

# **MEMORANDUM**

TO: Debbie Collins, San Diego Gas & Electric

Tamara Spear, San Diego Gas & Electric

FROM: Darin Busby, Busby Biological Services, Inc.

DATE: April 30, 2015

RE: Final Supplemental Jurisdictional Delineation Memorandum for

the New Survey Areas within the Proposed Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project, San Diego

County, California

On behalf of Chambers Group, Inc. and San Diego Gas & Electric Company (SDG&E), Busby Biological Services, Inc. (BBS) conducted a supplemental jurisdictional delineation for SDG&E's proposed Sycamore to Peñasquitos 230 kilovolt (kV) Transmission Line Project (Proposed Project) located in San Diego County, California (Appendix A: Figure 1). Environmental Intelligence, LLC (EI) conducted a jurisdictional delineation within the original 500-foot wide Biological Survey Area (BSA) for the main Proposed Project alignment (EI 2014). This supplemental jurisdictional delineation was conducted to identify and delineate all jurisdictional resources within newly added areas (new survey areas) along the main Proposed Project alignment (Appendix A: Figure 2) that are potentially under the jurisdiction of the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and/or the California Coastal Commission (CCC).

This memorandum provides a brief description of the Proposed Project, regulatory setting, methods, and results of the jurisdictional delineation. This information is intended to supplement the information provided in the *Jurisdictional Delineation of SDG&E's Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project* (El 2014) for the original BSA as well as the jurisdictional delineation memorandum that was prepared by BBS for the Encina Hub (BBS 2015). Please refer to the El jurisdictional delineation report for more detailed information on the Proposed Project, regulatory framework, and methods. For additional information pertaining to the biological resources associated with the Proposed Project, please refer to the Biological Technical Report (BTR; BBS 2014).

#### 1.0 PROPOSED PROJECT LOCATION AND BACKGROUND INFORMATION

In an effort to increase the efficiency and supply of renewably generated power to the California Independent System Operator (CAISO) grid, CAISO has identified a policy-driven need for a new 230 kV transmission line to connect the existing SDG&E

Sycamore Canyon and Peñasquitos Substations. To satisfy the need for this new 230 kV transmission line, SDG&E proposes to construct and operate a new, approximately 16.7-mile 230 kV transmission line between the existing SDG&E Sycamore Canyon and Peñasquitos Substations (Appendix A: Figure 1). The Proposed Project would also include the consolidation of two existing 69 kV power lines onto new double-circuit, steel structures that would replace existing, predominantly wood structures. All new transmission line facilities would be located within existing SDG&E Right-of-Way or within franchise position within existing public roadways.

During the initial planning phases of the Proposed Project, a 500-foot wide BSA was designated, and all biological studies associated with the Proposed Project were conducted within the BSA, including the original jurisdictional delineation conducted by EI and summarized in the *Jurisdictional Delineation of SDG&E's Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project* (EI 2014).

Since the initial biological studies were conducted within the original BSA, several new areas have been added to the Proposed Project, including the Encina Hub, Mira Mesa Hub, several staging yards and stringing sites, various access roads, and other work areas. Additional biological surveys, including a jurisdictional delineation, are required within the areas that were not included in the original BSA to adequately assess potential impacts associated with the implementation of the Proposed Project. These additional biological surveys are being conducted in 2015 and will be summarized in various technical reports once these surveys have been completed.

This memorandum focuses on the regulatory setting, methods, and results for the focused jurisdictional delineation that was performed for the newly added areas along the main Proposed Project alignment (Appendix A: Figures 1 through 4). This memorandum does not include the results of the jurisdictional delineation conducted at the Encina Hub, which were summarized in a separate supplemental jurisdictional delineation memorandum (BBS 2015). The jurisdictional delineation survey area for the newly added areas (new survey area) along the main Proposed Project alignment that are addressed in this memorandum are composed of the Proposed Project access roads with 20-foot survey buffers and the Proposed Project work areas with 50-foot survey buffers (Appendix A: Figures 2 through 4).

#### 2.0 REGULATORY FRAMEWORK

A brief description of the regulatory framework of the USACE, RWQCB, CDFW, and the CCC is provided below.

# 2.1 U.S. Army Corps of Engineers

USACE regulates the discharge of dredged and/or fill material, both temporary and permanent, into waters of the U.S. and wetland waters of the U.S., pursuant to Section 404 of the Clean Water Act (CWA). USACE waters of the U.S. are delineated by the

lateral and upstream/downstream extent of the ordinary high watermark (OHWM). USACE wetland waters of the U.S. are defined using three parameters including wetland hydrology, hydric soils, and hydrophytic vegetation.

It should be noted that vernal pools are classified as "problem areas" because one or more of the three wetland parameters may be lacking due to the seasonal filling and drying that is characteristic of vernal pools (USACE 1987). USACE takes jurisdiction over vernal pools when a hydrologic connection to a downstream Traditional Navigable Waters (TNW) is demonstrated.

# 2.2 Regional Water Quality Control Board

RWQCB regulates discharge of dredged and/or fill material into waters of the State and wetland waters of the State pursuant to Section 401 of the CWA and/or Section 13000 et. seq. of the California Water Code under the Porter-Cologne Water Quality Control Act. RWQCB waters of the State and wetland waters of the State regulated under Section 401 of the CWA are all areas defined as USACE waters of the U.S. and wetland waters of the U.S. If a potential vernal pool meets the USACE wetland criteria, but is considered an isolated water by the USACE, the RWQCB asserts jurisdiction under the Porter Cologne Act.

# 2.3 California Department of Fish and Wildlife

CDFW regulates activities that would substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake, pursuant to Section 1600 *et. seq.* of the California Fish and Game Code. CDFW typically extends its jurisdictional limit to the top of a stream, the bank of a lake, or the outer edge of the riparian vegetation, whichever is wider. In addition, CDFW asserts jurisdiction over vernal pools only when California state threatened and/or endangered species (e.g., thread-leaved brodiaea [*Brodiaea filifolia*, FAC]) are present.

#### 2.4 California Coastal Commission

CCC regulates the drilling, filling, or dredging of wetlands within the coastal zone, pursuant to Section 30000 *et. seq.* of the California Public Resource Code under the California Coastal Act. CCC takes jurisdiction over wetlands within the Coastal Zone with only one criterion (i.e., wetland hydrology, hydric soils, <u>or</u> hydrophytic vegetation) required to be present for jurisdiction to be asserted.

#### 3.0 METHODS

BBS performed background research, field work associated with the jurisdictional delineation, and a focused basin assessment to identify all potentially jurisdictional areas that are located in the new portions of the Proposed Project. The methods used are summarized, below.

#### 3.1 Background Research

Prior to conducting the field survey, BBS conducted a desktop assessment for drainages and other aquatic resources. This desktop review consisted of a review of the *Jurisdictional Delineation of San Diego Gas & Electric's Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project* (El 2014), U.S. Geological Survey 7.5-minute Del Mar and Poway topographic quadrangles containing the site, the U.S. Fish and Wildlife Service National Wetlands Inventory maps, and the U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey and National List of Hydric Soils.

#### 3.2 Jurisdictional Delineation

The field surveys were conducted using comparable techniques outlined in the El jurisdictional delineation report (El 2014) and the technical guidelines in the USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0; USACE 2008). In addition, other potential jurisdictional features were identified pursuant to criteria outlined in Section 1600 et. seq. of the California Fish and Game Code for CDFW jurisdictional areas and pursuant to the California Code of Regulations Title 14 for CCC wetlands. All USACE data sheets are included in Appendix B.

#### 3.3 Basin Assessment

BBS also conducted a separate, focused basin assessment of the new survey areas that are outside of the "No Drive Zone", and within all vernal pools, road ruts, and unclassified basins that were previously identified by EI (2014) and during Scott McMillan's County-wide vernal pool mapping (2009, 2010, 2011). In addition, BBS also assessed basins identified incidentally while assessing the known basins within the original BSA; however, BBS did not conduct a comprehensive survey for basins within the entire original BSA because these areas had already been surveyed by EI (2014) and contained data from Scott McMillan's County-wide vernal pool mapping (2009, 2010, 2011).

The basin assessment was conducted to identify all depressions within or immediately adjacent to the Proposed Project impact area that were inundated or appeared to have the potential to stay inundated under wet conditions based on microtopography, surface soil cracking, changes in vegetation, and/or presence of vernal pool obligate species. All of the depressions identified by BBS during this assessment were mapped and labeled as "basins". In addition, all vernal pools, road ruts, and unclassified basins that were previously identified by EI (2014) and Scott McMillan's County-wide vernal pool mapping (2009, 2010, 2011) were added to this data set and also labeled as "basins".

All of the basins included in this data set were visited following a March 2015 rain event. The intent of this visit was to verify the location of these basins and collect preliminary data on these basins within the alignment, such as estimated maximum depths, widths, and lengths; habitat conditions; disturbance types and amounts; aquatic species and fairy shrimp species detected.

Because the jurisdictional delineation, focused basin assessment in the new survey area, and the initial visit to all basins were conducted before many vernal pool obligate species would have emerged, these basins could not be classified as vernal pools or road ruts at the time of these surveys. Therefore, focused vernal pool indicator plant surveys of these basins are currently being conducted during spring 2015. The intent of the focused spring 2015 vernal pool indicator plant surveys is to classify the plants within each basin and identify vernal pool indicator species within these basins. The data collected during these surveys will be used to classify the basins as vernal pools, road ruts, or detention basins.

The results of the focused basin assessment and vernal pool indicator plant surveys, including boundary and jurisdictional maps of all positively identified vernal pools, will be provided in a separate report once the vernal pool indicator plant surveys have been completed. In addition, focused, protocol-level fairy shrimp surveys may be conducted within these basins to determine if they support listed fairy shrimp species to determine appropriate jurisdiction.

#### 4.0 RESULTS

BBS biologist Darin Busby and Trestles Environmental Corporation biologist Julie Fontaine conducted the jurisdictional delineation of the new survey areas on February 16 and 20, 2015. The jurisdictional delineation focused on the new survey areas that encompass the new Proposed Project access roads with 20-foot survey buffers and the new Proposed Project work areas with 50-foot survey buffers (Appendix A: Figures 2 through 3). The results of this jurisidctional delineation are provided, below.

In March 2015, a focused basin assessment was conducted to identify and assess basins within the new survey areas as well as to locate and assess all known vernal pools, road ruts, and unclassified basins that were previously detected and mapped within the original BSA (El 2014; McMillan 2009, 2010, 2011). In addition, BBS assessed basins identified incidentally while assessing the known basins within the original BSA; however, BBS did not conduct a comprehensive survey for basins within the entire original BSA because these areas had already been surveyed by El (2014) and contained data from Scott McMillan's County-wide vernal pool mapping (2009, 2010, 2011). BBS also did not conduct a basin assessment within the "No Drive Zone" (see Appendix A: Figure 3, Pages 11 and 12) portion of Del Mar Mesa Preserve, despite the presence of numerous vernal pools and road ruts in this area.

In April 2015, early spring vernal pool indicator plant surveys were conducted to classify the plants within each basin and identify vernal pool indicator species within these basins. An additional late spring vernal pool indicator plant surveys will be collected to identify any other vernal pool indicator plant species in these basins that weren't identified during the first survey. The results of the basin assessment and vernal pool indicator plant surveys will be provided in a separate report, once the second round of vernal pool indicator plant surveys are completed in late spring 2015.

A general description of the land use and vegetation, topography and hydrology, and soils within the new survey area is provided in Section 4.1. A more detailed discussion of each jurisdictional feature, including a summary of the vegetation, soils, and hydrology data is provided in Sections 4.2. Section 4.3 provides a general description of the potential vernal pools, road ruts, and unclassified basins, with the jurisdictional status of these features to be provided in a separate report at a later date once the final vernal pool indicator plant survey has been conducted and the results have been analyzed. Section 4.4 describes the exempt non-jurisdictional erosional features and concrete v-ditches within the new survey area. Section 4.5 provides a summary of the jurisdictional features within the new survey area.

## 4.1 General Description of New Survey Area

This section provides a general description of the land use and vegetation, topography and hydrology, and soils within the new survey area.

#### **Land Use and Vegetation**

Land use within the new survey area consists primarily of undeveloped land, residential communities, and natural preserve lands. The new survey area is dominated by the following vegetation communities and land cover types: Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, revegetated coastal sage scrub, chamise chaparral, southern mixed chaparral, scrub oak chaparral, nonnative grassland, developed lands, ornamental, and bare ground. Other vegetation communities and land cover types present in smaller proportions throughout the new survey area include, but are not limited to, southern riparian scrub, southern willow scrub, southern coast live oak riparian forest, mulefat scrub, tamarisk scrub, eucalyptus woodland, revegetated alkali marsh, freshwater marsh, open water, San Diego mesa vernal pool, native grassland, coastal sage — chaparral scrub, disturbed chamise chaparral, disturbed southern mixed chaparral, and disturbed habitat (Appendix A: Figure 3).

#### **Topography and Hydrology**

Elevations with the new survey area range from approximately 1,000 feet above mean sea level (amsl) at Sycamore Canyon Substation in the eastern portion of the original BSA to approximately 120 feet amsl in an unnamed tributary to Peñasquitos Creek, which is located approximately 1 mile east of the Peñasquitos Substation in the

western portion of the original BSA (Appendix A: Figure 2). The new survey area crosses through a network of roads and highways, mixed-use development, parks, and undeveloped open space. Topography along the new survey area varies from relatively flat developed and undeveloped areas, to steep and rolling hills and ridges, to wide and narrow drainages and canyons. The new survey area crosses through and/or adjacent to several unnamed and named drainages and canyons, including three named blue-line drainages as depicted on the USGS topographic maps, including Peñasquitos Canyon, McGonigle Canyon, and Deer Canyon (Appendix A: Figure 2).

The new survey area crosses through a variety of habitats and land uses, from undeveloped natural areas where drainage hydrology is relatively intact and undisturbed, to urbanized areas where local hydrology and drainage patterns have been significantly altered. Surface water runoff within the new survey area appears to be captured predominantly by perennial creeks and underground storm water systems associated with the urban developments.

#### **Soils**

A full list and description of the soil types found in the original BSA is provided in Appendix B in the jurisdictional delineation report that was prepared by EI for the original BSA (EI 2014). Seven soil types occur within the new survey area, including Redding cobbly loam, dissected, 15 to 50 percent slopes; Redding gravelly loam, 2 to 9 percent slopes; Auld stony clay, 9 to 30 percent slopes; San Miguel-Exchequer rocky silt loams, 9 to 70 percent slopes; Terrace escarpments; Olivenhain cobbly loam, 2 to 9 percent slopes; and Riverwash (NRCS 2015a). Only one of these soil types, Riverwash, is listed as a hydric soil by the Natural Resources Conservation Services (NRCS 2015b).

The basins within the original BSA and new survey areas occur within a variety of soil types, some of which are known to historically support vernal pools. Vernal pools in cismontane San Diego County are confined primarily to low-slope phases of seven soil series, including Carlsbad, Chesterton, Huerhuero, Olivenhain, Placentia, Redding and Stockpen (Bauder and McMillan 1998). Of these seven soil series, 41 of the 65 (i.e., Basins 14 through 54) identified basins within the original BSA and new survey areas occur within and adjacent to two of these soil types (i.e., Redding gravelly loam, 2 to 9 percent slopes, and Olivenhain cobbly loam, 9 to 30 percent slopes), which occur within the vicinity of the Del Mar Mesa Preserve area in the western portion of the Proposed Project alignment (Appendix A: Figure 3, Pages 4 through 13).

# 4.2 Description of Jurisdictional Features

A total of ten new jurisdictional features occur within the new survey area. The majority of the jurisdictional features identified during the jurisdictional delineation were continuations of jurisdictional features previously identified by El during their

jurisdictional delineation within the original 500-foot wide BSA for the main Proposed Project alignment (El 2014). Because these jurisdictional features have already been described in the corresponding Jurisdictional Delineation of San Diego Gas & Electric's Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project (El 2014), these features will only be briefly described in the sections below. The boundaries and jurisdictions of these jurisdictional features are depicted in Figure 3 (Appendix A), the detailed USACE data forms for Sample Points 1 and 2 are provided in Appendix B (USACE Data Forms), and photographs of the features are provided in Appendix C (Site Photographs).

# Feature 7: Tributary To Peñasquitos Creek 6

Feature 7 is an unnamed ephemeral drainage that originates at a culvert adjacent to the dirt access road and travels south to connect to Los Peñasquitos Creek, a blue-line drainage depicted on USGS topographic maps that eventually connects to Los Peñasquitos Lagoon and the Pacific Ocean (Appendix A: Figure 3, Page 9). This feature was dry at the time of the survey but apears to receive infrequent moderate to high velocities flows during and directly after storm events, as evident by the presence hard sands and cobbles, shelving, and/or scouring at the OHWM. This feature is dominated by upland vegetation and contains Redding gravelly loam, 2 to 9 percent slopes. Downstream and contiguous portions of Feature 7 were previously identified during the jurisdictional delineation conducted by EI; therefore, a detailed description of vegetation, soils, and hydrology within Feature 7 is provided in Section 4.4.7 of the Jurisdictional Delineation of SDG&E's Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project (EI 2014).

Feature 7 contains a total of approximately <0.01 acre of USACE waters of the U.S. and RWQCB waters of the State and approximately <0.01 acre of CDFW unvegetated streambed (Table 1). The location and jurisdictional boundaries of this feature are provided in Appendix A (Figure 3, Page 9) and a photograph of this feature is provided in Appendix C (Photograph 1).

#### Feature 10: Tributary To Peñasquitos Creek 9

Feature 10 is composed of two unnamed ephemeral drainages that originate west of the dirt access road, cross the dirt access road, and then connect into one unnamed ephemeral drainage that travels south to connect to Los Peñasquitos Creek, a blue-line drainage depicted on USGS topographic maps that eventually connects to Los Peñasquitos Lagoon and the Pacific Ocean (Appendix A: Figure 3, Page 11). This feature was dry at the time of the survey but apears to receive infrequent moderate to high velocities flows during and directly after storm events, as evident by the presence of hard sands and cobbles, shelving, sediment sorting, deposition and/or scour at the OHWM. This feature is dominated by dense, upland vegetation and contains terrace escarpments soils. Downstream and contiguous portions of Feature 10 were previously

Table 1. Summary of Total Jurisdiction by Feature Number and Regulatory Agency

		US	SACE			CD		RWQCB						
	Wetland WoUS		WoUS		Riparian		US		Wetland WoS		WoS		CCC Wetland	
Feature Number	acre*	linear feet	acre*	linear feet	acre*	linear feet	acre*	linear feet	acre*	linear feet	acre	linear feet	acre	linear feet
7	-	-	<0.01	10.00	-	-	<0.01	10.00	-	-	<0.01	10.00	_	-
10	-	-	0.01	132.00	-	-	0.01	132.00	-	ı	0.01	132.00	-	ı
11	-	-	<0.01	15.00	-	-	<0.01	15.00	-	ı	<0.01	15.00	-	ı
15	0.07	165.76	0.01	51.00	0.14	339.90	ı	1	0.07	165.76	0.01	51.00	-	-
18	-	-	<0.01	24.10	-	-	<0.01	24.10	-	ı	<0.01	24.10	-	ı
21	-	-	0.01	180.00	-	-	0.01	180.00	-	-	0.01	180.00	-	-
22	-	-	0.01	97.50	-	-	0.01	97.50	-	-	0.01	97.50	-	-
27	-	-	-	-	0.10	215.34	-	-	-	-	-	-	_	-
28	0.05	165.40	-	-	0.12	413.25	-	-	0.05	165.40	-	_	_	-
32	-		0.04	289.26	0.04	163.00	0.04	289.26	-	-	0.04	289.26	-	-
Total**	0.13	331.16	0.08	798.86	0.40	1,131.49	0.07	747.86	0.13	331.16	80.0	798.86	-	-

<sup>\*</sup>Acreages are approximate and rounded to the nearest hundredth of an acre.

Wetland WoUS = Wetland waters of the U.S. WoUS = Waters of the U.S. Wetland WoS = Wetland waters of the State WoS = Waters of the State US = Unvegetated Streambed

<sup>\*\*</sup>Totals represent actual totals without rounding error.

identified during the jurisdictional delineation conducted by EI; therefore, a detailed description of vegetation, soils, and hydrology within Feature 10 is provided in Section 4.4.10 of the *Jurisdictional Delineation of SDG&E's Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project* (EI 2014).

Feature 10 contains a total of approximately 0.01 acre of USACE waters of the U.S. and RWQCB waters of the State and approximately 0.01 acre of CDFW unvegetated streambed (Table 1). The location and jurisdictional boundaries of this feature are provided in Appendix A (Figure 3, Page 11) and photographs of this feature are provided in Appendix C (Photographs 2-3).

#### Feature 11: Tributary To Deer Canyon 1

Feature 11 is an unnamed ephemeral drainage that originates adjacent to the dirt access road and travels northwest to eventually connect to Deer Canyon Creek, McGonigle Canyon Creek, and Carmel Creek, all of which are blue-line drainages depicted on USGS topographic maps that connect to Los Peñasquitos Lagoon and the Pacific Ocean (Appendix A: Figure 3, Page 11). This feature was dry at the time of the survey but apears to receive infrequent moderate velocities flows during and directly after storm events, as evident by the presence of hard sands and cobbles, a defined bed and bank, shelving, and/or scour at the OHWM. This feature is dominated by dense, upland vegetation and contains Redding gravelly loam, 2 to 9 percent slopes. Downstream and contiguous portions of Feature 11 were previously identified during the jurisdictional delineation conducted by EI; therefore, a detailed description of vegetation, soils, and hydrology within Feature 11 is provided in Section 4.4.11 of the Jurisdictional Delineation of SDG&E's Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project (EI 2014).

Feature 11 contains a total of approximately <0.01 acre of USACE waters of the U.S. and RWQCB waters of the State and approximately <0.01 acre of CDFW unvegetated streambed (Table 1). The location and jurisdictional boundaries of this feature are provided in Appendix A (Figure 3, Page 11) and a photograph of this feature is provided in Appendix C (Photograph 4).

#### Feature 15: McGonigle Canyon Creek

Feature 15 is part of a braided, low-gradient riparian drainage that is dominated by southern willow scrub, mulefat scrub, and eucalyptus woodland (Appendix A: Figure 3, Page 13). This feaure is part of McGonigle Canyon Creek which originates from the east and connects to Carmel Creek offisite to the west, both of which are blue-line drainages depicted on USGS topographic maps that connect to Los Peñasquitos Lagoon and the Pacific Ocean. Although this drainage was dry at the time of the survey, the drainge appears to receive intermittent high-velocity flows, as evident by sediment deposits, shelving, scour, vegetation destruction, drainage patterns, water marks, and/or disturbed leaf litter at the OHWM. An existing dirt access road occurs

within and adjacent to this feature. The dirt access road travels directly through a braided offshoot section of the main drainage and over the main drainage, where flows are conveyed through three culverts beneath the access road. Salinas clay loam, 2 to 9 percent slopes, is the dominant soil type present within Feature 15 and McGonigle Canyon Creek.

Upstream and contiguous portions of Feature 15 were previously identified during the jurisdictional delineation conducted by EI; therefore, a detailed description of vegetation, soils, and hydrology within Feature 15 is provided in Section 4.4.15 of the Jurisdictional Delineation of SDG&E's Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project (EI 2014). However, it should be noted that upstream portions of Feature 15 within and adjacent to the areas previously delineated by EI do not satisfy the hydrophytic vegetation or hydric soils criterion. These upstream areas are dominated by bluegum eucalyptus (Eucalyptus globulus, UPL), with patches arroyo willow, mule fat, and sugar bush, and contain substrates dominated by upland soils with a restrictive layer of dense cobbles and packed sand.

Feature 15 contains a total of approximately 0.07 acre of USACE wetland waters of the U.S. and RWQCB wetland waters of the State, approximately 0.01 acre of USACE waters of the U.S. and RWQCB waters of the State, and approximately 0.14 acre of CDFW riparian (Table 1). The location and jurisdictional boundaries of this feature are provided in Appendix A (Figure 3, Page 13), and the detailed USACE data form for Sample Point 1 is provided in Appendix B (USACE Data Forms), and photographs of this feature are provided in Appendix C (Photographs 5-6).

#### Feature 18: Tributary to McGonigle Canyon Creek 3

Feature 18 is composed of six narrow erosional features that originate within the proposed Camino Del Sur Yard, drain into one unnamed ephemeral drainage onsite, which then travels offsite to the west (Appendix A: Figure 3, Page 15). This unnamed ephemeral drainage eventually connect to McGonigle Canyon Creek and Carmel Creek, both of which are blue-line drainages depicted on USGS topographic maps that connect to Los Peñasquitos Lagoon and the Pacific Ocean. This feature was dry at the time of the survey but apears to receive infrequent moderate to high velocities flows during and directly after storm events, as evident by the presence hard sands and cobbles, shelving, and/or scouring at the OHWM. This feature is dominated by upland vegetation and contains Olivenhain cobbly loam, 2 to 9 percent slopes. Downstream and contiguous portions of Feature 18 were previously identified during the jurisdictional delineation conducted by EI; therefore, a detailed description of vegetation, soils, and hydrology within Feature 18 is provided in Section 4.4.18 of the Jurisdictional Delineation of SDG&E's Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project (EI 2014).

Feature 18 contains a total of approximately <0.01 acre of USACE waters of the U.S. and RWQCB waters of the State and approximately <0.01 acre of CDFW unvegetated

streambed (Table 1). The location and jurisdictional boundaries of this feature are provided in Appendix A (Figure 3, Page 15) and a photograph of this feature is provided in Appendix C (Photograph 7).

# Feature 21: Tributary to La Zanja Canyon 2

Feature 21 is an unnamed ephemeral drainage that originates east of the dirt access road. The drainage travels under the dirt access roads through a series of culverts, and then travels west to eventually connect to La Zanja Canyon and San Dieguito River, both of which are blue-line drainages depicted on USGS topographic maps that connect to San Dieguito Lagoon and the Pacific Ocean (Appendix A: Figure 3, Page 18). This feature was dry at the time of the survey but apears to receive infrequent moderate to high velocities flows during and directly after storm events, as evident by the presence hard sands and cobbles, shelving, eroded bank, and/or scouring at the OHWM. This feature is dominated by dense, upland vegetation and contains San Miguel-Exchequer rocky silt loams, 9 to 70 percent slopes. Upstream and contiguous portions of Feature 21 were previously identified during the jurisdictional delineation conducted by EI; therefore, a detailed description of vegetation, soils, and hydrology within Feature 21 is provided in Section 4.4.21 of the *Jurisdictional Delineation of SDG&E's Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project* (EI 2014).

Feature 21 contains a total of approximately 0.01 acre of USACE waters of the U.S. and RWQCB waters of the State and approximately 0.01 acre of CDFW unvegetated streambed (Table 1). The location and jurisdictional boundaries of this feature are provided in Appendix A (Figure 3, Page 18) and a photograph of this feature is provided in Appendix C (Photograph 8).

#### Feature 22: McGonigle Canyon Creek 5

Feature 22 is at the confluence of two unnamed ephemeral drainages that originate east of a dirt access road. The drainage continues across the road to the west using an Arizona crossing and then enters a culvert in a narrow basin off site to the west where it eventually connect to McGonigle Canyon Creek and Carmel Creek, both of which are blue-line drainages depicted on USGS topographic maps that connect to Los Peñasquitos Lagoon and the Pacific Ocean (Appendix A: Figure 3, Page 19). This feature was dry at the time of the survey and appears to receive infrequent moderate to high water velocities flows only during and directly after storm events as evident by the presence of hard sands and cobbles and a defined bed and bank at the OHWM. This feature is dominated by dense, upland vegetation and contains Auld stony clay, 9 to 30 percent slopes. Upstream and contiguous portions of Feature 22 were previously identified during the jurisdictional delineation conducted by EI; therefore, a detailed description of vegetation, soils, and hydrology within Feature 22 is provided in Section 4.4.22 of the *Jurisdictional Delineation of SDG&E's Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project* (EI 2014).

Feature 22 contains a total of approximately 0.01 acre of USACE waters of the U.S. and RWQCB waters of the State and approximately 0.01 acre of CDFW unvegetated streambed (Table 1). The location and jurisdictional boundaries of this feature are provided in Appendix A (Figure 3, Page 19) and a photograph of this feature is provided in Appendix C (Photograph 9).

#### Feature 27: Tributary to Peñasquitos Creek 10

Feature 27 is an unnamed intermittent drainage dominated by southern willow scrub that originates southeast of the paved access road, travels north beneath the access roads through a large concrete culvert offsite, parallels the east side of the paved access road, and eventually connect to Los Peñasquitos Creek. In addtion, a concrete spillway along the access road channels nuissance flows into this drainage. The unnamed intermittent drainage and Los Peñasquitos Creek are both blue-line drainages depicted on USGS topographic maps that connect to Los Peñasquitos Lagoon and the Pacific Ocean (Appendix A: Figure 3, Page 24). USACE data sheets were not completed and soil pits were not excavated within this feature because the new survey area occurs only beaneath the outer edges of the riparian canopy, outside of the drainage bottom and the OHWM where hydrophytic vegetation (i.e., Salix sp., etc.) and hydrology (i.e., vegetation destruction, disturbed leaf litter, shelving, scour, and sediment sorting at the OHWM) are present. The presence of hydrophytic vegetation and hydrology in the drainage bottom outside of the survey area indicate that hydric soils, and USACE wetland waters of the U.S. and RWQCB wetland waters of the State, may also be present in this area. San Miguel-Exchequer rocky silt loams, 9 to 70 percent slopes (non-hydric) is the dominant soil type mapped within Feature 27. Upstream and contiguous portions of Feature 27 were previously identified during the jurisdictional delineation conducted by EI; therefore, a detailed description of vegetation, soils, and hydrology within Feature 27 is provided in Section 4.4.27 of the Jurisdictional Delineation of SDG&E's Sycamore to Peñasguitos 230 Kilovolt Transmission Line Project (El 2014).

Feature 27 contains a total of approximately 0.10 acre of CDFW riparian (Table 1). The location and jurisdictional boundaries of this feature are provided in Appendix A (Figure 3, Page 24) and a photograph of this feature is provided in Appendix C (Photograph 10).

#### Feature 28: Los Peñasquitos Creek

Feature 28 is a braided riparian drainage that is dominated by southern riparian scrub, southern coast live oak riparian forest, mulefat scrub, and fresh water marsh (Appendix A: Figure 3, Page 22). This feature is part of Los Peñasquitos Creek, a blue-line drainage depicted on USGS topographic maps that connects to Los Peñasquitos Lagoon and the Pacific Ocean. This feature contained flowing water at the time of the survey and showed strong evidence of high-velocity flows (i.e., sediment deposits, shelving, scouring, debris jams, vegetation destruction, and disturbed leaf litter at the

OHWM). Upstream and contiguous portions of Feature 28 were previously identified during the jurisdictional delineation conducted by EI; therefore, a detailed description of vegetation, soils, and hydrology within Feature 28 is provided in Section 4.4.28 of the *Jurisdictional Delineation of SDG&E's Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project* (EI 2014).

Feature 28 contains a total of approximately 0.05 acre of USACE wetland waters of the U.S. and RWQCB wetland waters of the State and approximately 0.12 acre of CDFW riparian (Table 1). The location and jurisdictional boundaries of this feature are provided in Appendix A (Figure 3, Page 22), the detailed USACE data form for Sample Point 2 is provided in Appendix B (USACE Data Forms), and a photograph of this feature is provided in Appendix C (Photograph 11). A USACE data sheet was completed for this feature but soil pits were not excavated within this feature because the new survey area consists of a proposed access road along a bridge that spans the entire width of this feature within Los Peñasquitos Creek; therefore, no impacts to this feature are anticipated from the proposed project.

#### Feature 32: Tributary to Beeler Creek 1

Feature 32 is composed of two unnamed intermittent drainages and one unnamed ephemeral drainage. The unnamed drainages travel north to eventually connect to Beeler Creek and Los Peñasquitos Creek, all of which are blue-line drainages depicted on USGS topographic maps that eventually connect to Los Peñasquitos Lagoon and the Pacific Ocean (Appendix A: Figure 3, Pages 27 and 28). This feature was dry at the time of the survey and it appears to receive infrequent moderate to high water velocities flows only during and directly after storm events as evident by the presence of hard sands and cobbles, a defined bed and bank, scouring, shelving, and/or erosion at the OHWM. The drainages within this feature are dominated by dense, upland vegetation and contain Redding cobbly loam, dissected, 15 to 50 percent slopes. Upstream and contiguous portions of Feature 32 were previously identified during the jurisdictional delineation conducted by EI; therefore, a detailed description of vegetation, soils, and hydrology within Feature 32 is provided in Section 4.4.32 of the Jurisdictional Delineation of SDG&E's Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project (EI 2014).

Feature 32 contains a total of approximately 0.04 acre of USACE waters of the U.S. and RWQCB waters of the State, approximately 0.04 acre of CDFW unvegetated streambed, and approximately 0.04 acre of CDFW riparian (Table 1). The location and jurisdictional boundaries of this feature are provided in Appendix A (Figure 3, Pages 27 and 28) and a photograph of this feature is provided in Appendix C (Photographs 12 – 14).

# 4.3 Description of Potential Vernal Pools, Road Ruts, and Unclassified Basins

Sixty-five basins were identified within the original BSA and new survey area, with the exception of the "No Drive Zone". All depressions in access roads that were inundated or appeared to have the potential to stay inundated under wet conditions based on microtopography, surface soil cracking, compacted sand and/or clay substrates, changes in vegetation, biotic crust, and/or presence of vernal pool obligate species were labeled as "basins". The basins are filled or appear to be filled from direct precipitation and/or overland sheetflow from adjacent uplands. Data from the focused basin surveys and data collected on vernal pool indicator plant species during the focused vernal pool indicator plant surveys will be used to classify the basins as vernal pools, road ruts, and/or fairy shrimp habitat. The jurisdictional status of these basins will be presented in a separate report at a later date once the final focused vernal pool indicator plant survey is performed and the results are analyzed.

A portion of these 65 vernal pools, road ruts, and unclassified basins were identified during the jurisdictional delineation conducted by EI and a description of these are provided in Section 4.5 of the Jurisdictional Delineation of SDG&E's Sycamore to Peñasguitos 230 Kilovolt Transmission Line Project (El 2014). However, several more basins were identified by BBS during the focused basin assessment, some of which had been previoulsy identified by Scott McMillan (2009, 2010, 2011). Twelve of the 65 basins identified during the focused basin assessment were inundated at the time of the assessment. These basins were located throughout the alignment. Seven of the 12 inundated basins (i.e., Basins 15, 19, 28, 35, 36, 39, and 54) are located adjacent to known vernal pool complexes within the vicinity of the Del Mar Mesa Preserve area in the western portion of the Proposed Project alignment (Appendix A: Figure 3, Pages 4, 5, 8, 9, 10, and 12). A detailed description and jurisdictional determination of these basins will be provided in a separate report once the results of the second focused vernal pool indicator plant survey are analyzed. Several photographs of these basins are provided in Appendix C (Photographs 15 – 19) and the location and of these basins are provided on various pages in Appendix A (Figure 3).

# 4.4 Description of Exempt, Non-jurisdictional Features

A total of approximately 8,913 linear feet of exempt, non-jurisdictional concrete v-ditches are present within the new survey area (Appendix A: Figure 3). The USACE and other regulatory agencies generally do not assert jurisdiction over concrete v-ditches, which are considered municipal separate storm sewer systems (MS4) erosion control features. The concrete v-ditches within the survey area have been built in uplands to capture erosional runoff from the surrounding dirt access roads and power line tower pads and transmit it to the municipal storm sewer system. A representative photograph of a v-ditch is provided in Appendix C (Photograph 20).

In addition, several exempt, non-jurisdictional detention basins, swales, ditches, and erosional features occur within the new survey area. The the USACE and other regulatory agencies generally do not assert jurisdiction over naturally occuring or man made erosional features, non-tidal drainage ditches, gullies, small washes, and swales that are characterized by low volume and infrequent or short duration flows. Riprap, waterbars, and fiber rolls have been placed in some portions of these erosional features to provide erosion control support. A photograph of a riprap-lined swale is provided in Appendix C (Photograph 21).

# 4.5 Summary of Jurisdictional Features

A summary of the acreage, itemized by regulatory agency and vegetation community, is provided in Table 2.

#### **USACE Jurisdiction**

A total of nine features that are under the jurisdiction of USACE were identified within the survey area. Of these nine features, two features have a total of approximately 0.12 acre (approximately 331.16 linear feet) of USACE wetland waters of the U.S., and seven features have a total of approximately 0.08 acre (approximately 798.86 linear feet) of USACE waters of the U.S.

# **RWQCB Jurisdiction**

A total of nine features that are under the jurisdiction of RWQCB were identified within the survey area. Of these nine features, two features have a total of approximately 0.12 acre (approximately 331.16 linear feet) of RWQCB wetland waters of the State, and seven features have a total of approximately 0.08 acre (approximately 798.86 linear feet) of RWQCB waters of the State.

# **CDFW Jurisdiction**

A total of ten features that are under the jurisdiction of CDFW were identified within the new survey area. Of these ten features, four features have a total of approximately 0.40 acre (approximately 1,131.49 linear feet) of CDFW riparian and seven features have a total of approximately 0.37 acre (approximately 845.56 linear feet) of CDFW unvegetated streambed.

#### **CCC Jurisdiction**

None of the features are under the jurisdiction of the CCC since all features within the new survey area are outside of the coastal zone. The jurisdictional status of Basins 20 through 34 within the coastal zone will be presented in a separate report at a later date once the final focused vernal pool indicator plant survey is performed and the results are analyzed.

Table 2. Summary of Total Jurisdiction by Regulatory Agency and Vegetation Community

	Total Acres*	Total Linear * Feet	Dominant Vegetation Type (acre*)													
Regulatory Agency			Bare Ground	Chamise Chaparral	Coastal Sage Scrub - Revegetated	Diegan Coastal Sage Scrub	Diegan Coastal Sage Scrub - Disturbed	Developed Land	Disturbed Habitat	Mulefat Scrub	Nonnative Grassland	Southern Coast Live Oak Riparian Forest	Southern Mixed Chaparral	Scrub Oak Chaparral	Southern Riparian Scrub	
USACE																
Wetland WoUS	0.12	331.16	0.01	-	-	-	-	-	-	0.06	-	-	-	-	0.05	
WoUS	0.08	798.86	0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	-	-	0.04	<0.01	<0.01	0.01	
Total USACE**	0.20	1,130.02	0.02	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.06	-	0.04	<0.01	<0.01	0.06	
RWQCB																
Wetland WoS	0.12	331.16	0.01	-	-	-	-	-	-	0.06	-	-	-	-	0.05	
WoS	0.08	798.86	0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	-	-	0.04	<0.01	<0.01	0.01	
Total RWQCB**	0.20	1,130.02	0.02	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.06	-	0.04	<0.01	<0.01	0.06	
CDFW																
Riparian	0.40	1,139.49	0.01	-	-	ı	-	-	-	0.15	-	-	-	-	0.24	
US	0.37	845.56	0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	ı	-	0.33	<0.01	<0.01	-	
Total CDFW**	0.77	1,985.05	0.02	0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.15	-	0.33	<0.01	<0.01	0.24	
CCC																
Total CCC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

<sup>\*</sup>Acreages are approximate and rounded to the nearest hundredth of an acre.
\*\*Totals represent actual totals without rounding error.

Wetland WoUS = Wetland waters of the U.S. WoUS = Waters of the U.S. Wetland WoS = Wetland waters of the State WoS = Waters of the State US = Unvegetated Streambed

#### 5.0 CONCLUSION/DISCUSSION

Any anticipated Proposed Project impacts to the jurisdictional features presented in this memorandum would require the appropriate permit authorizations from the corresponding regulatory agency.

Because the jurisdictional delineation, focused basin assessment, and the initial visit to all basins were conducted before many vernal pool indicator species would have emerged, these basins could not be classified as vernal pools or road ruts at the time of these surveys, and therefore, their jurisdictional status could not be determined. Therefore, focused vernal pool indicator plant surveys of all basins are currently being conducted during spring 2015 and the results of all the data collected during the basin assessment and vernal pool indicator plant surveys will be used to classify the basins, as well as make a determination on their jurisdictional status. The basin assessment report will also provide other data, such as estimated maximum depths, widths, and lengths; habitat conditions; disturbance types and amounts; aquatic species and fairy shrimp species detected; vernal pool indicator plant species detected; and boundary and jurisdictional maps of all positively identified vernal pools.

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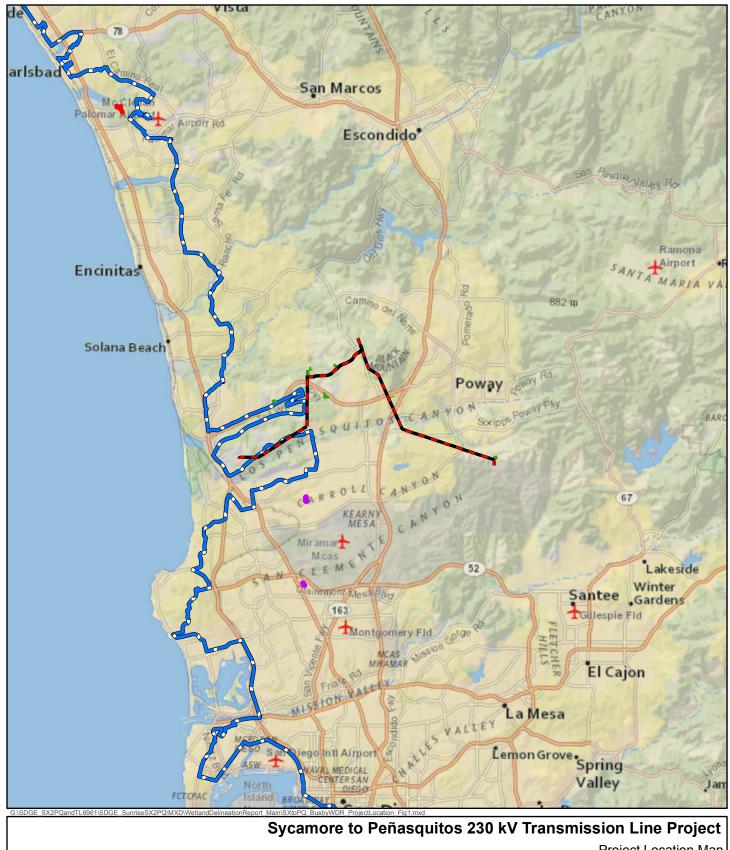
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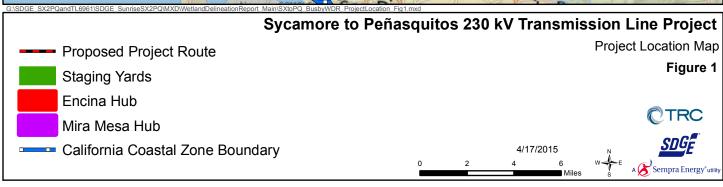
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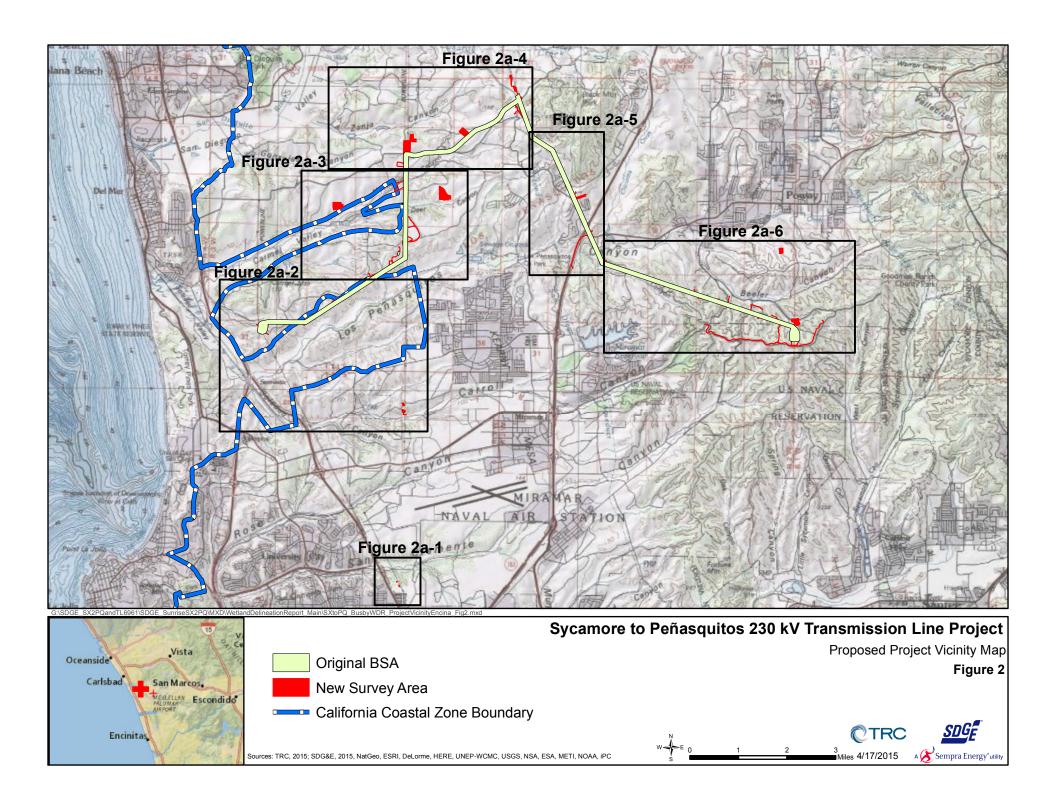
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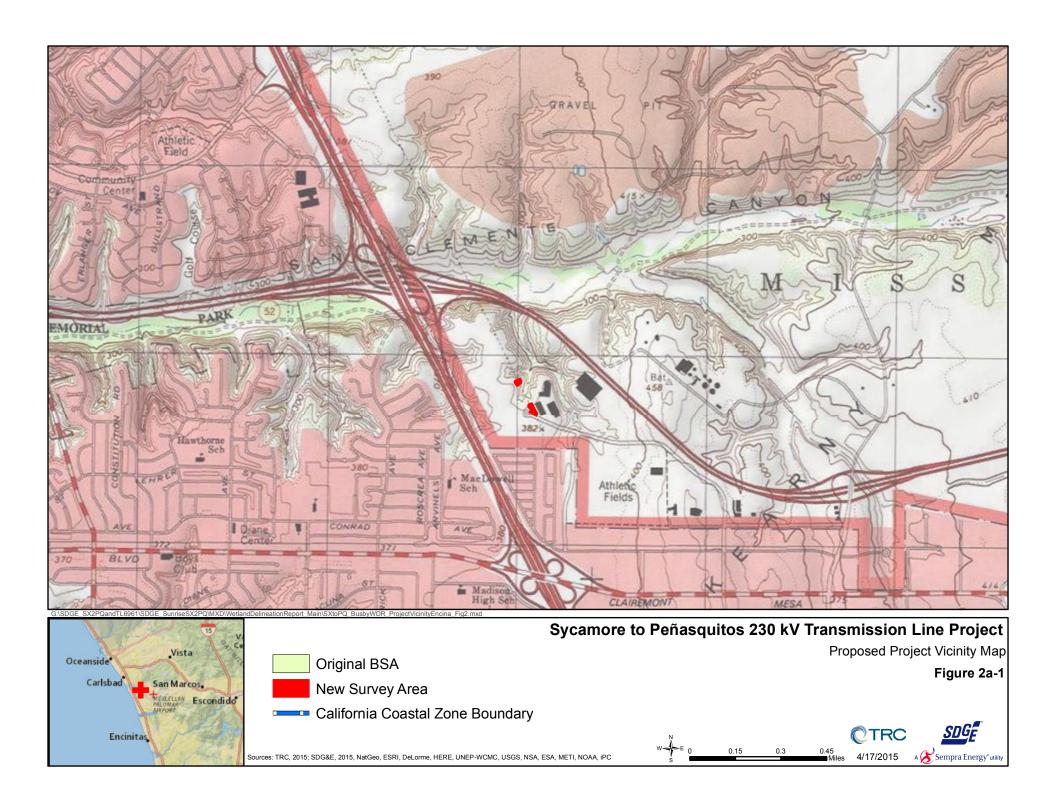
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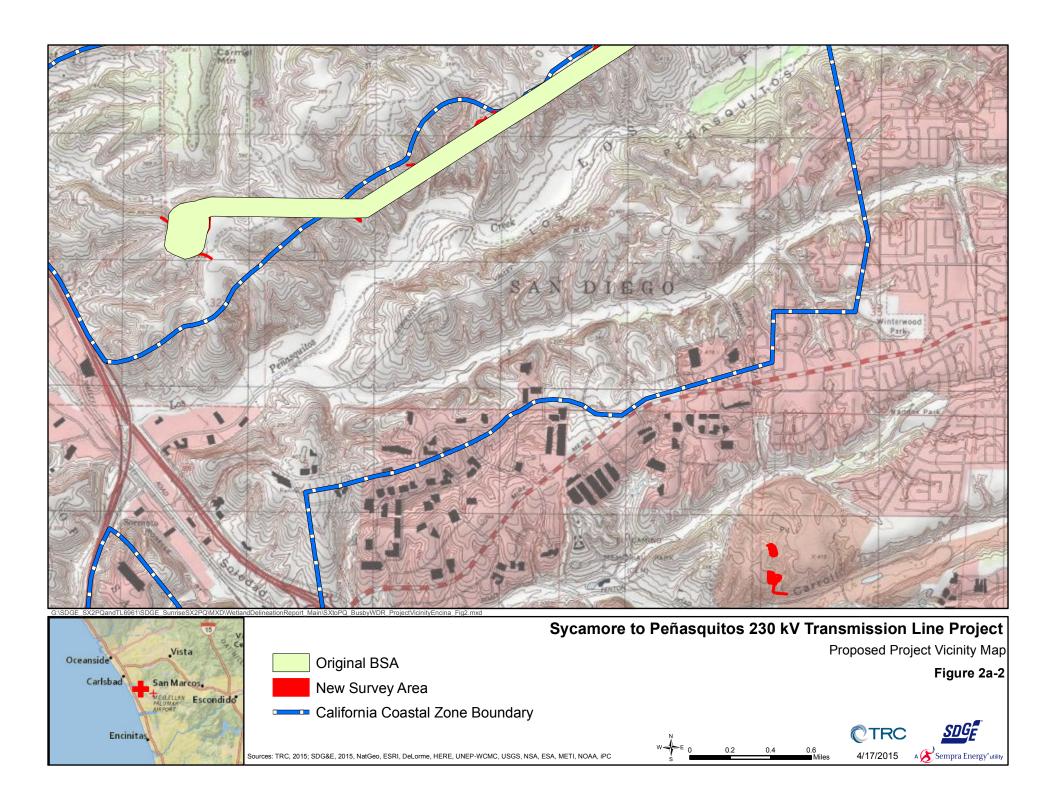
**APPENDIX A: FIGURES** 

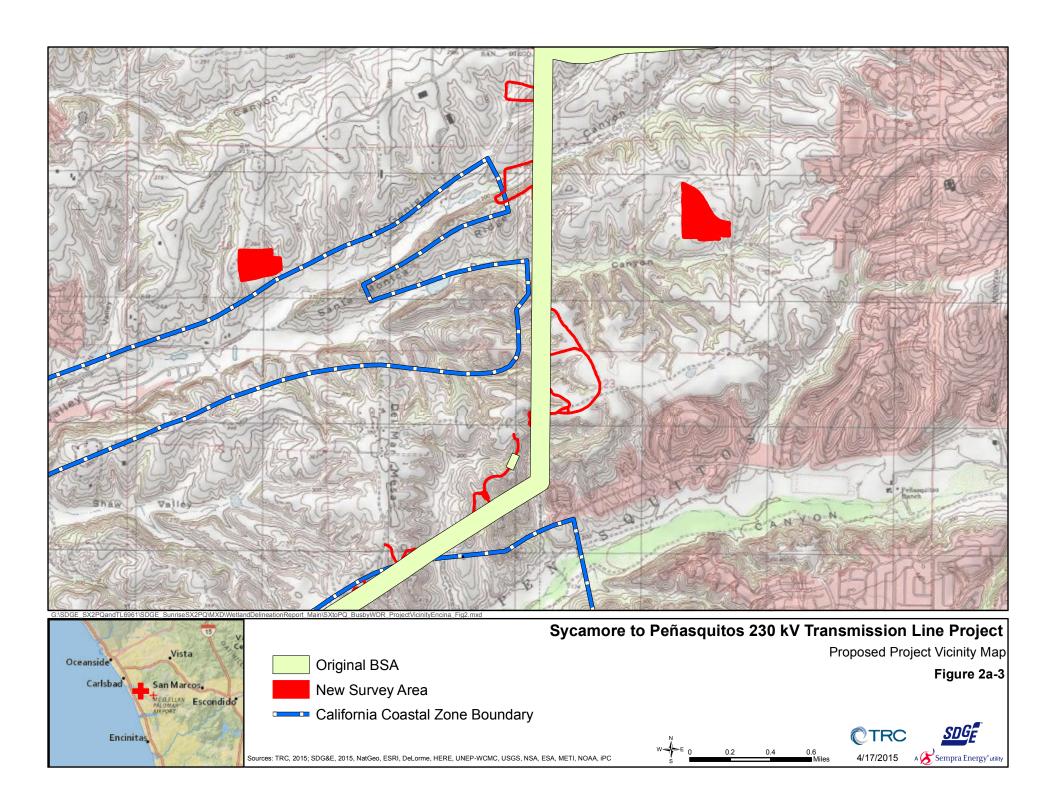


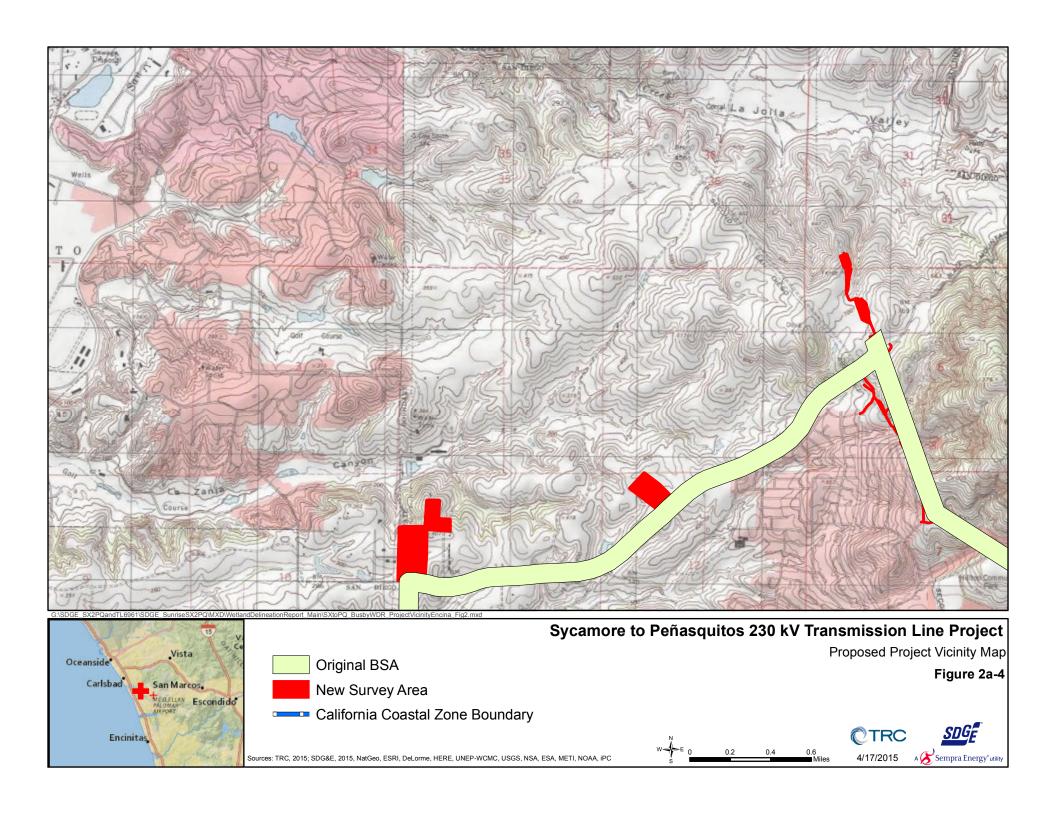


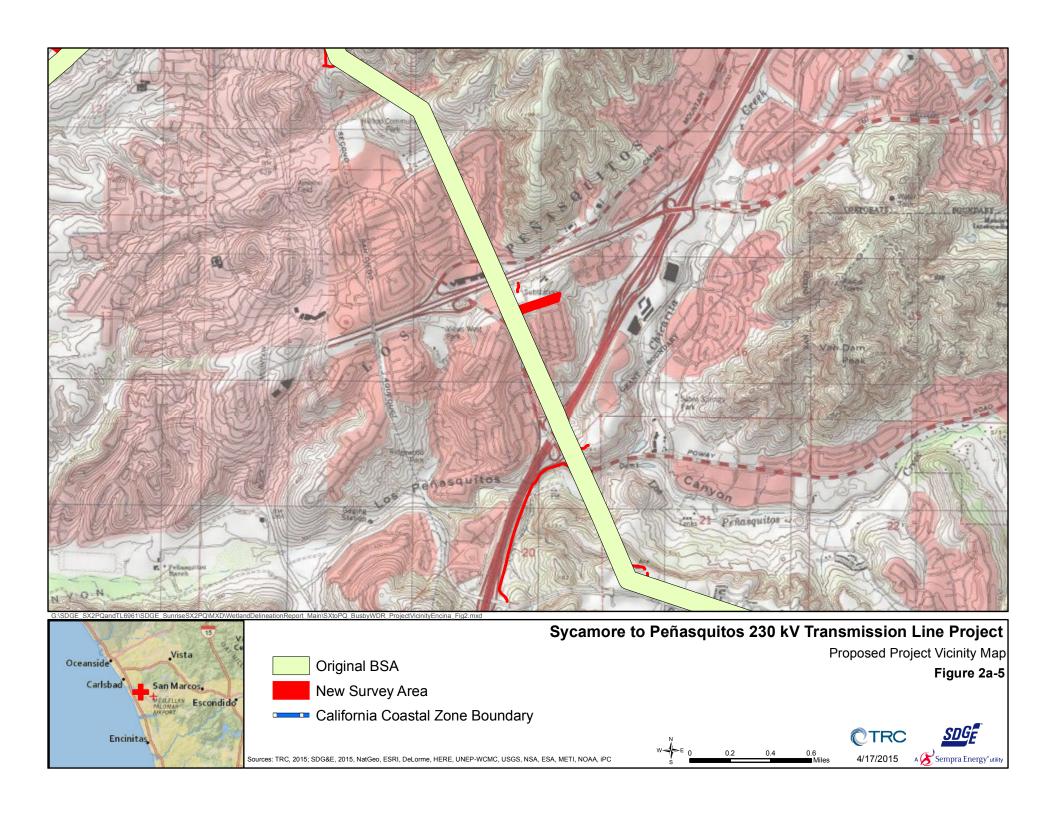


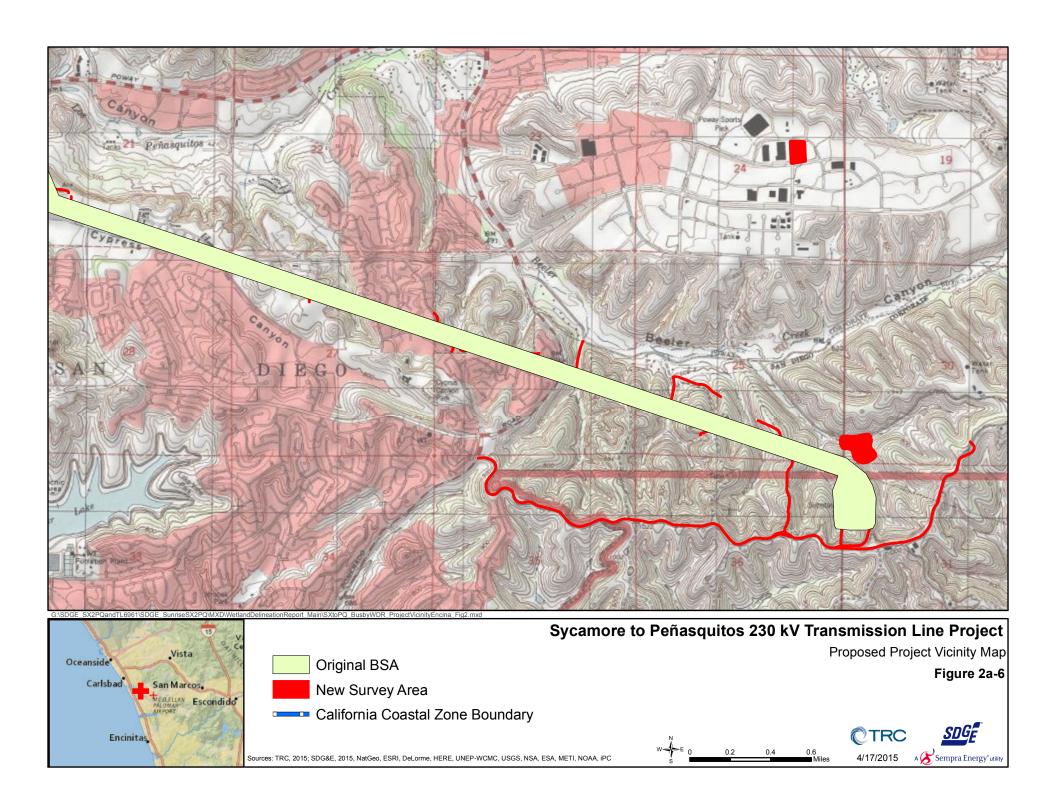












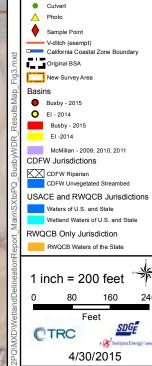


# Sycamore to Peñasquitos 230kV Transmission Line Project

Wetlands Field Map

Fig 3

Page 1 of 32



Sources: 2013 Esri, DigitalGlobe, GeoEye i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community;National Geographic, DeLorme, NAVTEQ,UNEP- WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC

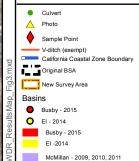


# Sycamore to Peñasquitos 230kV **Transmission Line Project**

Wetlands Field Мар

Fig 3

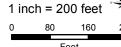
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USACE and RWQCB Jurisdictions

Wetland Waters of U.S. and State

RWQCB Only Jurisdiction RWQCB Waters of the State

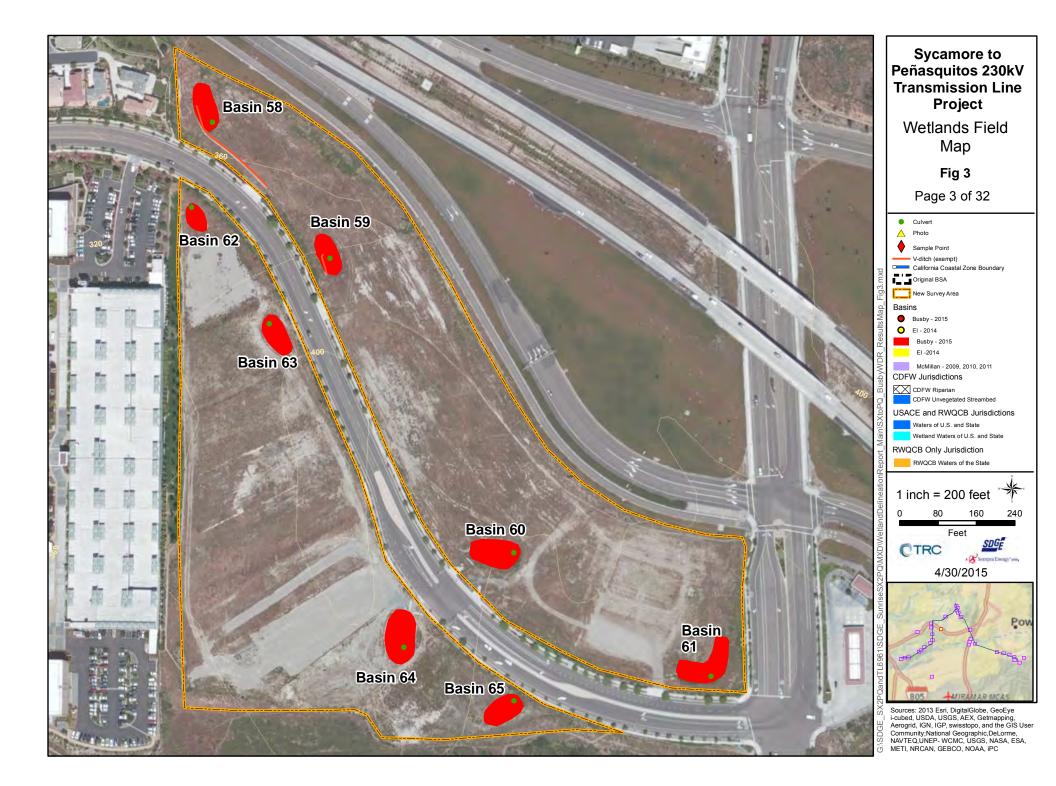


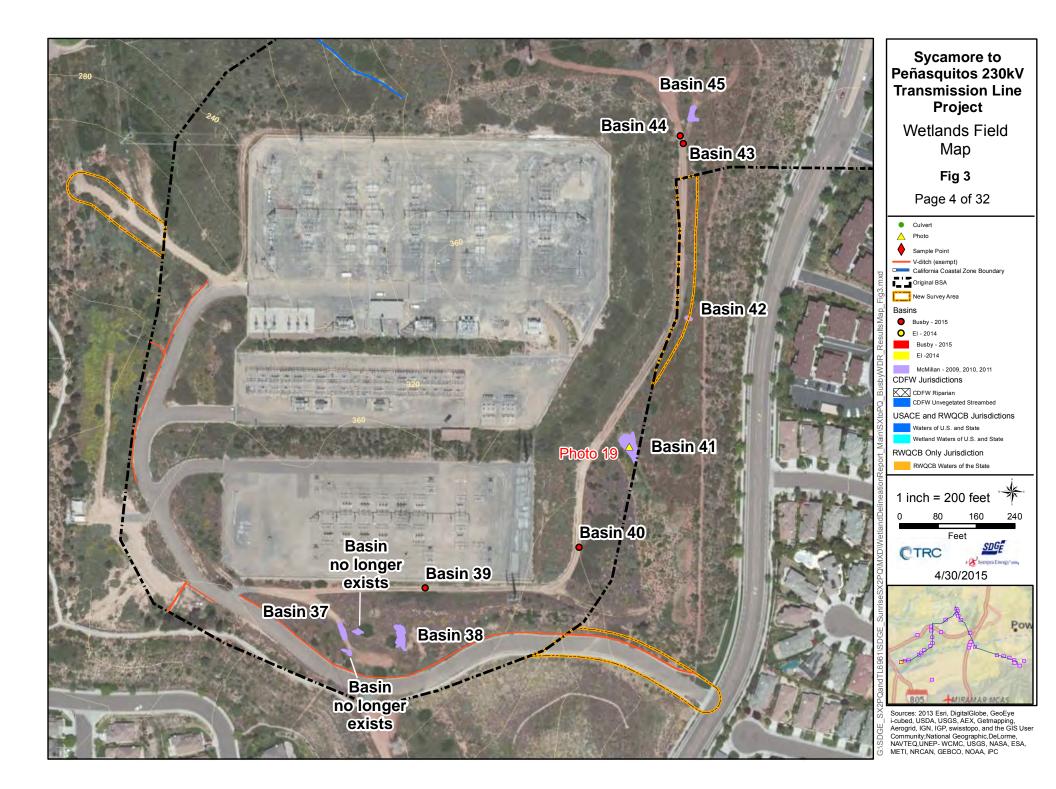


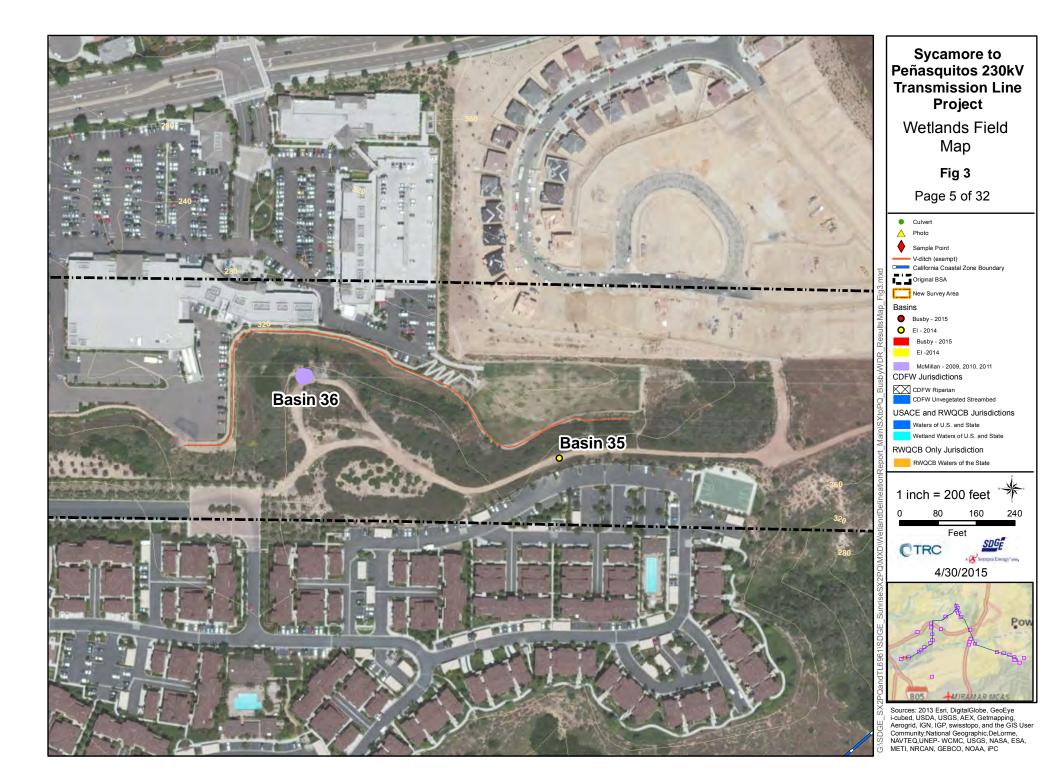
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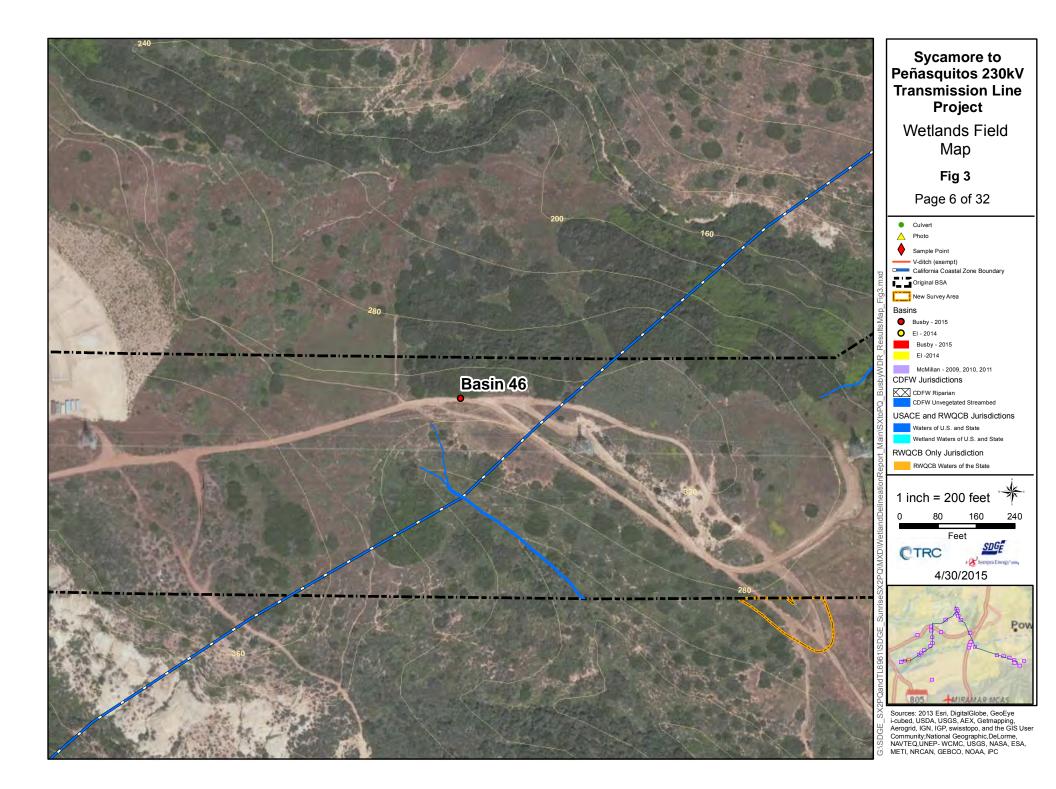


Sources: 2013 Esri, DigitalGlobe, GeoEye | I-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community: National Geographic, DeLorme, NAVTEQ.UNEP- WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC

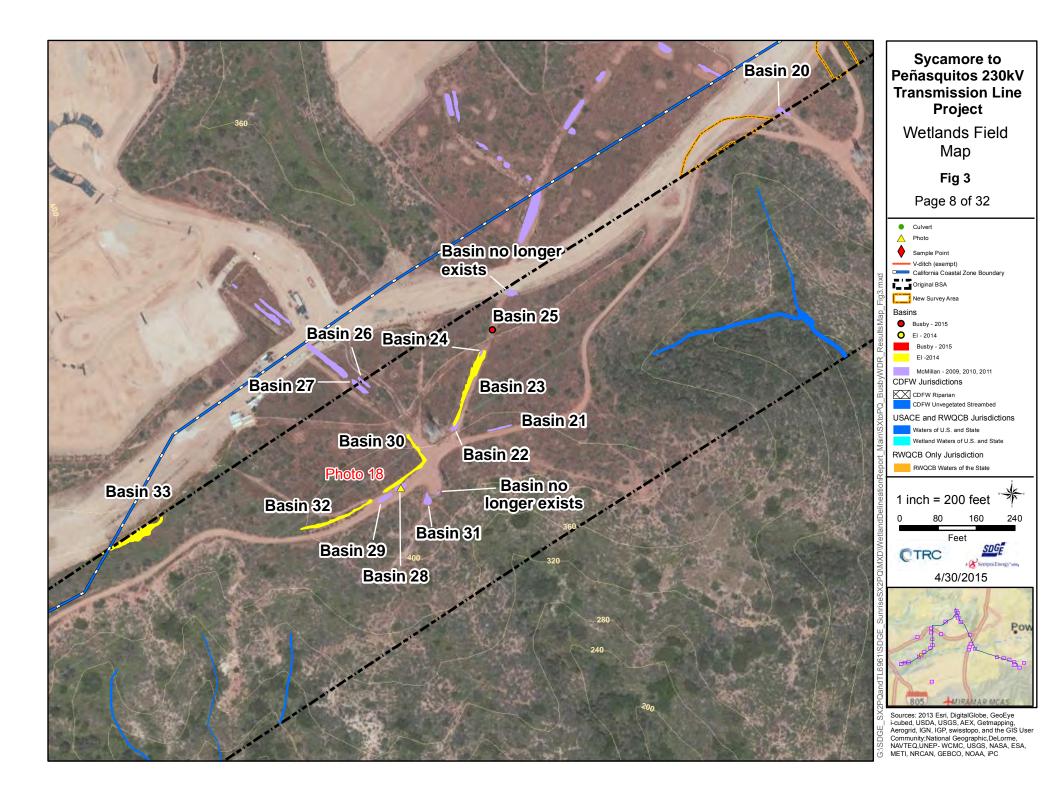


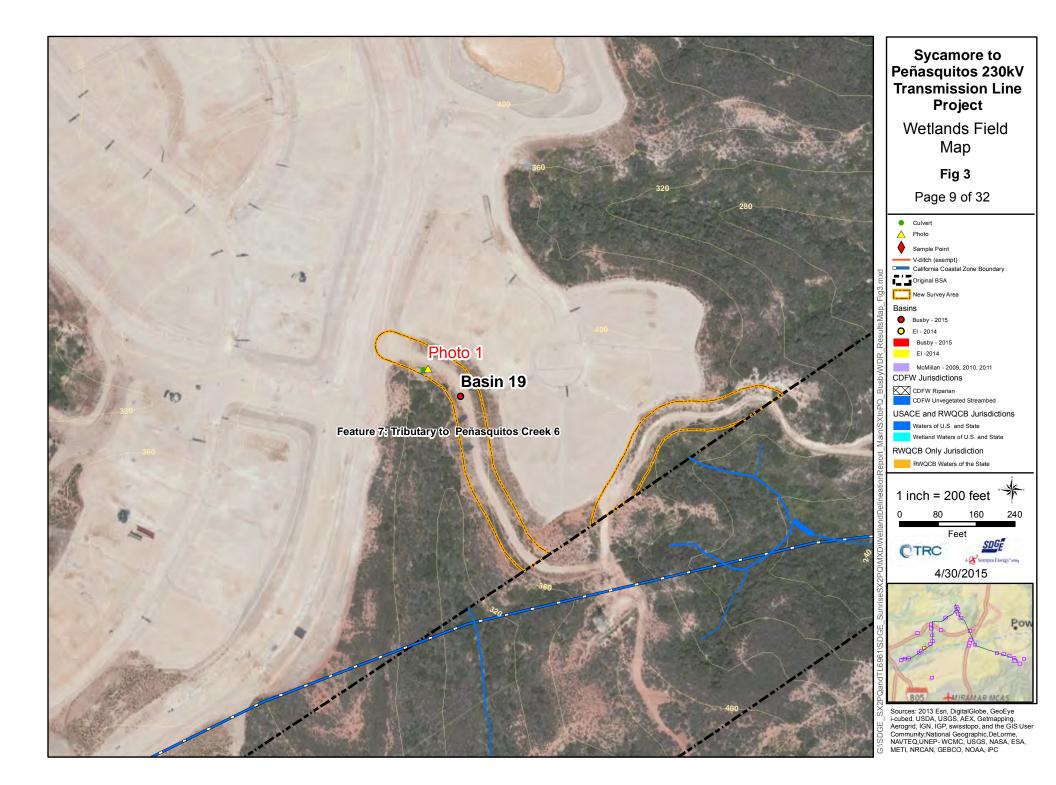


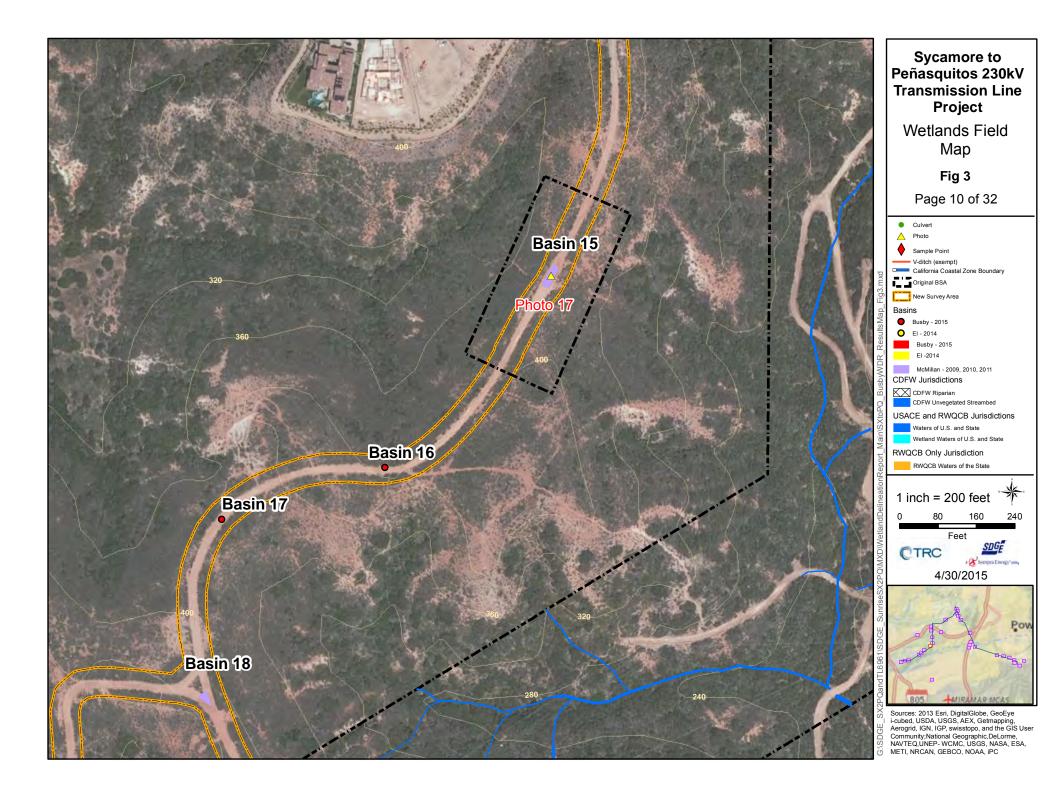


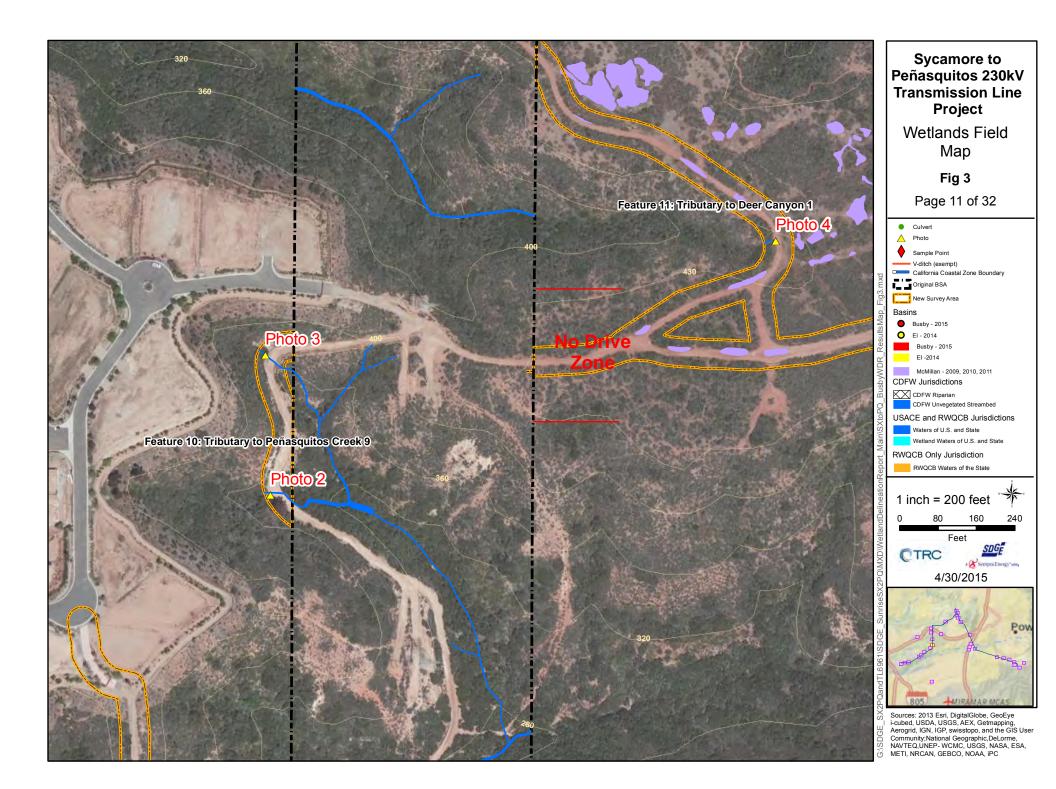


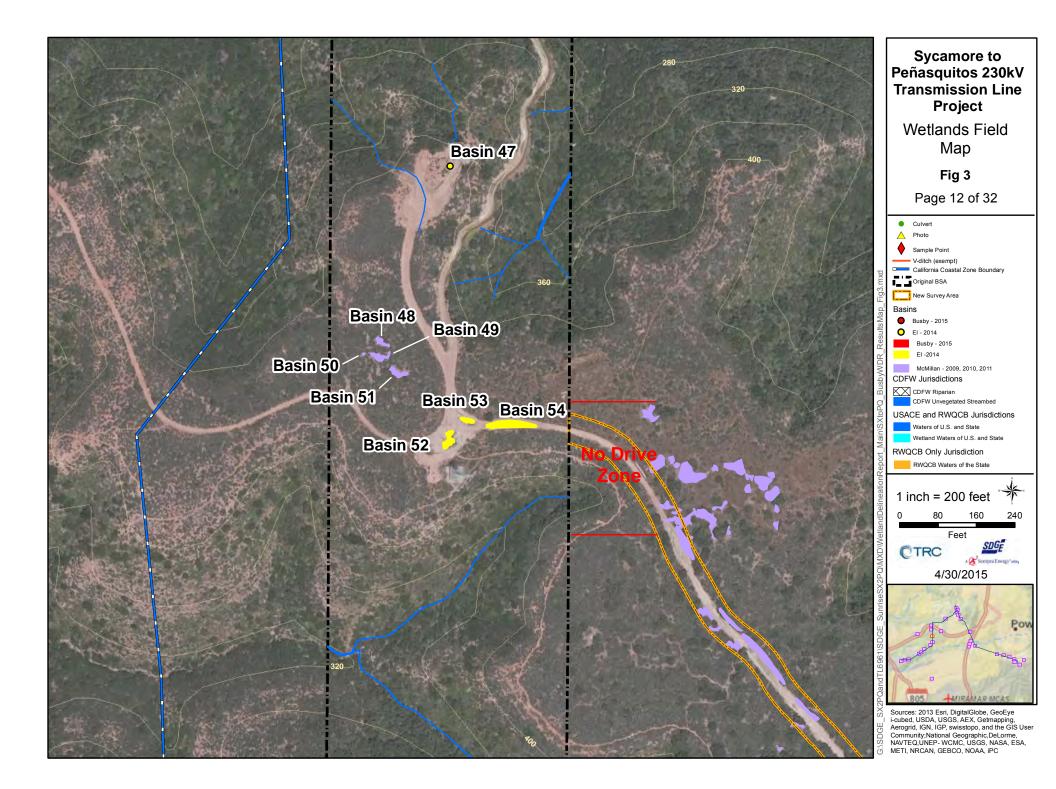


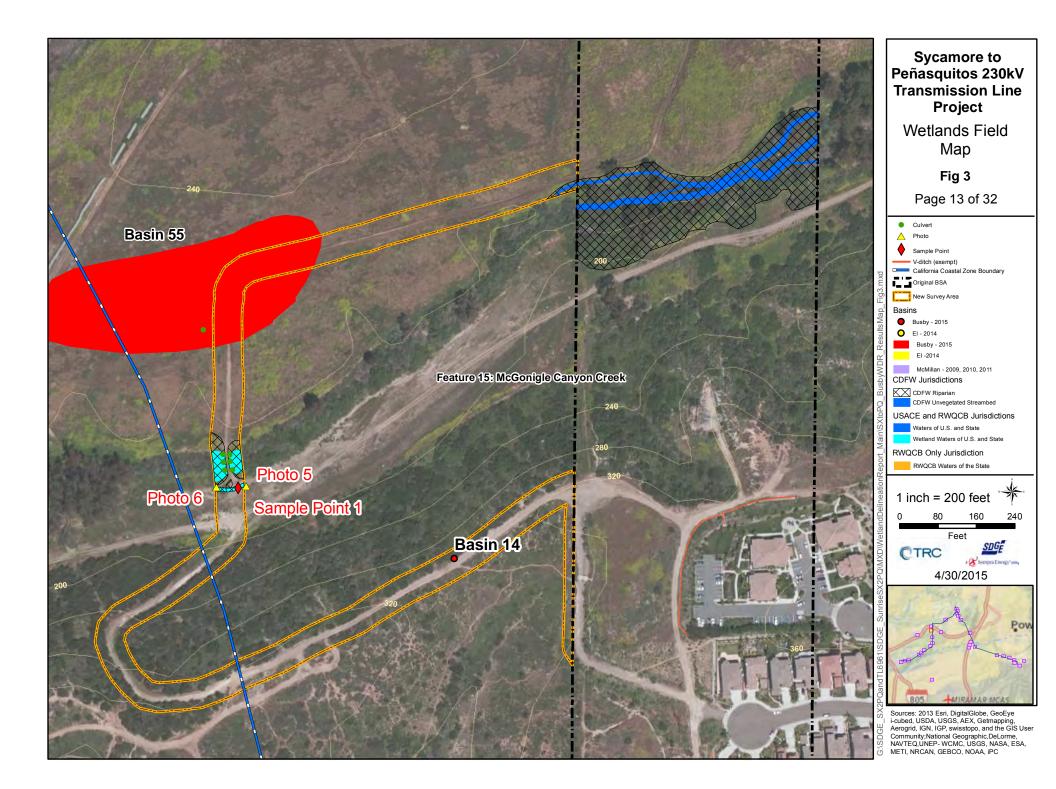


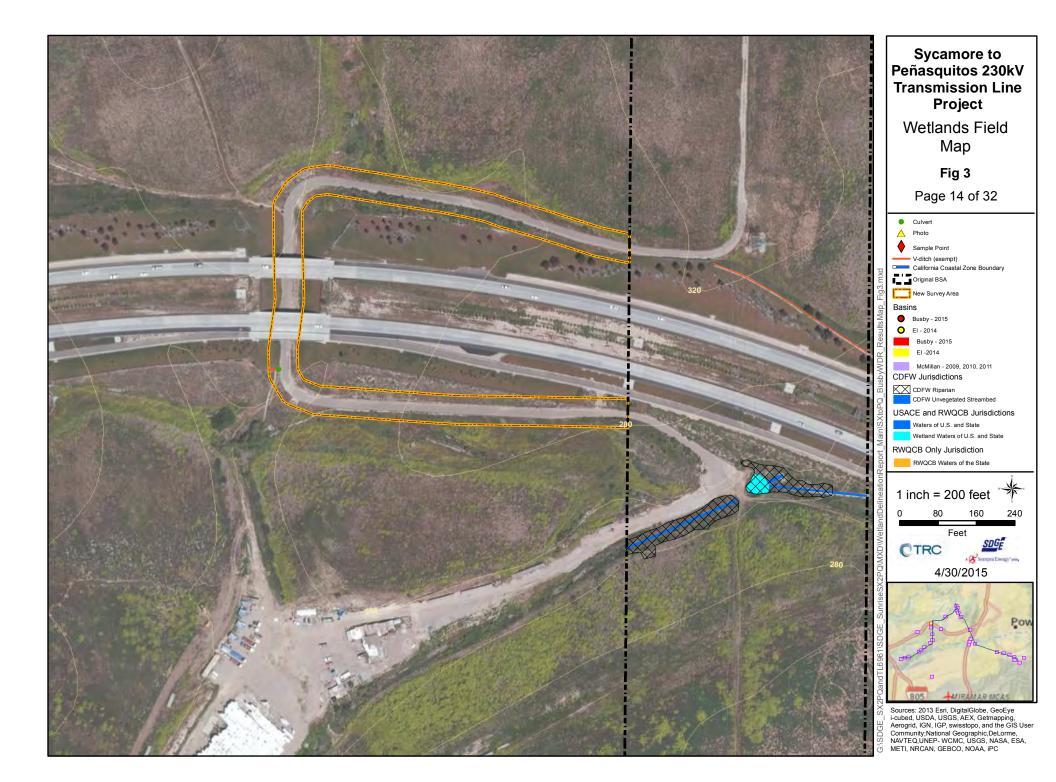


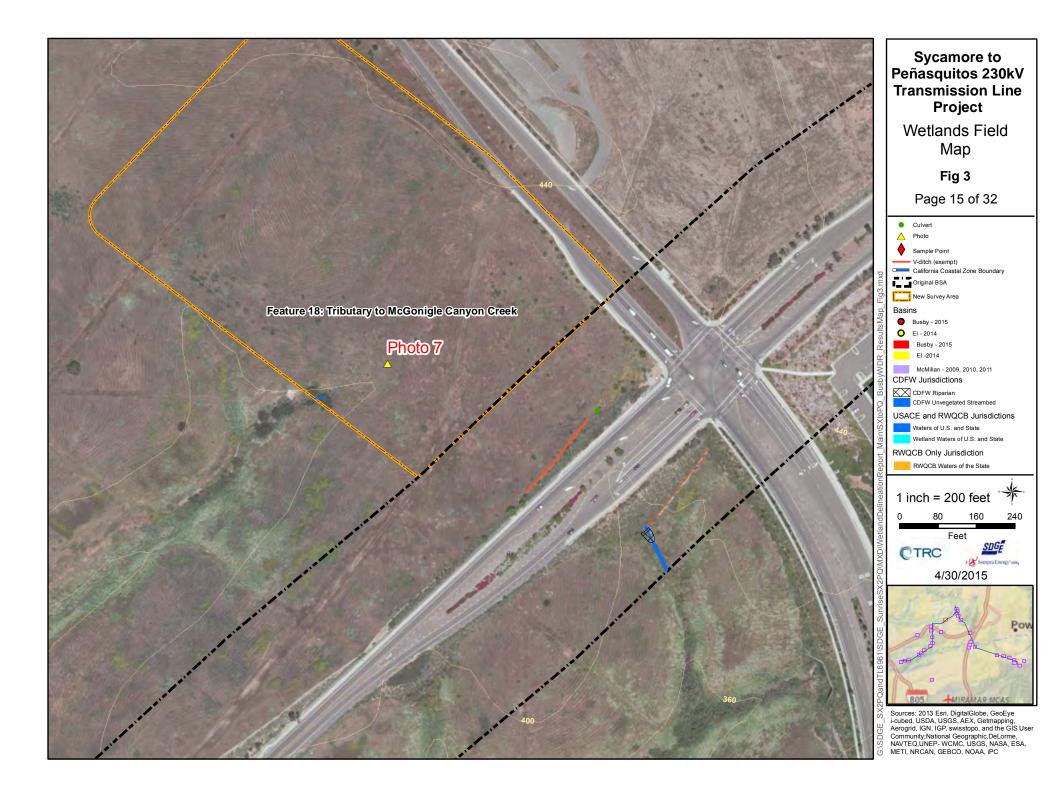


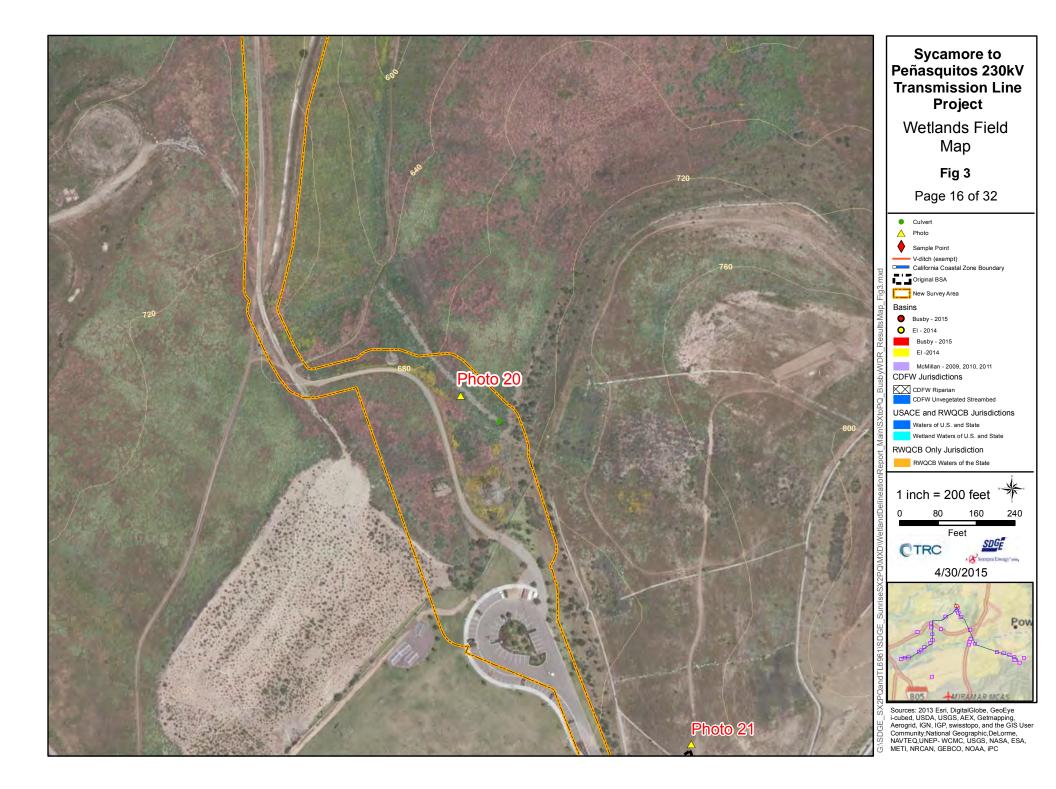


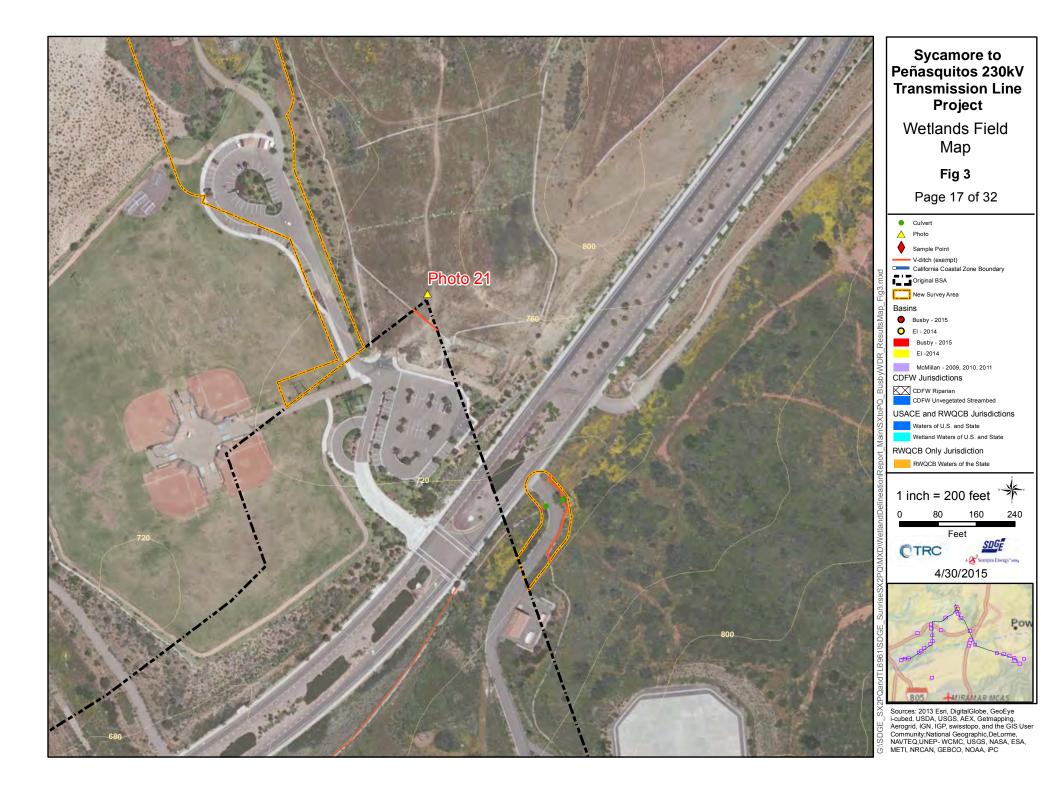


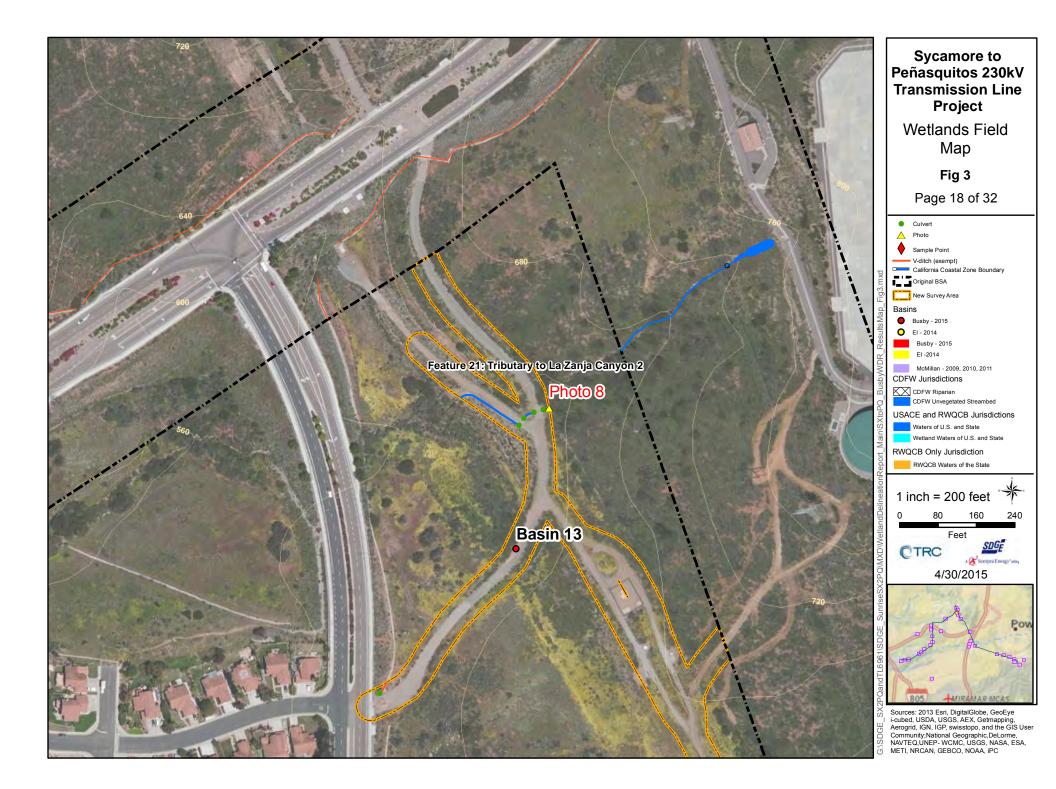


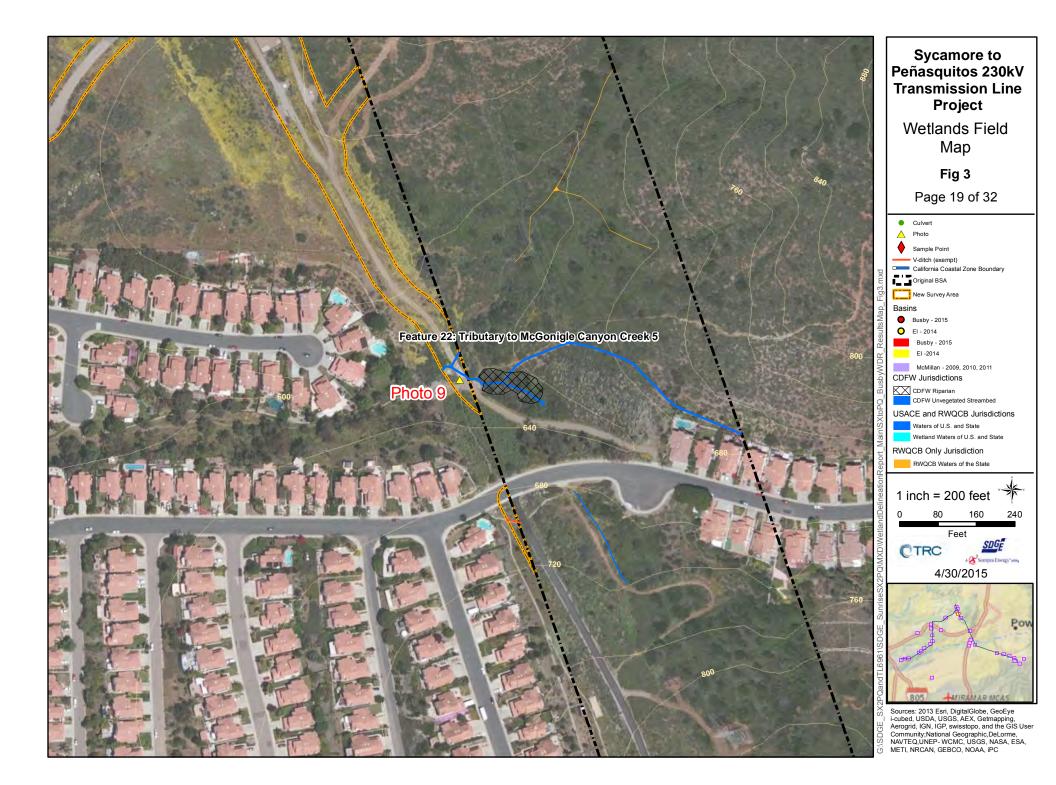


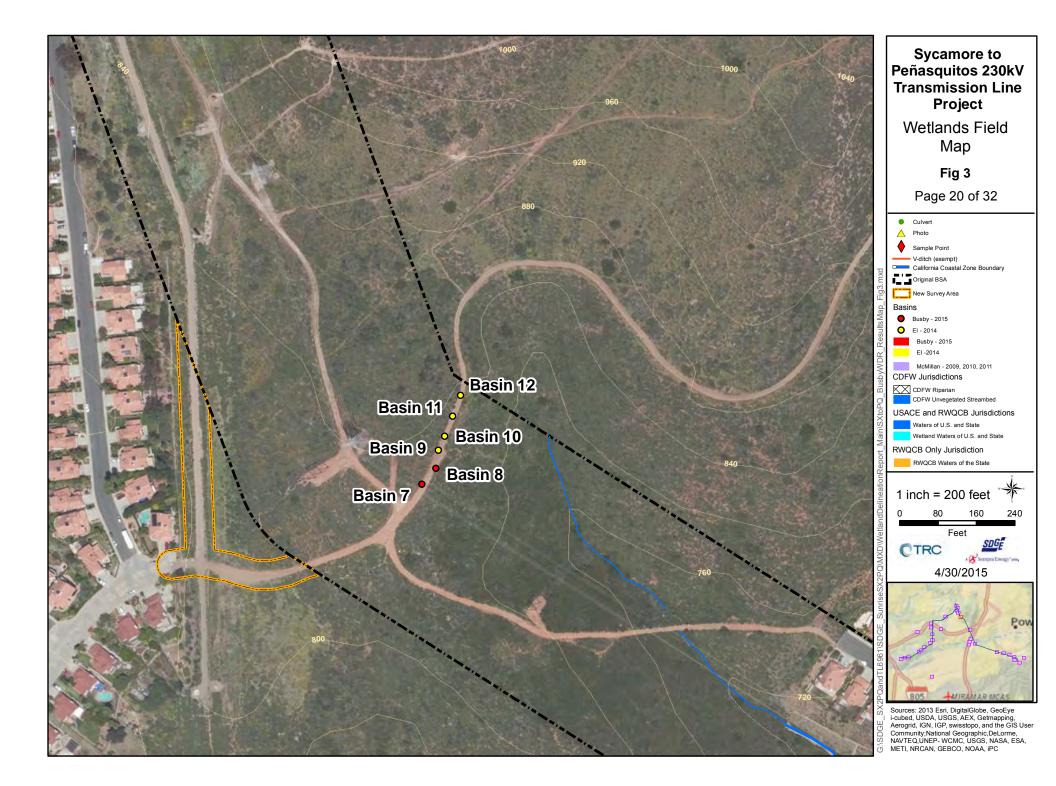




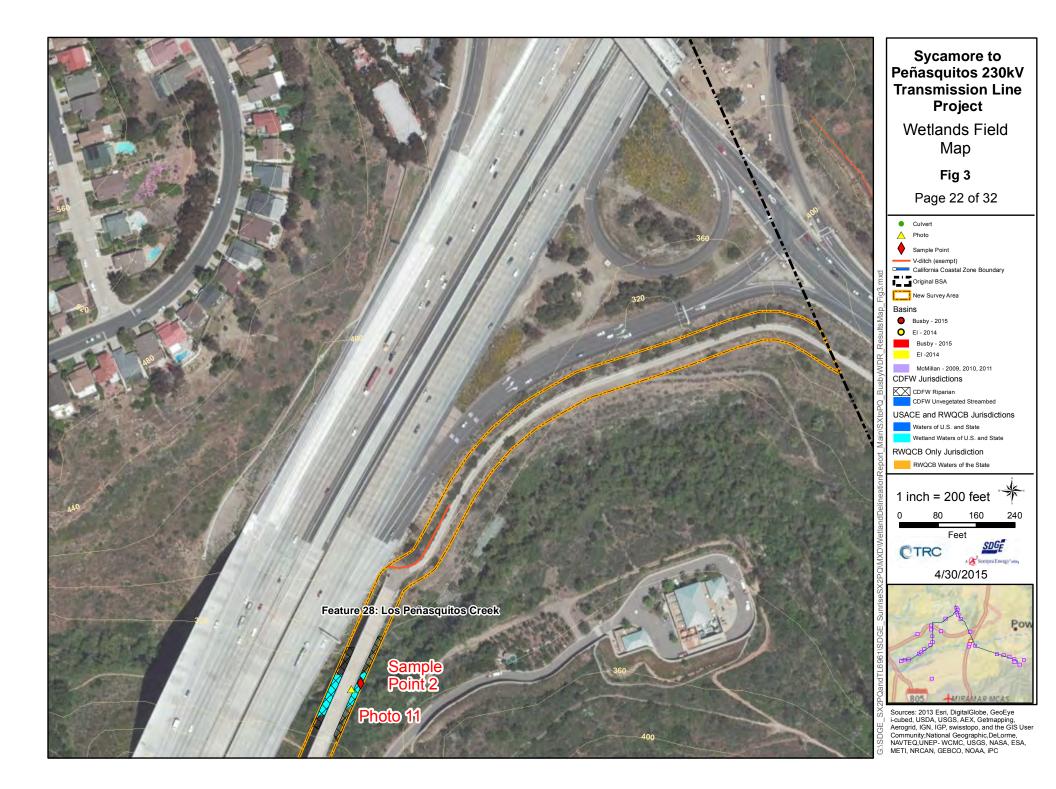


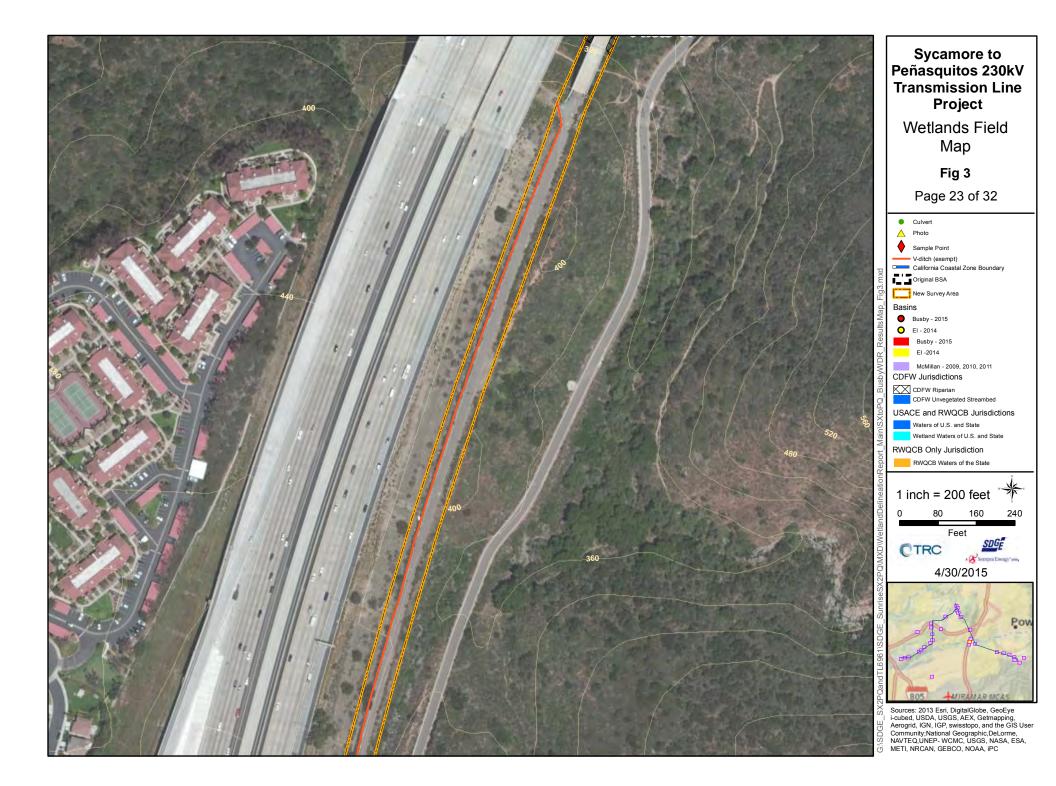




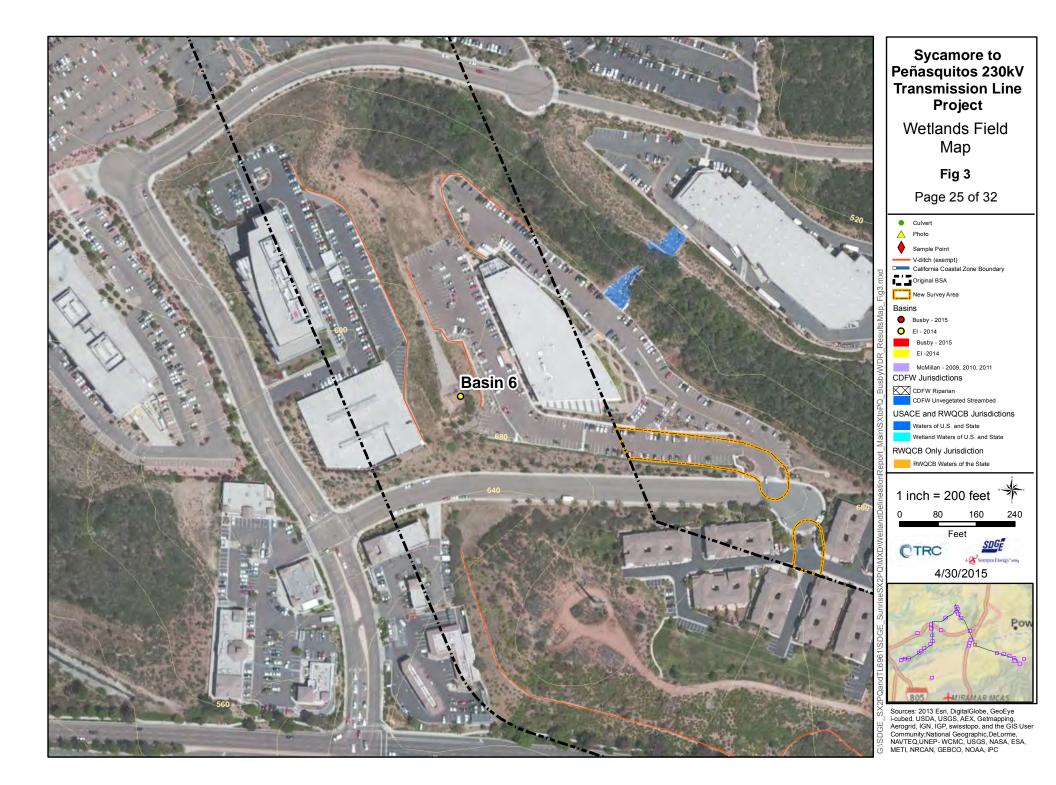


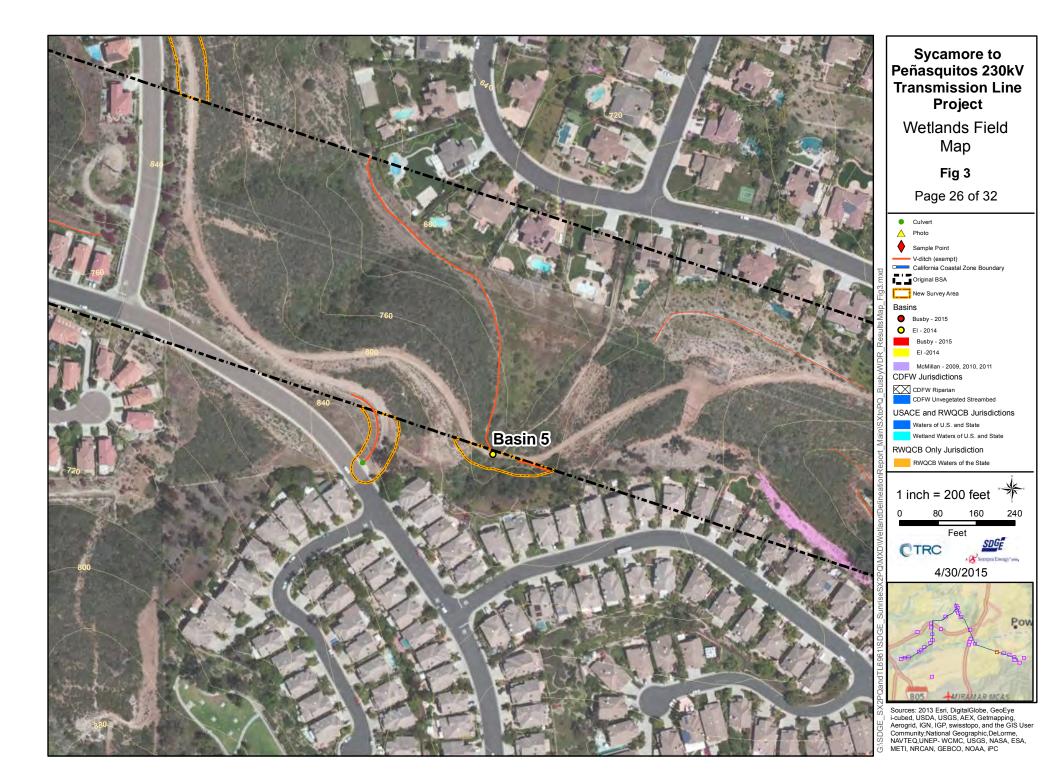


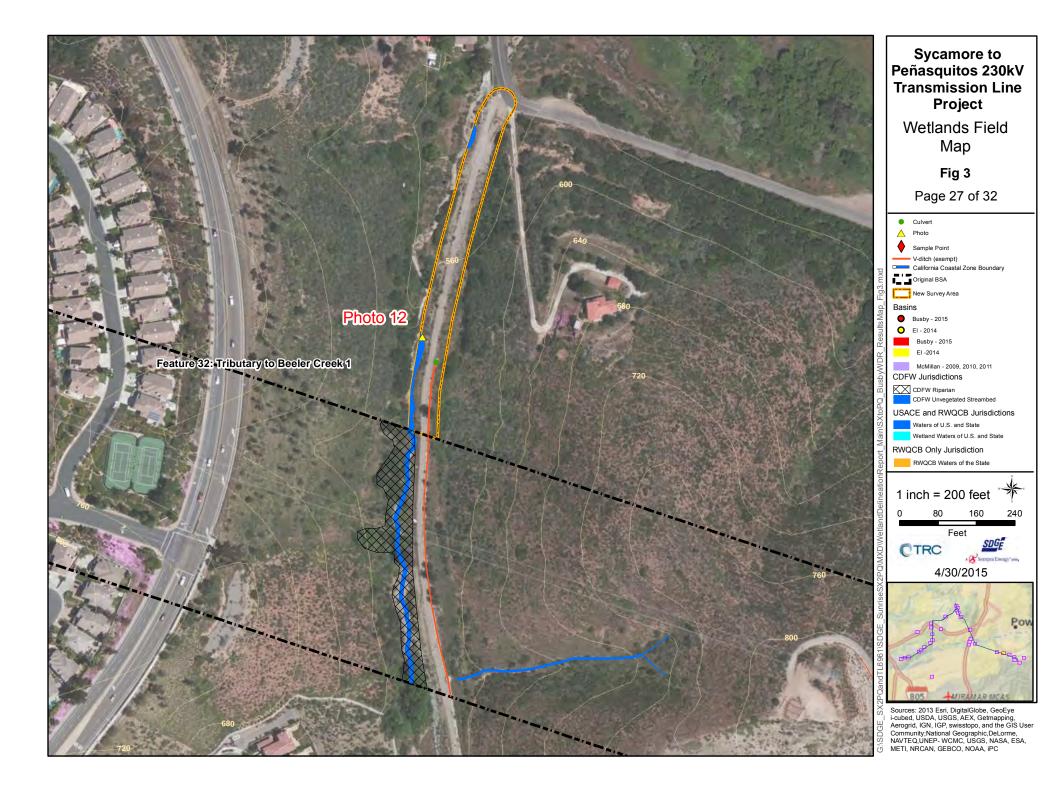


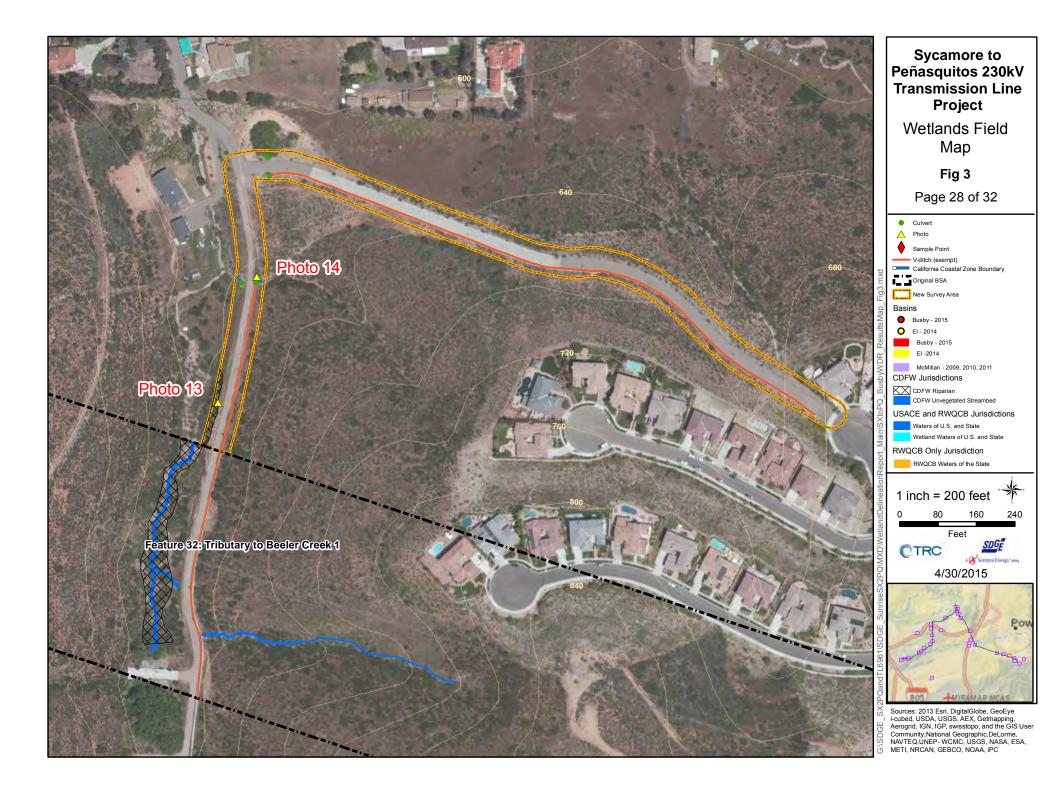


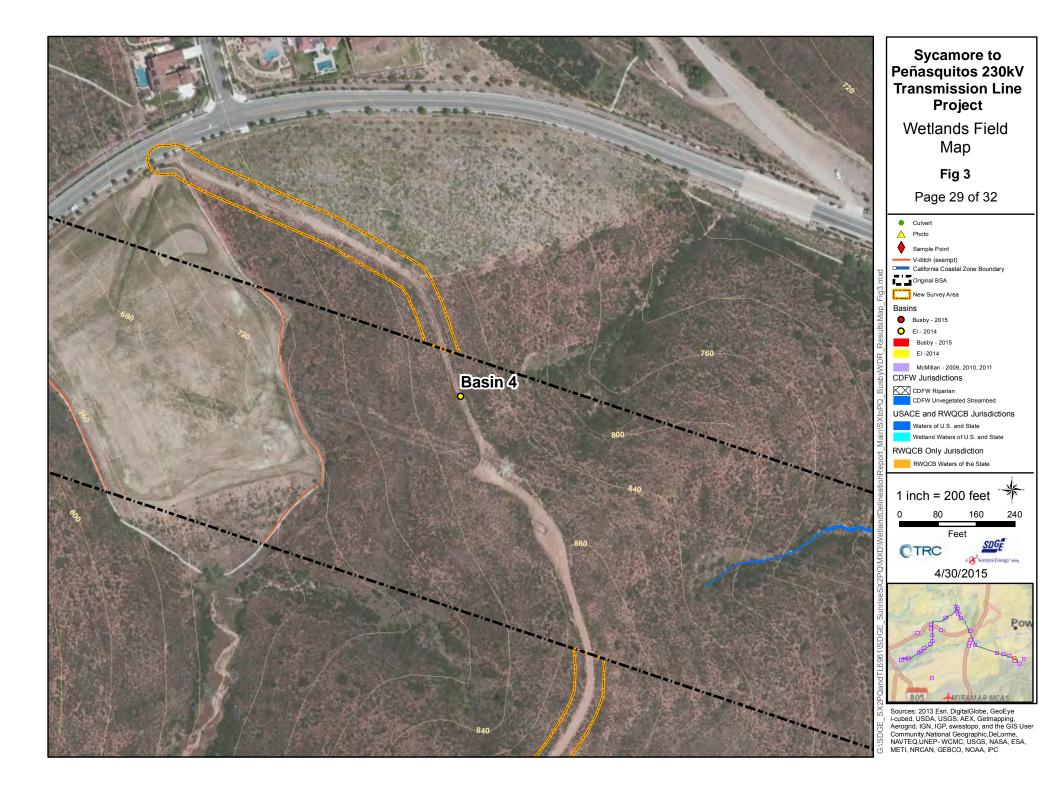


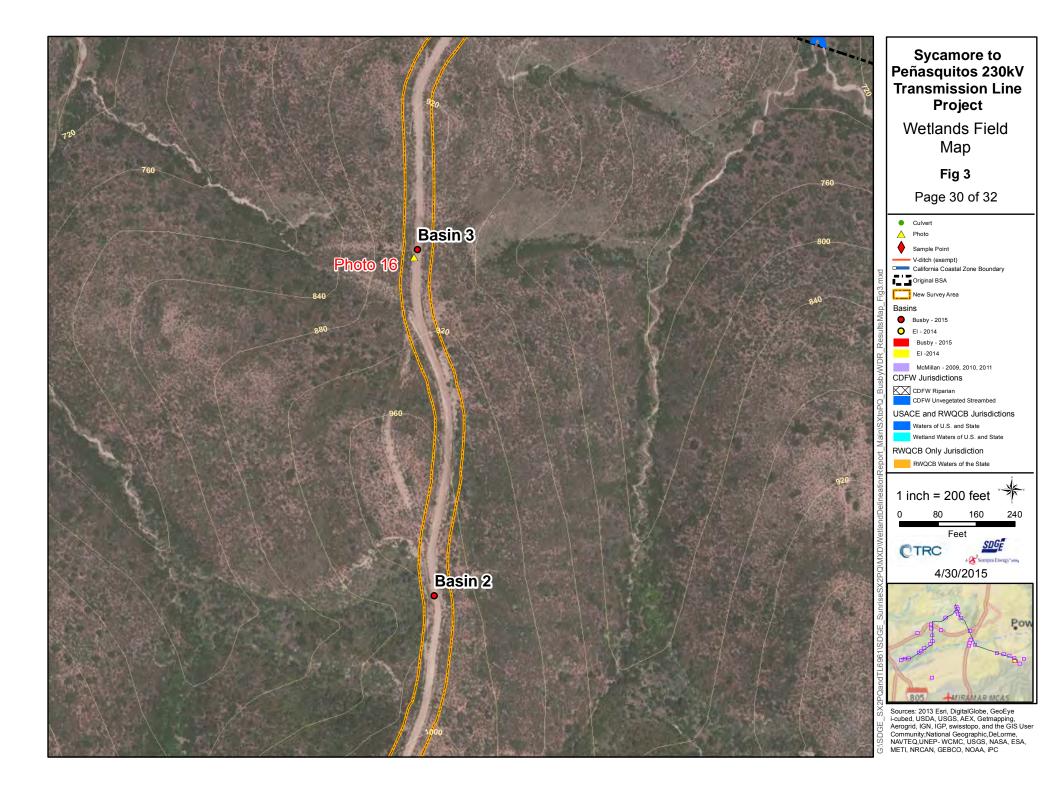


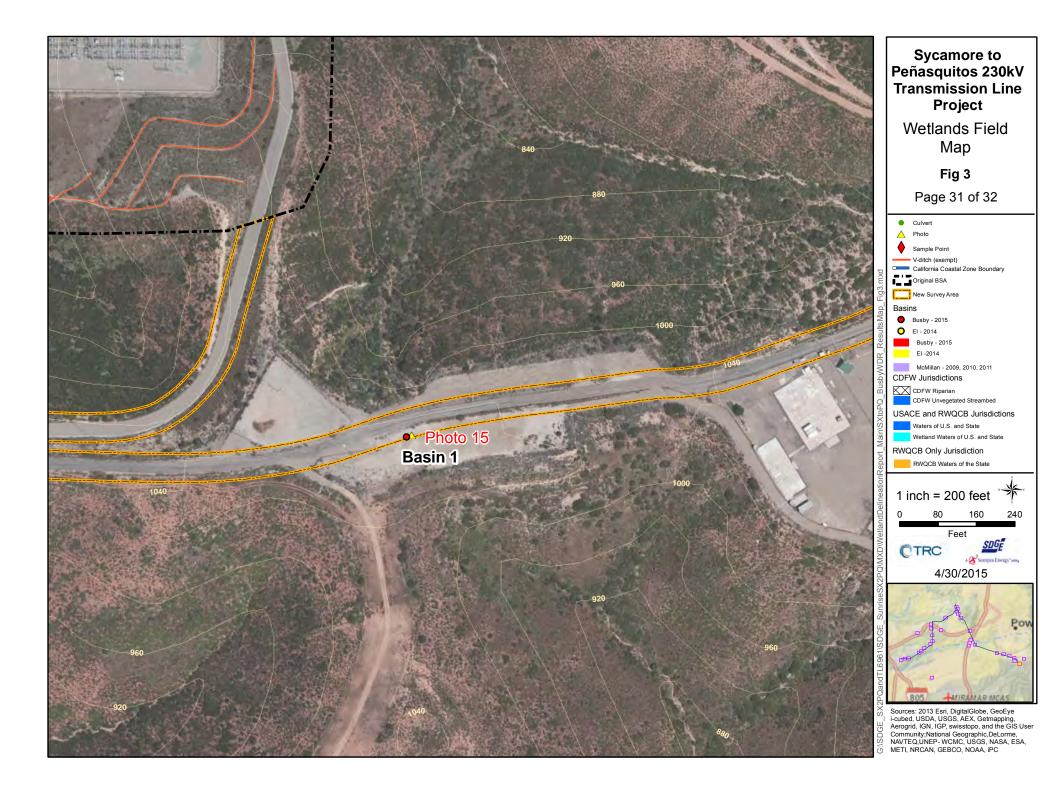


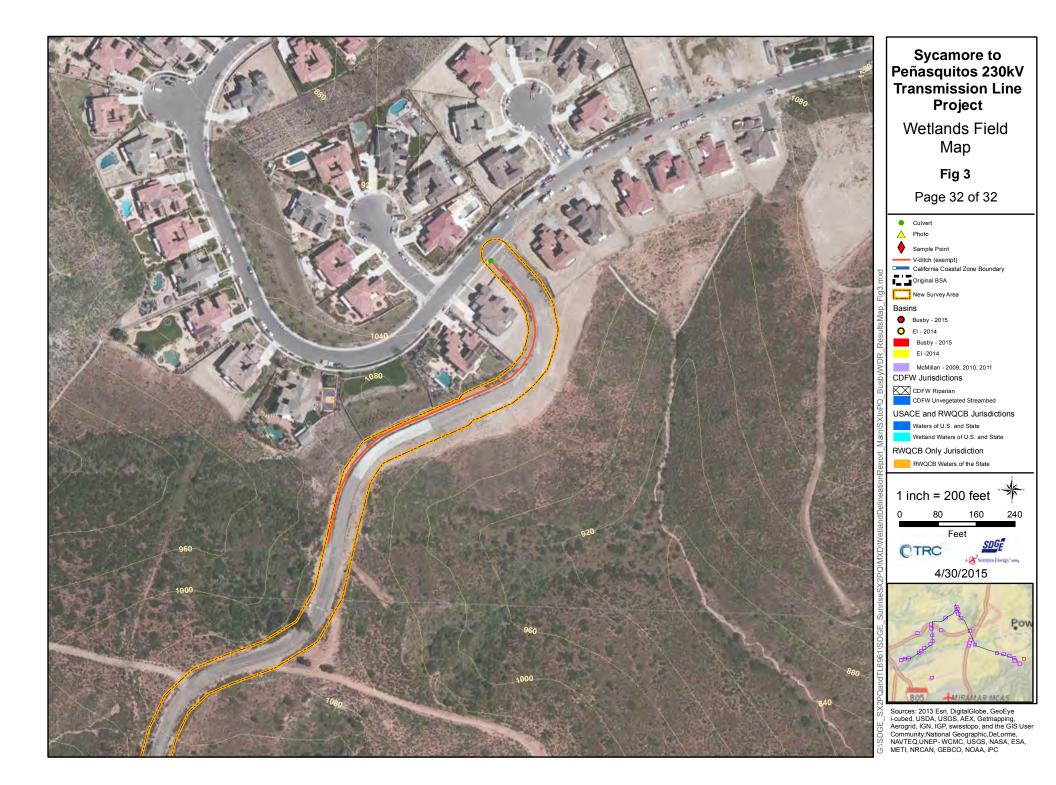












**APPENDIX B: USACE DATA FORMS** 

VVE	ILAND DETER	JII AMIIWI	JN DATA	L FURIVI -	- Aria west Region		
Project/Site: Sycamore to Penaso	quitos 230KV	(	City/County:	San D	iego	Sampling Date:	2/20/15
Applicant/Owner: <u>SDGE</u>					State: <u>CA</u>	Sampling Point:	1
Investigator(s): Darin Busby, Jul	ie Fontaine	;	Section, To	wnship, Rai	nge:		
Landform (hillslope, terrace, etc.):			Local relief	(concave,	convex, none):	SI	ope (%):
Subregion (LRR):		_ Lat:			_ Long:	Datu	ım:
Soil Map Unit Name: Olivenhain Se	ries. Clayey-s	keletal,	kaoliniti	ic Ultic 1	Palexeralfswi classific	ation:	
Are climatic / hydrologic conditions on the	site typical for this	time of yea	ar? Yes	x No _	(If no, explain in R	!emarks.)	
Are Vegetation, Soil, or H							X No
Are Vegetation, Soil, or H							
SUMMARY OF FINDINGS - Att							eatures, etc.
	<u> </u>			<b>3</b>	· · · · · · · · · · · · · · · · · · ·	,	
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes X No		Is th	e Sampled	l Area		
Wetland Hydrology Present?	Yes X No		with	in a Wetlar	nd? Yes X	No	_
Remarks:							
VEGETATION							
			Dominant		Dominance Test work	sheet:	
Tree Stratum (Use scientific names.)			Species?		Number of Dominant S	pecies	1
1. Salix lasiolepsis					That Are OBL, FACW,	or FAC:	(A)
2					Total Number of Domin Species Across All Stra		l (B)
4					Species Across Air Sira		(D)
	Total Cover:	109	$\overline{\%}$		Percent of Dominant Sport That Are OBL, FACW,	pecies or FAC: 1(	00% (A/B)
Sapling/Shrub Stratum				EN CW			<u> </u>
Baccharis salicifolia					Prevalence Index wor		
2					Total % Cover of:		
3					OBL species		
4.       5.					FAC species		
S	Total Cover:				FACU species		
Herb Stratum					UPL species		
1 Ambrosia psilostachya		<u>5%</u>	N	FAC	Column Totals:	(A)	(B)
2 Picris echioides				<u>UPL</u>	Prevalence Index	- D/A -	
3.					Hydrophytic Vegetation		
4					Dominance Test is		
5 6					Prevalence Index i		
7					Morphological Ada	ptations1 (Provide	supporting
8.					data in Remark	s or on a separate	e sheet)
	Total Cover:	7%_			Problematic Hydro	phytic Vegetation	'(Explain)
Woody Vine Stratum					Indicators of hydric soi	il and watland by	Irology must
1.					be present.	ii and welland nyd	irology musi
2	Total Cover:				Hydrophytic		
N. D					Vegetation	V N	
% Bare Ground in Herb Stratum	% Cover	of Blotic Cr	ust		Present? Ye	s X No _	
Remarks:							

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SOIL Sampling Point: 1

(inches)	Matrix			x Features			_	
	Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	2.5	Y 5/3			C	RC	_ ClayLoam_	Few, Fine, Prominent feature
4-12+	10 YR 3/2	80%	10 YR 5/8	20%	<u>C</u>	PL	Clay Loam	Many, Fine, Distinct feature
	oncentration, D=Depl					re Lining,	RC=Root Channe	
	Indicators: (Applica	able to all	LRRs, unless other	rwise note	ed.)			or Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Red					ck (A9) (LRR C)
	pipedon (A2)		Stripped Ma		(E4)			ck (A10) (LRR B)
_	istic (A3)		Loamy Muc					Vertic (F18)
	en Sulfide (A4)	-,	Loamy Gley		(FZ)			ent Material (TF2)
	d Layers (A5) ( <b>LRR 0</b> uck (A9) ( <b>LRR D</b> )	-)	Depleted M		EG)		Other (E	xplain in Remarks)
	d Below Dark Surface	o (A11)	<u>x</u> Redox Dark Depleted Da					
	ark Surface (A12)	C (A11)	Redox Depi		, ,			
_	Mucky Mineral (S1)		Vernal Pool	,	0)		3Indicators of	hydrophytic vegetation and
	Gleyed Matrix (S4)			J (1 J)				ydrology must be present.
	Layer (if present):							, , ,
Type:	,							
	ches):						Hydric Soil P	resent? Yes <u>X</u> No
emarks:							,	
	F6 Hydric Soil	Criteri	a Met.					
		Criteri	a Met.					
YDROLO			a Met.				<u>Second</u>	ary Indicators (2 or more required)
YDROLO Vetland Hy	GY							ary Indicators (2 or more required) ter Marks (B1) ( <b>Riverine</b> )
YDROLO Vetland Hy	GY drology Indicators:			(B11)			X Wat	<u> </u>
/DROLO /etland Hy rimary India	GY drology Indicators: cators (any one indica		icient)				X Wat	ter Marks (B1) ( <b>Riverine</b> )
/DROLO /etland Hy rimary India	drology Indicators: cators (any one indicators) Water (A1) ater Table (A2)		icient) Salt Crust Biotic Crus	st (B12)	s (B13)		X WatX SecDrif	ter Marks (B1) ( <b>Riverine</b> ) diment Deposits (B2) ( <b>Riverine</b> )
YDROLO Vetland Hy rimary India Surface High Wa	drology Indicators: cators (any one indicators) Water (A1) ater Table (A2)	ator is suff	icient) Salt Crust Biotic Crus Aquatic In	st (B12) vertebrate			X Wat  X Sec  Drift  X Dra	ter Marks (B1) ( <b>Riverine</b> ) diment Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10)
YDROLO Vetland Hy rimary India Surface High Wa Saturatia Water M	drology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriveri	ator is suff	icient) Salt Crust Biotic Crust Aquatic In Hydrogen	st (B12) vertebrate: Sulfide Oc	lor (C1)	Living R	X Wat X Sec Drif _X Dra Dry	ter Marks (B1) ( <b>Riverine</b> ) diment Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10) -Season Water Table (C2)
YDROLO Vetland Hy Primary India Surface High Wa Saturatia Water M	drology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) flarks (B1) (Nonriverint Deposits (B2) (B2) (B2) (B2) (B2) (B2) (B2) (B2)	ator is suff ine) nriverine)	icient)  Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F	st (B12) vertebrate Sulfide Od Rhizospher	lor (C1) es along		X   Wat   X   Sec	ter Marks (B1) ( <b>Riverine</b> ) diment Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10)
YDROLO Vetland Hy Primary India Surface High Wa Saturati Water M Sedimel Drift De	drology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) flarks (B1) (Nonriverient Deposits (B2) (Nonriverient)	ator is suff ine) nriverine)	icient)  Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F	st (B12) vertebrate: Sulfide Oc Rhizospher of Reduce	lor (C1) es along d Iron (C	4)	X   Wat   X   Sec   Drif   X   Draf   Dry	ter Marks (B1) ( <b>Riverine</b> ) diment Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10) -Season Water Table (C2) n Muck Surface (C7) yfish Burrows (C8)
YDROLO Vetland Hy Primary India Surface High Wa Saturati Water M Sedimel Drift Del	drology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriverient Deposits (B2) (Nonriversoils) Soil Cracks (B6)	ator is suff ine) nriverine)	icient)  Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	st (B12) vertebrate: Sulfide Oc Rhizospher of Reduce in Reduction	lor (C1) es along d Iron (C on in Plo	4)	X   Wat   X   Sec   Sec   Drift   X   Dra   Dry   Dry   Drots (C3)   Thin   Cra   C(C6)   Saturation   Satu	ter Marks (B1) ( <b>Riverine</b> ) diment Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10) -Season Water Table (C2) in Muck Surface (C7) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
YDROLO Vetland Hy Primary India Surface High Wa Saturati Water M Sedimel Drift Del Surface Inundati	drology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriverient Deposits (B2) (Nonriversoil Cracks (B6) on Visible on Aerial In	ator is suff ine) nriverine)	icient)  Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	st (B12) vertebrate: Sulfide Oc Rhizospher of Reduce in Reduction	lor (C1) es along d Iron (C on in Plo	4)	X   Wat   X   Sec   Sec   Drift   X   Dra   Dry   Dry   Dry   Dry   Cra   Cra   Satt   Shat   Shat	ter Marks (B1) ( <b>Riverine</b> ) timent Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10) -Season Water Table (C2) in Muck Surface (C7) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3)
YDROLO Vetland Hy rimary India Surface High Wa Saturatia Water M Sedimer Drift Der Surface Inundatia Water-S	drology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) flarks (B1) (Nonriverient Deposits (B2) (Nonriverse) posits (B3) (Nonriverse) Soil Cracks (B6) on Visible on Aerial Instance Leaves (B9)	ator is suff ine) nriverine)	icient)  Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	st (B12) vertebrate: Sulfide Oc Rhizospher of Reduce in Reduction	lor (C1) es along d Iron (C on in Plo	4)	X   Wat   X   Sec   Sec   Drift   X   Dra   Dry   Dry   Dry   Dry   Cra   Cra   Satt   Shat   Shat	ter Marks (B1) ( <b>Riverine</b> ) diment Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10) -Season Water Table (C2) in Muck Surface (C7) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
YDROLO Vetland Hy Primary India Surface High Wa Saturatia Water Mace Drift Del Surface Inundatia Water-S ield Obser	drology Indicators: cators (any one indicators) water (A1) ater Table (A2) on (A3) darks (B1) (Nonriveriant Deposits (B2) (Nonriversial (B3)) posits (B3) (Nonriversial (B4)) on Visible on Aerial Instance (B9) vations:	ator is suff ine) nriverine) rine) magery (E	Salt Crust Salt Crust Solution Aquatic In Hydrogen Oxidized F Presence Recent Iro T) Other (Exp	st (B12) vertebrates Sulfide Oc Rhizospher of Reduces in Reduction	lor (C1) res along d Iron (C on in Plor marks)	4) wed Soils	X   Wat   X   Sec   Sec   Drift   X   Dra   Dry   Dry   Dry   Dry   Cra   Cra   Satt   Shat   Shat	ter Marks (B1) ( <b>Riverine</b> ) timent Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10) -Season Water Table (C2) in Muck Surface (C7) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3)
YDROLO Vetland Hy Primary India Surface High Wa Saturati Water M Sedimel Drift Del Surface Inundati Water-S Field Obser Surface Wat	drology Indicators: cators (any one indicators) water (A1) ater Table (A2) on (A3) darks (B1) (Nonriveriant Deposits (B2) (Nonriversial Cracks (B6) on Visible on Aerial Instanced Leaves (B9) wations: er Present?	ator is suff ine) nriverine) rine) magery (E	Salt Crust  Salt Crust  Biotic Crust  Aquatic In  Hydrogen  Oxidized F  Presence  Recent Iro  Other (Exp	st (B12) vertebrate: Sulfide Oc Rhizospher of Reduce in Reduction blain in Re	lor (C1) res along d Iron (C on in Plor marks)	4) wed Soils	X   Wat   X   Sec   Sec   Drift   X   Dra   Dry   Dry   Dry   Dry   Cra   Cra   Satt   Shat   Shat	ter Marks (B1) ( <b>Riverine</b> ) timent Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10) -Season Water Table (C2) in Muck Surface (C7) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3)
YDROLO  Vetland Hy Primary India Surface High Wa Saturati Water M Sedimel Drift Del Surface Inundati Water-S Field Obser Gurface Wat Water Table	drology Indicators: cators (any one indicators) water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriverint Deposits (B2) (Nonrivers) posits (B3) (Nonriversoil Cracks (B6) on Visible on Aerial Instance Leaves (B9) vations: er Present? Yes	ator is suffine) nriverine) rine) magery (E	Salt Crust	st (B12) vertebrate: Sulfide Oc Rhizospher of Reduce in Reductio blain in Re ches):	lor (C1) res along d Iron (C on in Plo marks)	4) wed Soils	X   Wat   X   Sec   Sec   Drift   X   Dra   Dry   Dry   Dry   Dry   Cra   Cra   Sat   Sha   FAC	ter Marks (B1) ( <b>Riverine</b> ) timent Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10) -Season Water Table (C2) in Muck Surface (C7) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)
YDROLO  Vetland Hy Primary India Surface High Wa Saturati Water N Sedimel Drift Del Surface Inundati Water-S Field Obser Gurface Wat Water Table Saturation P	drology Indicators: cators (any one indicators) water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriverint Deposits (B2) (Nonrivers) posits (B3) (Nonriversoil Cracks (B6) on Visible on Aerial Instance Leaves (B9) vations: er Present? Yes	ator is suffine) nriverine) rine) magery (E	Salt Crust  Salt Crust  Biotic Crust  Aquatic In  Hydrogen  Oxidized F  Presence  Recent Iro  Other (Exp	st (B12) vertebrate: Sulfide Oc Rhizospher of Reduce in Reductio blain in Re ches):	lor (C1) res along d Iron (C on in Plo marks)	4) wed Soils	X   Wat   X   Sec   Sec   Drift   X   Dra   Dry   Dry   Dry   Dry   Cra   Cra   Sat   Sha   FAC	ter Marks (B1) ( <b>Riverine</b> ) timent Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10) -Season Water Table (C2) in Muck Surface (C7) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3)
YDROLO  Vetland Hy  Primary India  Surface  High Wa  Saturati  Water M  Sedimel  Drift Del  Surface  Inundati  Water-S  Field Obser  Surface Wat  Vater Table  Saturation P  includes cal	drology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriverient Deposits (B2) (Nonriversient Cracks (B6) on Visible on Aerial Instance Leaves (B9) vations: er Present? Present? Yeresent? Yeresent?	ator is suffine) nriverine) magery (E es	Salt Crust	st (B12) vertebrate: Sulfide Oc Rhizospher of Reduce in Reduction blain in Re ches): ches):	lor (C1) res along d Iron (C on in Plo marks)	4) wed Soils	X   Wat   X   Sec   Sec   Drif   X   Dra   Dry   Dry   Dry   Dry   Cra   Sat   Sha   FAC   Sha   FAC   Standard Hydrology	ter Marks (B1) ( <b>Riverine</b> ) timent Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10) -Season Water Table (C2) in Muck Surface (C7) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)
YDROLO  Vetland Hy  Primary India  Surface  High Wa  Saturati  Water M  Sedimel  Drift Del  Surface  Inundati  Water-S  Field Obser  Surface Wat  Vater Table  Saturation P  includes cal	drology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriverint Deposits (B2) (Norrivers) Soil Cracks (B6) on Visible on Aerial Instance Leaves (B9) vations: er Present? Present? Vieresent?	ator is suffine) nriverine) magery (E es	Salt Crust	st (B12) vertebrate: Sulfide Oc Rhizospher of Reduce in Reduction blain in Re ches): ches):	lor (C1) res along d Iron (C on in Plo marks)	4) wed Soils	X   Wat   X   Sec   Sec   Drif   X   Dra   Dry   Dry   Dry   Dry   Cra   Sat   Sha   FAC   Sha   FAC   Standard Hydrology	ter Marks (B1) ( <b>Riverine</b> ) timent Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10) -Season Water Table (C2) in Muck Surface (C7) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)
YDROLO  Vetland Hy  Primary India  Surface  High Wa  Saturati  Water M  Sedimel  Drift Del  Surface  Inundati  Water-S  Field Obser  Surface Wat  Vater Table  Saturation P  includes cal	drology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriverint Deposits (B2) (Norrivers) Soil Cracks (B6) on Visible on Aerial Instance Leaves (B9) vations: er Present? Present? Vieresent?	ator is suffine) nriverine) magery (E es	Salt Crust	st (B12) vertebrate: Sulfide Oc Rhizospher of Reduce in Reduction blain in Re ches): ches):	lor (C1) res along d Iron (C on in Plo marks)	4) wed Soils	X   Wat   X   Sec   Sec   Drif   X   Dra   Dry   Dry   Dry   Dry   Cra   Sat   Sha   FAC   Sha   FAC   Standard Hydrology	ter Marks (B1) ( <b>Riverine</b> ) timent Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10) -Season Water Table (C2) in Muck Surface (C7) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)
YDROLO Wetland Hy Primary India Surface High Wa Saturati Water M Sedimel Drift Del Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P includes cal	drology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriverint Deposits (B2) (Norrivers) Soil Cracks (B6) on Visible on Aerial Instance Leaves (B9) vations: er Present? Present? Vieresent?	ator is suffine) nriverine) magery (E es	Salt Crust	st (B12) vertebrate: Sulfide Oc Rhizospher of Reduce in Reduction blain in Re ches): ches):	lor (C1) res along d Iron (C on in Plo marks)	4) wed Soils	X   Wat   X   Sec   Sec   Drif   X   Dra   Dry   Dry   Dry   Dry   Cra   Sat   Sha   FAC   Sha   FAC   Standard Hydrology	ter Marks (B1) ( <b>Riverine</b> ) timent Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10) -Season Water Table (C2) in Muck Surface (C7) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) tillow Aquitard (D3) C-Neutral Test (D5)
YDROLO Wetland Hy Primary India Surface High Wa Saturati Water M Sedimel Drift Del Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P includes cal	drology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriverint Deposits (B2) (Norrivers) Soil Cracks (B6) on Visible on Aerial Instance Leaves (B9) vations: er Present? Present? Vieresent?	ator is suffine) nriverine) magery (E es	Salt Crust	st (B12) vertebrate: Sulfide Oc Rhizospher of Reduce in Reduction blain in Re ches): ches):	lor (C1) res along d Iron (C on in Plo marks)	4) wed Soils	X   Wat   X   Sec   Sec   Drif   X   Dra   Dry   Dry   Dry   Dry   Cra   Sat   Sha   FAC   Sha   FAC   Standard Hydrology	ter Marks (B1) ( <b>Riverine</b> ) timent Deposits (B2) ( <b>Riverine</b> ) t Deposits (B3) ( <b>Riverine</b> ) inage Patterns (B10) -Season Water Table (C2) in Muck Surface (C7) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) tillow Aquitard (D3) C-Neutral Test (D5)

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WETLAND DETERMI	NATION	IDATA	FORIVI –	Arid West Region	1
Project/Site: Sycamore to Penasquitos 230KV	City	y/County:	San Di	ego	Sampling Date: <u>2/20/15</u>
					Sampling Point: 2
Investigator(s): Darin Busby, Julie Fontaine					
Landform (hillslope, terrace, etc.):					
Subregion (LRR):					
Dissams als asile					cation:
Are climatic / hydrologic conditions on the site typical for this time					
Are Vegetation, Soil, or Hydrology signifi					
Are Vegetation, Soil, or Hydrology natura				eded, explain any answe	
SUMMARY OF FINDINGS – Attach site map sho	wing sa	ampling	point ic	cations, transects	s, important reatures, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks:		withir	Sampled	d? Yes <u>X</u>	No
Project is situated on a bridge overpass over	er this	jurisaic	etional is	eature.	
VEGETATION					
	solute D	ominant   Species?		Dominance Test worl	
	20%	Y	FACW	Number of Dominant S That Are OBL, FACW,	
3			I	Total Number of Domin Species Across All Stra	
4 Total Cover: Sapling/Shrub Stratum	10%			Percent of Dominant S That Are OBL, FACW,	
1. Baccharis salicifolia	20	Y	FACW	Prevalence Index wo	rksheet:
2				Total % Cover of:	Text Multiply by:
3			I	OBL species	x 1 =
4				FACW species	x 2 =
5				FAC species	x 3 =
	<u>20%</u>			FACU species	x 4 =
Herb Stratum	20%	V	ODI	UPL species	x 5 =
Typia across	$\frac{20\%}{20\%}$ –	$\frac{1}{Y}$	OBL	Column Totals:	(A) (B)
3				Prevalence Index	κ = B/A =
4				Hydrophytic Vegetati	
5				Dominance Test is	s >50%
6				Prevalence Index	
7				Morphological Ada	aptations <sup>1</sup> (Provide supporting
8.					s or on a separate sheet)
Total Cover:	40%			Problematic Hydro	ophytic Vegetation¹ (Explain)
Woody Vine Stratum  1				<sup>1</sup> Indicators of hydric so be present.	il and wetland hydrology must
2	70 -			<u> </u>	
Total Cover: 7  % Bare Ground in Herb Stratum 30% open water		t		Hydrophytic Vegetation Present? Ye	es <u>X</u> No
Remarks:					

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SOIL Sampling Point: 2

Depth <u>Matrix</u>	Redox Features		
(inches) Color (moist) % Color (m	oist) % Type <sup>1</sup> Lo	c <sup>2</sup> <u>Texture</u> _	Remarks
		<u> </u>	
Type: C=Concentration, D=Depletion, RM=Reduced M	atrix. <sup>2</sup> Location: PL=Pore Lini	ng. RC=Root Channel.	M=Matrix.
ydric Soil Indicators: (Applicable to all LRRs, unle			Problematic Hydric Soils <sup>3</sup> :
	dy Redox (S5)		k (A9) (LRR C)
<del></del>	pped Matrix (S6)		k (A10) ( <b>LRR B</b> )
	my Mucky Mineral (F1)	Reduced	
=	my Gleyed Matrix (F2)		nt Material (TF2)
	pleted Matrix (F3)	<del></del>	plain in Remarks)
_ , , , , ,	dox Dark Surface (F6)	55. (2.7	
<del>-</del>	pleted Dark Surface (F7)		
<del>-</del> · · · · · · · · · · · · · · · · · · ·	dox Depressions (F8)		
	nal Pools (F9)	3Indicators of	hydrophytic vegetation and
Sandy Gleyed Matrix (S4)			drology must be present.
estrictive Layer (if present):			
Type:			
Depth (inches):		Hydric Soil Dr	seant? Vac <sup>X</sup> No
Depth (inches):  Remarks:  Riverwash soils with OBL wetlan	d vegetation. Riverwash		esent? Yes <u>X</u> No
Riverwash soils with OBL wetlan	d vegetation. Riverwash		esent? Yes <u>X</u> No
Riverwash soils with OBL wetlan	d vegetation. Riverwash	is a hydric soil.	
Remarks:  Riverwash soils with OBL wetlan  YDROLOGY  Vetland Hydrology Indicators:	d vegetation. Riverwash	is a hydric soil.	ry Indicators (2 or more required)
Riverwash soils with OBL wetlan  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)		is a hydric soil.  Seconda  X Wate	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> )
emarks:  Riverwash soils with OBL wetlan  /DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)  X Surface Water (A1)  Settland Policy Se	ult Crust (B11)	is a hydric soil.  Seconda  X Wate X Sedi	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> ) ment Deposits (B2) ( <b>Riverine</b> )
emarks:  Riverwash soils with OBL wetlan  /DROLOGY //etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)  X Surface Water (A1) Sa _ High Water Table (A2) Bi	ult Crust (B11) otic Crust (B12)	is a hydric soil.  Seconda X Wate X Sedi Drift	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> ) ment Deposits (B2) ( <b>Riverine</b> ) Deposits (B3) ( <b>Riverine</b> )
Properties of the properties o	alt Crust (B11) otic Crust (B12) quatic Invertebrates (B13)	Seconda  X Wate X Sedi Drift X Drai	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> ) ment Deposits (B2) ( <b>Riverine</b> ) Deposits (B3) ( <b>Riverine</b> ) nage Patterns (B10)
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Riverwash soils with OBL wetlan  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  X Surface Water (A1) Sa High Water Table (A2) Bi Saturation (A3) Ac Water Marks (B1) (Nonriverine) Hy	alt Crust (B11) otic Crust (B12) quatic Invertebrates (B13)	Seconda   X Wate   X Sedi   Drift   X Drai   Dry- g Roots (C3)   Thin	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> ) ment Deposits (B2) ( <b>Riverine</b> ) Deposits (B3) ( <b>Riverine</b> ) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7)
Riverwash soils with OBL wetland  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  X Surface Water (A1) Sa High Water Table (A2) Bi Saturation (A3) Aa Water Marks (B1) (Nonriverine) Hy Sediment Deposits (B2) (Nonriverine) O	alt Crust (B11) otic Crust (B12) quatic Invertebrates (B13) vdrogen Sulfide Odor (C1)	Seconda   X Wate   X Sedi   Drift   X Drai   Dry- g Roots (C3)   Thin	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> ) ment Deposits (B2) ( <b>Riverine</b> ) Deposits (B3) ( <b>Riverine</b> ) nage Patterns (B10) Season Water Table (C2)
Riverwash soils with OBL wetland  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  X Surface Water (A1) Se High Water Table (A2) Bi Saturation (A3) Ac Water Marks (B1) (Nonriverine) High Sediment Deposits (B2) (Nonriverine) One indicator is sufficient)	ult Crust (B11) otic Crust (B12) juatic Invertebrates (B13) odrogen Sulfide Odor (C1) kidized Rhizospheres along Living	Seconda  Seconda  X Wate  X Sedi  Drift  X Drai  Dry-  Roots (C3)  Thin  Cray	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> ) ment Deposits (B2) ( <b>Riverine</b> ) Deposits (B3) ( <b>Riverine</b> ) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) rfish Burrows (C8)
Riverwash soils with OBL wetland  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  X Surface Water (A1) Sa High Water Table (A2) Bi Saturation (A3) Aa Water Marks (B1) (Nonriverine) High Sediment Deposits (B2) (Nonriverine) Circle Drift Deposits (B3) (Nonriverine) Pr Surface Soil Cracks (B6) Re	alt Crust (B11) otic Crust (B12) quatic Invertebrates (B13) vdrogen Sulfide Odor (C1) kidized Rhizospheres along Living esence of Reduced Iron (C4)	Seconda	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> ) ment Deposits (B2) ( <b>Riverine</b> ) Deposits (B3) ( <b>Riverine</b> ) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) rfish Burrows (C8)
Riverwash soils with OBL wetland  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  X Surface Water (A1) Sa High Water Table (A2) Bi Saturation (A3) Aa Water Marks (B1) (Nonriverine) High Sediment Deposits (B2) (Nonriverine) Circle Drift Deposits (B3) (Nonriverine) Pr Surface Soil Cracks (B6) Re	ult Crust (B11) otic Crust (B12) quatic Invertebrates (B13) vdrogen Sulfide Odor (C1) cidized Rhizospheres along Living esence of Reduced Iron (C4) ecent Iron Reduction in Plowed Sc	Seconda	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> ) ment Deposits (B2) ( <b>Riverine</b> ) Deposits (B3) ( <b>Riverine</b> ) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) dfish Burrows (C8) ration Visible on Aerial Imagery (C9)
Riverwash soils with OBL wetland  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  X Surface Water (A1) Saturation (A3) A0  Water Marks (B1) (Nonriverine) Hy  Sediment Deposits (B2) (Nonriverine) Pr  Surface Soil Cracks (B6)  X Inundation Visible on Aerial Imagery (B7) On	ult Crust (B11) otic Crust (B12) quatic Invertebrates (B13) vdrogen Sulfide Odor (C1) cidized Rhizospheres along Living esence of Reduced Iron (C4) ecent Iron Reduction in Plowed Sc	Seconda	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> ) ment Deposits (B2) ( <b>Riverine</b> ) Deposits (B3) ( <b>Riverine</b> ) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3)
Riverwash soils with OBL wetland  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  X Surface Water (A1) Saturation (A3) Active Marks (B1) (Nonriverine) Hy  Sediment Deposits (B2) (Nonriverine) Print Deposits (B3) (Nonriverine) Print Deposits (B4) (Nonriverine) Print	alt Crust (B11) potic Crust (B12) quatic Invertebrates (B13) ydrogen Sulfide Odor (C1) xidized Rhizospheres along Living esence of Reduced Iron (C4) ecent Iron Reduction in Plowed So her (Explain in Remarks)	Seconda	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> ) ment Deposits (B2) ( <b>Riverine</b> ) Deposits (B3) ( <b>Riverine</b> ) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3)
Riverwash soils with OBL wetland  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  X Surface Water (A1) Saturation (A3) Ada	alt Crust (B11) otic Crust (B12) quatic Invertebrates (B13) ydrogen Sulfide Odor (C1) xidized Rhizospheres along Living esence of Reduced Iron (C4) ecent Iron Reduction in Plowed So her (Explain in Remarks)	Seconda	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> ) ment Deposits (B2) ( <b>Riverine</b> ) Deposits (B3) ( <b>Riverine</b> ) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3)
Remarks:  Riverwash soils with OBL wetland  PUROLOGY  Vetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  X Surface Water (A1) Saturation (A3) A0  Water Marks (B1) (Nonriverine) Primary Indicators (B2) (Nonriverine) Primary Indicators (B3) (Nonriverine) Primary Indicators (B4)	alt Crust (B11)  otic Crust (B12)  quatic Invertebrates (B13)  vdrogen Sulfide Odor (C1)  kidized Rhizospheres along Living esence of Reduced Iron (C4) ecent Iron Reduction in Plowed So her (Explain in Remarks)	Seconda	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> ) ment Deposits (B2) ( <b>Riverine</b> ) Deposits (B3) ( <b>Riverine</b> ) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3) -Neutral Test (D5)
Riverwash soils with OBL wetland  **TOROLOGY**  Vetland Hydrology Indicators:  **Irimary Indicators (any one indicator is sufficient)  X** Surface Water (A1) Saturation (A3) A0 Water Marks (B1) (Nonriverine) Pr Sediment Deposits (B2) (Nonriverine) Pr Drift Deposits (B3) (Nonriverine) Pr Surface Soil Cracks (B6) Rational Imagery (B7) Water-Stained Leaves (B9)  ield Observations:  surface Water Present? Yes No Description of the present? Yes No	alt Crust (B11)  otic Crust (B12)  puatic Invertebrates (B13)  /drogen Sulfide Odor (C1)  kidized Rhizospheres along Living esence of Reduced Iron (C4) ecent Iron Reduction in Plowed So her (Explain in Remarks)	Seconda	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> ) ment Deposits (B2) ( <b>Riverine</b> ) Deposits (B3) ( <b>Riverine</b> ) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3)
Riverwash soils with OBL wetland  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  X Surface Water (A1)	alt Crust (B11)  otic Crust (B12)  quatic Invertebrates (B13)  /drogen Sulfide Odor (C1)  kidized Rhizospheres along Living esence of Reduced Iron (C4) ecent Iron Reduction in Plowed So her (Explain in Remarks)  pepth (inches):	Seconda  X Wate X Sedi Drift X Drai Dry- g Roots (C3) — Thin Cray oils (C6) — Satu — Shal — FAC	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> ) ment Deposits (B2) ( <b>Riverine</b> ) Deposits (B3) ( <b>Riverine</b> ) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3) -Neutral Test (D5)
Riverwash soils with OBL wetland  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  X Surface Water (A1)	alt Crust (B11)  otic Crust (B12)  quatic Invertebrates (B13)  /drogen Sulfide Odor (C1)  kidized Rhizospheres along Living esence of Reduced Iron (C4) ecent Iron Reduction in Plowed So her (Explain in Remarks)  pepth (inches):	Seconda  X Wate X Sedi Drift X Drai Dry- g Roots (C3) — Thin Cray oils (C6) — Satu — Shal — FAC	ry Indicators (2 or more required) er Marks (B1) ( <b>Riverine</b> ) ment Deposits (B2) ( <b>Riverine</b> ) Deposits (B3) ( <b>Riverine</b> ) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) rfish Burrows (C8) ration Visible on Aerial Imagery (C9 low Aquitard (D3) -Neutral Test (D5)
Riverwash soils with OBL wetland  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  X Surface Water (A1) Saturation (A3) Ada	alt Crust (B11) potic Crust (B12) quatic Invertebrates (B13) ydrogen Sulfide Odor (C1) xidized Rhizospheres along Living esence of Reduced Iron (C4) ecent Iron Reduction in Plowed So her (Explain in Remarks)  pepth (inches):	Seconda  X Wate X Sedi Drift X Drai Dry- g Roots (C3) Thin Cray oils (C6) Satu FAC	ry Indicators (2 or more required) er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) rfish Burrows (C8) ration Visible on Aerial Imagery (C9 low Aquitard (D3) -Neutral Test (D5)
Riverwash soils with OBL wetland  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (any one indicator is sufficient)  X Surface Water (A1) Saturation (A3) Ada	alt Crust (B11) potic Crust (B12) quatic Invertebrates (B13) ydrogen Sulfide Odor (C1) xidized Rhizospheres along Living esence of Reduced Iron (C4) ecent Iron Reduction in Plowed So her (Explain in Remarks)  pepth (inches):	Seconda  X Wate X Sedi Drift X Drai Dry- g Roots (C3) Thin Cray oils (C6) Satu FAC	ry Indicators (2 or more required) er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) rfish Burrows (C8) ration Visible on Aerial Imagery (C9 low Aquitard (D3) -Neutral Test (D5)
Riverwash soils with OBL wetland  //DROLOGY  //etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)  X Surface Water (A1) Saturation (A3) A0 Water Marks (B1) (Nonriverine) Drift Deposits (B2) (Nonriverine) Pr Surface Soil Cracks (B6) Rational Endowment Deposits (B3) (Nonriverine) Pr Water-Stained Leaves (B9)  Iteld Observations:  urface Water Present?	alt Crust (B11)  otic Crust (B12)  quatic Invertebrates (B13)  ydrogen Sulfide Odor (C1)  kidized Rhizospheres along Living esence of Reduced Iron (C4) ecent Iron Reduction in Plowed So her (Explain in Remarks)  pepth (inches):  pepth (inches):	Seconda X Wate X Sedi Drift X Drai Dry- G Roots (C3) — Thin Cray oils (C6) — Satu — Shal — FAC	ry Indicators (2 or more required) er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) rfish Burrows (C8) ration Visible on Aerial Imagery (C9 low Aquitard (D3) -Neutral Test (D5)  resent? Yes X No
Riverwash soils with OBL wetland  //DROLOGY  //etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)  X Surface Water (A1) Sa High Water Table (A2) Bi Saturation (A3) Ac Water Marks (B1) (Nonriverine) High Sediment Deposits (B2) (Nonriverine) Pr Surface Soil Cracks (B6) Re Surface Soil Cracks (B6) Re Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)  ield Observations:  urface Water Present?	alt Crust (B11)  otic Crust (B12)  quatic Invertebrates (B13)  ydrogen Sulfide Odor (C1)  kidized Rhizospheres along Living esence of Reduced Iron (C4) ecent Iron Reduction in Plowed So her (Explain in Remarks)  pepth (inches):  pepth (inches):	Seconda X Wate X Sedi Drift X Drai Dry- G Roots (C3) — Thin Cray oils (C6) — Satu — Shal — FAC	ry Indicators (2 or more required) er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) Muck Surface (C7) rfish Burrows (C8) ration Visible on Aerial Imagery (C9 low Aquitard (D3) -Neutral Test (D5)  resent? Yes X No

**APPENDIX C: SITE PHOTOGRAPHS** 

Photograph 1. Feature 7: Tributary To Peñasquitos Creek 6 - USACE waters of the U.S., RWQCB waters of the State, CDFW unvegetated streambed.



Photograph 2. Feature 10: Tributary To Peñasquitos Creek 9 - USACE waters of the U.S., RWQCB waters of the State, CDFW unvegetated streambed.



Photograph 3. Feature 10: Tributary To Peñasquitos Creek 9 - USACE waters of the U.S., RWQCB waters of the State, CDFW unvegetated streambed.







Photograph 5. Feature 15: McGonigle Canyon Creek - USACE wetland waters of the U.S., RWQCB wetland waters of the State, and CDFW riparian



Photograph 6. Feature 15: McGonigle Canyon Creek - USACE wetland waters of the U.S., RWQCB wetland waters of the State, and CDFW riparian



Photograph 7. Feature 18: Tributary to McGonigle Canyon Creek 3 – Erosional features joining into USACE waters of the U.S., RWQCB waters of the State, CDFW unvegetated streambed.

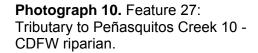


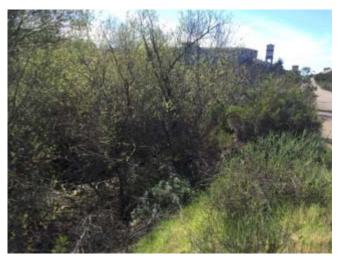
Photograph 8. Feature 21: Tributary to La Zanja Canyon 2 -USACE waters of the U.S., RWQCB waters of the State, CDFW unvegetated streambed.



Photograph 9. Feature 22: McGonigle Canyon Creek 5 -USACE waters of the U.S., RWQCB waters of the State, CDFW unvegetated streambed.





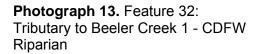


Photograph 11. Feature 28: Los Peñasquitos Creek - USACE wetland waters of the U.S., RWQCB wetland waters of the State, and CDFW riparian.



Photograph 12. Feature 32: Tributary to Beeler Creek 1 -USACE waters of the U.S., RWQCB waters of the State, CDFW unvegetated streambed.







Photograph 14. Feature 32: Tributary to Beeler Creek 1 - USACE waters of the U.S., RWQCB waters of the State, CDFW unvegetated streambed.



**Photograph 15.** Basin 1 within dirt road edge.

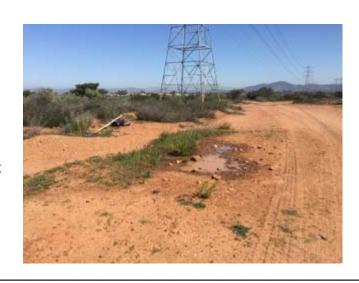




**Photograph 16.** Basin 3 within dirt access road.



**Photograph 17.** Basin 15 within dirt access road.



**Photograph 18.** Basin 28 within dirt access road edge.



**Photograph 19.** Basin 41 east of dirt access road.



**Photograph 20.** Exempt, non-jurisdictional v-ditches.



**Photograph 21.** Exempt, non-jurisdictional riprap-lined swale from constructed detention basin.