MEMORANDUM

TO: Debbie Collins, San Diego Gas & Electric
Tamara Spear, San Diego Gas & Electric

FROM: Darin Busby, Busby Biological Services, Inc.

DATE: April 15, 2015

RE: Final Supplemental Jurisdictional Delineation Memorandum for the Encina Hub Portion of the Proposed Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project, San Diego County, California

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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 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 the jurisdictional delineation within the original 500-foot wide Biological Survey Area (BSA) for the Proposed Project (EI 2014). This supplemental jurisdictional delineation was conducted to identify and delineate all jurisdictional wetland resources within a newly added portion of the Proposed Project, referred to as the Encina Hub (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 Proposed Project, regulatory setting, methods, and results. 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 (EI 2014). Please refer to the EI 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-

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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 16.5-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 BSA, several new areas have been added to the Proposed Project, including the Encina Hub. Additional biological surveys, including a jurisdictional delineation, are required within the areas that were not included in the original BSA. 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 Encina Hub (Appendix A: Figures 1 through 4). The jurisdictional delineation survey area (survey area) for the Encina Hub is composed of the Proposed Project access roads with a 20-foot survey buffer and the Proposed Project work areas with 50-foot survey buffers (Appendix A: Figures 2 through 4). This memorandum is intended to supplement the information provided in the jurisdictional delineation report that was prepared by EI for the original BSA (EI 2014).

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 areas that contain wetland hydrology, hydric soils, and hydrophytic vegetation**.**

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, including isolated waters such as vernal pools and other waters showing lack of connectivity to a Traditional Navigable Waters (TNW), pursuant to Section 404 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 404 of the CWA are all areas defined as USACE waters of the U.S. and wetland waters of the U.S.

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, or hydrophytic vegetation) required to be present in order for jurisdiction to be asserted.

3.0 METHODS

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 (EI 2014), U.S. Geological Survey 7.5- minute San Luis Rey topographic quadrangle 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.

The field surveys were conducted using comparable techniques outlined in the EI jurisdictional delineation report (EI 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 aquatic 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 Pages are included in Appendix B.

4.0 RESULTS

BBS biologist Darin Busby and Trestles Environmental Corporation biologist Julie Fontaine conducted the majority of the jurisdictional delineation on January 28, 2015. The remaining portion of the jurisdictional delineation was completed by Mr. Busby on February 17, 2015. The survey area is composed of the Proposed Project access roads with a 20-foot survey buffer and the Proposed Project work areas with 50-foot survey buffers (Appendix A: Figures 2 through 4).

Five jurisdictional features occur within the survey area. A general description of the land use and vegetation, topography and hydrology, and soils within the survey area are provided in Section 4.1. A more detailed discussion of each jurisdictional feature is described in Section 4.2. In addition, Section 4.3 describes the exempt non-jurisdictional erosional features, swales, and concrete v-ditches within the survey area. A summary of the jurisdictional features is provided in Section 4.4. The boundaries and jurisdictions of these jurisdictional features are depicted in Appendix A (Figure 4, Pages 1 through 4), and detailed USACE data forms and photographs of the Sample Points are provided in Appendix B (USACE Data Forms) and Appendix C (Site Photographs).

4.1 General Description of Survey Area

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

Land Use and Vegetation

Land use within the survey area consists primarily of undeveloped land and natural preserve lands. Adjacent land use includes a municipal golf course, hotels, agriculture, and additional undeveloped land and preserve lands. The survey area is dominated by the following vegetation communities: Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, disturbed habitat, and bare ground. Other vegetation communities present in smaller proportions include southern riparian scrub, mulefat scrub, nonnative grassland, native grassland, ornamental, and developed lands (Appendix A: Figure 3).

Topography and Hydrology

The survey area contains gently sloping to moderately sloping topography, with elevations ranging from 240 feet above mean sea level (amsl) in the southern portion of the survey area to 40 feet amsl in the northeastern portion of the survey area. An un-named ephemeral drainage in the southwestern portion of the site runs north to connect with a riparian corridor in an unnamed canyon drainage within the northeastern portion of the survey area that provides intermittent to perennial surface

flows. These unnamed drainages eventually connect to Agua Hedionda Lagoon approximately 1,000 feet northwest of the survey area and the Pacific Ocean approximately 2 miles northwest of the survey area, both of which are TNWs.

Soils

The survey area contains the following soil types: Las Flores loamy fine sand, 15 to 30 percent slopes (LeE), Las Flores loamy fine sand, 2 to 9 percent slopes (LeC), and Salinas clay loam, 2 to 9 percent slopes (SbC) (NRCS 2015a). None of these soils are listed as a hydric soil by the Natural Resources Conservation Services (NRCS 2015b).

4.2 Description of Jurisdictional Features

This section provides a detailed description of each of the five jurisdictional drainage features that were identified within the survey area. A summary of the jurisdictional acreage of each feature is provided in Table 1.

Feature 1

Feature 1 occurs within a riparian corridor in the northeastern edge of the survey area (Appendix A: Figure 4, Page 2). This wetland feature is adjacent to and west of a braided channel dominated by southern riparian scrub, mulefat scrub, and fresh water marsh. The braided channel showed strong evidence of moderate to high-velocity flows (i.e., sediment deposits, debris jams, vegetation destruction, and disturbed leaf litter at the OHWM) and is an unnamed tributary to Agua Hedionda Creek, which connects to Agua Hedionda Lagoon and the Pacific Ocean.

Feature 1 is approximately 0.05 acre (approximately 160.72 linear feet) of USACE adjacent wetland waters of the U.S. and RWQCB wetland waters of the State, approximately 0.12 acre (approximately 200.78 linear feet) of CDFW Riparian and CCC Wetland (Table 1). The detailed USACE data forms and photographs of Sample Points 1 through 3 are provided in Appendix B (USACE Data Forms) and Appendix C (Site Photographs).

Feature 2

Feature 2 is located west of Feature 1 at the bottom of a swale in the northeastern edge of the survey area (Appendix A: Figure 4, Page 2). Feature 2 is dominated by mulefat scrub and has no OHWM or hydrological connection to Feature 1 or the main drainage channel that is just east of Feature 1 and outside the survey area. Feature 2 occurs over 100 feet west of the main drainage channel and is separated from Feature 1 by upland vegetation and a dirt access road that has formed a berm along the eastern edge of Feature 2. The high clay content of the soils in this area, combined with the berm formed by the road, has resulted in an isolated patch of mulefat scrub.

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

Feature Number	USACE				CDFW				RWQCB				CCC Wetland	
	Wetland W.O.U.S		W.O.U.S		Riparian		U.S.		Wetland W.O.S		W.O.S			
	acres	linear feet	acres	linear feet	acres	linear feet	acres	linear feet	acres	linear feet	acres	linear feet	acres	linear feet
1	0.05	160.72	--	--	0.12	200.78	--	--	0.05	160.72	--	--	0.12	200.78
2	--	--	--	--	--	--	--	--	--	--	--	--	0.08	136.69
3	--	--	0.01	107.23	--	--	0.01	107.23	--	--	0.01	107.23	0.01	107.23
4	--	--	0.01	137.45	--	--	0.01	137.45	--	--	0.01	137.45	0.01	137.45
5	--	--	0.00*	29.22	--	--	0.00*	29.22	--	--	0.00*	29.22	0.00	29.22
Total	0.05	160.72	0.02**	273.90	0.12	200.78	0.02**	273.90	0.05	160.72	0.02**	273.90	0.23**	611.37

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

Wetland W.O.U.S = Wetland waters of the U.S.
W.O.U.S = Waters of the U.S.
Wetland W.O.S = Wetland waters of the State
W.O.S = Waters of the State
U.S. = Unvegetated Streambed

Feature 2 contains a total of approximately 0.08 acre (approximately 136.69 linear feet) of CCC Wetland (Table 1). The detailed wetland data forms and photographs of Sample Points 4 and 5 are provided in Appendix B (USACE Data Forms) and Appendix C (Site Photographs).

Feature 3

Feature 3 is an unnamed ephemeral drainage that runs from the southern to central portion of the survey area, eventually connecting offsite to the unnamed wetland associated with Feature 1, which connects to Agua Hedionda Creek, Agua Hedionda Lagoon, and the Pacific Ocean (Appendix A: Figure 4, Page 3). Feature 3 contains an OHWM and is moderately incised with hard sands and cobbles which are associated with high water velocities during and directly after storm events. This feature is approximately 4 feet wide and 3 feet deep below the surrounding uplands. The surrounding vegetation above the OHWM at the top of the bank contains disturbed Diegan coastal sage scrub.

Feature 3 contains a total of approximately 0.01 acre (approximately 107.23 linear feet) of USACE waters of the U.S., RWQCB waters of the State, CDFW unvegetated streambed, and CCC Wetland (Table 1). The location of Feature 3 and the boundaries of these jurisdictions are provided in Page 3 of Figure 4 (Appendix A). The detailed USACE data form and photograph of Sample Points 6 is provided in Appendix B (USACE Data Forms) and Appendix C (Site Photographs).

Feature 4

Feature 4 is an unnamed ephemeral drainage that runs offsite to the northeast from the central portion of the survey area, eventually connecting offsite to the unnamed wetland associated with Feature 1, which connects to Agua Hedionda Creek, Agua Hedionda Lagoon, and the Pacific Ocean (Appendix A: Figure 4, Page 3). Feature 4 contains an OHWM and is moderately incised with hard sands and cobbles which are associated with high water velocities during and directly after storm events. This feature is approximately 2 to 4 feet wide and 1 to 2 feet deep below the surrounding uplands. The surrounding vegetation above the OHWM at the top of the bank contains disturbed Diegan coastal sage scrub.

Feature 4 contains a total of approximately 0.01 acre (approximately 137.45 linear feet) of USACE waters of the U.S., RWQCB waters of the State, CDFW unvegetated streambed, and CCC Wetland (Table 1). The location of Feature 4 and the boundaries of these jurisdictions are provided in Page 3 of Figure 4 (Appendix A). The detailed wetland data form and photograph of Sample Points 7 is provided in Appendix B (Wetland Data Forms) and Appendix C (Site Photographs).

Feature 5

Feature 5 is an unnamed ephemeral drainage that begins at the base of an eroded, filled slope associated with an adjacent dirt access road. The drainage runs offsite to the east from the southeastern portion of the survey area, eventually connecting offsite to the unnamed wetland associated with Feature 1, which connects to Agua Hedionda Creek, Agua Hedionda Lagoon, and the Pacific Ocean (Appendix A: Figure 4, Page 5).

Feature 5 contains an OHWM and is moderately incised with hard sands and cobbles which are associated with high water velocities during and directly after storm events. This feature is approximately 4 feet wide and 3 feet deep below the surrounding uplands. The surrounding vegetation above the OHWM at the top of the bank contains disturbed Diegan coastal sage scrub.

Feature 5 contains less than 0.01 acre (approximately 29.22 linear feet) of USACE waters of the U.S., RWQCB waters of the State, CDFW unvegetated streambed, and CCC Wetland (Table 1). The location of Feature 5 and the boundaries of these jurisdictions are provided in Page 5 of Figure 4 (Appendix A). The detailed USACE data form and photograph of Sample Points 8 is provided in Appendix B (USACE Data Forms) and Appendix C (Site Photographs).

4.3 Description of Exempt, Non-jurisdictional Swales, Erosional Features and Concrete V-Ditches

A total of approximately 462 linear feet of exempt, non-jurisdictional concrete v-ditches are present within the survey area (Appendix A: Figure 4, Pages 1 and 2). 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.

In addition, several swales and erosional features occur within and adjacent to the dirt access roads and power line tower pads within the survey area. The USACE and other regulatory agencies generally do not assert jurisdiction over erosional features, such as 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.

4.4 Summary of Jurisdictional Features

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

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

Regulatory Agency	Total Acres	Total Linear Feet	Dominant Vegetation Type (acre)				
			Bare Ground	Diegan Coastal Sage Scrub	Diegan Coastal Sage Scrub - Disturbed	Mulefat Scrub	Southern Riparian Scrub
USACE (Total)	0.07**	434.62	0.00*	0.01	0.01	0.00	0.05
Wetland W.O.U.S	0.05	160.72	0.00	0.00	0.00	0.00	0.05
W.O.U.S	0.02**	273.90	0.00*	0.01	0.01	0.00	0.00
RWQCB (Total)	0.07**	434.62	0.00*	0.01	0.01	0.00	0.05
Wetland W.O.S	0.05	160.72	0.00	0.00	0.00	0.00	0.05
W.O.S	0.02**	273.90	0.00*	0.01	0.01	0.00	0.00
CDFW (Total)	0.15**	474.68	0.00*	0.01	0.01	0.00	0.13
Riparian	0.13	200.78	0.00	0.00	0.00	0.00	0.13
U.S.	0.02**	273.90	0.00*	0.01	0.01	0.00	0.00
CCC (Total)	0.23**	611.37	0.00*	0.01	0.01	0.08	0.12

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

Wetland W.O.U.S = Wetland waters of the U.S.
W.O.U.S = Waters of the U.S.
Wetland W.O.S = Wetland waters of the State
W.O.S = Waters of the State
U.S. = Unvegetated Streambed

USACE Jurisdiction

A total of four features that are under the jurisdiction of USACE were identified within the survey area. Of these four features, one feature (Feature 1; Appendix A: Figure 4, Page 2) has a total of approximately 0.05 acre (approximately 160.72 linear feet) of USACE wetland waters of the U.S., and the other three features (Features 3 through 5; Appendix A: Figure 4, Pages 3 and 4) have a total of approximately 0.02 acre (approximately 273.90 linear feet) of USACE waters of the U.S.

RWQCB Jurisdiction

A total of four features that are under the jurisdiction of RWQCB were identified within the survey area. Of these four features, one feature (Feature 1; Appendix A: Figure 4, Page 2) has a total of approximately 0.05 acre (approximately 160.72 linear feet) of RWQCB wetland waters of the State, and the other three features (Features 3 through 5; Appendix A: Figure 4, Pages 3 and 4) have a total of approximately 0.02 acre (approximately 273.90 linear feet) of RWQCB waters of the State.

CDFW Jurisdiction

A total of four features that are under the jurisdiction of CDFW were identified within the survey area. Of these four features, one feature (Feature 1; Appendix A: Figure 4, Page 2) has a total of approximately 0.13 acre (approximately 200.78 linear feet) of CDFW riparian and the other three features (Features 3 through 5; Appendix A: Figure 4, Pages 3 and 4) have a total of approximately 0.02 acre (approximately 273.90 linear feet) of CDFW unvegetated streambed.

CCC Jurisdiction

A total of five features that are under the jurisdiction of CCC were identified within the survey area. CCC jurisdiction totals approximately 0.23 acre (approximately 611.37 linear feet) of CCC wetland within Features 1 through 5 (Appendix A: Figure 4, Pages 2 through 4).

5.0 CONCLUSION

Any anticipated Proposed Project impacts to these features would require the appropriate permit authorizations from the corresponding regulatory agency.

6.0 REFERENCES

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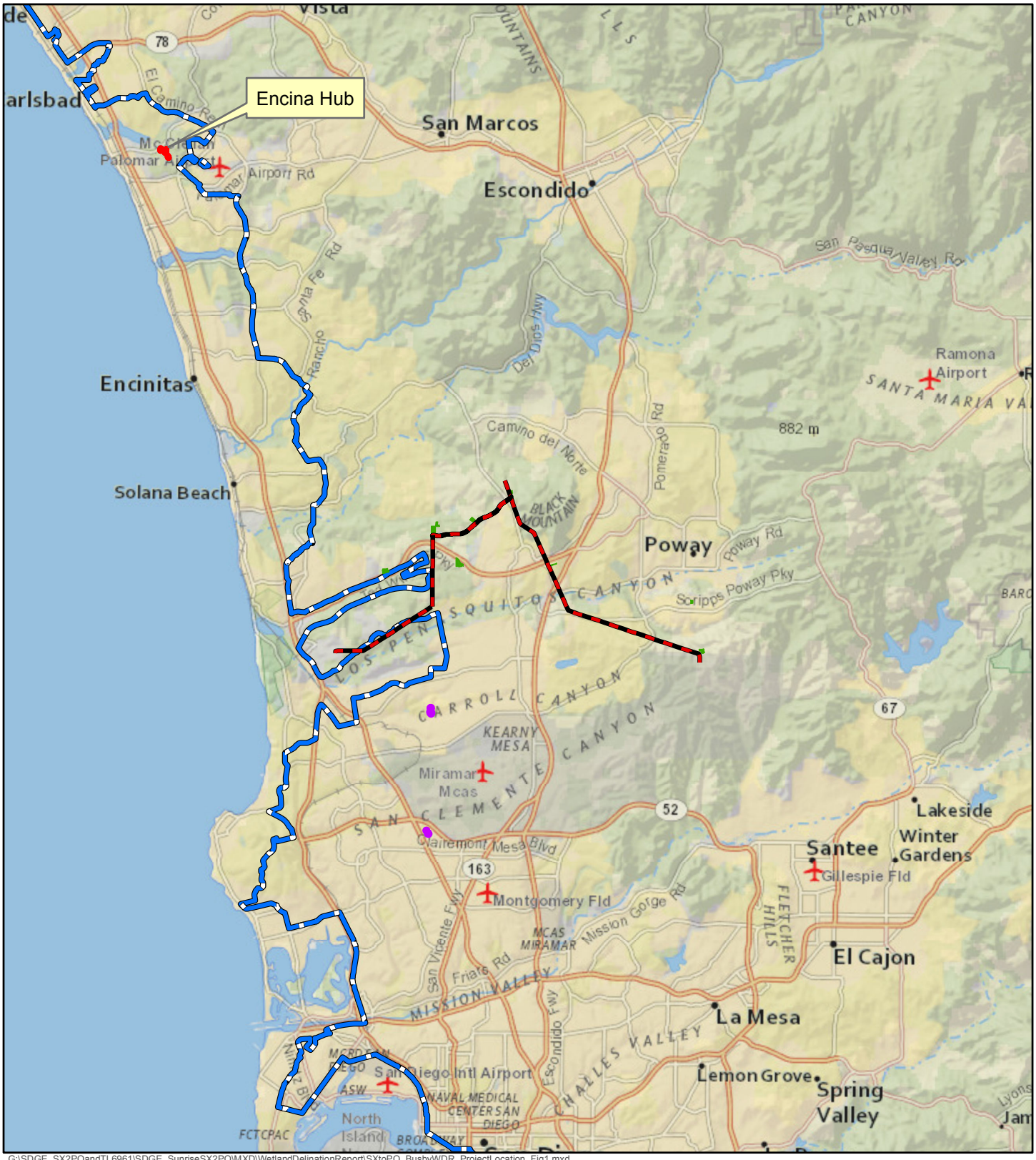
APPENDIX A: FIGURES



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Sycamore to Peñasquitos 230 kV Transmission Line Project

Project Location Map

Figure 1

- Proposed Project Route
- Staging Yards
- Encina Hub
- Mira Mesa Hub
- California Coastal Zone Boundary

4/6/2015

0 2 4 6 Miles

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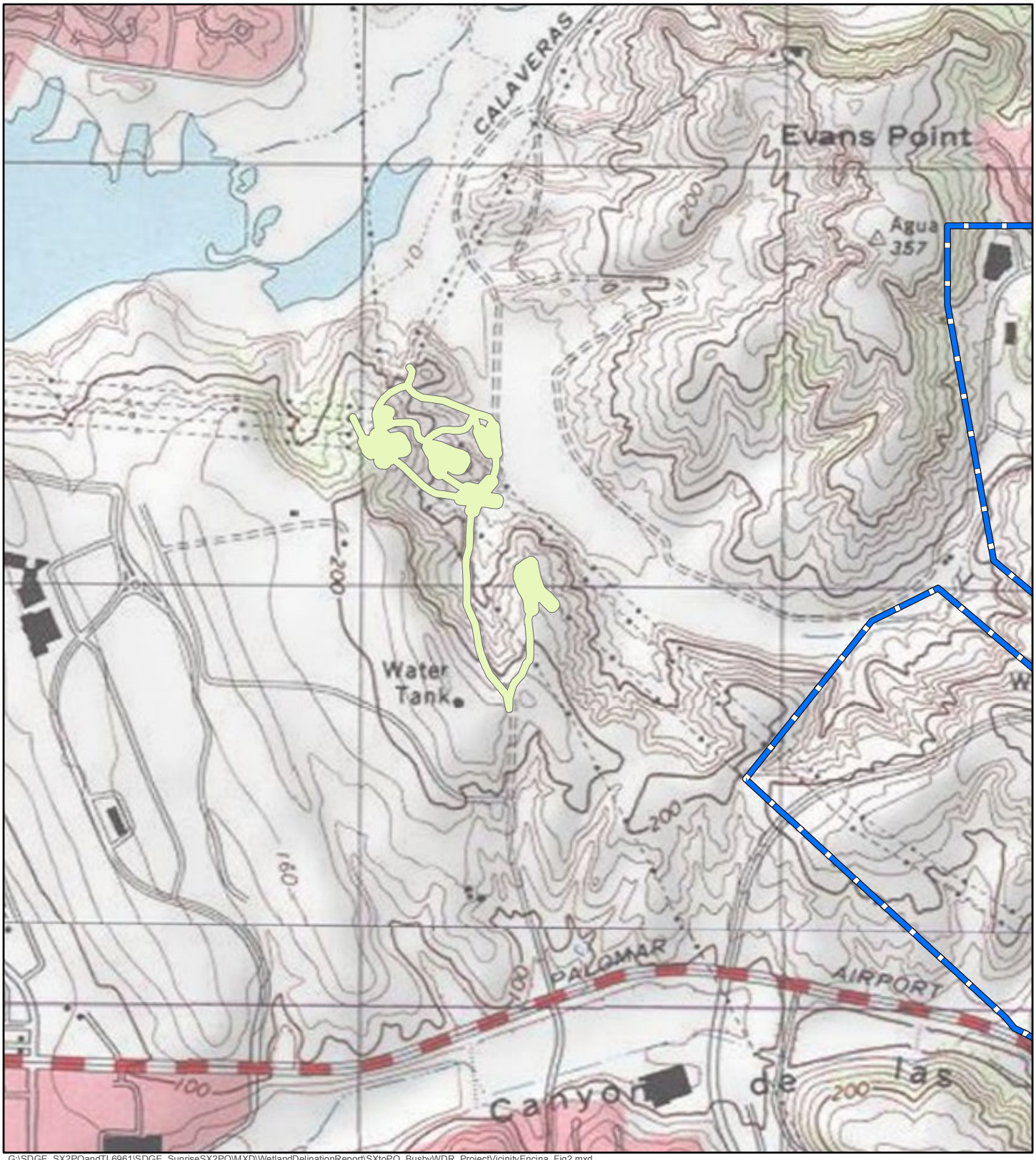

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Sycamore to Peñasquitos 230 kV Transmission Line Project

Project Vincinity Map - Encina Hub

Figure 2

California Coastal Zone Boundary

Encina Hub Survey Area

N
W E
S

0 0.1 0.2 0.3 Miles

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Sycamore to Peñasquitos 230 kV Transmission Line Project

Vegetation Map - Encina Hub

Figure 3

- Encina Hub Survey Areas
- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub - Disturbed
- Southern Riparian Scrub
- Mulefat Scrub
- Nonnative Grassland
- Native Grassland
- Bare Ground
- Developed Lands
- Ornamental
- Disturbed Habitat

0 120 240 360 Feet

4/6/2015

TRC

SDGE A Sempra Energy utility

Sources: TRC, 2015; SDGE, 2015; Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community; NatGeo

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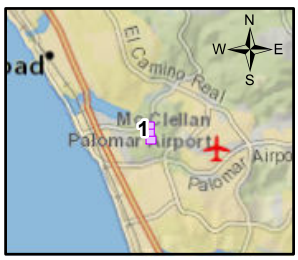


- Culvert
- Sample Point and/or Photo Location
- V-ditch (exempt)
- CCC Wetland
- CDFW Riparian, CCC Wetland
- USACE W.O.U.S, CDFW U.S, RWQCB W.O.S, CCC Wetland
- USACE Wetland W.O.U.S, CDFW Riparian, RWQCB Wetland W.O.S, CCC Wetland
- Encina Hub Survey Areas

Sycamore to Peñasquitos 230 kV Transmission Line Project

Wetland Delineation Results - Encina Hub

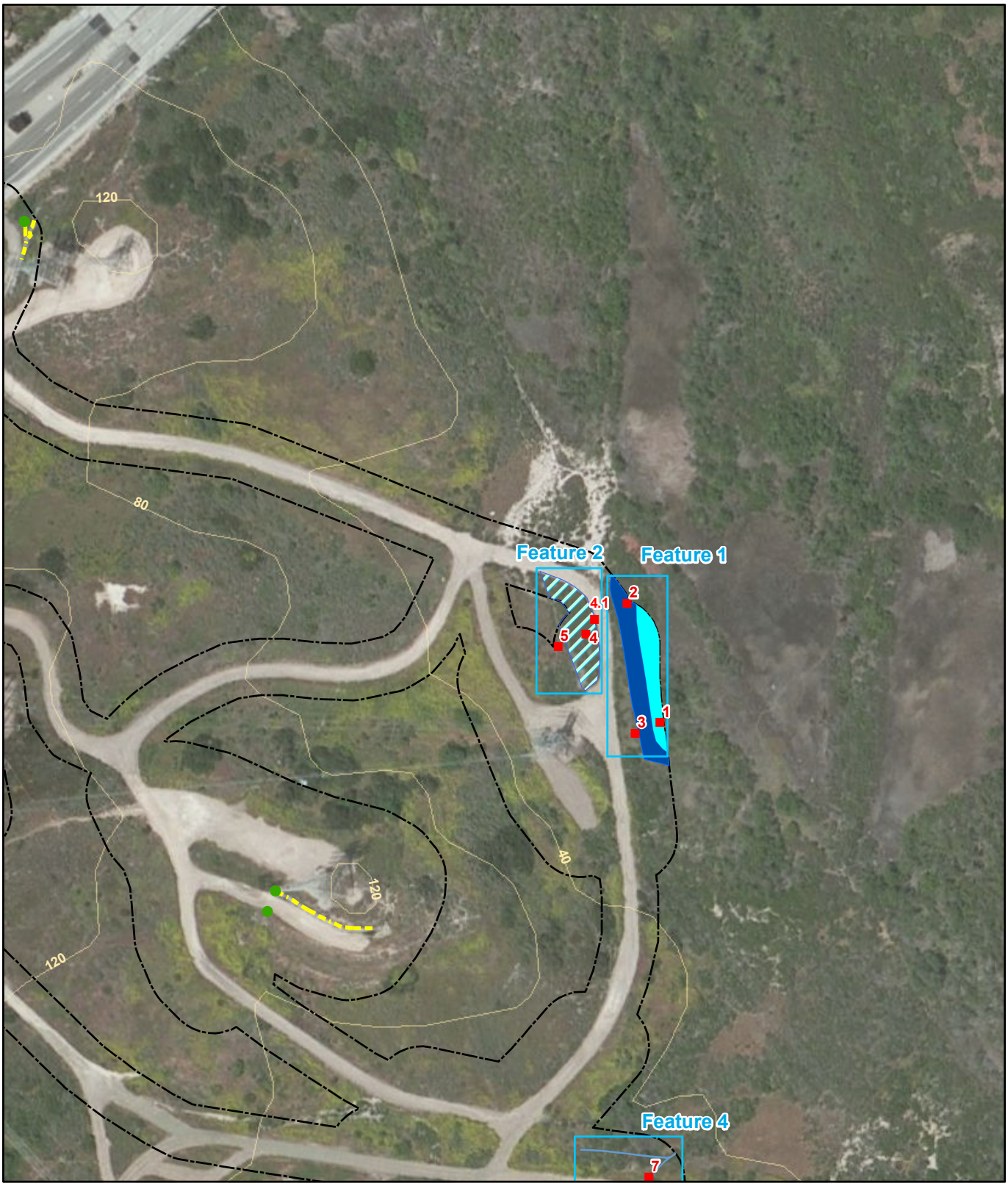
Figure 4

1 inch = 150 feet

4/15/2015 0 50 100 150 Feet

TRC

SDGE A Sempra Energy utility



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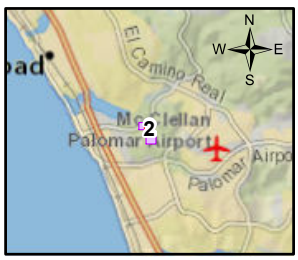

- Culvert
- Sample Point and/or Photo Location
- V-ditch (exempt)
- CCC Wetland
- CDFW Riparian, CCC Wetland
- USACE W.O.U.S, CDFW U.S, RWQCB W.O.S, CCC Wetland
- USACE Wetland W.O.U.S, CDFW Riparian, RWQCB Wetland W.O.S, CCC Wetland
- Encina Hub Survey Areas

Sycamore to Peñasquitos 230 kV Transmission Line Project

Wetland Delineation Results - Encina Hub

Figure 4

1 inch = 150 feet

4/15/2015

0 50 100 150 Feet

TRC

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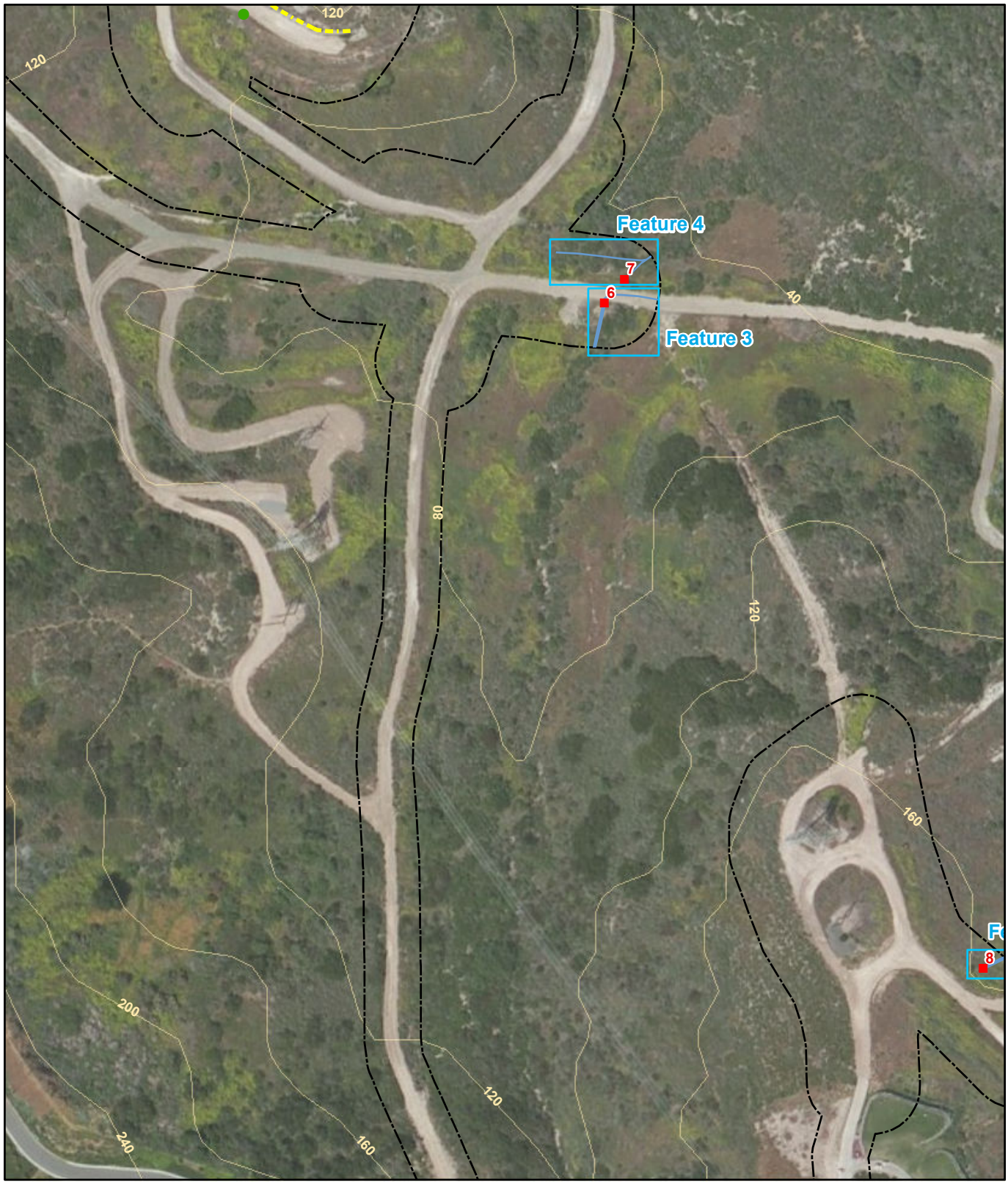

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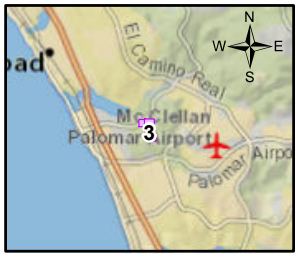

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- CDFW Riparian, CCC Wetland
- USACE W.O.U.S, CDFW U.S, RWQCB W.O.S, CCC Wetland
- USACE Wetland W.O.U.S, CDFW Riparian, RWQCB Wetland W.O.S, CCC Wetland
- Encina Hub Survey Areas

Sycamore to Peñasquitos 230 kV Transmission Line Project

Wetland Delineation Results - Encina Hub

Figure 4

1 inch = 150 feet

4/15/2015

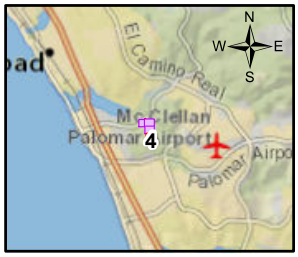
0 50 100 150 Feet

TRC

SDGE

A Sempra Energy utility

G:\SDGE_SX2PQandTL6961\SDGE_SunriseSX2PQ\MXD\WetlandDelinationReport\SXtoPQ_BusbyWDR_WetlandDelinationResults_Fig4.mxd



- Culvert
- Sample Point and/or Photo Location
- V-ditch (exempt)
- CCC Wetland
- CDFW Riparian, CCC Wetland
- USACE W.O.U.S, CDFW U.S, RWQCB W.O.S, CCC Wetland
- USACE Wetland W.O.U.S, CDFW Riparian, RWQCB Wetland W.O.S, CCC Wetland
- Encina Hub Survey Areas

Sycamore to Peñasquitos 230 kV Transmission Line Project

Wetland Delineation Results - Encina Hub

Figure 4

1 inch = 150 feet

4/15/2015

0 50 100 150 Feet

TRC

SDGE

A Sempra Energy utility

APPENDIX B: USACE DATA FORMS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: SDG&E Encina Hub City/County: Carlsbad, San Diego Sampling Date: 1/28/15

Applicant/Owner: SDG&E State: CA Sampling Point: 1

Investigator(s): J.Fontaine, D.Busby Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Salinas clay loam, two to nine percent slopes (SbC) NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix goodingii	50	Y	FACW
2.			
3.			
4.			
Total Cover:	50		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Salicornia virginica	20	Y	OBL
2. Apiastrum angustifolium	5	N	FACU
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	25		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10 YR 3/2	100					Sandy clay loam	
3-13	2.5 Y 4/2	80	1.5 YR 4/8	20%	Redox conc.	PL	Loamy Sand	Redox is distinct, prominant
			Gley 2.5/N		Depletion	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- _X_ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _X_ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- _X_ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _X_ No _____ Depth (inches): 9"

Saturation Present? (includes capillary fringe) Yes _X_ No _____ Depth (inches): 6"

Wetland Hydrology Present? Yes _X_ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: SDG&E Encina Hub City/County: Carlsbad, San Diego Sampling Date: 1/28/15

Applicant/Owner: SDG&E State: CA Sampling Point: 2

Investigator(s): J.Fontaine, D.Busby Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Salinas clay loam, two to nine percent slopes (SbC) NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:
USACE Waters of the U.S.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Baccharis salicifolia	50	Y	FAC
2.			
3.			
4.			
5.			
Total Cover:	50		
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:			
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	5Y 6/3	98	2.5 Y 4/3	2	C	PL	Loamy sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: SDG&E Encina Hub City/County: Carlsbad, San Diego Sampling Date: 1/28/15

Applicant/Owner: SDG&E State: CA Sampling Point: 3

Investigator(s): J.Fontaine, D.Busby Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Salinas clay loam, two to nine percent slopes (SbC) NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x No _____	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____ No x	
Wetland Hydrology Present?	Yes _____ No x	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Baccharis pilularis	50	Y	FAC
2.			
3.			
4.			
5.			
Total Cover:	50		
Herb Stratum			
1. Distichlis spicata	10	N	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	10		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

x Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes x No _____

Remarks:

SOIL

Sampling Point: Non-Wetland Pt 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	5Y 6/3	98	2.5 Y 4/3	2	C	PL	Loamy sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) (**LRR C**)
___ 1 cm Muck (A9) (**LRR D**)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) (**LRR C**)
___ 2 cm Muck (A10) (**LRR B**)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1) (**Nonriverine**)
___ Sediment Deposits (B2) (**Nonriverine**)
___ Drift Deposits (B3) (**Nonriverine**)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Biotic Crust (B12)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Plowed Soils (C6)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water Marks (B1) (**Riverine**)
___ Sediment Deposits (B2) (**Riverine**)
___ Drift Deposits (B3) (**Riverine**)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: SDG&E Encina Hub City/County: Carlsbad, San Diego Sampling Date: 2/17/15

Applicant/Owner: SDG&E State: CA Sampling Point: 4

Investigator(s): D.Busby Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Salinas clay loam, two to nine percent slopes (SbC), smectitic NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil X, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

Are Vegetation _____, Soil X, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:
Naturally high clay content soils combined with soil disturbance (artificial dam) results in an atypical situation. No streambed present. Satisfies one criteria for CCC jurisdiction.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Baccharis salicifolia	75%	Y	FAC
2.			
3.			
4.			
5.			
Total Cover: 75			
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:			
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 25% % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

The artificial dam and the high clay content of this soils has resulted in the ponding of water that allows for this community to persist.

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	7.5 YR 4/1	100	--				loamy clay	no redox
3-8	2.5 YR 4/1	75%	2.5 YR 4/8	40%	C	PL	clay loam	prominant concentrations
	2.5 Y 6/2	30%	2.5 YR 4/8	30%	C	PL	sandy clay	distinct concentration
8-16	10 YR 4/3	90%	7.5 YR 4/8	10%	C	M	sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Hydric soil criteria not met. F3 indicator requires 6" of dark surface with redox. Soil profile only has 5".
F6 criteria also not met due to the lack of depth of redox features.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface cracks are present but are a result of the high clay content soil and the shrink-swell properties of the smectitic soil in the area that was ponded. No stream or bed and bank is present in this area.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: SDG&E Encina Hub City/County: Carlsbad, San Diego Sampling Date: 2/17/15

Applicant/Owner: State: CA Sampling Point: 5

Investigator(s): D.Busby Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillside Local relief (concave, convex, none): Slope (%):

Subregion (LRR): Lat: Long: Datum:

Soil Map Unit Name: Salinas clay loam, two to nine percent slopes (SbC), smectitic NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation , Soil x, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No x

Are Vegetation , Soil x, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x No	**Is the Sampled Area within a Wetland?** Yes No x
Hydric Soil Present?	Yes No x	
Wetland Hydrology Present?	Yes No x	

Remarks:

Formation of hydrophytic vegetation results in natural high clay content of soils and artificial damming. Site does not contain high water table or hydrology. Soils are upland and lack hydric indicators.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Isocoma menziesii	75%	Y	FAC
2. Baccharis pilularis	25%	N	FAC
3.			
4.			
5.			
Total Cover:	60%		
Herb Stratum			
1. Nonnative grasses	50%	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	50%		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 10% % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 3	x 3 =	9
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 3 (A)		3 (B)

Prevalence Index = B/A = 1

Hydrophytic Vegetation Indicators:

- x Dominance Test is >50%
- Prevalence Index is ≤3.0[1]
- Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No x

Remarks:

Atypical situation exists causing the establishment of hydrophytic vegetation which are FAC, and mainly upland in nature. Soils are high in clay content allowing for persistence of soil moisture.

SOIL

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	7.5 YR 4/1	100	--				Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Hydric soil criterion not met due to lack of hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface cracks are present but are a result of the high clay content soil and the shrink-swell properties of the smectitic soil in the area that was ponded. No stream or bed and bank is present in this area.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: SDG&E Encina Hub City/County: Carlsbad, San Diego Sampling Date: 1/28/15

Applicant/Owner: SDG&E State: CA Sampling Point: 6

Investigator(s): J.Fontaine, D.Busby Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: LeE – upland soil NWI classification: no

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:			
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Channel is unvegetated.

SOIL

Sampling Point: 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No soils pits were dug due to lack of hydrophytic vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- X Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Drainage has a defined channel.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: SDG&E Encina Hub City/County: Carlsbad, San Diego Sampling Date: 1/28/15

Applicant/Owner: SDG&E State: CA Sampling Point: 7

Investigator(s): J.Fontaine, D.Busby Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: LeE – upland soil NWI classification: no

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:			
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Channel is unvegetated.

SOIL

Sampling Point: 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) (**LRR C**)
___ 1 cm Muck (A9) (**LRR D**)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) (**LRR C**)
___ 2 cm Muck (A10) (**LRR B**)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No soils pits were dug due to lack of hydrophytic vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1) (**Nonriverine**)
___ Sediment Deposits (B2) (**Nonriverine**)
___ Drift Deposits (B3) (**Nonriverine**)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Biotic Crust (B12)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Plowed Soils (C6)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

X Water Marks (B1) (**Riverine**)
___ Sediment Deposits (B2) (**Riverine**)
___ Drift Deposits (B3) (**Riverine**)
X Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Drainage has a defined channel.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: SDG&E Encina Hub City/County: Carlsbad, San Diego Sampling Date: 1/28/15

Applicant/Owner: SDG&E State: CA Sampling Point: 8

Investigator(s): J.Fontaine, D.Busby Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: LeE - upland soil NWI classification: no

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No x	**Is the Sampled Area within a Wetland?** Yes _____ No x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes x	No _____	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:			
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No x

Remarks:

Channel is unvegetated.

SOIL

Sampling Point: 8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) (**LRR C**)
___ 1 cm Muck (A9) (**LRR D**)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) (**LRR C**)
___ 2 cm Muck (A10) (**LRR B**)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No soils pits were dug due to lack of hydrophytic vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1) (**Nonriverine**)
___ Sediment Deposits (B2) (**Nonriverine**)
___ Drift Deposits (B3) (**Nonriverine**)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Biotic Crust (B12)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Plowed Soils (C6)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

X Water Marks (B1) (**Riverine**)
___ Sediment Deposits (B2) (**Riverine**)
___ Drift Deposits (B3) (**Riverine**)
X Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Drainage has a defined channel.

APPENDIX C: SITE PHOTOGRAPHS

Sample Point 1 / Photo Point 1. View of Feature 1 - USACE wetland waters of the U.S., RWQCB wetland waters of the State, CDFW Riparian, and CCC Wetland.

Sample Point 2 / Photo Point 2. View of Feature 1 - CDFW Riparian and CCC Wetland.

Sample Point 3 / Photo Point 3. View of area outside and west of Feature 1 - non-jurisdictional.

Sample Point 4 / Photo Point 4. View of Feature 2 - CCC Wetland.

Photo Point 4.1. View of edge of Feature 2 where soil disturbance along the road has formed a berm that has resulted in an atypical situation creating conditions that unnaturally support hydrophytic vegetation.

Sample Point 5 / Photo Point 5. View of area outside and west of Feature 2 - non-jurisdictional.

Sample Point 6 / Photo Point 6. View of Feature 3 - USACE waters of the U.S., RWQCB waters of the State, CDFW unvegetated streambed, and CCC Wetland.

Sample Point 7 / Photo Point 7. View of Feature 4 - USACE waters of the U.S., RWQCB waters of the State, CDFW unvegetated streambed, and CCC Wetland.

Sample Point 8 / Photo Point 8. View of Feature 5 - USACE waters of the U.S., RWQCB waters of the State, CDFW unvegetated streambed, and CCC Wetland.