# Appendix I

Preliminary Jurisdictional Delineation

**SAN DIEGO GAS & ELECTRIC COMPANY**
**OCEAN RANCH SUBSTATION PROJECT**

# PRELIMINARY JURISDICTIONAL DELINEATION REPORT

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## 1.0 INTRODUCTION

**Project Summary**

The San Diego Gas & Electric Company (SDG&E) is a regulated public utility that provides electric service to 3.4 million people within its 4,100 square mile service territory, covering parts of two counties and 25 cities and unincorporated communities in the San Diego area. In an effort to serve existing customers and anticipate customer-driven load, and maintain reliability of the electrical distribution system, SDG&E proposes to construct a new substation (Figure 1). The proposed substation site is located on land owned by SDG&E and the transmission line is located primarily within existing SDG&E rights-of-way (ROW) and franchise position within the City of Oceanside public streets.

The proposed Project includes the following main components:

**Ocean Ranch Distribution Substation:** Construction a new 69/12 kV low profile substation in City of Oceanside. The substation will have an initial capacity of 60 megavolt ampere (MVA) rating, and an ultimate capacity of 120 MVA.

**TL 6966 Loop-In:** TL 6966 is an existing underground 69 kV circuit which has termination points at San Luis Rey Substation (to the west) and Melrose Substation (to the east). It will be intercepted at the intersection of Avenida De La Plata and Rancho Del Oro and extended to the proposed substation via the construction of an underground power line duct bank with a total length of approximately 1,330 feet. This will reconfigure the existing tie line into TL 6966 (San Luis Rey to Ocean Ranch) and TL 6979 (Ocean Ranch to Melrose).

**12 kV Distribution System:** Four new underground distribution circuits will be installed and will intercept four existing circuits. A portion of the existing circuits will be offloaded to the new Ocean Ranch circuits. Approximately 4,650 feet of new 12 kV distribution line will be constructed, most of which will be on the Ocean Ranch Substation site. The proposed Project includes construction of four new manholes and one new handhole to access the new segment of underground 12 kV distribution line.

**Telecommunication Systems:** A 40-foot monopole will be installed in the southwest corner of the Ocean Ranch substation property for a proposed microwave radio communication system. A fiber optic cable will be installed on the existing overhead poles and in the underground duct structures connecting the Ocean Ranch substation and the San Luis Rey substation. Two pad-mounted pedestals, approximately 3 feet high, will be installed to enclose the communications equipment at or near the property line.

**Purpose**

This report documents a preliminary jurisdictional delineation performed by Pangea Biological (Pangea) and Borcher Environmental Management in support of SDG&E's proposed Ocean Ranch Substation Project. The purpose of the delineation was to identify wetlands and waters under jurisdiction of the Army Corps of Engineers (ACOE) pursuant to Section 404 of the Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the CWA, and California Department of Fish and Wildlife (CDFW) pursuant to Section 1602 of the Fish and Game


**Figure 1: Project Location Map**

Code. This jurisdictional delineation report describes the project site and existing conditions; discusses the regulations that govern the jurisdictional resources located on the site; outlines the methodology used to conduct the delineation and presents the results of the study.

The survey area contains jurisdictional resources subject to regulation by the ACOE, RWQCB, and CDFW.

## 2.0 METHODS

Methodology followed the ACOE Regional Supplement Wetland Delineation Manual: Arid West Region (Version 2.0) guidelines, and consisted of preliminary data gathering and research, field assessment surveys, digital mapping, and documentation of final boundary determinations.

**Preliminary Review**

Prior to conducting the field delineation assessment, the following information sources were reviewed to evaluate potential ACOE, CDFW, and RWQCB jurisdiction:

- SDG&E's aerial photographs;
- United States Geologic Survey (USGS) 7.5-degree minute topographic quadrangle maps;
- United States Department of Agriculture Natural Resources Conservation Service (NRCS) soil survey maps;
- United States Fish and Wildlife Service (USFWS) National Wetland Inventory GIS data; and
- USGS National Hydrological Dataset GIS data for modeling of streams to evaluate possible stream features.

**Regulatory Jurisdiction Overview**

***U.S. Army Corps of Engineers Waters***

Section 404 of the Clean Water Act gives the U.S. Environmental Protection Agency (EPA) and the ACOE regulatory and permitting authority regarding discharge of dredged or fill material into "waters of the United States". The term "waters of the United States" is defined by 33 Code of Federal Regulations (CFR) Part 328. In 2015 ACOE finalized the Clean Water Rule to clarify the definition of "waters of the United States" and currently includes:

- waters used for commerce;
- interstate waters and wetlands;
- "other waters" such as intrastate lakes, rivers, streams, and wetlands;
- impoundments of waters;
- tributaries, containing a bed and bank, and an "ordinary high water mark", to the above waters;
- territorial seas;
- wetlands and riparian areas adjacent to waters; and
- lakes and ponds located in the riparian zone or floodplain of waters.

In December 2008, in response to the Supreme Court's decision in the combined cases of Rapanos v. U.S. and Carabell v. U.S. (126 S. Ct. 2208; 2006), the EPA and ACOE issued final guidance on the scope of regulatory jurisdiction under the CWA, including Section 404 (EPA and ACOE 2007). The guidance specifies that EPA and ACOE will assert jurisdiction over the following waters:

- ***Traditional Navigable Waters (TNWs)*** - TNWs are all waters subject to the ebb and flow of the tides, and waters that are presently used, have been used in the past, or may be susceptible for use to transport interstate or foreign commerce (33 CFR 328.3(a)(1)).

- ***Wetlands adjacent to TNWs*** - Wetlands are defined as cited above (see also Methodology below). The term "adjacent" means bordering, contiguous, or neighboring, meeting one of the following criteria: 1) there is an unbroken surface or shallow sub-surface connection to the TNW; 2) the wetland is physically separated from the TNW artificially by a human-made dike, or by natural barrier such as a berm or dune; or 3) the wetland is reasonably close to the TNW, such that direct ecological interconnections are present (40 CFR Part 230).

- ***Non-navigable, but relatively permanent waters (RPWs) that are tributaries to TNWs*** - These are waters that typically flow year-round or continuously for at least three months. The boundaries of such waters are determined by the limits of ordinary high water (33 CFR part 328.3).

- ***Wetlands adjacent to RPWs*** - The guidance stipulates that a continuous surface connection must be present between the wetland and RPW. If such connection is not present, additional criteria must be satisfied (see next bullet).

- ***Non-RPWs and adjacent wetlands with a significant nexus to TNWs*** - To establish (or rule out) a significant nexus requires an assessment of the flow characteristics and functions of the tributary and any adjacent wetland to determine if they significantly affect the chemical, physical, and biological integrity of downstream navigable waters.

Previous guidance states that swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent or short-duration flow) and ditches excavated in uplands are generally not jurisdictional because they are not tributaries or do not have a significant nexus to downstream TNWs. The same reasoning would indicate that isolated bodies of water and isolated wetlands without a demonstrated relationship to interstate commerce would generally not be considered jurisdictional. The Supreme Court ruling in SWANCC v. U.S. (121 S. Ct. 751; 2001) indicated that the movement of migratory birds to/from an isolated body of water was not sufficient evidence of interstate commerce. The recent Clean Water Rule includes a list of features that are not jurisdictional, including erosional features, upland ditches, rills, and non-wetland swales.

The waters of the U.S. do not include 1) waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA, and 2) prior converted cropland.

### *U.S. Army Corps of Engineers Wetlands*

Wetlands are defined by 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support ... a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987, the ACOE published a manual to

guide its field personnel in determining jurisdictional wetland boundaries. This manual was amended in 2008 by the ACOE 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). Currently, the 1987 Wetland Manual and the 2008 Arid West Supplement provide the legally accepted methodology for identification and delineation of ACOE-jurisdictional wetlands in southern California.

The methodology set forth in the 1987 Wetland Manual and updated by the Arid West Supplement generally requires that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area must exhibit at least minimal hydric characteristics. Wetlands are determined by and delineated using three parameters: hydrophytic vegetation, wetland hydrology, and hydric soils. Additional details regarding these parameters include:

- Greater than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the Arid West 2012 Final Regional Wetland Plant List: National Wetland Plant List (2016). These plants are known as "hydrophytic vegetation."

- Wetland hydrology "…encompasses *all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season*" (Environmental Laboratory 1987). Inundation or saturation must occur for at least five percent of the growing season to qualify as wetland hydrology with the degree of saturation varying from year to year depending on rainfall patterns.

- Soils must exhibit physical and/or chemical characteristics indicative of saturation (e.g., a gleyed color or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions). Such soils, known as "hydric soils," have characteristics that indicate they are developed in conditions where soil oxygen is limited by the presence of saturated soil for long periods during the growing season. Other typical characteristics of areas with hydric soils include: high groundwater table and evidence of prolonged soil saturation.

### *Hydrophytic Vegetation*

When conducting jurisdictional evaluations, plants are categorized according to their probabilities to occur in wetlands versus non-wetlands in accordance with the categories in the Arid West 2012 Final Regional Wetland Plant List: National Wetland Plant List (Lichvar 2016). The hydrophytic categories are:

- ***Obligate Wetland (OBL)*** – occur almost always (estimated probability >99 percent) under natural conditions in wetlands.
- ***Facultative Wetland (FACW)*** – usually occur in wetlands (estimated probability 67 to 99 percent), but occasionally found in non-wetlands.
- ***Facultative (FAC)*** – equally likely to occur in wetlands or non-wetlands (estimated probability 34 to 66 percent).

Plant species and absolute percent covers are recorded by stratum (i.e., tree, sapling/shrub, herb, woody vine) and evaluated for dominance and prevalence according to guidelines in the 1987 Manual and Arid West Supplement. Naming conventions follow the Jepson Manual (Hickman 1993).

### *Hydrology*

Pangea and Borcher Environmental Management reviewed hydrologic information for the survey area including USGS topographic maps and hydrology indicators identified in the field. Indicators of hydrology evaluated in the field include; standing or flowing water, water drainage patterns, water-logged soils during the growing season, water marks present on trees or other objects associated with a drainage, drift lines, flow lines or small piles of debris oriented in the direction of water movement through an area, destruction of terrestrial vegetation by water flow, and/or thin layers of sediments deposited on leaves or other objects. Other indicators evaluated (based on the 2008 Arid West Supplement) include; surface soil cracks, inundation visible on aerial imagery, salt and biotic crusts, aquatic invertebrates, hydrogen sulfide odor and evidence of oxidation/reduction reactions within the soil profile.

### *Hydric Soils*

Areas that had hydrophytic vegetation and/or primary wetland hydrological indicators were evaluated and inspected for the potential presence of hydric soils. These areas were examined closely to determine if there was evidence of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions and/or the presence of a high groundwater table.

### *California Department of Fish and Wildlife*

Under sections 1600-1607 of the Fish and Game Code, CDFW regulates all activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a “stream” (including creeks and rivers) as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation.” CDFW’s definition of “lake” includes “natural lakes or man-made reservoirs.” CDFW limits of jurisdiction include the outer edge of riparian vegetation drip line or at the top of the uppermost bank-to-bank distance, whichever is wider.

### *Regional Water Quality Control Board*

The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act (California Water Code, Division 7, §13000 et seq.). State waters are all waters that meet one of three criteria; hydrology, hydric soils, or wetland vegetation, and generally include all waters under the jurisdiction of ACOE and CDFW.

**Preliminary Jurisdictional Determination**

Under RGL 08-02, dated June 26, 2008, ACOE established an alternative to the approved JD process: the "preliminary JD." A preliminary JD is a non-binding written indication that there may be Waters of the US (WUS), including wetlands, on a project site and identifies the approximate location of these features. Preliminary JDs are used when a landowner, permit applicant, or other affected party elects to voluntarily waive or set aside questions regarding CWA jurisdiction over a particular site, usually in the interest of allowing the landowner to move ahead expeditiously to obtain 404 authorization where the party determines that it is in his or her best interest to do so. A preliminary JD is not an official determination regarding the jurisdictional status of potentially jurisdictional features and has no bearing on approved JDs. A preliminary JD cannot be used to confirm the absence of jurisdictional waters or wetlands, is advisory in nature, and cannot be appealed. It is considered "preliminary" because a recipient can later request an approved JD if one is necessary or appropriate.

**Field Assessment Surveys**

Field assessment surveys were conducted to confirm the potential jurisdictional areas identified in the in-office reconnaissance process and to delineate those areas of interest within the survey area for the potential presence of water resources. To assist with the field analysis, a customized data dictionary was uploaded onto the Global Positioning System (GPS) unit to allow field surveyors to select specific feature data.

In the field, boundaries and dimensions of jurisdictional wetland and water features were recorded utilizing a sub-meter GPS unit, on field maps, and field notes. Features within the survey area were investigated for the presence of drainages, including culverts, water bodies, riparian vegetation, potential wetlands, and connectivity to jurisdictional waters.

## 3.0 RESULTS

The results presented in this report illustrate the site conditions at the time of the investigation. This wetland delineation was performed during a period of severe drought that has lasted four years. Therefore, site conditions, especially related to hydrological indicators, are naturally problematic. However, for this project hydrological indicators were generally clear and present.

**Field Assessment Surveys and Conditions**

Pangea biologist Dawn Huss and Borcher Environmental Management biologist Andrew Borcher conducted a wetlands and waters determination and delineation assessment of the project area on May 4, 2015. Weather conditions were fair throughout the survey window, consisting of temperatures ranging from 66 to 70 degrees Fahrenheit, wind speeds were from 1 to 5 miles per hour, and partly cloudy skies. A subsequent survey was performed on May 21, 2015 by A. Borcher, and A. Borcher and D. Huss on October 28, 2015. Weather conditions were fair throughout the survey window, consisting of a temperature range between 68 to 71 degrees Fahrenheit, wind speeds were from 2 to 6 miles per hour, and partly to mostly cloudy skies. Areas with and without hydrophytic vegetation were observed within the survey area. Areas with hydrophytic vegetation, in general, were considered potential wetland sites. Areas without hydrophytic vegetation were considered upland, unless evidence suggested that a wetland or other jurisdictional water might occur at the particular location. Sample point locations were determined based on the potential presence of water features and analyzed for the presence or absence of jurisdictional limits. A total

of two sample points were evaluated (Appendix A). The results of the analysis regarding vegetation, soils, and hydrology are presented in the following section. In addition to jurisdictional features, nine other water conveyance features were identified and mapped (Appendix A). These include erosional gulls/rills, concrete brow/v-ditches, and storm drain inlets/outlets.

The proposed Ocean Ranch Substation and four staging yards were evaluated. The areas evaluated consist of commercial development, landscaped and/or paved urban areas, and graded earthen pads. The four staging yards evaluated include: San Luis Rey Staging Yard, located immediately adjacent to the San Luis Rey Substation, Corporate Centre Staging Yard, located adjacent to Ocean Ranch Boulevard, USPS Staging Yard, located immediately adjacent to Avenida del Oro, and Melrose Substation Staging Yard, located immediately adjacent to the Melrose Substation.

### *Vegetation*

The majority of the survey area consists of developed land and disturbed habitat including adjacent landscaped slopes.

### *Hydrology*

No hydrological indicators were observed within the survey area.

### *Soils*

The Soil Survey of San Diego County and digital soil maps from NRCS' SSURGO 2.2 Database were consulted for this jurisdictional evaluation (NRCS 2015) and the mapped soil units occurring within the survey area are summarized in Table 1. Four soil series were identified within the survey area (see table below). (USDA 1973).

### *Data Sample Points*

A total of two sample locations were evaluated (Appendix A). Sample points 1 and 2 (USPS Staging Yard and Ocean Ranch Substation Site were taken to evaluate the potential presence of jurisdictional features.

A sub-meter GPS was used to record sample locations, and along the wetland upland boundary. Supporting photographs and data forms are included in Appendix B and Appendix C, respectively. Observations and data in support of the delineation are summarized below. Appendix A shows the Aquatic Mapbook prepared for the project.

No jurisdictional features were identified within the proposed Project. Non-jurisdictional features are shown in Appendix A.

### ***Jurisdictional Resources***

No jurisdictional resources were identified within the survey area.

**Table 1: Mapped Soils within Survey Area Evaluated**

| Unit # | Unit Name | Drainage Class | Runoff Class | Taxonomic Class |
|---|---|---|---|---|
| DaC | Diablo clay, 2 to 9% slopes | Well | Very High | Fine, smectitic, thermic Aridic Haploxererts |
| DaD | Diablo clay, 9 to 15% slopes | Well | Very High | Fine, smectitic, thermic Aridic Haploxererts |
| LeC2 | Las Flores loamy fine sand, 5 to 9% slopes | Moderately Well | Very High | Fine, smectitic, thermic Natric Palexeralfs |
| LeD | Las Flores loamy fine sand, 9 to 15% slopes | Moderately Well | Very High | Fine, smectitic, thermic Natric Palexeralfs |
| LeE | Las Flores loamy fine sand, 15 to 30% slopes | Moderately Well | Very High | Fine, smectitic, thermic Natric Palexeralfs |
| LsE | Linne clay loam, 9 to 30% slopes | Well | Very High | Fine-loamy, mixed, superactive, thermic Calcic Pachic Haploxerolls |
| LsF | Linne clay loam, 30 to 50% slopes | Well | Very High | Fine-loamy, mixed, superactive, thermic Calcic Pachic Haploxerolls |
| SbA | Salinas clay loam, 0 to 2% slopes | Well | Low | Fine-loamy, mixed, superactive, thermic Calcic Pachic Haploxerolls |
| SbC | Salinas clay loam, 2 to 9% slopes | Well | High | Fine-loamy, mixed, superactive, thermic Calcic Pachic Haploxerolls |

Source: NRCS 2015

***Non Jurisdictional Features***

Several non-jurisdictional water conveyance features are located within the survey area including erosional rills/gulls, concrete brow/v-ditches, and sedimentation basins (Appendix A). Linear features were given a number and shown in Appendix A. Sedimentation basins are located within each of the proposed yards.

Concrete V-Ditch/Concrete Channel

The majority of the features mapped were concrete v-ditches and brow ditches. These were found throughout the survey area with the majority occurring perpendicular to and on landscaped slopes above roadways. These concrete channels are not built to replace existing natural channels but rather provide a controlled runoff system that does not erode urban slopes. Individually, these concrete channels do not contribute to down grade and off-site jurisdictional channels. Within the survey area, concrete ditches were mapped throughout and shown in Appendix A.

Erosional Features

Erosional features occur within the Ocean Ranch Substation site. They are generally created by one-time or repeated rapid surface flows in areas that were disturbed and not properly compacted, or areas with erosive soil. They are not usually continuous, and tend to blink in and out depending on surface material and slope. Erosional features that were mapped can vary in size, approximately 1 to 2 feet wide (Appendix A).

Sedimentation Basins

Sedimentation basins occur on the proposed staging yards (Appendix A). Each yard is generally flat but does gradually slope towards human-made basins. Each basin has a drop drain that connects to the underground storm system. These temporary storm water management features are usually built on graded pads to capture eroded or disturbed soil that is washed off the surrounding graded site. All basins were completely dry during the time of the survey and appear to be mostly ephemeral in nature. All basins have some hydrophytic vegetation including scattered mule fat and salt cedar (*Tamarix ramossima*). However, sample points taken at each basin did not reveal hydric soils. One exception was the proposed USPS Yard. Emergent wetland including cattail (*Typha latifolia*) occurred in a small patch on the slope at the southwestern edge of the sedimentation basin (Appendix A). Although the sample point had both hydrophytic vegetation and hydric soils, it is not a naturally occurring wetland that will persist. It is entirely caused by an irrigation leak observed on the slope above. All other hydrophytic vegetation that occurred within the sedimentation basins was limited; not consistent or abundant enough to be considered wetland. The runoff collected in the basins during rain events does not appear to be significant, and pooled water mostly soaks into the soil before reaching the height of the drain.

## 4.0 CONCLUSION

With the absence of jurisdictional features within the proposed Project area, no further investigation or permits would be required for the proposed Project.

## 5.0 REFERENCES

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# Appendix A – Jurisdictional Delineation Mapbook

# Ocean Ranch Substation and Tie Line Aquatic Delineation Mapbook

Page 1 of 4

1 Inch = 300 Feet at 11" x 17"

0 95 190 380 570 760 Feet

Aquatic Sample Point

Storm Drain/Culvert

**Delineated Features**

Concrete V-Ditch/Concrete Channel

Erosional Feature

Non-jurisdictional Swale

**Project Features**

Monopole

Proposed Underground Distribution

Project Survey Area

Ocean Ranch Substation

Underground Distribution Structure

**UG_transmission**

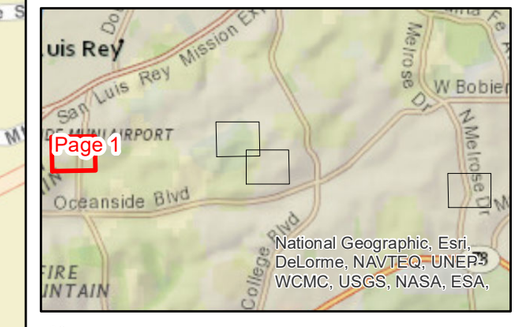
**Transmission**

Existing Underground

Proposed Underground

Underground Transmission Structure

Staging Yard

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Created by: Pangea Biological, November 2016
Data Source: SDG&E

Coordinate System: NAD 1983 StatePlane California VI FIPS 0406 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983

Sources: Esri, DeLorme, HERE, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, Copyright:© 2013 Esri, DeLorme, NAVTEQ, TomTom

# Ocean Ranch Substation and Tie Line Aquatic Delineation Mapbook

Page 2 of 4

1 Inch = 300 Feet at 11" x 17"

0 95 190 380 570 760 Feet


- Aquatic Sample Point
- Storm Drain/Culvert

**Delineated Features**

- Concrete V-Ditch/Concrete Channel
- Erosional Feature
- Non-jurisdictional Swale

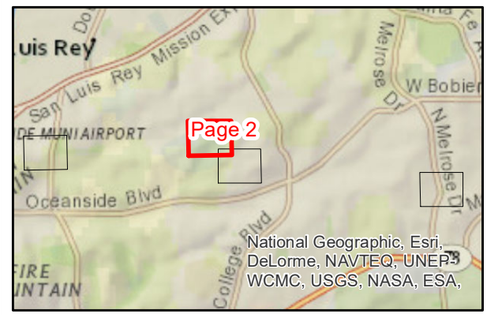
**Project Features**

- Monopole
- Proposed Underground Distribution
- Project Survey Area
- Ocean Ranch Substation
- Underground Distribution Structure

**UG_transmission**

**Transmission**

- Existing Underground
- Proposed Underground
- Underground Transmission Structure
- Staging Yard

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Pangea Biological

Created by: Pangea Biological, November 2016
Data Source: SDG&E
Coordinate System: NAD 1983 StatePlane California VI FIPS 0406 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983

# Ocean Ranch Substation and Tie Line Aquatic Delineation Mapbook

Page 3 of 4

1 Inch = 300 Feet at 11" x 17"

0 95 190 380 570 760 Feet

Corporate Centre Staging Yard
Ocean Ranch Blvd
Windansea St
Rocky Point
Avenida del Oro
Avenida de La Plata
Plaza Real
Calle Platino
Ocean Ranch Substation
USPS Staging Yard
sp1
sp2
Citibank
Jiffy Lube
KFC
Oceanside Blvd
Page 3

Aquatic Sample Point
Storm Drain/Culvert

**Delineated Features**

Concrete V-Ditch/Concrete Channel
Erosional Feature
Non-jurisdictional Swale

**Project Features**

Monopole
Proposed Underground Distribution
Project Survey Area
Ocean Ranch Substation
Underground Distribution Structure

**UG_transmission**

**Transmission**

Existing Underground
Proposed Underground
Underground Transmission Structure
Staging Yard



N

Pangea Biological

Created by: Pangea Biological, November 2016
Data Source: SDG&E

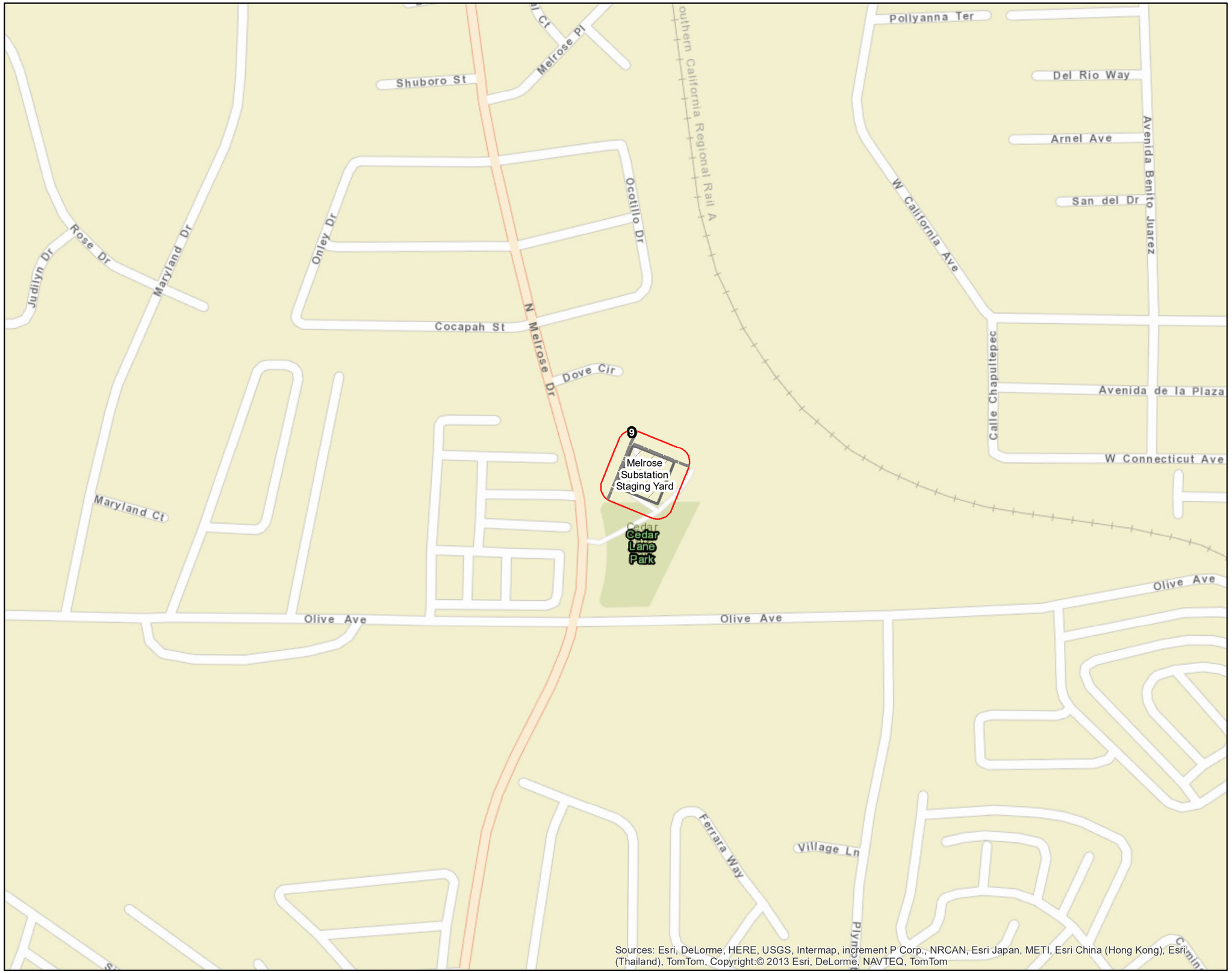
Coordinate System: NAD 1983 StatePlane California VI FIPS 0406 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983

# Ocean Ranch Substation and Tie Line Aquatic Delineation Mapbook



1 Inch = 300 Feet at 11" x 17"

0 95 190 380 570 760 Feet




- Aquatic Sample Point
- Storm Drain/Culvert

**Delineated Features**

- Concrete V-Ditch/Concrete Channel
- Erosional Feature
- Non-jurisdictional Swale

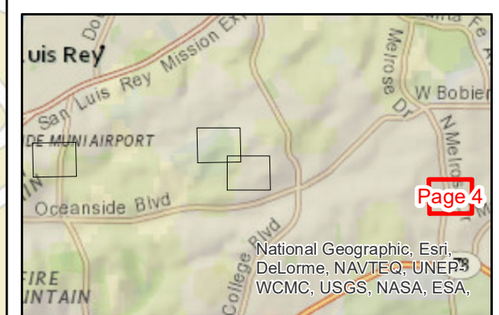
**Project Features**

- Monopole
- Proposed Underground Distribution
- Project Survey Area
- Ocean Ranch Substation
- Underground Distribution Structure

**UG_transmission**

**Transmission**

- Existing Underground
- Proposed Underground
- Underground Transmission Structure
- Staging Yard

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Created by: Pangea Biological, November 2016
Data Source: SDG&E

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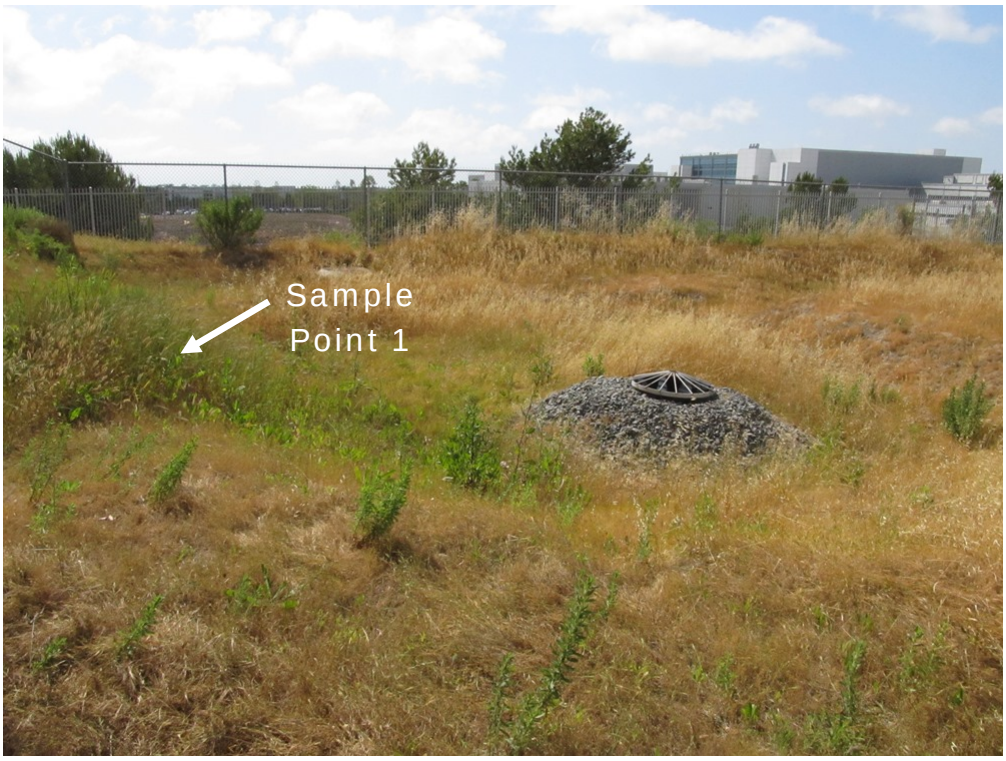
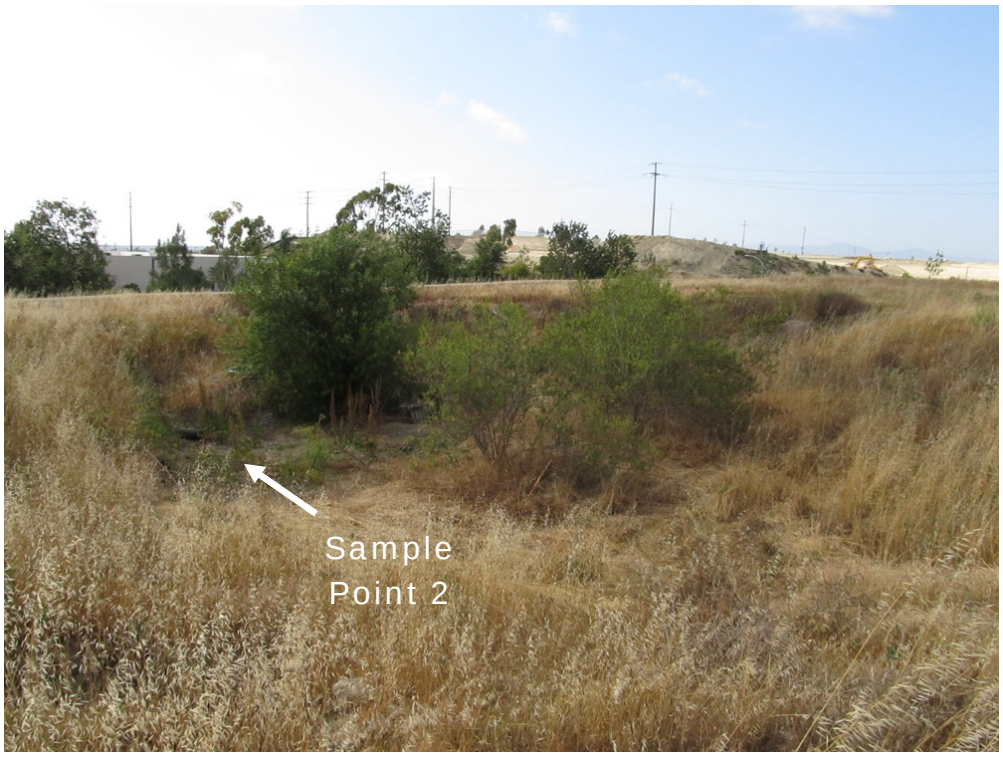
Projection: Lambert Conformal Conic
Datum: North American 1983

# Appendix B – Photo Documentation

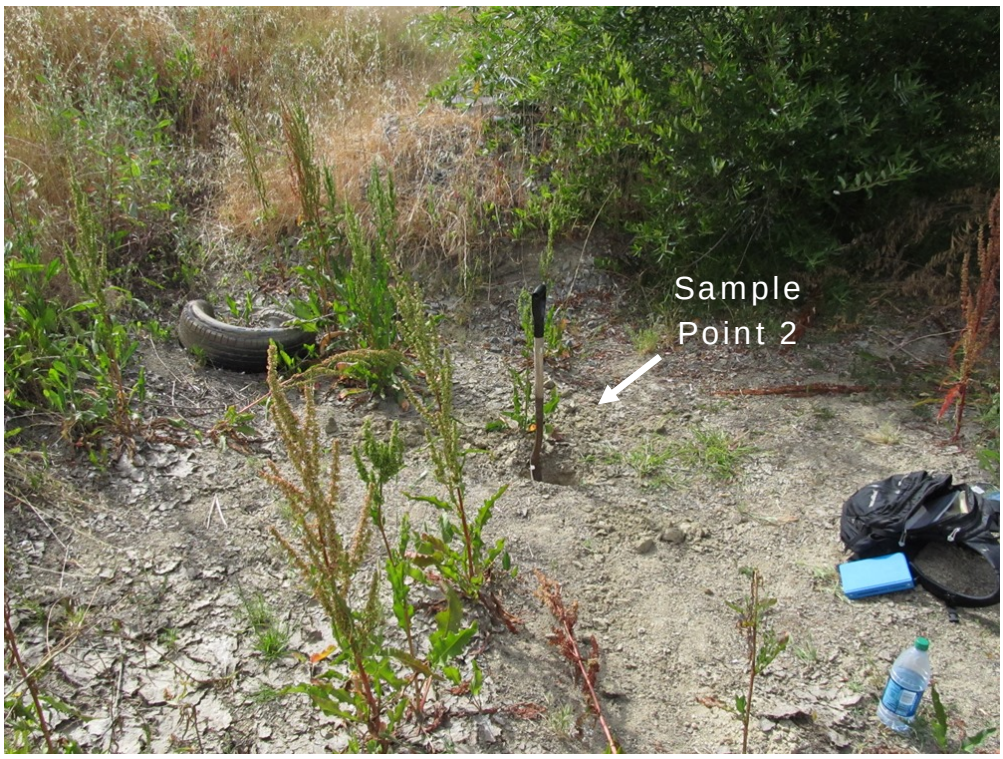



Photograph 1: Sample Point 1, sedimentation basin, USPS Staging Yard. View west.


Photograph 2: Sample Point 1, emergent wetland vegetation created by upslope irrigation leak, USPS Staging Yard. View east.




Photograph 3: Sample Point 2, sedimentation basin, Ocean Ranch Substation site. View west.




Photograph 4: Sample Point 2, sedimentation basin, Ocean Ranch Substation Site. View west.

Photograph 5: Feature 8, human-made earthen swale adjacent to Ocean Ranch Substation site. View east.

**Appendix C – Wetland Determination Data Sheets**

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: OLEAN RANCH, 28537 City/County: OCEANSIDE, SD Sampling Date: 5-4-16

Applicant/Owner: SDGE State: CA Sampling Point: SP-3-1

Investigator(s): A. BOKLEMER, D. HASS Section, Township, Range: S22 T11S R4W

Landform (hillslope, terrace, etc.): BASIN Local relief (concave, convex, none): CONCAVE Slope (%): 10

Subregion (LRR): LRR-C Lat: 33.20932623 Long: -117.27675137 Datum: WGS

Soil Map Unit Name: Linne clay loam, 30 - 50 % slope NWI classification: NONE

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

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

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

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes X No ____

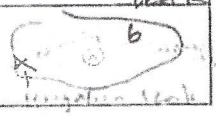
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes ____ No X *

* Unnatural condition created by irrigation recent leak

Remarks:

- Irrigation leak down into dirt basin
- Fairly new >2 / years based on vegetation development




## VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| Total Cover: | | | |
| **Sapling/Shrub Stratum** | | | |
| 1. Typha latifolia | 5 | N | OBL |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| Total Cover: 5 | | | |
| **Herb Stratum** | | | |
| 1. Lotus purshianus | 40 | Y | FAC* |
| 2. Picris echioides | 40 | Y | FAC* |
| 3. Polypogon monspeliensis | 5 | N | FACW |
| 4. Bromus hordeaceus | 10 | N | NI |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8 | | | |
| Total Cover: 95 | | | |
| **Woody Vine Stratum** | | | |
| 1 | | | |
| 2 | | | |
| Total Cover: | | | |

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

**Dominance Test worksheet:**

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

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

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

**Prevalence Index worksheet:**

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

Prevalence Index = B/A = ____

**Hydrophytic Vegetation Indicators:**

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

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

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

Remarks:

- First year veg, natural watering from irrigation leak

## SOIL

Sampling Point: SP-1

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

| Depth (inches) | Matrix Color (moist) | % | Redox Features Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-14 | 7.5YR 6/1 | 85 | 7.5YR 6/8 | 7 | C | M | silt loam | |
| | | 15 | Gley 1 6-10Y | 8 | D | M | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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

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

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

**Indicators for Problematic Hydric Soils[3]:**

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

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

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

- induced by irrigation leak

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

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

**Field Observations:**

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

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

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 1

Wetland Hydrology Present? Yes X No ___

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

Remarks:

- Induced by irrigation leak.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: OCEAN RANCH 28537 City/County: OCEANSIDE, SD Sampling Date: 5-21-15

Applicant/Owner: SDGE State: CA Sampling Point: SP #2

Investigator(s): A. BOUCHET, D. HUSS Section, Township, Range: S22 T11S R4W

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

Subregion (LRR): LRR-C Lat: 33.21052120 Long: 117.29-0.3414 Datum: WGS

Soil Map Unit Name: Salinas clay, 0 to 2 % slopes NWI classification: NONE

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

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

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

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

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes X No ____ | Is the Sampled Area within a Wetland? | Yes ____ No X |
| Hydric Soil Present? | Yes ____ No X | | |
| Wetland Hydrology Present? | Yes X No ____ | | |

Remarks:


## VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| Total Cover: | | | |
| **Sapling/Shrub Stratum** | | | |
| 1. Salix sp. | 15 | Y | FACW |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| Total Cover: | 15 | | |
| **Herb Stratum** | | | |
| 1. Polypogon monspeliensis | 5 | N | OBL |
| 2. Kunzea ericoides | 20 | Y | ~~FACW~~ |
| 3. Polypogon monspeliensis | 7 | N | ~~FAW~~ |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| Total Cover: | 33 | | |
| **Woody Vine Stratum** | | | |
| 1. | | | |
| 2. | | | |
| Total Cover: | | | |

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

**Dominance Test worksheet:**

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

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

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

**Prevalence Index worksheet:**

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

Prevalence Index = B/A = ____

**Hydrophytic Vegetation Indicators:**

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

## SOIL

Sampling Point: SP-2

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

| Depth (inches) | Matrix Color (moist) | % | Redox Features Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-14 | 2.5Y 5/2 | | 2.5Y 6/6 | 42 | C | | silty clay loam | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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

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

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

**Indicators for Problematic Hydric Soils[3]:**

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

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

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

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

**Remarks:**

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

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

**Field Observations:**

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

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

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

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

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

Remarks:

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