U.S./State

- ▨ Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

- ■ Top of Bank Width (3.10 acres)
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SOUTHERN CALIFORNIA EDISON
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Attachment A:
Preliminary Wetland Delineation Map 19 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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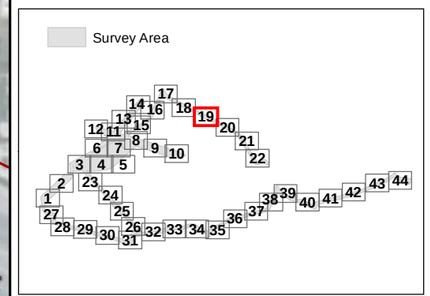

SOUTHERN CALIFORNIA EDISON
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Attachment A:
Preliminary Wetland Delineation Map 20 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

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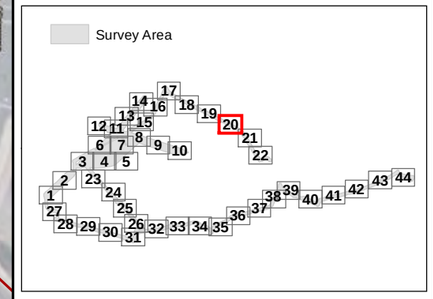

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Attachment A:
Preliminary Wetland Delineation Map 21 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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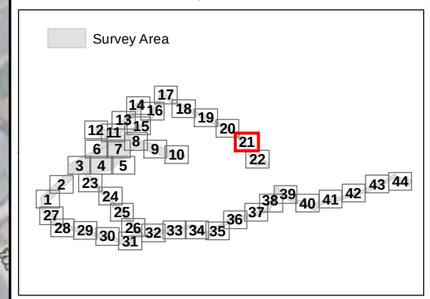

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Attachment A:
Preliminary Wetland Delineation Map 22 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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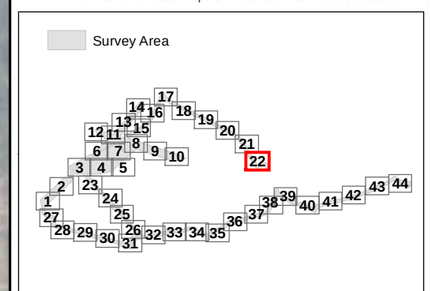

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Attachment A:
Preliminary Wetland Delineation Map 23 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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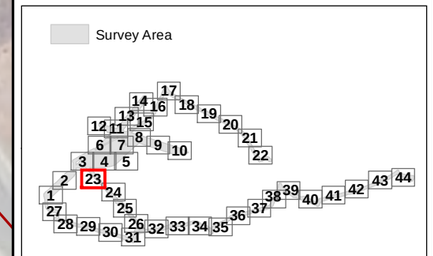

SOUTHERN CALIFORNIA EDISON
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Attachment A:
Preliminary Wetland Delineation Map 24 of 44

Mesa 500 kV Substation Project

Survey Area/Proposed Project Area

Culvert

Sample Point

Storm Drain

Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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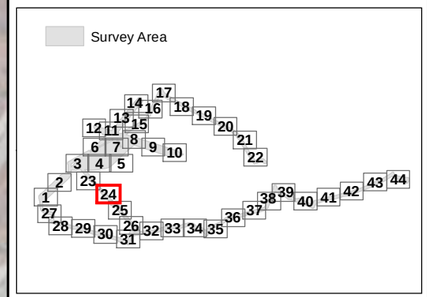

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

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Attachment A: Preliminary Wetland Delineation Map 25 of 44

Mesa 500 kV Substation Project

Survey Area/Proposed Project Area

Culvert

Sample Point

Storm Drain

Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

Top of Bank Width (3.10 acres)

Riparian (0.71 acre)

Non-Jurisdictional Waters

Man-Induced Wetland (0.04 acre)

Man-Made Ditch

Erosional Channel

Note: Some drainages mapped by the TRTP may be partially outside the survey area

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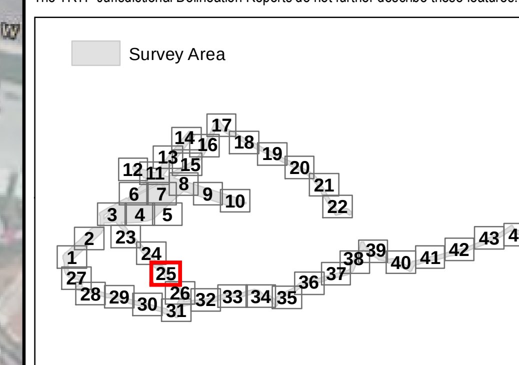

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Attachment A:
Preliminary Wetland Delineation Map 26 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

- Top of Bank Width (3.10 acres)
- Riparian (0.71 acre)

Non-Jurisdictional Waters

- Man-Induced Wetland (0.04 acre)
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- Erosional Channel

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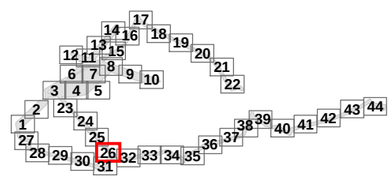
Survey Area



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Attachment A: Preliminary Wetland Delineation Map 27 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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- Riparian (0.71 acre)

Non-Jurisdictional Waters

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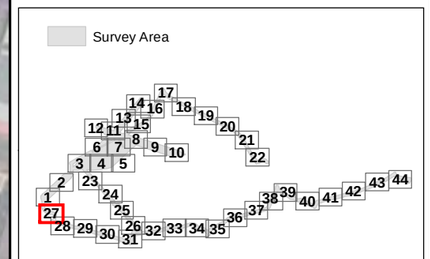

SOUTHERN CALIFORNIA EDISON
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Attachment A:
Preliminary Wetland Delineation Map 28 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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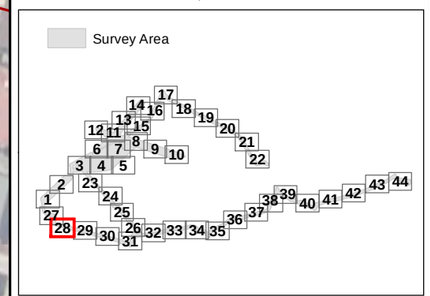

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Attachment A:
Preliminary Wetland Delineation Map 29 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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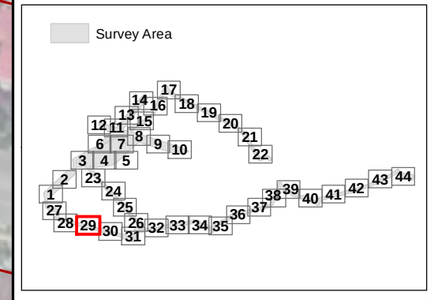

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Attachment A:
Preliminary Wetland Delineation Map 30 of 44

Mesa 500 kV Substation Project

Survey Area/Proposed Project Area

Culvert

Sample Point

Storm Drain

Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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Riparian (0.71 acre)

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Erosional Channel

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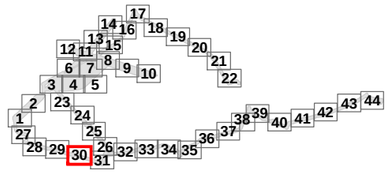
Survey Area



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Attachment A:
Preliminary Wetland Delineation Map 31 of 44

Mesa 500 kV Substation Project

Survey Area/Proposed Project Area

Culvert

Sample Point

Storm Drain

Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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Erosional Channel

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Survey Area

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Attachment A:
Preliminary Wetland Delineation Map 32 of 44

Mesa 500 kV Substation Project

Survey Area/Proposed Project Area

Culvert

Sample Point

Storm Drain

Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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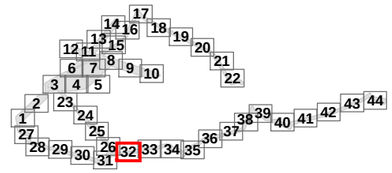
Survey Area



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Attachment A:
Preliminary Wetland Delineation Map 33 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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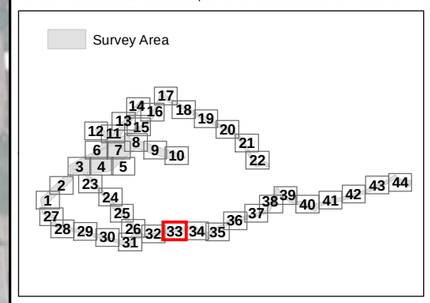

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Attachment A:
Preliminary Wetland Delineation Map 34 of 44

Mesa 500 kV Substation Project

Survey Area/Proposed Project Area

Culvert

Sample Point

Storm Drain

Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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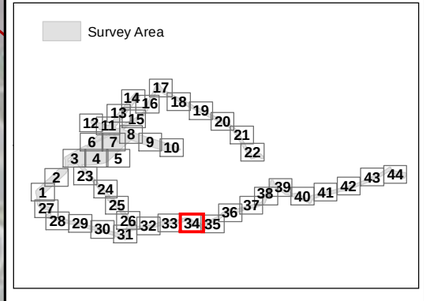

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Attachment A:
Preliminary Wetland Delineation Map 35 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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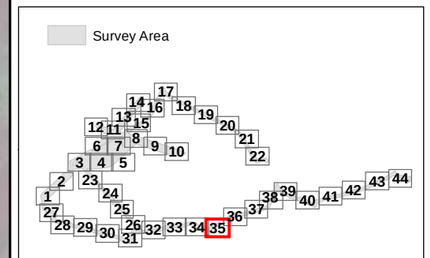

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Attachment A:
Preliminary Wetland Delineation Map 36 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

- Top of Bank Width (3.10 acres)
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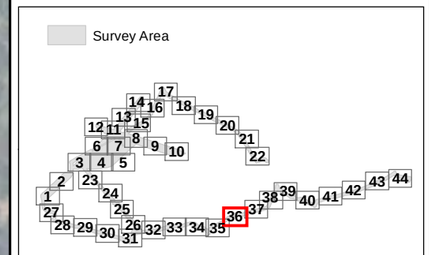

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Attachment A:
Preliminary Wetland Delineation Map 37 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

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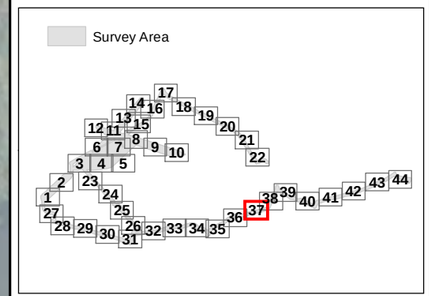

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Attachment A: Preliminary Wetland Delineation Map 38 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

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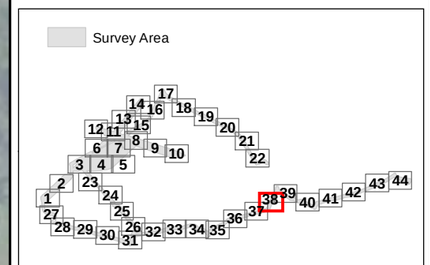

SOUTHERN CALIFORNIA EDISON
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Attachment A: Preliminary Wetland Delineation Map 39 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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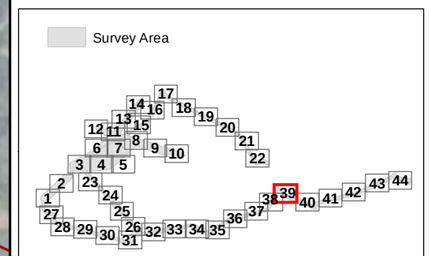

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Attachment A: Preliminary Wetland Delineation Map 40 of 44

Mesa 500 kV Substation Project

▭	Survey Area/Proposed Project Area
☐---☐	Culvert
●	Sample Point
◆	Storm Drain
►	Flow Direction

Potential Waters of the U.S./State

▨	Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

🟦	Top of Bank Width (3.10 acres)
▨	Riparian (0.71 acre)

Non-Jurisdictional Waters

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Attachment A:
Preliminary Wetland Delineation Map 41 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

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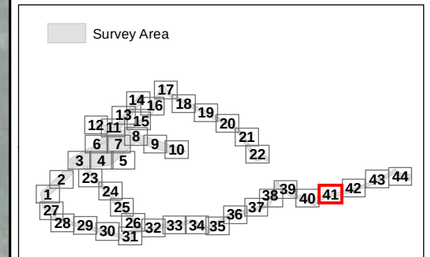

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

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Attachment A:
Preliminary Wetland Delineation Map 42 of 44

Mesa 500 kV Substation Project

- Survey Area/Proposed Project Area
- Culvert
- Sample Point
- Storm Drain
- Flow Direction

Potential Waters of the U.S./State

- Potential Other Waters of the U.S. (0.64 acre)

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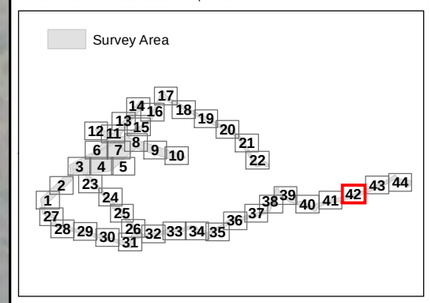

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Attachment A:
Preliminary Wetland Delineation Map 43 of 44

Mesa 500 kV Substation Project

Survey Area/Proposed Project Area
Culvert
Sample Point
Storm Drain
Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

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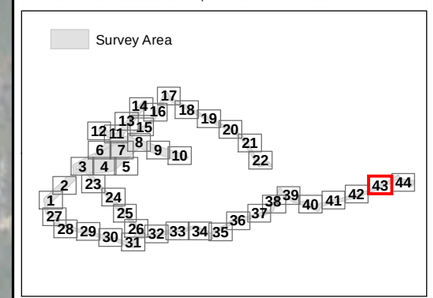

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An EDISON INTERNATIONAL Company

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Attachment A: Preliminary Wetland Delineation Map 44 of 44

Mesa 500 kV Substation Project

Survey Area/Proposed Project Area
Culvert
Sample Point
Storm Drain
Flow Direction

Potential Waters of the U.S./State

Potential Other Waters of the U.S. (0.64 acre)

CDFW Jurisdiction

Top of Bank Width (3.10 acres)
Riparian (0.71 acre)

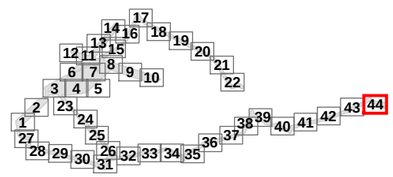
Non-Jurisdictional Waters

Man-Induced Wetland (0.04 acre)
Man-Made Ditch
Erosional Channel

Note: Some drainages mapped by the TRTP may be partially outside the survey area

*Please note that unnamed features in this report are labeled as "Other Potential (Avoid)". This designation was provided with the TRTP Geographic Information System data. The TRTP Jurisdictional Delineation Reports do not further describe these features.

Survey Area



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ATTACHMENT B: PHOTOGRAPHS OF HYDROLOGICAL FEATURES

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Attachment B: Photographs of Hydrological Features

Photograph 1:

Drainage 7-39-S-7, facing upstream/southeast.

Photograph 2:
Overview of drainage 7-39-S-5, facing upstream/east.

Photograph 3: Overview of drainage 7-39-S-5, facing downstream/west.

Photograph 4: Drainage 7-39-S-5, facing upstream/east.

Photograph 5:
Drainage 7-39-S-5, facing downstream/west.

Photograph 6:
Drainage 11-94-S-5, facing downstream/west.

Photograph 7:
Drainage 11-94-S-5, facing south.

Photograph 8:
Drainage 11-94-S-2, facing upstream/north.

Photograph 9:
Drainage 11-94-S-2, facing downstream/south.

Photograph 10:
Drainage 11-94-S-2, ordinary high water mark.

Photograph 11: Confluence of drainages 7-39-S-6 and 11-138-S-100, facing downstream/west.

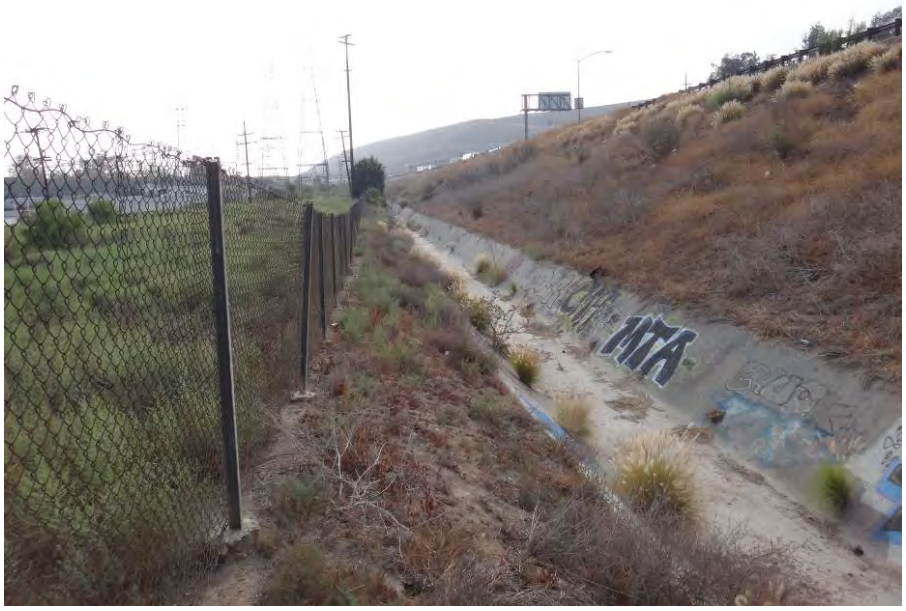
Photograph 12: Drainage 11-138-S-100, western portion facing upstream/north.

Photograph 13:
Drainage 11-138-S-100, facing upstream/east.

Photograph 14:
Drainage 11-138-S-100, facing downstream/west.

Photograph 15:
Drainage 7-39-S-6, facing upstream/northeast.

Photograph 16:
Drainage 7-39-S-6, facing downstream/southwest.



Photograph 17:
Off-site continuation of drainage 7-39-S-6, facing upstream/east.

Photograph 18:
Off-site continuation of drainage 7-39-S-6, facing downstream/west.

Photograph 19:
Drainage 7-39-S-1, facing downstream/west.

Photograph 20:
Drainage 7-39-S-1, facing downstream/west.

Photograph 21:
Drainage 7-39-S-1, facing upstream/northeast.

Photograph 22:
Drainage 7-39-S-1, facing downstream/southwest.

Photograph 23:
Drainage 7-39-S-2, facing downstream/northwest.

Photograph 24:
Drainage 7-39-S-2, facing upstream/southeast.

Photograph 25:
Off-site box culvert underneath SR-60 and upstream portion of drainage 7-39-S-2, facing northeast.

Photograph 26:
Drainage 7-39-S-3, taken from above the culvert, facing downstream/west.

Photograph 27: Drainage 7-39-S-3, facing the culvert and upstream/east.

Photograph 28: Man-made ditch 11-135-S-101, taken from Potrero Grande Drive, facing upstream/north.

Photograph 29:
Man-made ditch 11-135-S-102, facing upstream/northeast.

Photograph 30:
Man-made ditch 11-135-S-102, facing downstream/southwest.

Photograph 31: Culvert at upstream portion of drainage 11-136-S-101, facing north.

Photograph 32: Drainage 11-136-S-101, facing downstream/south.

Photograph 33: Upstream portion of drainage 7-38-S-1, taken from west side of Greenwood Road, facing upstream/east.

Photograph 34: Man-made ditch 11-134-S-100, facing downstream/south.

Photograph 35:
Wetland (W) 1, facing southwest.

Photograph 36:
W2, facing northeast. Note presence of nursery spigot.

Photograph 37:
W5, facing west.

Photograph 38:
W3, facing west.

Photograph 39:
W4, facing west.

Photograph 40:

Drainage 11-136-S-103, facing upstream/northwest.

Photograph 41:
Drainage 11-136-S-105, facing upstream/northwest.

Photograph 42:
Drainage 11-136-S-100, facing upstream/north.

Photograph 43: Drainage 11-136-S-100, facing downstream/south.

Photograph 44: Northern dirt-lined portion of drainage 11-136-S-100, facing upstream/north.

Photograph 45: Northern dirt-lined portion of drainage 11-136-S-100, facing downstream/south.

Photograph 46: Drainage 7-39-S-10, facing upstream/northwest.

Photograph 47:
Drainage 7-39-S-10, facing upstream/northeast.

Photograph 48:
Drainage 7-39-S-8, facing downstream/southwest.

Photograph 49: Drainage 7-39-S-11, facing upstream/ northeast.

Photograph 50: Drainage 7-39-S-11, facing downstream/ southwest.

Photograph 51: Drainage 7-39-S-11, facing downstream/southwest.

ROCKS
BIOLOGICAL CONSULTING

January 5, 2014

Ms. Stephanie Hansen
Insignia Environmental
258 High Street
Palo Alto, CA 94301

Subject: Results of the Mesa 500 kV Substation Project Coastal California Gnatcatcher Habitat Assessment, Los Angeles County, California.

Rocks Biological Consulting (RBC) biologists Jim Rocks (TE-063230-4) and Lee Ripma (TE-221290-3) conducted a habitat assessment for coastal California gnatcatcher (CAGN; *Polioptila californica californica*) for the proposed Mesa 500 kV Substation Project (project) in October and December, 2014. The project is located in the cities of Monterey Park and Montebello, Los Angeles County, California (Figure 1). RBC conducted the assessment and produced this memo report in support of a Biological Assessment (BA) for the proposed project under contract to Insignia Environmental.

Coastal California Gnatcatcher

The CAGN is a year-round resident of southern California found in the six southernmost California counties located within the coastal plain (San Bernardino, Ventura, Los Angeles, Orange, San Diego, and Riverside). Coastal California gnatcatchers typically occur in coastal sage scrub (CSS) vegetation communities of southern California, especially in locations dominated by California sagebrush (*Artemisia californica*) and California buckwheat (*Eriogonum fasciculatum*). Other shrubs in CAGN-occupied CSS can include black sage (*Salvia mellifera*), California bush sunflower (*Encelia californica*), white sage (*Salvia apiana*), lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), and brittlebush (*Encelia farinosa*).

Coastal California gnatcatchers are typically found in stands of CSS that have moderate shrub canopy cover, generally greater than 50 percent (Beyers and Wirtz 1997). Coastal California gnatcatchers will use sparsely vegetated CSS as long as perennial shrubs are available, although there appears to be a minimum cover threshold below which the habitat becomes unsuitable (USFWS 2007). The relative density of shrub cover influences CAGN territory sizes, with territory sizes increasing as shrub cover decreases, likely due to limited resource availability (Beyers and Wirtz 1997). The CAGN preys upon arthropods, including insects such as leafhoppers and planthoppers (Homoptera) and spiders commonly found in CSS plant communities (Burger et al. 1999). Beyers and Wirtz (1997) speculate that the non-native grasses and forbs that typically occupy the gaps between shrub species do not support a sufficient insect fauna and that there are probably differences in insect availability among shrub species as well, which may explain CAGN's shrub preference.

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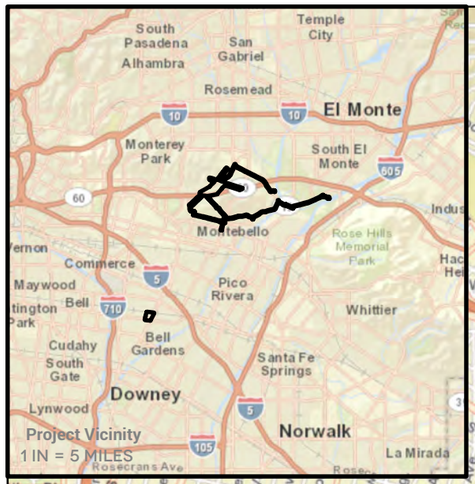

Coastal California Gnatcatcher (CAGN) Habitat Assessment Boundary

FIGURE 1

Regional Location and Project Vicinity

MESA SUBSTATION

ROCKS BIOLOGICAL CONSULTING

0 750 1,500 3,000 FEET

Source: Google, 2013; National Geographic

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U.S. Fish and Wildlife Service critical habitat for CAGN occurs within one mile southeast of the Mesa Substation site. In addition, CAGN were observed foraging and nesting within ruderal habitat containing sparse California sagebrush and California buckwheat in the southern portion of the Mesa Substation site during the Tehachapi Renewables Transmission Project (TRTP) during 2010 and 2011 focused CAGN surveys (ICF International). RBC biologists also observed CAGN foraging in the ruderal habitat south of the substation during the October 1, 2014 field survey and in the TAPS to Mesa Substation alignment on December 10, 2014 near the corner of Lincoln Avenue and San Gabriel Blvd.

Methods

RBC permitted biologists assessed six proposed project work areas and a 100-foot buffer area for the presence of the primary constituent elements CAGN habitat. Suitable CAGN habitat contained the following constituent elements: CSS with a greater than 50 percent cover consisting of species such as California sagebrush and/or California buckwheat; or areas consisting of a matrix of sparse, scattered CSS shrubs and annual/biennial vegetation with sufficient morphological structure and density to support CAGN nesting and provide foraging opportunities. Areas consisting only of annual/biennial plants without sufficient shrub cover were considered not suitable for CAGN. The coastal California gnatcatcher could fly into these areas as part of their daily activities, but these vegetation patches were not considered suitable or essential for use by CAGN under this assessment.

Vegetation communities described herein are consistent with the Final Environmental Impact Statement (FEIS), Southern California Edison's Application for the Tehachapi Renewables Transmission Project and the existing draft vegetation community map for the project. A total of seven vegetation communities occur within the proposed project habitat assessment areas: California annual grassland, disturbed/developed, disturbed riparian, ephemeral drainage, mule fat scrub, non-native woodland, and ruderal grassland. Nomenclature used for plant names follows The Jepson Manual: Vascular Plants of California, Second Edition (Baldwin et al. 2012). Nomenclatural changes made after the publication date of the manual follow the Jepson eFlora (2014) website.

Results

Structure Work Area #1 and #2

Structure Work Areas #1 and #2 are north of Potrero Grande Road and west of Saturn Street. The ground cover is very low growing, degraded California annual grassland. The dominant species are non-native and include Russian thistle (*Salsola tragus*), white-stem filaree (*Erodium moschatum*), short-pod mustard (*Hirschfeldia incana*), wand mullein (*Verbascum virgatum*), and red brome (*Bromus madritensis* ssp. *rubens*). Non-native woodland in the form of Mexican fan palm (*Washingtonia robusta*) and Brazilian pepper tree (*Schinus terebinthifolius*) surround the edges of this area and are beginning to grow within the California annual grassland areas.

As shown in site photograph 1, this area is not suitable for CAGN because it does not contain the constituent elements of CSS required for nesting and foraging. It is also not adjacent to suitable CAGN habitat; the nearest patch of CSS is approximately 1,400 feet away.

Structure Work Area #3

Structure Work Area #3 is north of Potrero Grande Road and east of Saturn Street. The vegetation community is mapped as disturbed/developed due to the presence of a terraced and eroding hillside, which contains a sparse community of ruderal species including slender wild oat (*Avena barbata*), Russian thistle, crimson fountain grass (*Pennisetum setaceum*), and Brazilian pepper tree.

As shown in site photograph 2, this area is not suitable for CAGN because the weedy annual vegetation and bare ground in this area do not provide the constituent elements of CSS required for nesting and foraging. It is also not adjacent to suitable CAGN habitat; the nearest patch of CSS is approximately 1,300 feet away.

Structure Work Area #4

Structure Work Area #4 is east of Greenwood Avenue within an active plant nursery known as Mejias Nursery. Ground cover in this area is either roads, bare ground, or rows of potted ornamental plants. Ruderal areas associated with the nursery and at the base of transmission towers have a very sparse cover of short-pod mustard, doveweed (*Croton setigerus),* and wand mullein.

As shown in site photograph 3, this area is not suitable for CAGN because this area does not contain CSS or similar perennial shrub species, or dense annual/biennial vegetation suitable for CAGN foraging and nesting. However, this area is adjacent to suitable CAGN habitat with the nearest patch of CSS approximately 250 feet to the west. Coastal California gnatcatchers were observed foraging in this area during the TRTP surveys. Although CAGN could occasionally fly through this area, an active nursery consisting of roads, bare ground, and potted ornamental plants does not contain the constituent CSS elements required for consistent foraging and nesting and is considered not suitable in this assessment.

Structure Work Area #5

Structure Work Area #5 is south of Via Campo and west of N Vail Ave and contains very low-growing ruderal grassland, which includes African fountain grass, Russian thistle, and sparse Brazilian pepper tree.

As shown in site photograph 4, this area is not suitable for CAGN because the weedy annual vegetation and bare ground in this area do not provide the constituent elements of CSS required for nesting and foraging. It is also not adjacent to suitable CAGN habitat; the nearest patch of CSS is approximately 1,400 feet away.

Existing Mesa Substation and Surrounding Area

The existing Mesa Substation is South of Potrero Grande Road, north of Hwy 60, east of Markland Drive and west of Greenwood Avenue. The dominant ruderal vegetation community in this area supports dense stands of short-pod mustard, Chinese caps (*Euphorbia c.f. crenulata*), and Russian thistle. Revegetated CSS dominated by California buckwheat and California sagebrush is present between the southern boundary of the site and Hwy-60. Ephemeral drainages in the area contain mule fat scrub, which is dominated by mule fat (*Baccharis salicifolia*) and/or castor bean (*Ricinus communis*). Non-native woodland occurs in a drainage and in planted rows and is dominated by bougainvillea (*Bougainvillea sp.*) Brazilian pepper tree, carrotwood (*Cupaniopsis anacardioides*), Chinese elm (*Ulmus parvifolia*), and Mexican fan palm.

As shown in site photographs 5 and 6, this area contains sparse CSS on the southern boundary and is adjacent to higher density revegetated CSS outside of the proposed project area. It also contains annual/biennial vegetation such as short-pod mustard with sufficient morphological structure and density to be used by CAGN for foraging and nesting. The TRTP surveyors documented CAGN nesting in this area and a CAGN was observed during the habitat assessment.

As shown in site photographs 7 and 8, the far western portion of the existing Mesa Substation is dominated by dense stands of Russian thistle. There are historic observations of CAGN in this area, but nesting has not been documented and the area does not contain the constituent elements of CSS required for nesting and foraging. It is also not adjacent to suitable areas; the nearest patch of CSS is approximately 1,500 feet away.

Mesa North

Mesa North is north of Saturn Street and contains very low-growing ruderal grassland, that includes non-native brome grasses (*Bromus* spp.), African fountain grass, and Russian thistle.

As shown in site photograph 9, this area is not suitable for CAGN because the weedy annual vegetation and bare ground in this area do not provide the constituent elements of CSS required for nesting and foraging. It is also not adjacent to suitable CAGN habitat; the nearest patch of CSS is approximately 1,500 feet away.

TAPS to Mesa Substation

The TAPS to Mesa Substation alignment runs from the existing Mesa Substation northeast along Potrero Grande Drive, south along Hill Drive (becomes San Gabriel Boulevard), crosses Hwy 60, and terminates just east of Gabriel Boulevard. The alignment also runs from the junction of North Montebello Boulevard and West Avenida De La Merced east along West Avenida De La Merced, northeast on Lincoln Ave at the base of the Montebello Hills oilfield, and southeast along San Gabriel Boulevard. San Gabriel Boulevard becomes Durfee Avenue and the alignment continues southeast and then east along Durfee Ave to the Whittier Narrows Nature Center. The alignment turns southeast and terminates at the San Gabriel River trail.

The areas along Potrero Grande Drive, Hill Drive, and Avenida De La Merced are largely developed. The area west of San Gabriel Boulevard is dominated by eucalyptus and the area east of San Gabriel Boulevard is dominated by bare ground or very low-growing ruderal grassland that includes non-native brome grasses and cheeseweed (*Malva parviflora*). As shown in site photograph 10, this area is not suitable for CAGN because the weedy annual vegetation and bare ground do not provide the constituent elements of CSS required for nesting and foraging. The nearest patch of CSS is approximately 900 feet away in the Montebello Hills oilfield. The portion of the alignment along the north side of Lincoln Avenue at the base of the Montebello Hills oilfield contains high quality CSS habitat that is occupied by CAGN (site photograph 11). The area south of Lincoln Ave and San Gabriel Boulevard/Durfee Ave is comprised of the flood plan of the San Gabriel River and contains riparian vegetation, both in the form of dense stands of mule fat and riparian forest dominated by willows (*Salix* spp). Riparian habitats do not provide the constituent elements of CSS required for nesting and foraging.

Harding Substation Relo and Mesa Telecom Route

The Harding Substation Relo and Mesa Telecom Route run from the existing Mesa Substation southwest along Potrero Grande Drive, south on Markland Drive, south of Hwy 60, and south along North Wilcox Avenue. The alignment then runs east along West Lincoln Avenue to North Montello Boulevard and the Harding Substation. The alignment also runs north along North Montebello Boulevard, heads northwest and runs along the western edge of the landfill site just south of Hwy 60.

The areas in the alignment are largely developed and not suitable for CAGN with the exception of the area at the western end of the landfill site just south of Hwy 60. As shown in photograph 12 the landfill site contains revegetated CSS with several dense stands of California buckwheat and California sagebrush that provide the constituent elements of suitable CAGN habitat. The site also contains dense non-native habitat similar to the degraded habitat that CAGN are using within the Mesa Substation. These areas were also considered suitable due to their close proximity to revegetated CSS and because occupied CAGN habitat is only 200 feet away in the Mesa Substation. No CAGN were observed within the landfill area but it is possible these areas are currently occupied by CAGN.

Laguna Bell Substation

The Laguna Bell Substation is located at the intersection of Randolph Street and Garfield Avenue in a largely developed area of Bell Gardens. A vacant field lies east of the Laguna Bell Substation that contains ruderal vegetation dominated by Russian thistle.

This area is not suitable for CAGN because the weedy annual vegetation in this area does not provide the constituent elements of CSS required for nesting and foraging. There is no CSS within several miles of the Laguna Bell Substation.

Conclusion

Based on the results of this habitat assessment, suitable CAGN habitat is present south of Mesa Substation, in portions of TAPS to Mesa Substation and portions of Harding Substation Relo and Mesa Telecom Route, as shown in Figure 2. Structure work areas 1-5, Mesa North, and Laguna Bell Substation do not contain suitable CAGN habitat.

Please don't hesitate to contact me with any questions or concerns at (619) 843-6640.

Sincerely,

Jim Rocks
Permit Number TE-063230-4

Lee Ripma
Permit Number TE-221290-3

Attachments: Site Photographs
Figure 1: Regional Location and Project Vicinity
Figures 2-2C: Coastal California Gnatcatcher Suitable Habitat Assessment

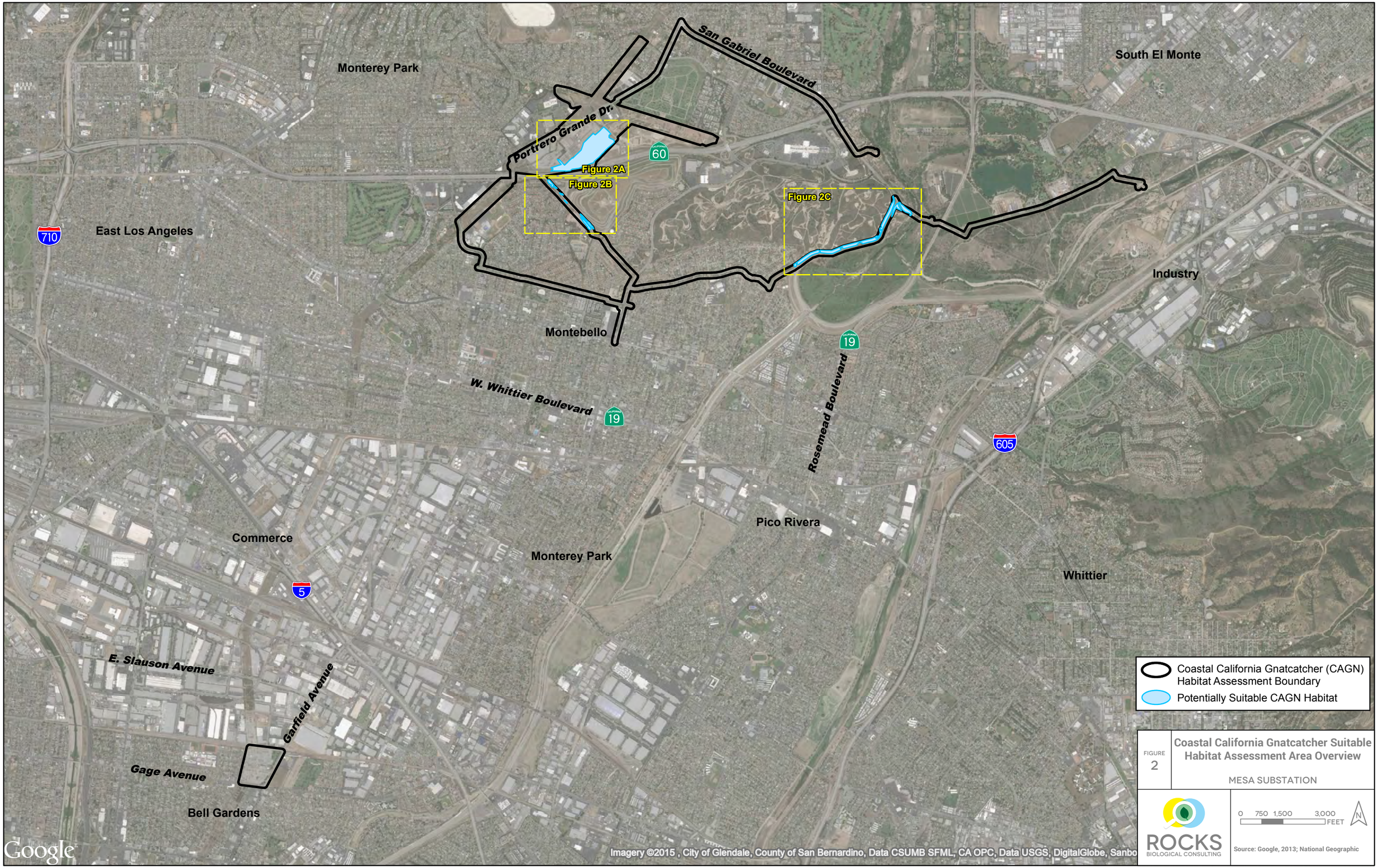
Monterey Park
San Gabriel Boulevard
South El Monte
Portrero Grande Dr.
Figure 2A
Figure 2B
Figure 2C
60
710
East Los Angeles
Industry
Montebello
19
W. Whittier Boulevard
Rosemead Boulevard
605
Pico Rivera
Commerce
Monterey Park
Whittier
5
E. Slauson Avenue
Garfield Avenue
Gage Avenue
Bell Gardens
Google
Imagery ©2015 , City of Glendale, County of San Bernardino, Data CSUMB SFML, CA OPC, Data USGS, DigitalGlobe, Sanbo
Coastal California Gnatcatcher (CAGN) Habitat Assessment Boundary
Potentially Suitable CAGN Habitat
FIGURE 2
Coastal California Gnatcatcher Suitable Habitat Assessment Area Overview
MESA SUBSTATION
ROCKS BIOLOGICAL CONSULTING
0 750 1,500 3,000 FEET
N
Source: Google, 2013; National Geographic

FIGURE 2A

Coastal California Gnatcatcher Suitable Habitat Assessment

MESA SUBSTATION

ROCKS BIOLOGICAL CONSULTING

0 50 100 200 FEET

N

Source: Google, 2013; National Geographic

FIGURE 2B

Coastal California Gnatcatcher Suitable Habitat Assessment

MESA SUBSTATION

ROCKS BIOLOGICAL CONSULTING

0 50 100 200 FEET

N

Source: Google, 2013; National Geographic

FIGURE 2C

Coastal California Gnatcatcher Suitable Habitat Assessment

MESA SUBSTATION

ROCKS BIOLOGICAL CONSULTING

0 75 150 300 FEET

N

Source: Google, 2013; National Geographic

References

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Site Photographs

Photo 1: Southwest-facing view of structure work areas #1 and #2; no suitable CAGN habitat.

Photo 2: Northeast-facing view of structure work area #3; no suitable CAGN habitat.

Photo 3: West-facing overview of structure work area #4; no suitable CAGN habitat.

Photo 4: West-facing overview of structure work area #5; no suitable CAGN habitat.

Photo 5: Southwest-facing view of suitable and occupied CAGN habitat south of the Mesa Substation area.

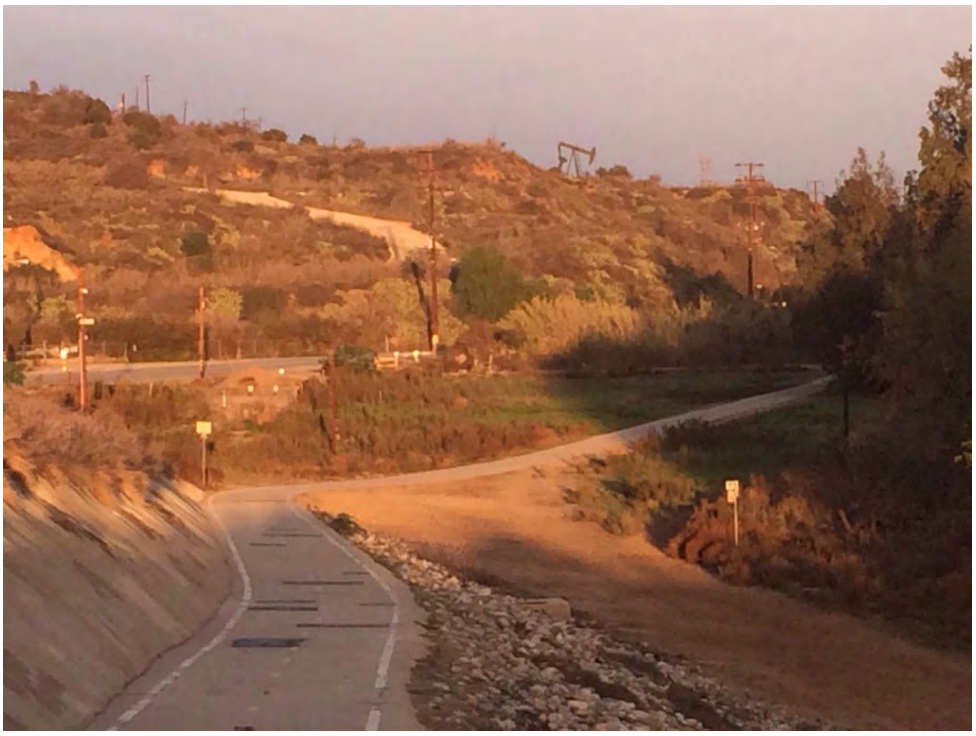
Photo 6: West-facing view of suitable CAGN habitat south of the Mesa Substation area adjacent to revegetated CSS (background)

Photo 7: East-facing view of non-suitable CAGN habitat dominated by Russian thistle within the Mesa Substation area.

Photo 8: Southeast-facing view of non-suitable CAGN habitat dominated by Russian thistle within the Mesa Substation area.

Photograph 9: Northeast-facing overview of Mesa North; no suitable CAGN habitat.

Photograph 10: East-facing view of Taps to Mesa Substation east San Gabriel Boulevard; no suitable CAGN habitat.



Photograph 11: Northeast-facing view of Taps to Mesa Substation along Lincoln Avenue; suitable CAGN habitat in Montebello Hills (background) non-suitable habitat in riparian areas associated with the San Gabriel River (foreground).

Photograph 12: North facing view of Harding Substation Relo and Mesa Telecom Route in the northwestern corner of the landfill area. The dense CSS (background) and adjacent non-native vegetation (foreground) are considered suitable CAGN habitat.