SAN DIEGO GAS & ELECTRIC COMPANY AND SOUTHERN CALIFORNIA GAS COMPANY'S

# PIPELINE SAFETY & RELIABILITY PROJECT
# WETLAND DELINEATION REPORT

**Prepared for:**

SDGE
A Sempra Energy utility®

SoCalGas
A Sempra Energy utility

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# 1 – INTRODUCTION

In the winter of 2014 and spring of 2015, San Diego Gas & Electric Company (SDG&E) and Southern California Gas Company (SoCalGas)—herein referred to as "the Applicants"—retained Insignia Environmental (Insignia) to conduct a preliminary assessment of the waters and wetlands in close proximity to the Pipeline Safety & Reliability Project (Proposed Project). The preliminary assessment was submitted with the Proponent's Environmental Assessment (PEA) in 2015.

This document, *Pipeline Safety & Reliability Project Wetland Delineation Report*, is a follow-up to the preliminary assessment. This report summarizes the 2016 field methods and results of Insignia's formal three-parameter[1] wetland delineation of 20 wetland features within the Proposed Project workspaces. This wetland delineation report provides an assessment of wetlands that are within the jurisdiction of the United States (U.S.) Army Corps of Engineers (USACE), pursuant to Section 404 of the Clean Water Act (CWA); and/or may be regulated by the Regional Water Quality Control Board (RWQCB), pursuant to the Porter-Cologne Water Quality Control Act (California Water Code, Chapter 2, § 13050) or Section 401 of the CWA.

The PEA's wetlands assessment was based on a habitat assessment that identified features that could indicate the presence of a wetland based solely on topography and vegetation cover. This *Wetland Delineation Report* provides an inventory of the jurisdictional features and demonstrates a significant reduction in estimated temporary impacts to wetlands during construction of the Proposed Project. The Proposed Project will qualify for a USACE 2017 Nationwide Permit 12 for Utility Line Activities for approximately 0.07 acre of temporary impacts to wetlands.

# 2 – PROJECT DESCRIPTION

## 2.0 PROJECT OVERVIEW

The Proposed Project involves construction, operation, and maintenance of an approximately 47-mile-long, 36-inch-diameter natural gas transmission pipeline and the following permanent, aboveground equipment that will be appurtenant to the pipeline:

- approximately 10 new aboveground mainline valves (MLVs) spaced a maximum of five miles apart,
- one pressure-limiting station (i.e., the Rainbow Pressure-Limiting Station),
- three cross-tie facilities (i.e., Line 1600, Line 1601, and Line 2010),
- internal inspection launching and receiving equipment,
- cathodic protection system units with an estimated three rectifiers and three deep-well anode beds at three of the proposed MLVs, and
- an intrusion detection and leak monitoring system.

[1] The three parameters of the wetland delineation are hydrophytic vegetation, hydric soils, and wetland hydrology.

Construction is scheduled to begin in the first quarter of 2018 and is expected to take 12 to 18 months to complete.[2] The Applicants are required to comply with CPUC General Order 112-F in constructing a natural gas transmission pipeline and are choosing to seek a CPCN from the CPUC for the Proposed Project. Because the Proposed Project route includes land under the jurisdiction of the Department of the Navy/U.S. Marine Corps, federal authorization will be required. It is anticipated that the Department of the Navy will serve as the federal lead agency pursuant to the National Environmental Policy Act. In addition to the CPCN and the authorization for rights-of-way on MCAS Miramar, the Applicants will obtain all required permits for the Proposed Project from federal, state, and local agencies prior to construction.

## 2.1 PROJECT LOCATION AND SETTING

The Proposed Project is located in San Diego County, California, and crosses the cities of San Diego, Escondido, and Poway. As depicted in Figure 1: Project Overview Map, the route begins at SDG&E's existing Rainbow Metering Station in the unincorporated community of Rainbow and terminates just north of State Route 52 within MCAS Miramar. Within MCAS Miramar, the route parallels an unpaved aqueduct road for approximately 2.6 miles. The Proposed Project will tie into the existing Line 2010 at its southern terminus.

The Proposed Project will be installed primarily within existing roadways and road shoulders. Approximately 41 miles (87 percent) of the Proposed Project will be installed in urban areas within existing roadways and road shoulders, and the remaining approximately six miles (13 percent) of the Proposed Project will be installed cross-country. The pipeline will be installed approximately 42 inches below the ground surface using conventional trenching methods. The pipeline alignment will cross several major roads, including Interstate (I-) 15, as well as a number of water features, including Rainbow Creek, the San Luis Rey River, Moosa Creek, Lake Hodges, Escondido Creek, Poway Creek, and Beeler Creek. At the crossings of the San Luis Rey River and Lake Hodges, horizontal directional drilling methods will be implemented to minimize impacts to riparian habitat and water quality.

[2] The construction start date is based on receiving a Certificate of Public Convenience and Necessity (CPCN) from the California Public Utilities Commission (CPUC) by 2017 and the issuance of other required permits by late 2017 or early 2018.

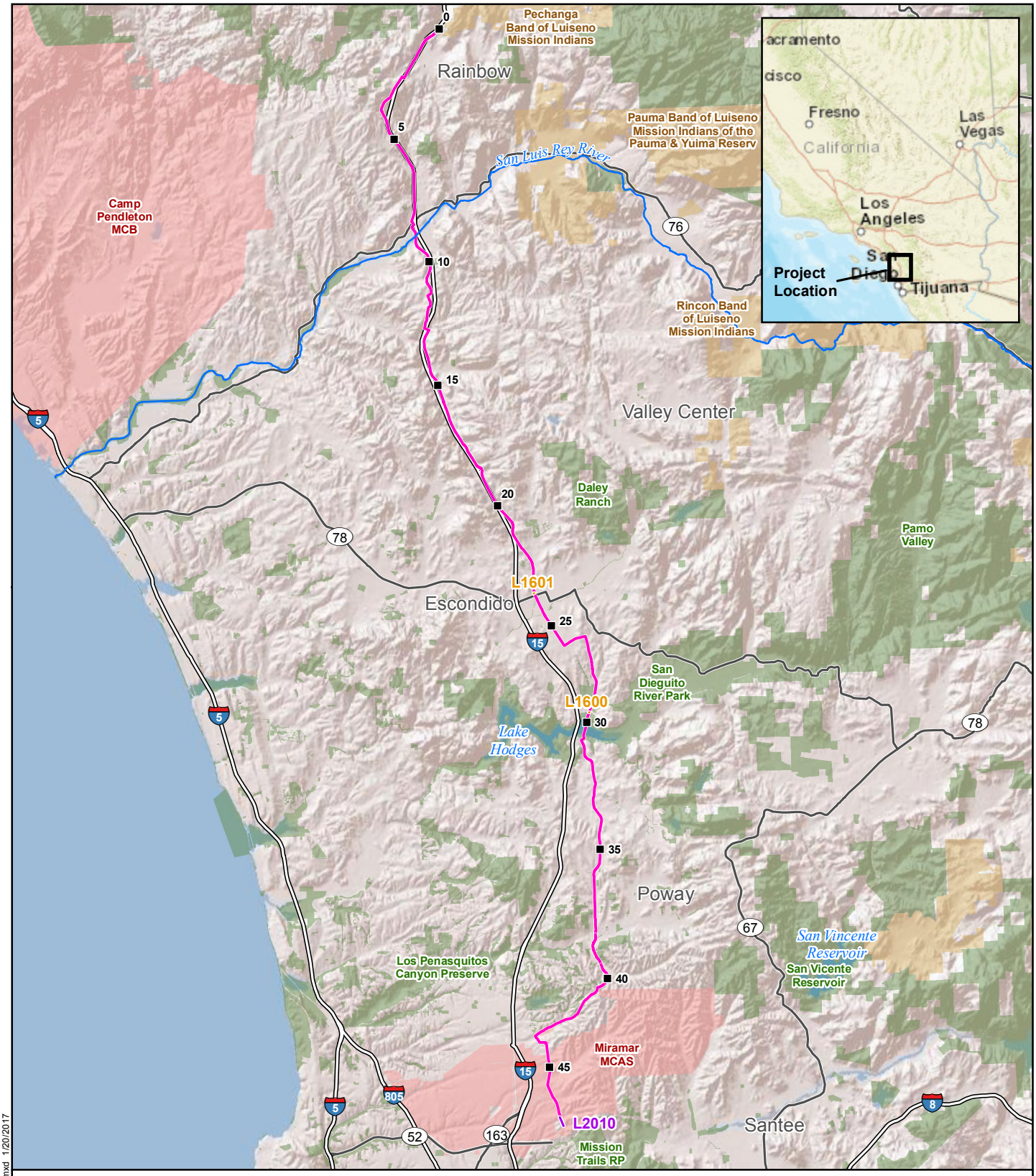


**Figure 1: Project Overview Map** **Pipeline Safety & Reliability Project**

- Milepost
- Proposed Project Route
- Line 1601
- Line 1600
- Line 2010
- Interstate
- Major Road/State Highway
- Parks
- Military
- Bureau of Indian Affairs

1:320,000
0 2 4 Miles

act_Overview_20161219.mxd 1/20/2017

# 3 – REGULATORY FRAMEWORK

This section describes the USACE- and RWQCB-jurisdictional limits as defined by federal and state regulations.

## 3.0 UNITED STATES ARMY CORPS OF ENGINEERS

### 3.0.0 Section 404 of the Clean Water Act

Under Section 404 of the CWA, the USACE has jurisdiction over waters of the U.S. The purpose of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." The USACE has regulatory authority to issue permits for the discharge of dredged or fill material in waters of the U.S., according to Title 33, Section 1344 of the U.S. Code.

The USACE issues site-specific individual or general permits (i.e., Nationwide Permits) for such discharges. The Proposed Project is under the jurisdiction of the USACE's Los Angeles District.

"Waters of the U.S." are defined in Title 33, Section 328.3(a) of the Code of Federal Regulations (CFR) as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide.

2. All interstate waters and wetlands.

3. All other waters—such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds—that the use, degradation, or destruction of which could affect interstate or foreign commerce, and that includes any of the following waters:

   - Waters that are or could be used by interstate or foreign travelers for recreational or other purposes.
   - Waters from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
   - Waters that are used or could be used for industrial purposes by industries in interstate commerce.

4. All impoundments of waters otherwise defined as waters of the U.S.

5. Tributaries of waters identified in 1 through 4.

6. The territorial seas.

7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in 1 through 6.

Title 33, Section 328.3(b) of the CFR defines wetlands as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Thus, all three parameters—hydrophytic vegetation, hydric soils, and wetland hydrology—must be present to classify an area as a USACE-jurisdictional wetland under normal circumstances.

The following two Supreme Court cases have redefined the USACE jurisdiction within the parameters of the CWA:

- *Solid Waste Agency of Northern Cook County (SWANCC) v. USACE* (SWANCC case): Prior to the SWANCC case in 2001, the definition of waters of the U.S. under the USACE regulations included waters "which are or could be used as habitat by birds protected by the Migratory Bird Treaty or by other migratory birds crossing state lines." This definition is pursuant to the preamble language that is provided in Title 40, Section 328.3(a)(3)(2001) of the CFR and is commonly referred to as the Migratory Bird Rule. In the SWANCC case, the USACE attempted to regulate activities taking place in ponds that had formed in pits originally used for a sand and gravel mining operation. Under the Supreme Court's decision in this case, the USACE was directed that it does not have jurisdiction over isolated, non-navigable waters based solely on their use as habitat for migratory birds. The Supreme Court ruled that the USACE's attempt to regulate such isolated waters exceeded its authority under the CWA. The USACE's jurisdiction over isolated wetlands is now determined on a case-by-case basis.

- *Rapanos v. U.S.* (Rapanos case): In the Rapanos case, the Supreme Court consolidated two lower Sixth Circuit of Appeal cases—the Rapanos case and Carabell v. USACE—for review. On June 19, 2006, the Supreme Court vacated judgment against Keith Carabell and John Rapanos, who wanted to fill wetlands on property they owned in Michigan. The USACE had determined that the CWA applied to the wetlands in question in both of these cases because the wetlands were either connected through tributaries, ditches, or drains to navigable waters (in the Rapanos case); or were adjacent to tributaries, ditches, or drains connected to navigable waters (in Carabell v. USACE), but separated under ordinary water conditions from these water features by a berm. The Supreme Court issued five separate opinions in the Rapanos case, none of which commanded a majority.

As a result of these court cases, the U.S. Environmental Protection Agency (EPA) and the USACE subsequently issued a joint memorandum addressing guidance on determining the jurisdiction of waters of the U.S. (EPA and USACE 2008). The memorandum, which intended to address rulings in the SWANCC case and the Rapanos case, states that the agencies will assert jurisdiction over the following waters:

- traditional navigable waters (TNWs),

- wetlands adjacent to TNWs,

- non-navigable tributaries of TNWs that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months), and

- wetlands that directly abut such tributaries.

The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW:

- non-navigable tributaries that are not relatively permanent;
- wetlands adjacent to non-navigable tributaries that are not relatively permanent; and
- wetlands adjacent to, but that do not directly abut, a relatively permanent and non-navigable tributary.

The agencies generally will not assert jurisdiction over the following features:

- swales or erosional features (e.g., gullies and small washes that are characterized by low volume and infrequent or short-duration flow); and
- ditches (including roadside ditches) that are excavated wholly in and drain only in uplands, and that do not carry a relatively permanent flow of water.

As a result, the limits of the USACE's jurisdiction are as follows:

1. Territorial Seas: The limit of jurisdiction in the territorial seas is measured from the baseline in a seaward direction for a distance of three nautical miles. (See 33 CFR § 329.12.)

2. Tidal Waters of the U.S.: The landward limits of jurisdiction in tidal waters:

   – extend to the high tide line; or
   – extend to the limits of adjacent non-tidal waters of the U.S., as described in item 3 below.

3. Non-Tidal Waters of the U.S.: The limits of jurisdiction in non-tidal waters:

   – extend to the ordinary high water mark (OHWM) in the absence of adjacent wetlands,
   – extend beyond the OHWM to the limit of adjacent wetlands when such wetlands are present, and
   – extend to the limit of the wetland when the waters of the U.S. consist only of wetlands.

A significant nexus analysis will be used when assessing jurisdiction over non-navigable and not relatively permanent tributaries and their adjacent wetlands. The significant nexus analysis will assess the flow characteristics and functions of the tributaries, as well as the functions performed by all wetlands adjacent to such tributaries to determine if they significantly affect the chemical, physical, and biological integrity of downstream TNWs. The significant nexus analysis will include consideration of the following hydrologic factors:

- proximity to the TNW;
- size of the watershed;
- volume, duration, and frequency of flow;
- average rainfall; and
- average annual snowpack.

The significant nexus analysis will include consideration of ecological factors, including a tributary's potential to carry pollutants and floodwaters to TNWs and the adjacent wetlands' potential to trap and filter pollutants or store floodwaters.

Fundamental to the application of this guidance is a formalized oversight process involving both the EPA and the USACE in the adoption of approved jurisdictional determinations. The intent of this formal process is to ensure consistency in how the agencies interpret the rulings and guidance at all levels. The USACE issued Regulatory Guidance Letter No. 08-02 on the subject of Jurisdictional Determinations (USACE 2008b) in order to institute the program by which jurisdictional determinations are made. This guidance creates a distinction between an applicant's request for a preliminary jurisdictional determination (PJD) and an approved jurisdictional determination (AJD). If a PJD is requested from the USACE, the determination will be inclusive of all features that have historically been regulated by the USACE under Section 404 of the CWA and Sections 9 and 10 of the Rivers and Harbors Appropriation Act of 1899 (i.e., prior to the SWANCC and Rapanos cases). The PJD excludes exempted jurisdictional waters, but not those excluded by court ruling interpretations. The AJD provides a more thorough evaluation of issues of isolation, adjacency, and significant nexus as contemplated by the courts, and excludes from USACE regulation any areas that fail to meet the necessary litmus tests of the court decision and the agencies' implementation guidance.

## 3.1 REGIONAL WATER QUALITY CONTROL BOARD

### 3.1.0 Section 401 of the Clean Water Act

The RWQCB regulates activities in waters of the State—including wetlands—through Section 401 of the CWA (RWQCB 2014). While the USACE administers permitting programs that authorize impacts to waters of the U.S., any USACE permit authorized for a proposed project will be invalid unless the RWQCB has issued a project-specific Water Quality Certification (WQC) or waiver of water quality. A WQC requires a finding by the RWQCB that the activities permitted by the USACE will not violate water quality standards individually or cumulatively over the term of the issued USACE permit. The Proposed Project is under the jurisdiction of the San Diego RWQCB.

### 3.1.1 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code § 13260) requires that "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the State to file a report of discharge" with the RWQCB through an application for waste discharge (California Water Code § 13260[a][1]) (RWQCB 2014). The term "waters of the State" is defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code § 13050[e]). Pursuant to the Porter-Cologne Water Quality Control Act, the RWQCB also regulates "isolated wetlands," or

wetlands considered to be outside of the USACE's jurisdiction, pursuant to the SWANCC case decision.

The RWQCB generally considers filling in waters of the State to be "pollution." Pollution is defined as an alteration of the quality of the waters of the State by waste that unreasonably affects its beneficial uses (California Water Code § 13050[l]). The RWQCB litmus test for determining if a project should be regulated pursuant to the Porter-Cologne Water Quality Control Act is if the action could result in any "threat" to water quality.

# 4 – METHODS

In 2016, Insignia wetland specialists conducted a formal wetland delineation of potential wetland areas within or immediately adjacent to the Proposed Project workspace that were identified during the fieldwork associated with the preparation of the Proponent's Environmental Assessment (PEA). This section describes the previous 2014 and 2015 preliminary wetland mapping that was conducted to support preparation of the PEA; the literature review that was conducted prior to the wetland delineation fieldwork; and the methods utilized to conduct the 2016 wetland delineation fieldwork, mapping, and documentation.

## 4.0 PRELIMINARY WETLAND MAPPING

In 2014 and 2015, Insignia biologists mapped potential wetlands under the jurisdiction of the USACE and RWQCB based on hydrophytic vegetation during vegetation mapping and rare plant surveys conducted for the Proposed Project. The wetland mapping was conducted according to the USACE's Wetlands Delineation Manual (Environmental Laboratory 1987) in conjunction with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a).

Hydrophytic vegetation is defined as "the community of macrophytes that occurs in areas where inundation and soil saturation is either permanent, or of sufficient frequency and duration to exert a controlling influence on the plant species present" (USACE 2008a). Hydrophytic vegetation is determined to be present when the plant community is dominated by species that can tolerate prolonged inundations or soil saturation during the growing season. The National Wetland Plant List (Lichvar et al. 2014) provides a wetland indicator status for all hydrophytic plant species in the U.S. The wetland indicator status predicts a plant's likelihood to occur in wetlands, and is defined as follows:

- Obligate Plant (OBL): A plant that almost always occurs in wetlands.
- Facultative Wetland Plant (FACW): A plant that usually occurs in wetlands, but may occur in non-wetlands.
- Facultative Plant (FAC): A plant that occurs in wetlands and non-wetlands.
- Facultative Upland Plant (FACU): A plant that usually occurs in non-wetlands, but may occur in wetlands.
- Upland Plant (UPL): A plant that almost never occurs in wetlands.

Biologists visually estimated the absolute percent cover of plant species with stands that could potentially be dominated by hydrophytic vegetation. Wetland determination data forms were

filled out for areas where the presence of hydrophytic vegetation could not be determined through a routine vegetation assessment. The wetland indicator status (i.e., OBL, FACW, FAC, FACU, and UPL) of the species was recorded. For species not on the 2014 National Wetland Plant List the indicator status was assumed to be UPL. Hydrophytic vegetation was determined to be present if either of the following indicator tests were satisfied:

- Dominance Test (Indicator 1): More than 50 percent of the dominant plant species across all strata are rated OBL, FACW, or FAC.
- Prevalence Test (Indicator 2): The prevalence index, which is a weighted-average wetland indicator status of all plant species in the sampling plot, is 3.0 or less.

All potential wetland areas (i.e., areas dominated by hydrophytic vegetation) were evaluated to identify their connection to on-site and off-site hydrologic resources. Potential jurisdictional wetland areas were mapped as such if they were identified as adjacent waters or were determined to potentially have a significant nexus to a TNW.

The wetland boundaries were mapped using a Trimble Global Positioning System (GPS) unit with submeter accuracy in locations where biologists could access these features. Full-color, ortho-corrected aerial imagery was analyzed to assist with mapping the spatial extents of jurisdictional features that were not accessible during GPS data collection. A data dictionary within the GPS software ensured consistent data collection in the field. All spatial data was collected in the North American Datum 1983 State Plane California Zone 6 (feet) coordinate system.

## 4.1 LITERATURE REVIEW

Before conducting the 2016 formal wetland delineation, Insignia wetland specialists reviewed the 2015 Wetland and Waters Assessment, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory maps (USFWS 2016) for the Proposed Project refinement areas outside of the 2014 and 2015 Survey Area,[3] and recent aerial photographs of the Survey Area and the surrounding area. The biologists also reviewed and referenced the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey for the Survey Area, which lists hydric soils found in San Diego County.

## 4.2 JURISDICTIONAL WETLAND DELINEATION

The 2016 wetland delineations were conducted according to the USACE's Wetlands Delineation Manual (Environmental Laboratory 1987) in conjunction with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a). Insignia's wetland specialists conducted a jurisdictional wetlands delineation of 20 potential USACE-jurisdictional wetlands within or immediately adjacent to the Proposed Project's workspace. A summary of the 2016 wetland delineation survey dates and locations is presented in Table 1: 2016 Wetland Delineation Summary.

[3] The 2014 and 2015 Survey Area included all Proposed Project components and an approximately 150-foot buffer on each side of these components. In total, the Survey Area covered approximately 2,264 acres.

The wetland specialists dug soil pits up to 12 inches deep to determine if a potential wetland met the hydric soil parameter and was located within an area that would be impacted during construction of the Proposed Project. Soil pits were dug within a potential wetland feature in areas that were visually determined to best represent the characteristics of a wetland community type. Visual indicators included topography, vegetation, and hydrology indicators. Soil pits were also dug to determine the limits of a wetland feature that met the three wetland parameters of hydrophytic vegetation, hydric soils, and wetland hydrology. Up to three soil pits were dug in a potential wetland and the surrounding upland area to establish the limits of the potential wetland feature. Each soil pit and its surrounding area were evaluated for each of the three wetland parameters (i.e., hydrophytic vegetation, hydric soils, and wetland hydrology).

Vegetation at each sample point was evaluated within a one-square-meter quadrat. The 2016 National Wetland Plant List was used to determine the wetland indicator status for dominant plant species within the quadrat (Lichvar et al. 2016). Evidence supporting the jurisdictional determination at each of the sample points was recorded on Arid West Region – Wetland Determination Data Forms, which are provided in Attachment A: Wetland Determination Data Forms. The locations of the soil pits were recorded using a GPS unit and are depicted as soil test pit points on maps in Attachment B: Wetland Assessment Map and Vegetation Abbreviations.

**Table 1: 2016 Wetland Delineation Summary**

| Insignia's Wetland Specialists | Date | Approximate Mileposts (MPs) Surveyed[4] | Potential Wetlands Evaluated[5] |
|---|---|---|---|
| Darren Burton and Nick Wagner | September 21, 2016 | MP 0.0 to MP 1.9,<br>MP 21.4 to MP 24.2,<br>MP 30.4 to MP 33.3, and<br>MP 39.0 to MP 43.8 | Wetland (W-) 941<br>W-994<br>W-998<br>W-999<br>W-380<br>W-383<br>W-1377 |
| Darren Burton and Nick Wagner | October 24, 2016 | 46.7 to MP 46.9 | W-1268 |
| Darren Burton and Melissa Tu | November 11, 2016 | MP 43.8 to MP 46.7 | W-1386<br>W-1283<br>W-1391<br>W-1642<br>W-1638<br>W-1639<br>W-148<br>W-1724<br>W-1726<br>W-84<br>W-1278<br>W-1392 |
| Darren Burton and Melissa Tu | December 20, 2016 | MP 3.3 | W-1444<br>W-1445 |

# 5 – SURVEY RESULTS

Twenty potential wetlands were evaluated in 2016 within or adjacent the Proposed Project workspace and are depicted in Attachment B: Wetland Assessment Map and Vegetation Abbreviations and Attachment C: Wetland Features Evaluated in 2016. Of the 20 potential wetlands, two features—W-1391 and W-1278—meet the definition of a wetland based on the three parameters (i.e., hydrophytic vegetation, hydric soils, and wetland hydrology). W-1278 is an isolated basin just west of the Proposed Project workspace, as depicted on Map 9 in Attachment B: Wetland Assessment Map and Vegetation Abbreviations. W-1391 is within the Proposed Project workspace, as depicted on Map 8 in Attachment B: Wetland Assessment Map and Vegetation Abbreviations. Attachment D: Wetland Photographic Log presents photographs of W-1391, which occurs within the Proposed Project area on MCAS Miramar.

[4] These mileposts were based on the PEA.

[5] Wetland numbers are preliminary and potential wetlands mapped in 2014 and 2015. These wetlands are in order by date surveyed and from north to south in the Proposed Project area.

# 6 – CONCLUSION

Approximately 0.07 acre of W-1391, a USACE- and RWQCB-jurisdictional wetland, is within the Proposed Project workspace and could potentially be temporarily impacted by construction activities. The Proposed Project activities that could temporarily impact the wetland include earth-moving/grading and vegetation removal associated with the temporary construction workspace. W-1278 is adjacent to the Proposed Project workspace and will be avoided. No permanent impacts to hydrological features are anticipated as a result of the Proposed Project.

It is anticipated that the Proposed Project will qualify for a USACE 2017 Nationwide Permit 12 for Utility Line Activities, because the Proposed Project will not result in a loss of more than 0.5 acre of waters of the U.S. and it meets all of the other conditions of this Nationwide Permit. In addition, the Proposed Project will require a WQC from the RWQCB.

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# ATTACHMENT A: WETLAND DETERMINATION DATA FORMS

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP-WLD City/County: San Diego Sampling Date: 9/21/16

Applicant/Owner: SDG&E; c/o Insignia Env. State: CA Sampling Point: 1-1

Investigator(s): Darren Burton, Nick Wagner Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): LRR-C Lat: 33.19'04.126 Long: -117.05'24.060 Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 _____ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ No ✓ | |
| Wetland Hydrology Present? | Yes _____ No ✓ | |

Remarks:
Pit is adjacent to work space, Sand is dry @ 12"
Attach B Map: W-941 @ intersection of workspace

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: 1 m²) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. Platanus racemosa | 10 | yes | FAC |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | _____ = Total Cover | | |
| **Sapling/Shrub Stratum** (Plot size: 1 m²) | | | |
| 1. Bacch. salicifolia | 50 | yes | FACW |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | _____ = Total Cover | | |
| **Herb Stratum** (Plot size: 1 m²) | | | |
| 1. Datura wrightii | 20 | yes | UPL |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | _____ = Total Cover | | |
| **Woody Vine Stratum** (Plot size: _____) | | | |
| 1. | 0 | | |
| 2. | | | |
| | _____ = Total Cover | | |

% Bare Ground in Herb Stratum 80 % Cover of Biotic Crust 0

**Dominance Test worksheet:**

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66 (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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✓ No _____

Remarks:
GPS check:
33.31795, -117.15668
285'

## 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 |
|---|---|---|---|---|---|---|---|---|
| 6 | 5/6 | 100 | | | | | very fine | 10 YR |
| 12 | 5/4 | 100 | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** Yes _____ No ✓

Remarks: Sand.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

**Wetland Hydrology Present?** Yes _____ No ✓

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

Remarks: South end of riparian corridor of San Luis Rey Rivera, but not in a wetland

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP-WLD City/County: San Diego Sampling Date: 09/21/16

Applicant/Owner: SDG&E; c/o Insignia Env. State: CA Sampling Point: 1-2

Investigator(s): Darren Burton, Nick Wagner Section, Township, Range:

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope Slope (%): 5

Subregion (LRR): Lat: 33.19'09.295 Long: -117.09.23.938 Datum:

El. 78.87 m

Soil Map Unit Name: NWI classification:

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ____ | **Is the Sampled Area within a Wetland?** Yes ____ No ✓ |
| Hydric Soil Present? | Yes ____ No ✓ | |
| Wetland Hydrology Present? | Yes ✓ No ____ | |

Remarks:

Attach B Map: W-941; north of Workspace

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: 1 m²) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. Cottonwood (Populus fremontii) | 50 | | FAC |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | = Total Cover | | |
| **Sapling/Shrub Stratum** (Plot size: 1 m²) | | | |
| 1. Mulefat (Baccharis salicifolia) | 20 | | FACW |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | = Total Cover | | |
| **Herb Stratum** (Plot size: ____) | | | |
| 1. | 0 | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | = Total Cover | | |
| **Woody Vine Stratum** (Plot size: ____) | | | |
| 1. | | | |
| 2. | | | |
| | = Total Cover | | |

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust 0

**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: 1 (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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✓ No ____

Remarks:

Pit is in intermittent channel leading from culvert to east. 33.31789, -117.15665 280'

## SOIL

Sampling Point: 12

**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 |
|---|---|---|---|---|---|---|---|---|
| 5 | 3/6 | 100 | | | | | very fine | 10YR |
| 8 | 2/1 | 75 | | | | | " | 10YR |
| 12 | 3/6 | 100 | | | | | " | 10YR |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** Yes _____ No _____

Remarks: No clay. Layer of organic soil at 8" and 15".
No water, but deposits and water marks present.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

**Wetland Hydrology Present?** Yes ✓ No _____

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

Remarks: Pit is greater than 25' (~7m) north of work area.

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP-WLD City/County: San Diego Sampling Date: 9/21/16

Applicant/Owner: SDG&E; c/o Insignia Env. State: CA Sampling Point: 1 of 3

Investigator(s): Darren Burton, Nick Wagner Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): _____ Lat: 33,19' 04,023 Long: -117, 09' 23,955 Datum: _____

75.43m

Soil Map Unit Name: _____ NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ✓ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ No ✓ | |
| Wetland Hydrology Present? | Yes _____ No ✓ | |

Remarks:

Upland to pit 1-1; mapped within hydric veg, from map-Attach B Map: W-941; within workspace; is an upland area.

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: 1 m²) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. Cottonwood (P. fremontii) | 40 | ✓ | FAC |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 40 = Total Cover | | |
| **Sapling/Shrub Stratum** (Plot size: 1 m²) | | | |
| 1. Artemisia californica | 40 | | UPL |
| 2. Mimulus aurantiacus | 10 | | UPL |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 50 = Total Cover | | |
| **Herb Stratum** (Plot size: 1 m²) | | | |
| 1. Fennel (Foeniculum vulgare) | 5 | | UPL |
| 2. Jimsonweed (Datura wrightii) | 5 | | UPL |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 10 = Total Cover | | |
| **Woody Vine Stratum** (Plot size: _____) | | | |
| 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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes _____ No ✓

Remarks:

Upland vegetation is dominant in the survey quadrat

## SOIL

Sampling Point: _____

**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 |
|---|---|---|---|---|---|---|---|---|
| 6 | 5/6 | 100 | | | | | very fine | 7.5YR |
| 12 | 5/6 | 100 | | | | | | 7.5YR |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** Yes _____ No ✓

Remarks: Under cottonwood, but no wet soils present

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

**Wetland Hydrology Present?** Yes _____ No ✓

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

Remarks: Upland to Pit 1-1

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP - WLD City/County: _____ Sampling Date: 9/21/16

Applicant/Owner: SDG&E; c/o Insignia Env. State: CA Sampling Point: 2-1

Investigator(s): Darren Burton, Nick Wagner Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): _____ Lat: 33.16'19.558 Long: -117.09'16.083 Datum: _____

Soil Map Unit Name: 96.54 m NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ✓ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ | No ✓ | |
| Wetland Hydrology Present? | Yes _____ | No ✓ | |

Remarks:

Attach B Map; W-999; where WL polygon intersects with ROW

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: 1 m²) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. Elderberry (Sambucus nigra) | 20 | | UPL |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 20 | = Total Cover | |
| **Sapling/Shrub Stratum** (Plot size: _____) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | | = Total Cover | |
| **Herb Stratum** (Plot size: _____) | | | |
| 1. Bromes (Bromus sp.) | 50 | | UPL |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 50 | = Total Cover | |
| **Woody Vine Stratum** (Plot size: _____) | | | |
| 1. | | | |
| 2. | | | |
| | | = Total Cover | |

% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust —

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes _____ No ✓

Remarks:

Upslope from creek; Creek does not appear to insect with ROW. No intersecting work areas.

Workspace = upland

## SOIL

Sampling Point: _____

**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 |
|---|---|---|---|---|---|---|---|---|
| 12' | 6/3 | | | | | | | 7.5YR |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** Yes _____ No ✓

Remarks: Above OHWM of creek

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

**Wetland Hydrology Present?** Yes _____ No ✓

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

Remarks:

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP - WLD City/County: San Diego, SD Sampling Date: 09/21/16

Applicant/Owner: SDG&E; c/o Insignia Env. State: CA Sampling Point: 3-1

Investigator(s): Darren Burton, Nick Wagner Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): _____ Lat: 33 04' 00935 Long: -117 03' 43.227 Datum: _____

Soil Map Unit Name: 98.21 m NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 _____ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ | No ✓ | |
| Wetland Hydrology Present? | Yes ✓ | No _____ | |

Remarks:

Attach B Map; W-383; Work space intersects with mapped WL.

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: 0) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | 0 | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 0 = Total Cover | | |
| **Sapling/Shrub Stratum** (Plot size: _____) | | | |
| 1. | 0 | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0 = Total Cover | | |
| **Herb Stratum** (Plot size: 1m2) | | | |
| 1. Typha latifolia | 75 | | OBL |
| 2. Anemopsis californica | 10 | | OBL |
| 3. Frankenia salina | 15 | | FACW |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | = Total Cover | | |
| **Woody Vine Stratum** (Plot size: _____) | | | |
| 1. | | | |
| 2. | | | |
| | 0 = Total Cover | | |

% Bare Ground in Herb Stratum 0 % 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: 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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✓ No _____

Remarks: Pit is between channel of cattails and other herbaceous veg.

## SOIL

Sampling Point: 3-1

**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 |
|---|---|---|---|---|---|---|---|---|
| 6 | 2.5/2 | | | | | | v. fine | 5YR |
| 12 | 2.5/2 | | | | | | v. fine | 5YR Loamy |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** Yes _____ No ✓

Remarks: Soil is loamy, dry at 12"

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

**Wetland Hydrology Present?** Yes ✓ No _____

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

Remarks:

Pit is in 100% WL veg.
Soil not moist: dry at 12".
Water marks evident.

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP-WLD City/County: San Diego, SD Sampling Date: 09/21/16

Applicant/Owner: SDG&E; c/o Insignia ENV, State: CA Sampling Point: 3-2

Investigator(s): Darren Burton, Nick Wagner Section, Township, Range: _____

Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): none Slope (%): 5

Subregion (LRR): _____ Lat: 33, 04' 00.768 Long: -117, 05' 42.865 Datum: _____

Soil Map Unit Name: _____ 97.24m NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ 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 _____ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ | No ✓ | |
| Wetland Hydrology Present? | Yes _____ | No ✓ | |

Remarks: Pit is 1 meter upslope from hydric veg. boundary.
Attach B Map; W-383; intersection of mapped WL & workspace

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 0 | = Total Cover | |
| **Sapling/Shrub Stratum** (Plot size: _____) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0 | = Total Cover | |
| **Herb Stratum** (Plot size: 1 m²) | | | |
| 1. Carex praegracilis | 90 | ✓ | FACW |
| 2. Ambrosia artemisiifolia | 5 | | FACU |
| 3. Anemopsis californica | 5 | | OBL |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 100 | = Total Cover | |
| **Woody Vine Stratum** (Plot size: _____) | | | |
| 1. | | | |
| 2. | | | |
| | 0 | = Total Cover | |

% Bare Ground in Herb Stratum 0 % 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: 1 100% (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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✓ No _____

Remarks: Mostly Carex sp., but soil is dry.

## SOIL

Sampling Point: 3-2

**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 |
|---|---|---|---|---|---|---|---|---|
| 6 | 4/3 | 100 | | | | | | 5YR |
| 12 | 4/3 | 100 | | | | | | 5YR |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** Yes _____ No ✓

Remarks: Dry @ 12"

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

**Wetland Hydrology Present?** Yes _____ No ✓

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

Remarks: Area is upland.

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP-WLD City/County: San Diego, SD Sampling Date: 9/21/16
Applicant/Owner: SDG&E; c/o Insignia Env. State: CA Sampling Point: 3-3
Investigator(s): Darren Burton, Nick Wagner Section, Township, Range:
Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR): Lat: 33, 03' 56, 433 Long: 117. 03' 44, 25" Datum:
Soil Map Unit Name: 94, 88m. NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 _____ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ No ✓ | |
| Wetland Hydrology Present? | Yes _____ No ✓ | |

Remarks: Lots of hydric veg, Soil dry @ 12".
Attach B Map; W-383; intersection of mapped WL & Workspace.

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 0 = Total Cover | | |
| **Sapling/Shrub Stratum** (Plot size: _____) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0 = Total Cover | | |
| **Herb Stratum** (Plot size: 1m²) | | | |
| 1. Anemopsis californica | 75 | ✓ | OBL |
| 2. Frankenia salina | 10 | | FACW |
| 3. Heliotropium curassavicum | 10 | | FACU |
| 4. Carex praegracilis | 5 | | FACW |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 100 = Total Cover | | |
| **Woody Vine Stratum** (Plot size: _____) | | | |
| 1. | | | |
| 2. | | | |
| | _____ = Total Cover | | |

% Bare Ground in Herb Stratum 0 % 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: 1 (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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✓ No _____

Remarks:

## SOIL

Sampling Point: 3-3

**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 |
|---|---|---|---|---|---|---|---|---|
| 6 | 4/4 | 100 | | | | | | 10 YR |
| 12 | 4/4 | 100 | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** Yes _____ No ✓

Remarks: Soil dry @ 12". Pill bug & spiders @ 8"

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

**Wetland Hydrology Present?** Yes _____ No ✓

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

Remarks:

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP- WLD City/County: SD, San Diego Sampling Date: 9/21

Applicant/Owner: SDG&E; c/o Insignia ENV. State: CA Sampling Point: 3-4

Investigator(s): D. Burton; N. Wagner Section, Township, Range:

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): Lat: 33. 03' 56. 053 Long: -117. 03' 45.076 Datum:

93.34m

Soil Map Unit Name: 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 ✓ No ____ | **Is the Sampled Area within a Wetland?** Yes ____ No ✓ |
| Hydric Soil Present? | Yes ____ No ✓ | |
| Wetland Hydrology Present? | Yes ____ No ✓ | |

Remarks: No WL soils.
Attach B Map; W-383; intersection of mapped WL & workspace

### VEGETATION – Use scientific names of plants.

| | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| **Tree Stratum** (Plot size: ____) | | | |
| 1. | 0 | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | ____ = Total Cover | | |
| **Sapling/Shrub Stratum** (Plot size: ____) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0 = Total Cover | | |
| **Herb Stratum** (Plot size: 1 m²) | | | |
| 1. Anemopsis californica | 85 | | OBL |
| 2. Carex praegracilis | 10 | | FACW |
| 3. Heliotropium curisavicum | 5 | | FACW |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 100 = Total Cover | | |
| **Woody Vine Stratum** (Plot size: ____) | | | |
| 1. | | | |
| 2. | | | |
| | ____ = Total Cover | | |

% Bare Ground in Herb Stratum 0 % 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: 1 (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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✓ No ____

Remarks:

## SOIL

Sampling Point: 3-4

**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 |
|---|---|---|---|---|---|---|---|---|
| 0-6 | 5/3 | 100 | Orange | 2 | | | very fine | clayey loam, 10YR |
| 6-12 | " | " | " | " | | | " | " |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** Yes _____ No _____

Remarks: Small orange spots in upper 8" (redox-like). A few pill bugs @ ~10", otherwise dry @ 12".

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

**Wetland Hydrology Present?** Yes _____ No ✓

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

Remarks: Hydric veg, but soil dry & loamy throughout.

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP-WLD City/County: SD, SD Sampling Date: 09/21/16

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

Investigator(s): DB, NW Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): _____ Lat: 33. 03' 20.517 Long: -117. 03' 57.195 Datum: _____
96.27 m

Soil Map Unit Name: _____ NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 _____ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ | No ✓ | |
| Wetland Hydrology Present? | Yes _____ | No ✓ | |

Remarks: Mulefat scrub with some tamarisk. Soil is sandy, dry. No evidence of flooding; ie, watermarks, etc. Attach B Map; W-1377; intersection of mapped WL & work space

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 0 | = Total Cover | |
| **Sapling/Shrub Stratum** (Plot size: 1 m²) | | | |
| 1. Baccharis salicifolia | 85 | | FACW |
| 2. Tamarix ramosissima | 5 | | FAC |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 90 | = Total Cover | |
| **Herb Stratum** (Plot size: _____) | | | |
| 1 | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 0 | = Total Cover | |
| **Woody Vine Stratum** (Plot size: 0) | | | |
| 1. | | | |
| 2. | | | |
| | 0 | = Total Cover | |

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust 0

**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: 1 (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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✓ No _____

Remarks: Open Mulefat/Tamarix scrub.

## SOIL

Sampling Point: 5-1

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

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Redox Features Type[1] | Redox Features Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 6 | 4/4 | 100 | | | | | | mixed grain sizes |
| 12 | 4/4 | 100 | | very fine to med. fine | | | | 7.5YR 7.5/2 |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** Yes _____ No ✓

Remarks:

Dry, sand of mixed grain sizes; v. fine to med. fine.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

**Wetland Hydrology Present?** Yes _____ No ✓

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

Remarks:

No water marks or other evidence of recent flooding.

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP/MCAS Miramar City/County: SD Sampling Date: 10/24/18

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

Investigator(s): DB, NW Section, Township, Range: _____

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

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

Soil Map Unit Name: _____ NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 _____ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ | No ✓ | |
| Wetland Hydrology Present? | Yes _____ | No ✓ | |

Remarks:
Stream channel is 11 ft. wide. Rocky, dry, no evidence of recent flow. Drought conditions.
W-1268

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | _____ = Total Cover | | |
| **Sapling/Shrub Stratum** (Plot size: 1 m²) | | | |
| 1. Mulefat (Baccharis salicifolia) | 25 | | FACW |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 25 = Total Cover | | |
| **Herb Stratum** (Plot size: 1 m²) | | | |
| 1. Phalaris sp. | 5 | | FACW |
| 2. Bromus sp. | 5 | | UPL |
| 3. Juncus sp. | 5 | | OBL |
| 4. Carex sp. | 5 | | FACW |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | _____ = Total Cover | | |
| **Woody Vine Stratum** (Plot size: _____) | | | |
| 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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✓ No _____

Remarks:
Channel is mostly unvegetated; washed out.

## SOIL

Sampling Point: _____

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

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Redox Features Type[1] | Redox Features Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 7 | 6/4 | 100 | | | | | Fine to cobble | 7.5 YR |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: rock

Depth (inches): 7

**Hydric Soil Present?** Yes _____ No ✓

Remarks:

Pit was dug in previously ponded region; dry cracks, but no evidence of surface muck/algae.
Scour on edges of channel; some racking; mostly cobble.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

**Wetland Hydrology Present?** Yes _____ No ✓

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

Remarks:

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP/MCAS Miramar City/County: SD Sampling Date: 10/24/16

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

Investigator(s): DB, NB Section, Township, Range: _____

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

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

Soil Map Unit Name: _____ NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 _____ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ | No ✓ | |
| Wetland Hydrology Present? | Yes _____ | No ✓ | |

Remarks: Streambed is dry, cobbled, some sand, some surface cracks. Drought conditions. W-1268

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | _____ = Total Cover | | |
| **Sapling/Shrub Stratum** (Plot size: 1 m²) | | | |
| 1. Mulefat (Baccharis salicifolia) | 10 | | FACW |
| 2. Broom baccharis (B. sarothroi | 20 | | UPL |
| 3. Tree tobacco (Nicotiana glauca) | 2 | | UPL |
| 4. | | | |
| 5. | | | |
| | 32 = Total Cover | | |
| **Herb Stratum** (Plot size: 1 m²) | | | |
| 1. Phalaris sp. | 5 | | FACW |
| 2. Deinandra fasiculata | 2 | | UPL |
| 3. Erigeron canadensis | 2 | | UPL |
| 4. Rumex sp. | 2 | | FAC |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 11 = Total Cover | | |
| **Woody Vine Stratum** (Plot size: _____) | | | |
| 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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✓ No _____

Remarks: Channel bed mainly unvegetated. Highly cobbled.

## SOIL

Sampling Point: _____

**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 |
|---|---|---|---|---|---|---|---|---|
| 10 | 7/4 | 100 | | | | | Fine to large. | 10 YR |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: rock

Depth (inches): 10

**Hydric Soil Present?** Yes _____ No ✓

Remarks:

Sandy, loam, cobble. Fairly defined channel; 11' wide.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

**Wetland Hydrology Present?** Yes _____ No ✓

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

Remarks:

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP/MCAS Miramar City/County: SD Sampling Date: 11/11/16

Applicant/Owner: SDG&E / MCAS Miramar State: CA Sampling Point: 111L01

Investigator(s): DB, MT Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): 0

Subregion (LRR): _____ Lat: 32.89264 Long: 117.09583 Datum: _____

Soil Map Unit Name: _____ 628' NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 _____

Hydric Soil Present? Yes _____ No ✓

Wetland Hydrology Present? Yes _____ No ✓

**Is the Sampled Area within a Wetland?** Yes _____ No ✓

Remarks:
Very dry: drought conditions.
(Sample point in W-138 on map)

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | = Total Cover | | |
| **Sapling/Shrub Stratum** (Plot size: 1 m²) | | | |
| 1. Baccharis (Baccharis sarothroides | 10 | | FACU |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 10 = Total Cover | | |
| **Herb Stratum** (Plot size: 1 m²) | | | |
| 1. Cyperus sp. | 40 | | FACW |
| 2. Juncus sp. | 40 | | FACW |
| 3. Rumex crispis | 2 | | FAC |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 82 = Total Cover | | |
| **Woody Vine Stratum** (Plot size: _____) | | | |
| 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: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 1 100 (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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✓ No _____

Remarks:
Some WL vegetation, but all dry and stressed.

## SOIL

Sampling Point: _____

**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 |
|---|---|---|---|---|---|---|---|---|
| 10.5 | 7.5 YR | 100 | | | | | Fine | Uniform |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: rock

Depth (inches): 10.5

**Hydric Soil Present?** Yes _____ No ✓

Remarks:

Cobble, no hydric features.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

**Wetland Hydrology Present?** Yes _____ No ✓

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

Remarks:

No watermarks.

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP/MCAS Miramar City/County: SD Sampling Date: 11/11/16

Applicant/Owner: SDG&E / MCAS Miramar State: CA Sampling Point: 111116-02

Investigator(s): DB, MT Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): 0

Subregion (LRR): _____ Lat: 32.89259 Long: -117.09591 Datum: _____

Soil Map Unit Name: _____ 627' NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 _____ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ No ✓ | |
| Wetland Hydrology Present? | Yes _____ No ✓ | |

Remarks: Drought conditions; very dry.

(Sampling point in W-1386 on map)

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | _____ = Total Cover | | |
| **Sapling/Shrub Stratum** (Plot size: 1 m²) | | | |
| 1. Mulefat (Baccharis salicifolia) | 25 | Y | FAC |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 25 = Total Cover | | |
| **Herb Stratum** (Plot size: 1 m²) | | | |
| 1. Bromus sp. | 40 | Y | UPL |
| 2. Cyperus sp. | 25 | Y | FACW |
| 3. Curly dock (Rumex crispis) | 3 | N | FAC |
| 4. Juncus sp. | 5 | N | OBL |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 73 = Total Cover | | |
| **Woody Vine Stratum** (Plot size: _____) | | | |
| 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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: .66 (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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✓ No _____

Remarks:

Dry veg.

## SOIL

Sampling Point: _____

**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 |
|---|---|---|---|---|---|---|---|---|
| 9 | 5/3 7.5YR | 100 | | | | | fine | some cobble |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: rock

Depth (inches): 9

**Hydric Soil Present?** Yes _____ No ✓

Remarks:

Uniform color, Rocky/cobble throughout.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

**Wetland Hydrology Present?** Yes _____ No ✓

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

Remarks:

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP/MCAS Miramar City/County: SD Sampling Date: 11/14/16

Applicant/Owner: SDG&E / MCAS Miramar State: CA Sampling Point: 111116-03

Investigator(s): DB, MT Section, Township, Range:

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

Subregion (LRR): Lat: 32.86659 Long: -117.09405 Datum:

Soil Map Unit Name: elevation: 539' NWI classification:

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 | **Is the Sampled Area within a Wetland?** Yes No ✓ |
| Hydric Soil Present? | Yes No ✓ | |
| Wetland Hydrology Present? | Yes No ✓ | |

Remarks: Potential basin W-123, really dry

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: ) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | = Total Cover | | |
| **Sapling/Shrub Stratum** (Plot size: 1m²) | | | |
| 1. Broom baccharis (B. sarothroides) | 2 | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 2 = Total Cover | | |
| **Herb Stratum** (Plot size: 1m²) | | | |
| 1. Juncus sp. | 50 | Y | OBL |
| 2. Deinandra fasciculata | 15 | Y | UPL |
| 3. Rumex crispus | 2 | | FAC |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 67 = Total Cover | | |
| **Woody Vine Stratum** (Plot size: ) | | | |
| 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: (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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✓ No

Remarks: Veg. mostly dry. Potential ponding prior to drought conditions

## SOIL

Sampling Point: _____

**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 |
|---|---|---|---|---|---|---|---|---|
| 8 | 10YR 5/3 | | 5YR 5/8 | | | | Fine | loam, sandy |
| | | | | | | | | scattered redox |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: Rocks

Depth (inches): 10

**Hydric Soil Present?** Yes _____ No ✓

Remarks: Uniform, dry. Cobble at 8".

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

**Wetland Hydrology Present?** Yes _____ No ✓

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

Remarks: Very dry; no evidence of recent ponding.

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP/MCAS Miramar City/County: SD Sampling Date: 11/11/16

Applicant/Owner: SDG&E / MCAS Miramar State: CA Sampling Point: 111116-05

Investigator(s): DB, MT Section, Township, Range:

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

Subregion (LRR): Lat: 32.87392 Long: -117.09560 Datum:

Soil Map Unit Name: elevation: 506' NWI classification:

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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

Hydric Soil Present? Yes ✓ No

Wetland Hydrology Present? Yes ✓ No

**Is the Sampled Area within a Wetland?** Yes ✓ No

Remarks:
Wetland; stream, WL area is likely larger than previously identified. (In W-1391 on maps) East side of access rd.

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: 1 m²) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. Salix lasiolepis | 25 | Y | FACW |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 25 = Total Cover | | |
| **Sapling/Shrub Stratum** (Plot size: 1 m²) | | | |
| 1. Typha latifolia | 20 | Y | OBL |
| 2. Daucus carota | 25 | Y | UPL |
| 3. Carex sp. | 2 | N | FACW |
| 4. | | | |
| 5. | | | |
| | 47 = Total Cover | | |
| **Herb Stratum** (Plot size: ____) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | = Total Cover | | |
| **Woody Vine Stratum** (Plot size: ____) | | | |
| 1. | | | |
| 2. | | | |
| | = Total Cover | | |

% Bare Ground in Herb Stratum ~30 % 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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✓ No

Remarks:
Queen Ann's lace, Typha on margins. Center mainly unvegetated, moist on surface.

## SOIL

Sampling Point: _____

**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 |
|---|---|---|---|---|---|---|---|---|
| 12 | 7.5YR 2.5/1 | 90 | 5YR 4/6 | 10 | | | fine | Def. redox features mild odor |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** Yes ✓ No _____

Remarks: Highly visible Redox features. Def. odor.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

**Wetland Hydrology Present?** Yes ✓ No _____

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

Remarks: Definite odor, but not HS.

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PSRP/MCAS Miramar City/County: SD Sampling Date: 11/11/16

Applicant/Owner: SDG&E/MCAS Miramar State: CA Sampling Point: 111116-06

Investigator(s): DB, MT Section, Township, Range:

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

Subregion (LRR): Lat: 32.87391 Long: -117.09577 Datum:

Soil Map Unit Name: elev. 520' NWI classification:

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ____ | **Is the Sampled Area within a Wetland?** Yes ____ No ✓ |
| Hydric Soil Present? | Yes ____ No ✓ | |
| Wetland Hydrology Present? | Yes ____ No ✓ | |

Remarks: Other (west) side of access road

W-1642

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: 1m²) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. Mulefat (Baccharis salicifolia) | 10 | Y | FACW |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 10 = Total Cover | | |
| **Sapling/Shrub Stratum** (Plot size: ____) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | = Total Cover | | |
| **Herb Stratum** (Plot size: 1m²) | | | |
| 1. Typha sp. | 40 | Y | OBL |
| 2. Daucus carota | 5 | N | UPL |
| 3. Carex sp. | 20 | Y | FACW |
| 4. Juncus sp. | 30 | Y | OBL |
| 5. Ambrosia pilo stachya | 5 | N | FACW |
| 6. Rumex crispis | 5 | N | FAC |
| 7. Polypogon | 15 | N | FACW |
| 8. | | | |
| | 100 = Total Cover | | |
| **Woody Vine Stratum** (Plot size: ____) | | | |
| 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: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (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, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✓ No ____

Remarks:

Dry veg[n] mostly.

## SOIL

Sampling Point: _____

**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 |
|---|---|---|---|---|---|---|---|---|
| 0-10 | 10YR 6/4 | | 7.5YR 6/8 | | | | fine | some rocks |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, 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, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: rock

Depth (inches): 10

**Hydric Soil Present?** Yes _____ No ✓

Remarks: Redox, rusted roots but only in top 3", very sparse. Soil all dry throughout

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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)
- ___ 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 _____ No ✓ Depth (inches): _____

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

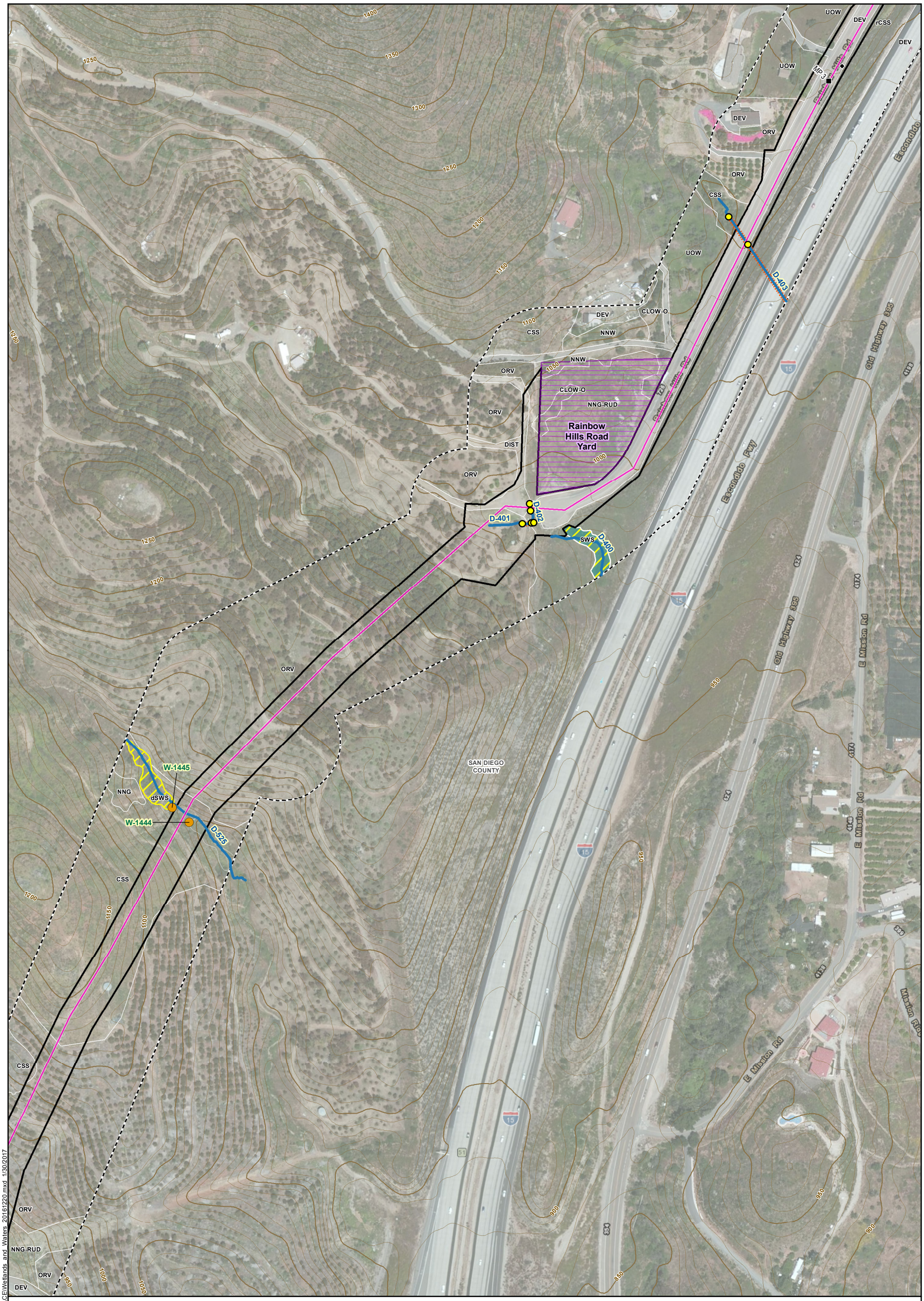
**Wetland Hydrology Present?** Yes _____ No ✓

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

Remarks: Ephemeral stream area, but no defined bed, channel.

**ATTACHMENT B: WETLAND ASSESSMENT MAP AND VEGETATION ABBREVIATIONS**

**WETLAND ASSESSMENT MAP**

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## Attachment B: Wetland Assessment Map 1 of 10

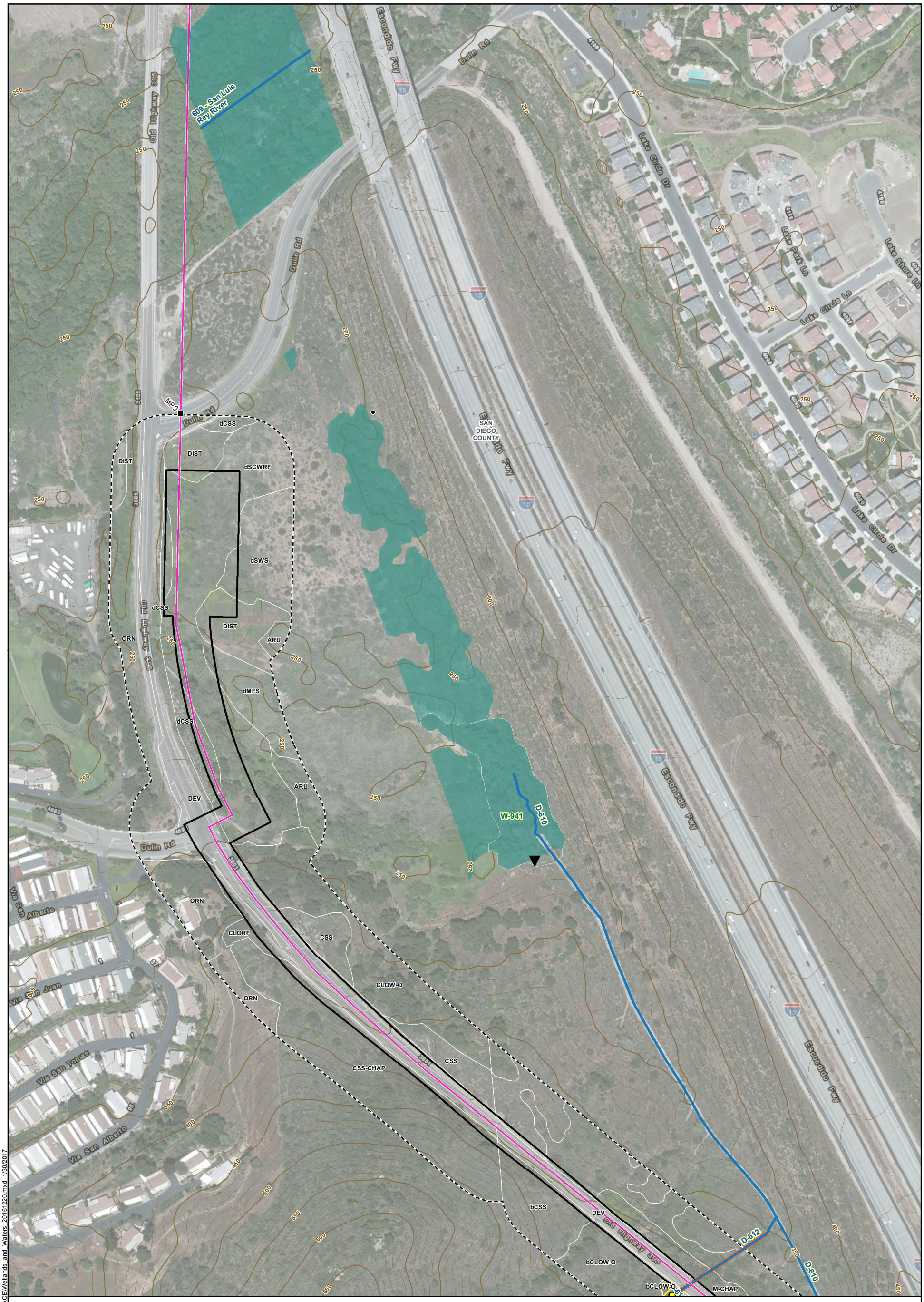
**Pipeline Safety & Reliability Project**

- Milepost (PEA)
- Milepost (Revised)
- Proposed Project Route
- Proposed Trenchless Construction
- Cross-Tie Connector Line
- Contour (10-foot Interval)
- Biological Resource Survey Area
- Proposed Aboveground Facility
- Proposed Laydown Area
- Proposed Bore Pit
- Proposed Workspace
- City/County Boundary
- Hydrologic Unit Watershed Boundary
- Culvert
- Wetland Evaluation Point
- Non-Jurisdictional Water Feature
- Culverted Segment
- CDFW Riparian Vegetation
- Potential Wetland Feature (2014-2015)
- USACE/RWQCB Jurisdictional Drainage

1:3,000

0 200 400 Feet

SoCalGas A Sempra Energy utility | SDGE A Sempra Energy utility | INSIGNIA ENVIRONMENTAL

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## Attachment B: Wetland Assessment Map 2 of 10

**Pipeline Safety & Reliability Project**

- Milepost (PEA)
- Milepost (Revised)
- Proposed Project Route
- Proposed Trenchless Construction
- Cross-Tie Connector Line
- Contour (10-foot Interval)
- Biological Resource Survey Area
- Proposed Aboveground Facility
- Proposed Bore Pit
- Proposed Workspace
- City/County Boundary
- Hydrologic Unit Watershed Boundary
- Culvert
- Non-Jurisdictional Water Feature
- Culverted Segment
- CDFW Riparian Vegetation
- Potential Wetland Feature (2014-2015)
- USACE/RWQCB Jurisdictional Drainage
- Soil Test Pit

1:3,000

0 200 400 Feet

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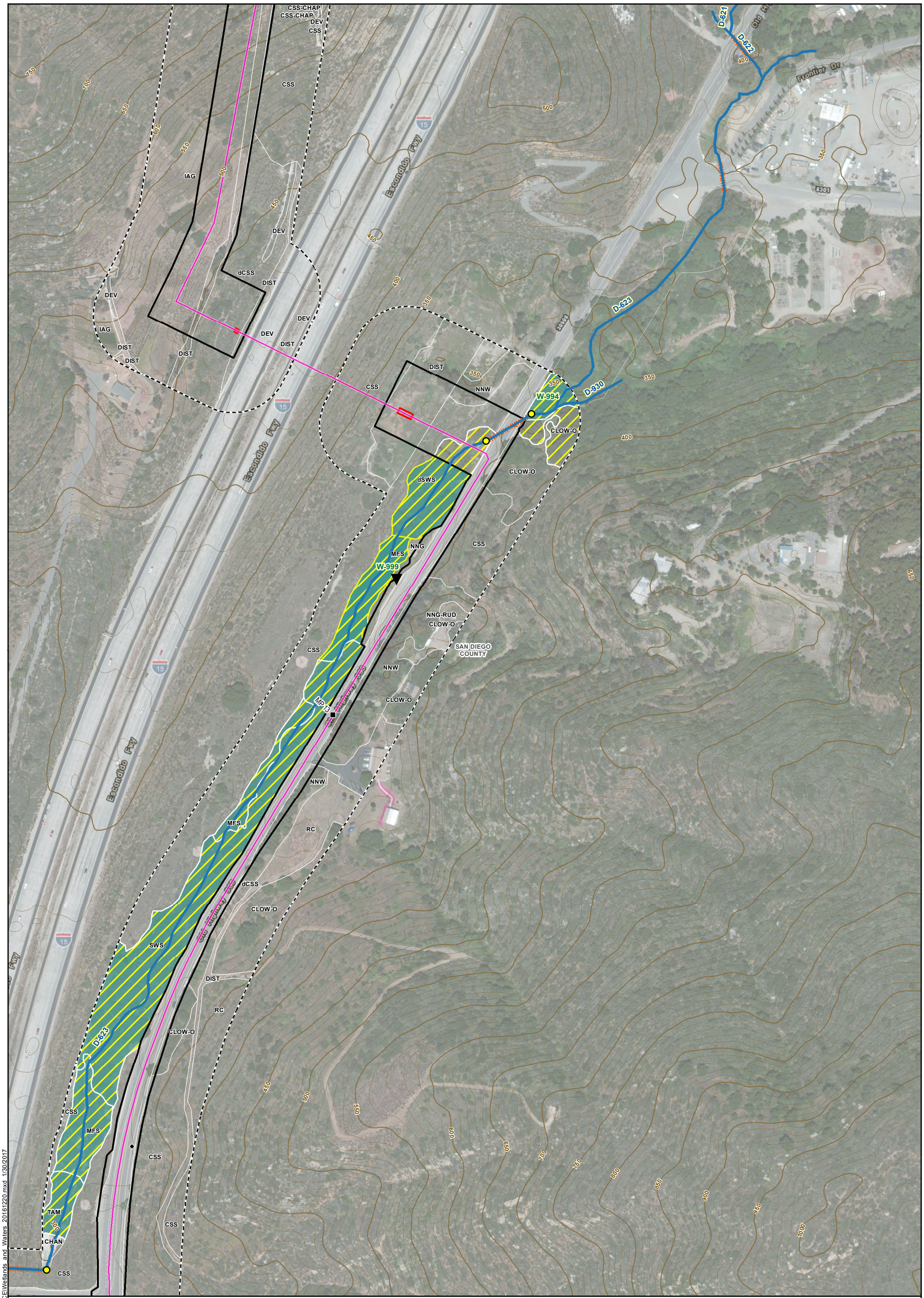


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## Attachment B: Wetland Assessment Map 3 of 10

## Pipeline Safety & Reliability Project

- Milepost (PEA)
- Milepost (Revised)
- Proposed Project Route
- Proposed Trenchless Construction
- Cross-Tie Connector Line
- Contour (10-foot Interval)
- Biological Resource Survey Area
- Proposed Aboveground Facility
- Proposed Bore Pit
- Proposed Workspace
- City/County Boundary
- Hydrologic Unit Watershed Boundary
- Culvert
- Non-Jurisdictional Water Feature
- Culverted Segment
- CDFW Riparian Vegetation
- Potential Wetland Feature (2014-2015)
- USACE/RWQCB Jurisdictional Drainage
- Soil Test Pit

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0 200 400 Feet

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SDGE A Sempra Energy utility

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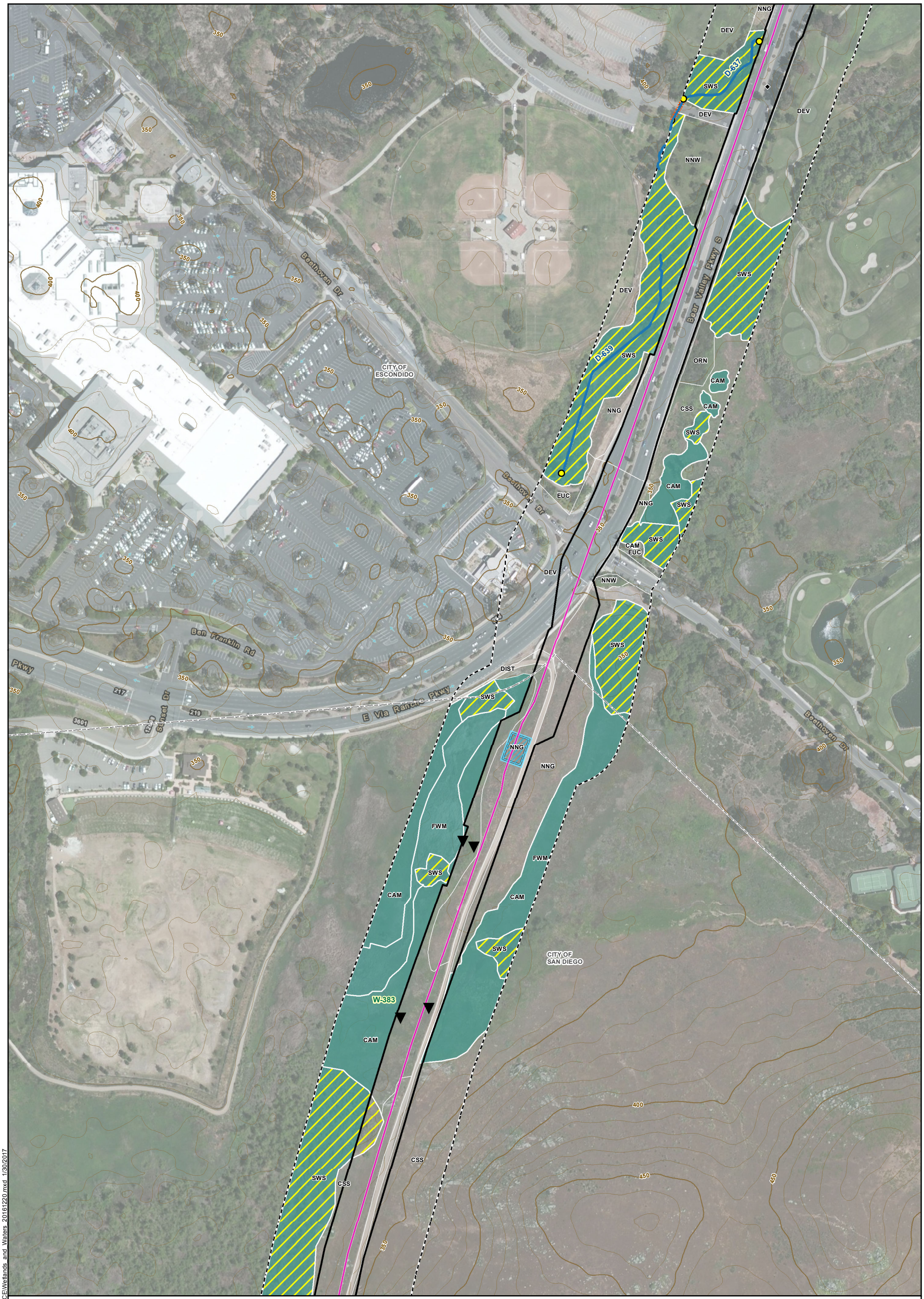


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## Attachment B: Wetland Assessment Map 4 of 10

**Pipeline Safety & Reliability Project**

- Milepost (PEA)
- Milepost (Revised)
- Proposed Project Route
- Proposed Trenchless Construction
- Cross-Tie Connector Line
- Contour (10-foot Interval)
- Biological Resource Survey Area
- Proposed Aboveground Facility
- Proposed Bore Pit
- Proposed Workspace
- City/County Boundary
- Hydrologic Unit Watershed Boundary
- Culvert
- Non-Jurisdictional Water Feature
- Culverted Segment
- CDFW Riparian Vegetation
- Potential Wetland Feature (2014-2015)
- USACE/RWQCB Jurisdictional Drainage
- Soil Test Pit

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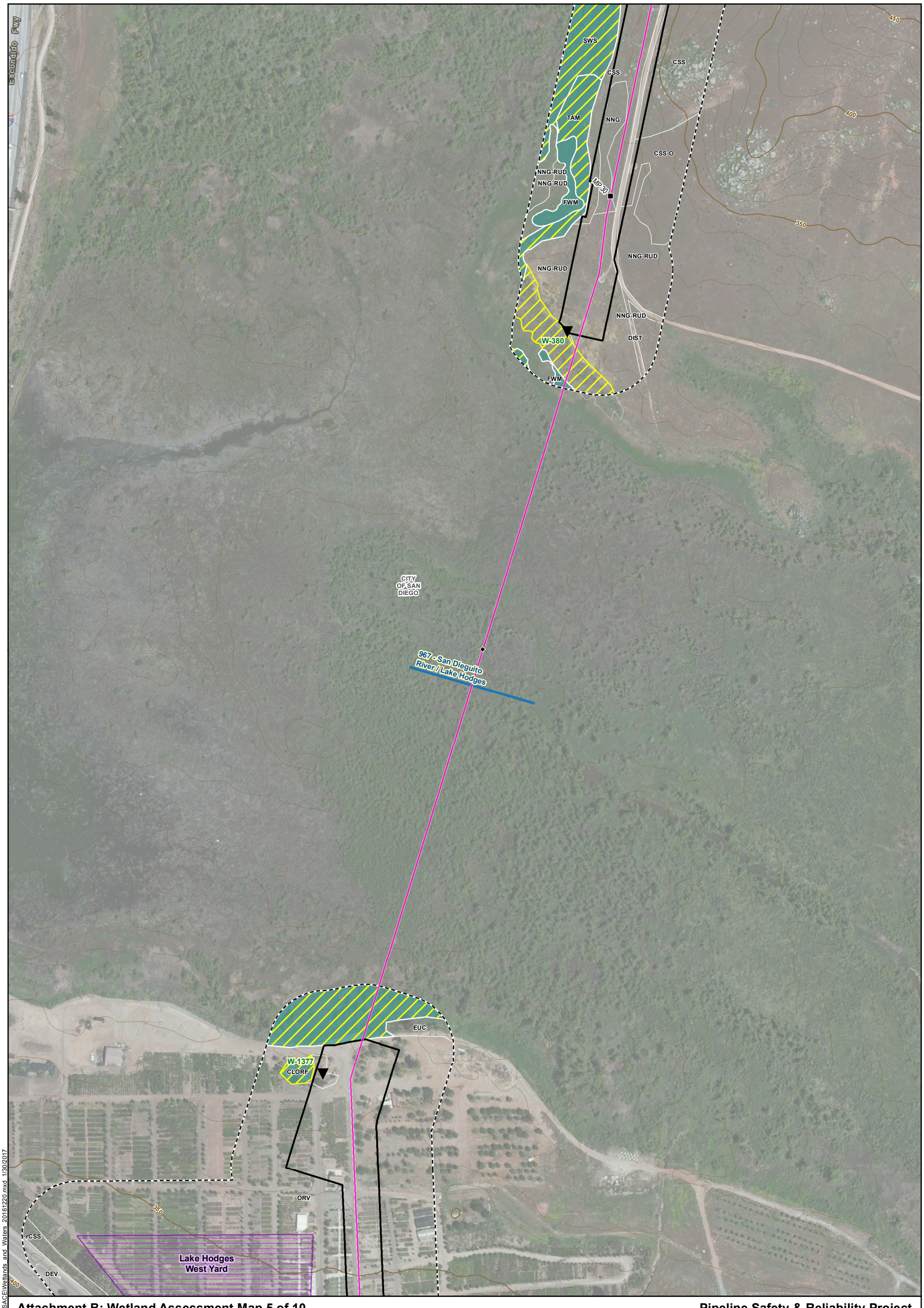


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## Attachment B: Wetland Assessment Map 5 of 10

## Pipeline Safety & Reliability Project

- Milepost (PEA)
- Milepost (Revised)
- Proposed Project Route
- Proposed Trenchless Construction
- Cross-Tie Connector Line
- Contour (10-foot Interval)
- Biological Resource Survey Area
- Proposed Aboveground Facility
- Proposed Laydown Area
- Proposed Bore Pit
- Proposed Workspace
- City/County Boundary
- Hydrologic Unit Watershed Boundary
- Culvert
- Non-Jurisdictional Water Feature
- Culverted Segment
- CDFW Riparian Vegetation
- Potential Wetland Feature (2014-2015)
- USACE/RWQCB Jurisdictional Drainage
- Soil Test Pit

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SDGE A Sempra Energy utility

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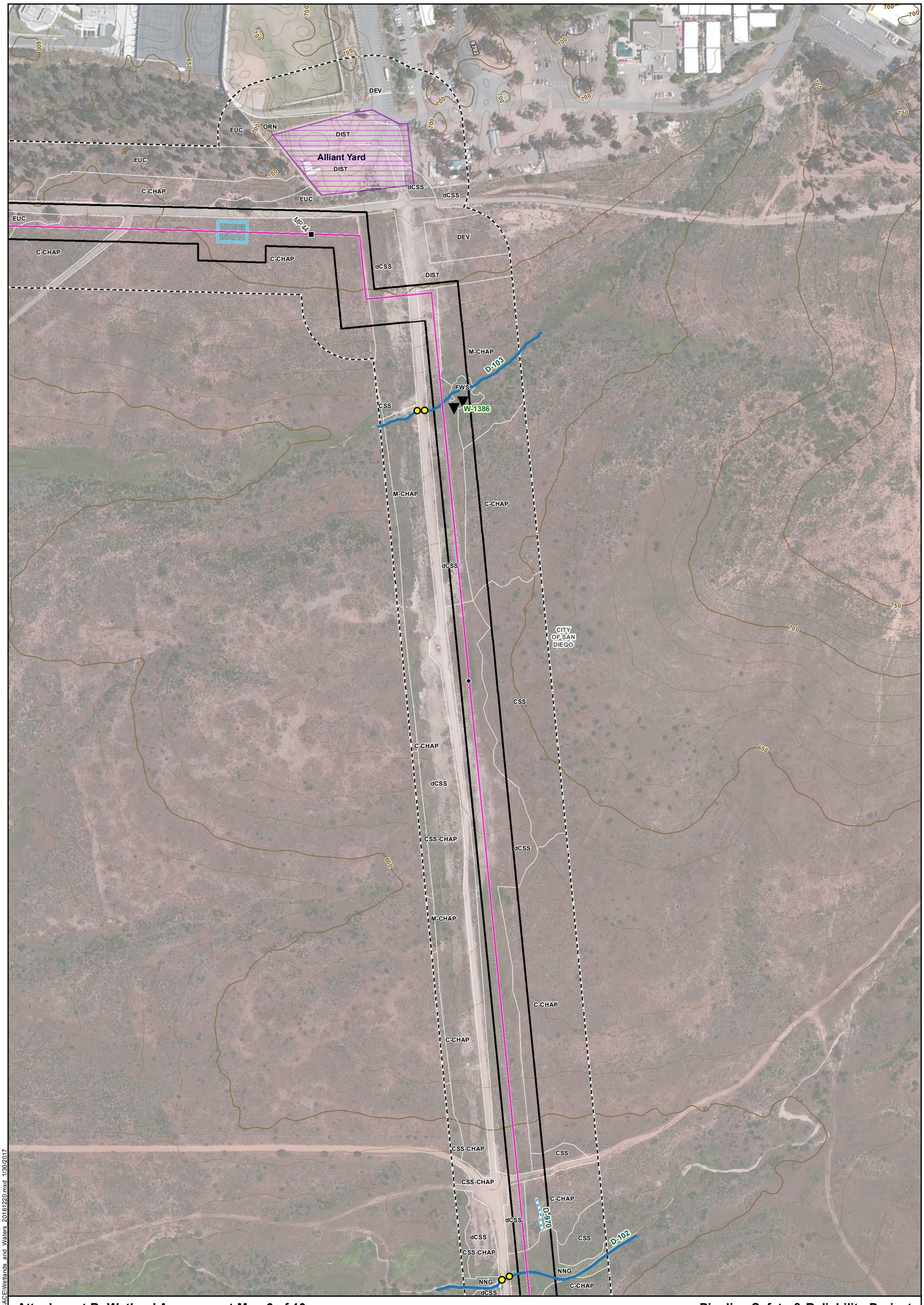


**Attachment B: Wetland Assessment Map 6 of 10**

**Pipeline Safety & Reliability Project**

- Milepost (PEA)
- Milepost (Revised)
- Proposed Project Route
- Proposed Trenchless Construction
- Cross-Tie Connector Line
- Contour (10-foot Interval)
- Biological Resource Survey Area
- Proposed Aboveground Facility
- Proposed Laydown Area
- Proposed Bore Pit
- Proposed Workspace
- City/County Boundary
- Hydrologic Unit Watershed Boundary
- Culvert
- Soil Test Point
- Non-Jurisdictional Water Feature
- Culverted Segment
- CDFW Riparian Vegetation
- Potential Wetland Feature (2014-2015)
- USACE/RWQCB Jurisdictional Drainage

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0 200 400 Feet

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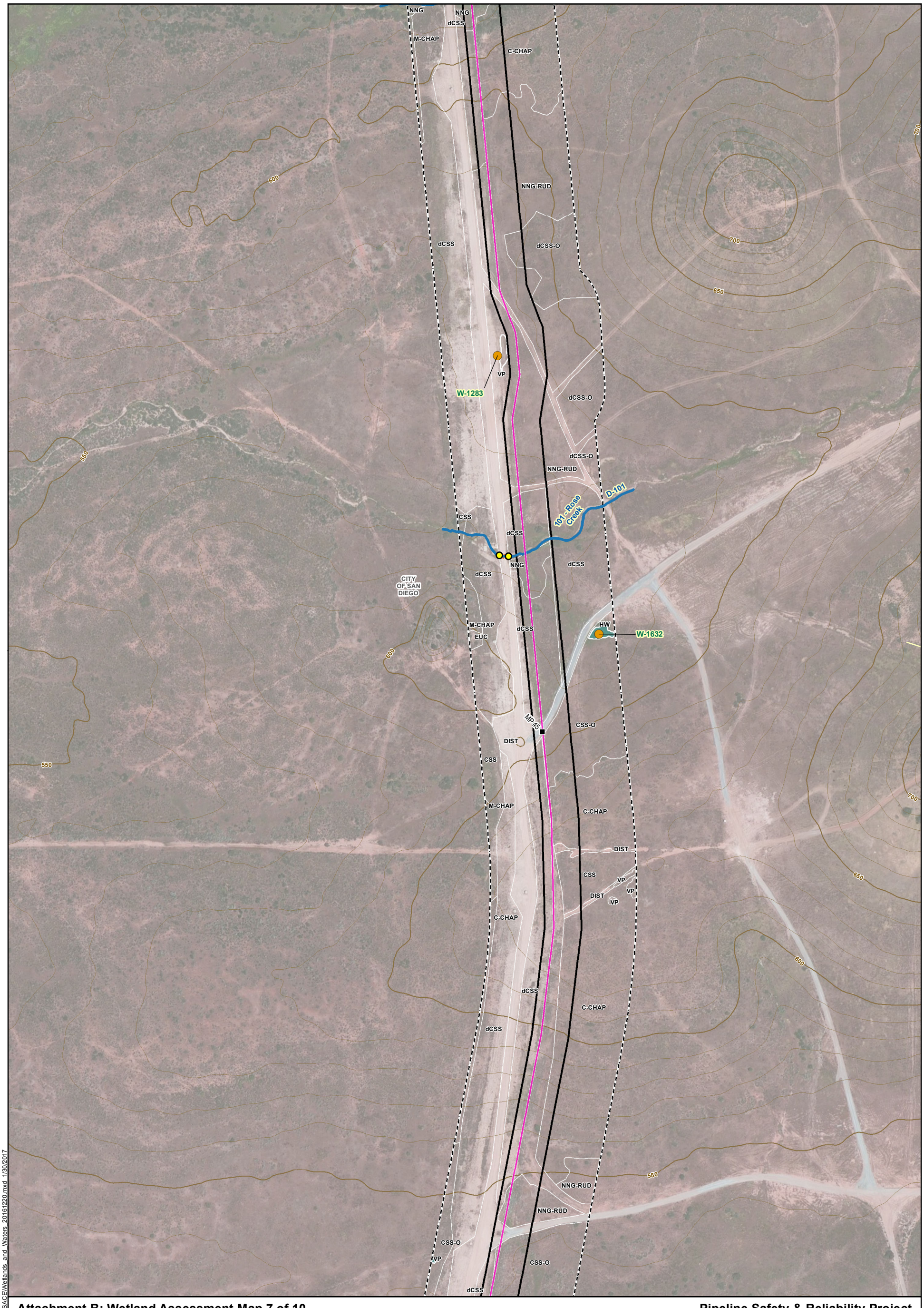


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## Attachment B: Wetland Assessment Map 7 of 10

**Pipeline Safety & Reliability Project**

- Milepost (PEA)
- Milepost (Revised)
- Proposed Project Route
- Proposed Trenchless Construction
- Cross-Tie Connector Line
- Contour (10-foot Interval)
- Biological Resource Survey Area
- Proposed Aboveground Facility
- Proposed Bore Pit
- Proposed Workspace
- City/County Boundary
- Hydrologic Unit Watershed Boundary
- Culvert
- Wetland Evaluation Point
- Non-Jurisdictional Water Feature
- Culverted Segment
- CDFW Riparian Vegetation
- Potential Wetland Feature (2014-2015)
- USACE/RWQCB Jurisdictional Drainage

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0 200 400 Feet

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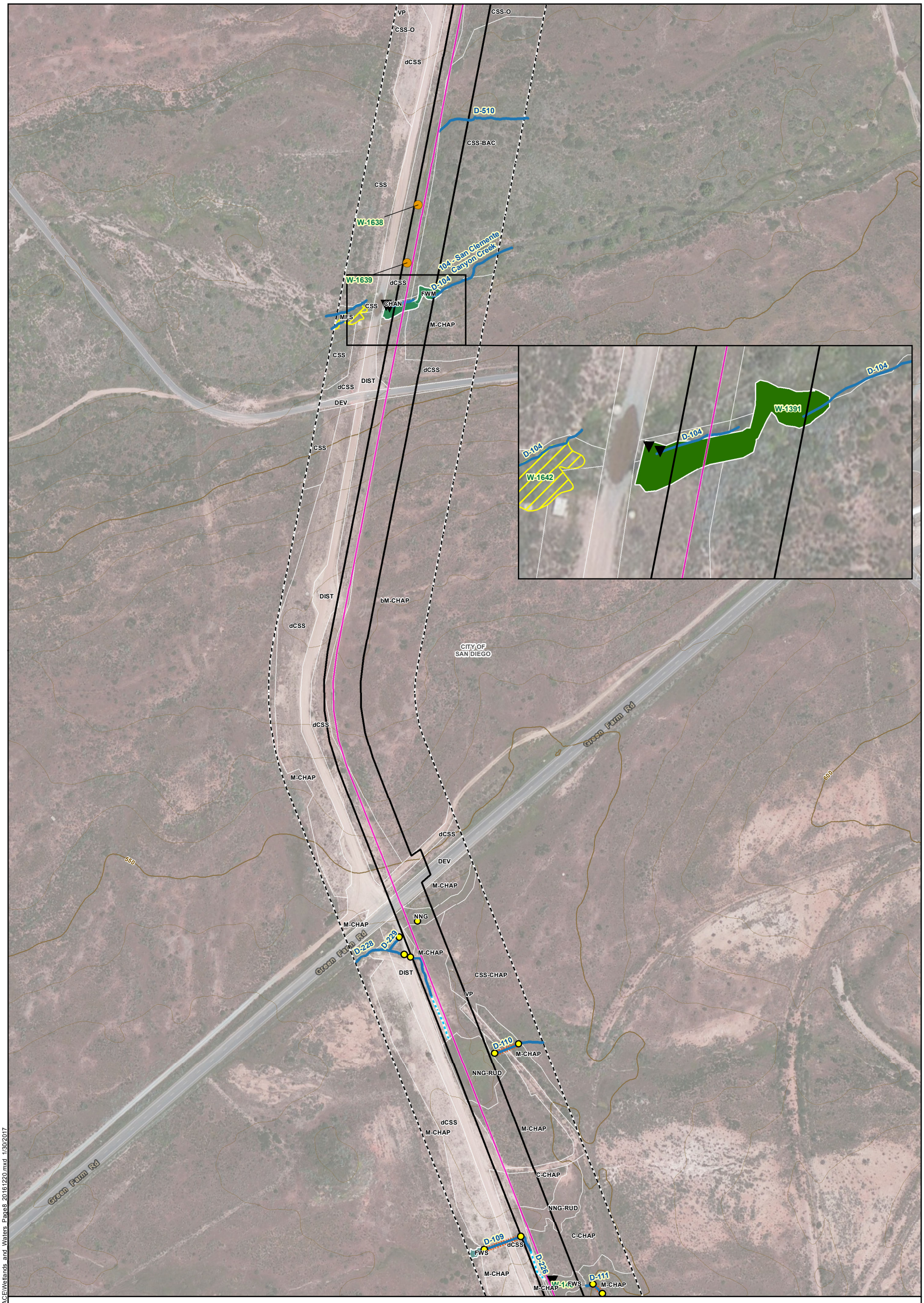
SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL




**Attachment B: Wetland Assessment Map 8 of 10**

**Pipeline Safety & Reliability Project**

- Milepost (PEA)
- Milepost (Revised)
- Proposed Project Route
- Proposed Trenchless Construction
- Cross-Tie Connector Line
- Contour (10-foot Interval)
- Biological Resource Survey Area
- Proposed Aboveground Facility
- Proposed Bore Pit
- Proposed Workspace
- City/County Boundary
- Hydrologic Unit Watershed Boundary
- Culvert
- Soil Test Point
- Wetland Evaluation Point
- Non-Jurisdictional Water Feature
- Culverted Segment
- CDFW Riparian Vegetation
- USACE/RWQCB Jurisdictional Wetland
- Potential Wetland Feature (2014-2015)
- USACE/RWQCB Jurisdictional Drainage

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0 200 400 Feet

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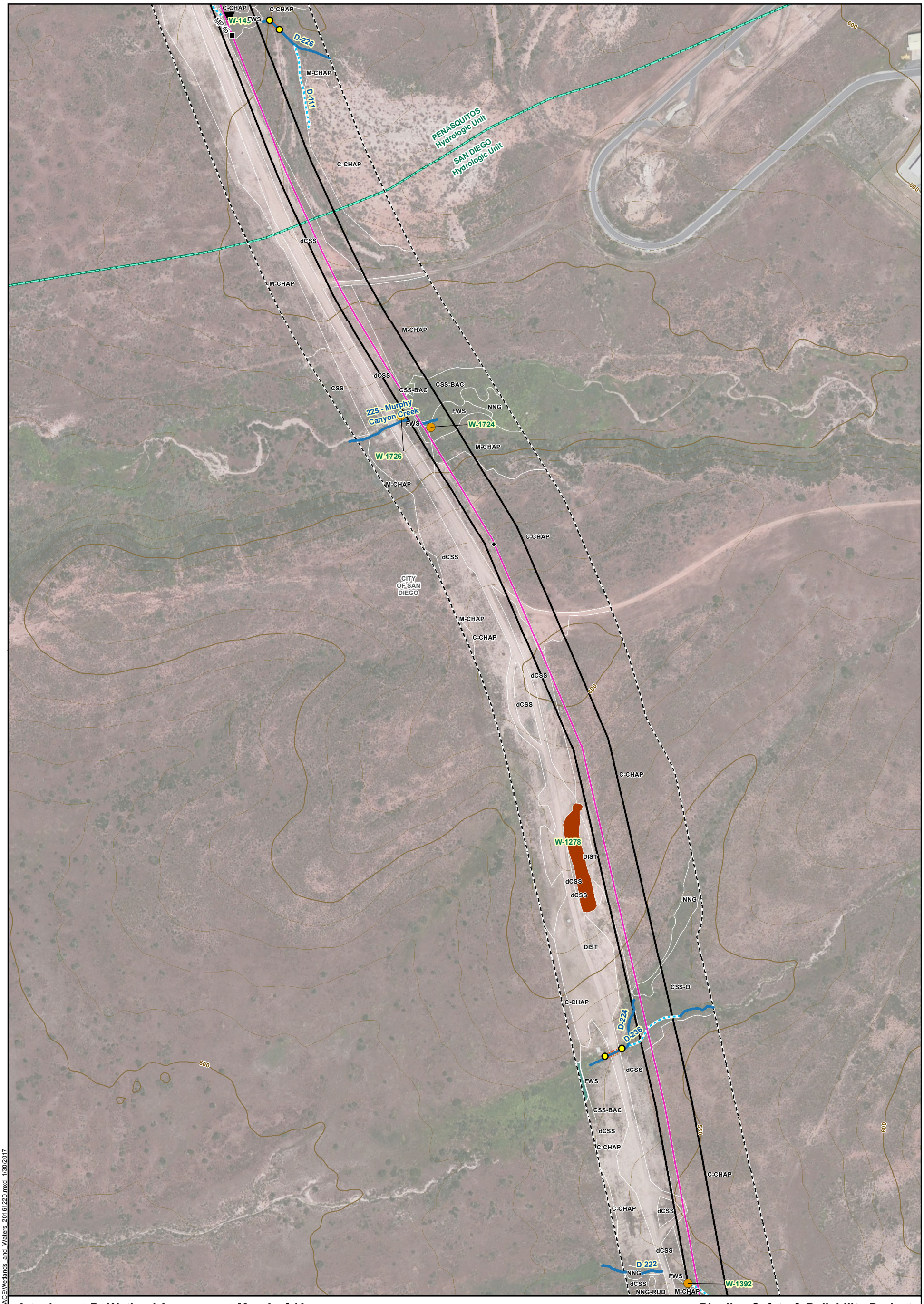


## Attachment B: Wetland Assessment Map 9 of 10

## Pipeline Safety & Reliability Project

- Milepost (PEA)
- Milepost (Revised)
- Proposed Project Route
- Proposed Trenchless Construction
- Cross-Tie Connector Line
- Contour (10-foot Interval)
- Biological Resource Survey Area
- Proposed Aboveground Facility
- Proposed Bore Pit
- Proposed Workspace
- City/County Boundary
- Hydrologic Unit Watershed Boundary
- Culvert
- Soil Test Point
- Wetland Evaluation Point
- Non-Jurisdictional Water Feature
- Culverted Segment
- CDFW Riparian Vegetation
- Wetland Feature (2016)
- Potential Wetland Feature (2014-2015)
- USACE/RWQCB Jurisdictional Drainage

1:3,000

0 200 400 Feet

N

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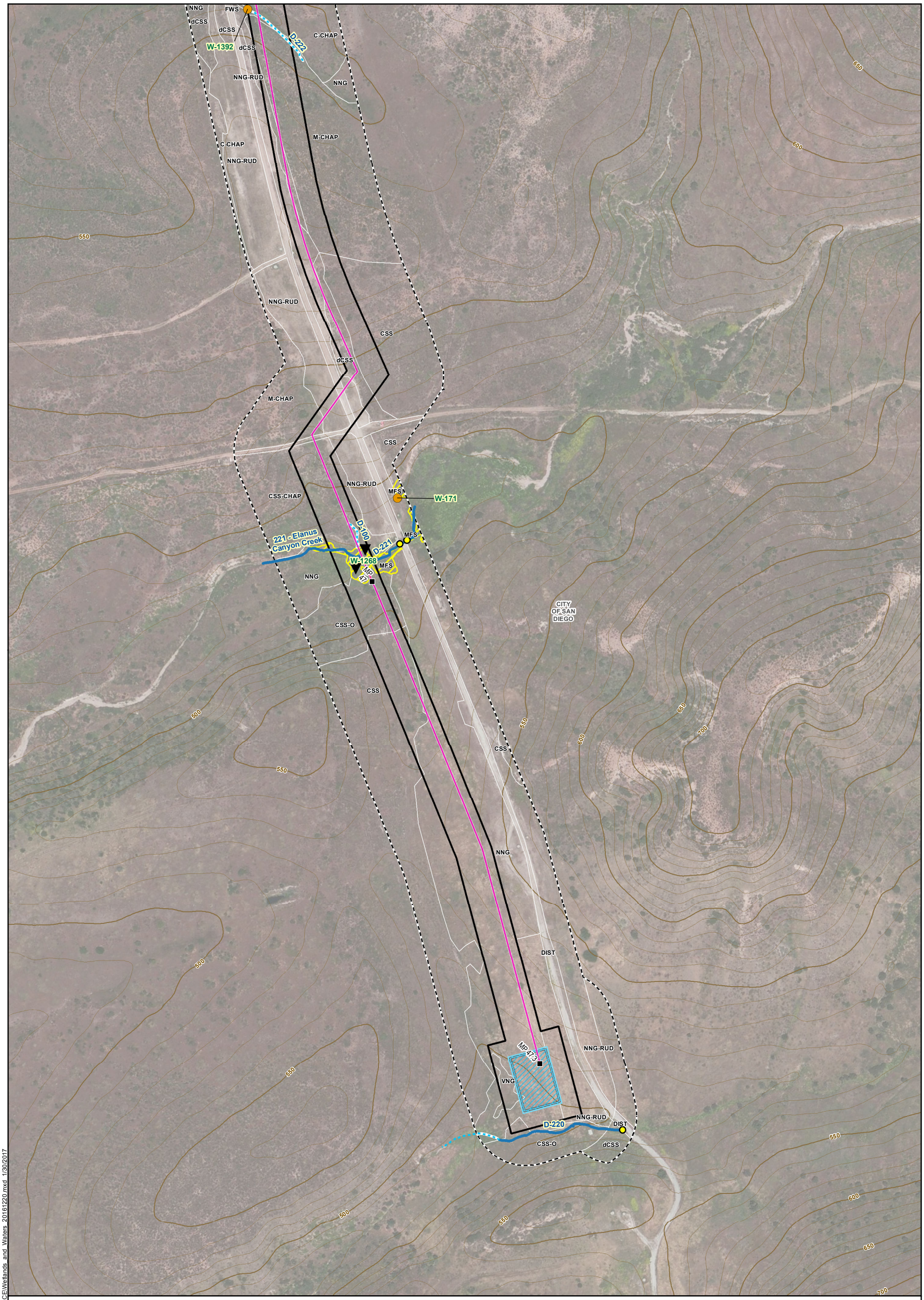


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## Attachment B: Wetland Assessment Map 10 of 10

**Pipeline Safety & Reliability Project**

- Milepost (PEA)
- Milepost (Revised)
- Proposed Project Route
- Proposed Trenchless Construction
- Cross-Tie Connector Line
- Contour (10-foot Interval)
- Biological Resource Survey Area
- Proposed Aboveground Facility
- Proposed Bore Pit
- Proposed Workspace
- City/County Boundary
- Hydrologic Unit Watershed Boundary
- Culvert
- Soil Test Point
- Wetland Evaluation Point
- Non-Jurisdictional Water Feature
- Culverted Segment
- CDFW Riparian Vegetation
- Potential Wetland Feature (2014-2015)
- USACE/RWQCB Jurisdictional Drainage

1:3,000

0 200 400 Feet

N

SoCalGas A Sempra Energy utility | SDGE A Sempra Energy utility | INSIGNIA ENVIRONMENTAL

# VEGETATION ABBREVIATIONS

## Vegetation Abbreviations

| | |
|---|---|
| ARU | Arundo-Dominated Riparian |
| bCLOW-O | Open Coast Live Oak Woodland (<50 percent) (burned) |
| bCSS | Diegan Coastal Sage Scrub (burned) |
| bM-CHAP | Mixed Chaparral (burned) |
| C-CHAP | Chamise Chaparral |
| CAM | Cismontane Alkali Marsh |
| CHAN | Unvegetated Channel |
| CLORF | Southern Coast Live Oak Riparian Forest |
| CLOW-O | Open Coast Live Oak Woodland (<50 percent) |
| CSS | Diegan Coastal Sage Scrub |
| CSS-BAC | Diegan Coastal Sage Scrub-*Baccharis* dominated |
| CSS-CHAP | Diegan Coastal Sage Scrub/Chaparral |
| CSS-O | Open Diegan Coastal Sage Scrub |
| CVFM | Coastal and Valley Freshwater Marsh |
| CWRF | Southern Cottonwood-Willow Riparian Forest |
| DIST | Disturbed Habitat |
| DEV | Developed/Urban |
| dCSS | Diegan Coastal Sage Scrub (disturbed) |
| dCSS-O | Open Diegan Coastal Sage Scrub (disturbed) |
| dCWRF | Southern Cottonwood-Willow Riparian Forest (disturbed) |
| dSWS | Southern Willow Scrub (disturbed) |
| EUC | Eucalyptus Woodland |
| FWM | Freshwater Marsh |
| FWS | Freshwater Seep |
| HW | Herbaceous Wetland |
| IAG | Intensive Agriculture |
| M-CHAP | Mixed Chaparral |
| MFS | Mule Fat Scrub |
| NNG | Non-Native Grassland |
| NNG-RUD | Non-Native Grassland/ Ruderal |
| NNW | Non-Native Woodland |
| ORV | Orchard/Vineyard |
| ORN | Ornamental |
| RC | Row Crops |
| SMC | Southern Mixed Chaparral |
| SWS | Southern Willow Scrub |
| TAM | Tamarisk Scrub |
| UOW | Undifferentiated Open Woodland |
| VNG | Valley Needlegrass Grassland |
| VP | Vernal Pool |

# ATTACHMENT C: WETLAND FEATURES EVALUATED IN 2016

# ATTACHMENT C: WETLAND FEATURES EVALUATED IN 2016

| Wetland Feature Number[1] | Vegetation Type | Milepost Number[2] | Attachment B Map Page | Formal Wetland Delineation | Hydrophytic Vegetation | Hydric Soil | Wetland Hydrology | Jurisdictional Drainage Number[1] |
|---|---|---|---|---|---|---|---|---|
| W-1444 | Freshwater Seep (disturbed) | 4 | 1 | No | No | -[4] | - | Drainage (D-) 525 |
| W-1445 | Southern Willow Scrub (disturbed) | 4 | 1 | No | No | - | - | D-525 |
| W-941[5] | Southern Cottonwood-Willow Riparian Forest | 9 | 2 | Yes | Yes | No | No | D-610 |
| W-994 | Southern Cottonwood-Willow Riparian Forest | 12 | 3 | No | No | - | - | D-623 |
| W-999 | Mule Fat Scrub | 13 | 3 | Yes | No | No | No | D-623 |
| W-383 | Freshwater Marsh | 29 | 4 | Yes | Yes | No | Yes | None |
| W-380 | Tamarisk Scrub | 30 | 5 | No | No | - | - | W-967 |
| W-1377 | Southern Coast Live Oak Riparian Forest | 30 | 5 | Yes | Yes | No | No | W-967 |
| W-1386 | Freshwater Seep | 44 | 6 | Yes | Yes | No | No | D-103 |
| W-1283 | Vernal pool | 44 | 7 | Yes | Yes | -[6] | No | None |

[1] The wetland feature and jurisdictional drainage numbers are from the Pipeline Safety & Reliability Project's (Proposed Project's) 2015 Wetland and Waters Assessment.
[2] The milepost number is from the Proposed Project's 2015 Proponent's Environmental Assessment (PEA).
[3] A full wetland delineation was not conducted if the feature did qualify as hydrophytic vegetation.
[4] "-" indicates the feature was not evaluated.
[5] W-941 was within the Proposed Project's 2015 PEA footprint. The Proposed Project's revised alignment was moved west of the potential wetlands that were evaluated in 2014 and 2015. The new alignment is within riparian vegetation, but not wetlands.
[6] A soil test pit was not pit dug due to presence of federally listed San Diego fairy shrimp (*Branchinecta sandiegonensis*) in the area.

| Wetland Feature Number[1] | Vegetation Type | Milepost Number[2] | Attachment B Map Page | Formal Wetland Delineation | Hydrophytic Vegetation | Hydric Soil | Wetland Hydrology | Jurisdictional Drainage Number[1] |
|---|---|---|---|---|---|---|---|---|
| W-1391 | Coastal and Valley Freshwater Marsh | 45 | 8 | Yes | Yes | Yes | Yes | D-104 |
| W-1642 | Mule Fat Scrub | 45 | 8 | Yes | Yes | No | No | D-104 |
| W-1638 | Vernal Marsh | 45 | 8 | No | No | - | - | None |
| W-1639 | Vernal Marsh | 45 | 8 | No | No | - | - | None |
| W-148 | Freshwater Seep | 46 | 8 | Yes | Yes | No | No | D-226 |
| W-1724 | Coastal and Valley Freshwater Marsh | 46 | 9 | No | No | - | - | D-225 |
| W-1726 | Freshwater Seep | 46 | 9 | No | No | - | - | D-225 |
| W-1278 | Vernal pool | 46 | 9 | Yes | Yes | -[7] | Yes | None |
| W-1392 | Freshwater Seep | 46 | 9 | No | No | - | - | D-222 |
| W-1268 | Mule Fat Scrub | 46 | 10 | Yes | Yes | No | No | D-221 |

[7] A soil test pit was not pit dug due to presence of federally listed San Diego fairy shrimp in the area.

# ATTACHMENT D: WETLAND PHOTOGRAPHIC LOG

# ATTACHMENT D: WETLAND PHOTOGRAPHIC LOG

**Photograph 1:** Wetland (W-) 1391, looking north. Hydrophytic vegetation bordering and within the wetland.

**Photograph 2:** Close-up view of hydric soil (redox) features within W-1391.