Jurisdictional Delineation Report for Tie-Line 649 Wood-to-Steel Pole Replacement Project

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Chapter 1 - Summary of Findings

RECON Environmental, Inc. (RECON) and Chambers Group, Inc. (Chambers Group) aquatic resource specialists conducted a jurisdictional delineation along approximately seven miles of transmission line (TL) 649 in southern San Diego County. Methods for delineating wetlands followed guidelines set forth by the U.S. Army Corps of Engineers ([ACOE] 1987), including the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid Supplement; ACOE 2008). All figures depicting the project location and results of the survey are shown in Attachment 1.

A total of 5.55 acres of ACOE jurisdictional waters were delineated within the survey area. Of these, 4.45 acres are considered ACOE wetland waters of the U.S. (of which 0.80 acre are vernal pool wetlands), and 1.09 acres are considered ACOE non-wetland waters of the U.S. Although not formally delineated, an additional 11.74 acres of San Diego Mesa Claypan vernal pool habitat were identified to occur within the survey area and likely support jurisdictional ACOE vernal pool wetland waters of the U.S.

California Department of Fish and Wildlife (CDFW) jurisdictional waters total 5.79 acres within the survey area. Of these, 1.09 acres are considered CDFW unvegetated streambed and 4.70 acres are considered CDFW riparian. CDFW does not take jurisdiction over project vernal pools via the 1600 streambed alteration program.

A total of 5.55 acres of Regional Water Quality Control Board (RWQCB) waters of the State were delineated within the survey area. The RWQCB waters of the State include 0.80 acre of vernal pools. Although not formally delineated, an additional 11.74 acres of San Diego Mesa Claypan vernal pool habitat were identified to occur within the survey area and likely support jurisdictional RWQCB waters of the State vernal pools.

Impacts to jurisdictional waters would require a Section 404 permit from ACOE, a Streambed Alteration Agreement from CDFW, and a 401 water quality certificate from the RWQCB.

Chapter 2 - Proposed Project

San Diego Gas and Electric (SDG&E) proposes to replace wooden transmission poles along approximately seven miles of TL 649 in southern San Diego County. TL 649 is part of SDG&E's efforts to increase system reliability and reduce risk associated with potential fire events. The project would fire-harden TL 649, an existing 69-kilovolt wood transmission line, by replacing approximately 116 existing wood structures with galvanized steel poles. The new galvanized steel poles will be directly embedded or supported by either micropile or pier concrete foundations. The project also includes the reconductor of the associated distribution line with 636 aluminum conductor steel support/alumaweld conductor and the use of access roads, stringing sites, guard structures, and staging yards.

The project is located within the city of Chula Vista, the city of San Diego, and the unincorporated San Diego County community of Otay Mesa (Figure 1). The survey area spans various sections within Township 18 South, Range 01 West of the Imperial Beach and Otay Mesa quadrangle U.S. Geological Survey (USGS) maps (USGS 1971, 1975; Figure 2). Within the Imperial Beach quadrangle, the survey area spans Sections 19 and 20. Within the Otay Mesa quadrangle, the survey area spans Sections 13, 24, and 25, as well as an unsectioned portion of the Otay (Estudillo) Land Grant. The survey area generally follows the Otay River floodplain and occurs within undeveloped open space, with the exception of minor agricultural uses and development.

As the project area has the potential to contain federal and state jurisdictional waters, SDG&E requested a jurisdictional delineation to be conducted. The purpose of this jurisdictional delineation is to identify and map the location of jurisdictional waters to provide necessary background information for avoidance measures by engineering and for analysis by ACOE, CDFW, and the RWQCB if permits are required.

Chapter 3 - Regulatory Overview

3.1 ACOE WETLANDS

According to the ACOE Wetland Delineation Manual, wetlands are defined as "those areas that are inundated or saturated by surface or groundwater 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." Wetlands are delineated using three parameters: hydrophytic vegetation, wetland hydrology, and hydric soils. According to ACOE, indicators for all three parameters must be present to qualify as a wetland.

Vernal pools are defined in the Arid Supplement as "small, temporarily and seasonally ponded depressions found in a variety of landscapes where they are usually underlain by an impermeable layer such as a hardpan, claypan, or basalt. Vernal pools often fill and empty several times during the rainy season." As vernal pools are a type of wetland, they also were delineated using the three parameters, this methods is further discussed in Section 3.1.2.

3.1.1 Regulatory Definition

In accordance with Section 404 of the Clean Water Act (CWA), ACOE regulates the discharge of dredged or fill material into waters of the United States. The term "waters of the United States" is defined as:

- All waters currently used, or 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;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds; the use, degradation, or destruction of which could affect foreign commerce including any such waters, (1) which could be used by interstate or foreign travelers for recreational or other purposes; or (2) from which fish or shellfish are, or could be, taken and sold in interstate or foreign commerce; or (3) which are used or could be used for industries in interstate commerce;
- All other impoundments of waters otherwise defined as waters of the United States under the definition;
- Tributaries of waters identified above;
- The territorial seas; and
- Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in the paragraphs above (33 Code of Federal Regulations [CFR] Part 328.3[a]).

3.1.2 Wetland Parameters

Wetlands are delineated using three parameters: hydrophytic vegetation, wetland hydrology, and hydric soils. According to ACOE, indicators for all three parameters must be present to qualify as a wetland.

3.1.2.1 Hydrophytic Vegetation

Hydrophytic vegetation is defined as "the sum total of macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content" (ACOE 1987). The potential wetland areas within the survey area were surveyed by walking through the project site and making observations of those areas exhibiting characteristics of jurisdictional waters or wetlands. Vegetation units with potential wetland areas were examined, and data for each vegetation stratum (i.e., tree, shrub, herb, and vine) were recorded on the datasheet provided in the Arid Supplement (ACOE 2008). The percent absolute cover of each species present was visually estimated and recorded.

The wetland indicator status of each species recorded was determined by using the National Wetland Plant Inventory (Lichvar, et. al. 2014). An obligate (OBL) indicator status refers to plants that are almost always a hydrophyte and rarely in uplands. A facultative wet (FACW) indicator status refers to plants that usually are a hydrophyte, but are occasionally found in non-wetlands. A facultative (FAC) indicator status refers to plants that commonly occur as either a hydrophyte or non-hydrophyte. Facultative upland (FACU) species occasionally are a hydrophyte, but usually occur in uplands. Upland (UPL) species almost always occur in uplands, and rarely are a hydrophyte. A not indicated (NI) status refers to species that have insufficient data available to determine an indicator status at this time, for the local region.

Plant species nomenclature follows that contained in *the Jepson Online Interchange* (Jepson Flora Project 2014). Dominant species with an indicator status of NI or not listed in the 2014 list were evaluated as either wetland or upland indicator species based on local professional knowledge of where the species are most often observed in habitats characteristic of southern California.

3.1.2.2 Hydric Soils

A hydric soil is a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation (ACOE 1987). Hydric soil indicators are formed predominantly by the accumulation or loss of iron, manganese, sulfur, or carbon compounds (ACOE 2008). The hydric soil criterion is considered fulfilled at a location if soils in the area can be inferred to have a high groundwater

table, evidence of prolonged soil saturation exists, or any indicators suggesting a long-term reducing environment in the upper 18 inches of the soil profile are present.

A sampling point was selected within a potential wetland area where the apparent boundary between wetland and upland was inferred based on changes in the composition of the vegetation and topography. The soil pit was dug to a depth of at least 18 inches or to a depth necessary to determine soil color, evidence of soil saturation, depth to groundwater, and indicators of a reducing soil environment (e.g., mottling, gleying, and sulfidic odor). In areas where the direct examination of soil pits were precluded by the pretense of federally endangered species (i.e., fairy shrimp), hydric soils were inferred based on the presence of vegetation and hydrology indicators (see Section 4.1.3.1, Vernal Pools, below).

3.1.2.3 Wetland Hydrology

The presence of wetland hydrology indicators confirm that inundation or saturation has occurred on a site, but may not provide information about the timing, duration, or frequency of the event. Hydrology features are generally the most ephemeral of the three wetland parameters (ACOE 2008).

Hydrologic information for the site was obtained by reviewing USGS topographic maps and by directly observing hydrology indicators in the field. The wetland hydrology criterion is considered fulfilled at a location if, based upon the conclusions inferred from the field observations, an area has a high probability of being periodically inundated or has soils saturated to the surface at some time during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (ACOE 1987). If at least one primary indicator or at least two secondary indicators are found at a sample point, the wetland hydrology criterion is considered fulfilled.

3.1.3 Atypical Situations

The definition of a wetland includes the phrase "under normal circumstances" because there are situations in which one or more of the wetland parameters has been removed or altered as a result of recent natural events or human activities (ACOE 1987). To describe these conditions, ACOE uses definitions for atypical situations and problem areas. They are as follows:

> Atypical situation: . . . refers to areas in which one or more parameters (vegetation, soil, and/or hydrology) have been sufficiently altered by recent human activities or natural events to preclude the presence of wetland indicators of the parameter (ACOE 1987).

> Problem areas: . . . wetland types in which wetland indicators of one or more parameters may be periodically lacking due to normal seasonal or annual variations in environmental conditions that result from causes other than human activities or catastrophic natural events. Representative examples of problem areas include seasonal wetlands, wetlands on drumlins, prairie potholes, and vegetated flats (ACOE 1987).

Atypical situations and problem areas may lack one or more of the three criteria and still may be considered wetlands. Background information on the previous condition of the area, field observations, and/or the identification of undisturbed reference sites adjacent to atypical sites may indicate that the site met the wetland criteria prior to disturbance. Additional delineation procedures would be employed if normal circumstances did not occur on a site.

Atypical situations within the survey area include unpaved access roads where intense vehicular use has eliminated or damaged evidence of hydrophytic vegetation and hydrology indicators.

3.1.4 Vernal Pools

Vernal pools are considered "problem areas" because vegetation or hydric soils may be lacking due to the seasonal filling and drying of vernal pools. As described in the Arid Supplement "the species composition of some wetland plant communities in the Arid West can change in response to seasonal weather patterns and long-term climatic fluctuations. Wetland types that are influenced by these shifts include **vernal pools**, playa edges, seeps, and springs. Lack of hydrophytic vegetation during dry periods should not immediately eliminate a site from further consideration as a wetland." In addition, when soil investigations are performed within vernal pools, vernal pools may also lack hydric soil indicators as they support seasonally ponded soils, described under problem soils as "seasonally ponded, depressional wetlands occur in basins and valleys throughout the Arid West. Most are perched systems, with water ponding above a restrictive soil layer, such as a hardpan or clay layer, that is at or near the surface (e.g., in Vertisols). Some of these wetlands lack hydric soil indicators due to limited saturation depth, saline conditions, or other factors."

3.2 ACOE NON-WETLAND WATERS

The ACOE also requires the delineation of non-wetland jurisdictional waters of the U.S. These waters must have strong hydrology indicators such as the presence of seasonal flows and an ordinary high watermark. An ordinary high watermark is defined as:

> . . . that line on the shore established by the fluctuations of water and indicated by physical characteristics such as [a] clear, natural line impressed on the bank,

> shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas (33 CFR Part 328.3).

Areas delineated as non-wetland jurisdictional waters may lack wetland vegetation or hydric soil characteristics. Hydric soil indicators may be missing because topographic position precludes ponding and subsequent development of hydric soils. Absence of wetland vegetation can result from frequent scouring due to rapid water flow. These types of jurisdictional waters are delineated by the lateral and upstream/downstream extent of the ordinary high watermark of the particular drainage or depression.

CDFW Jurisdictional Waters

Under Sections 1600–1607 of the Fish and Game Code, CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW has jurisdiction over riparian habitats (e.g., riparian woodland) associated with watercourses. Jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. Although CDFW does not regulate vernal pools under Section 1602 of the Fish and Game Code, CDFW will assert jurisdiction over vernal pools if California state threatened and/or endangered species are present via the California Endangered Species Act.

3.3 RWQCB JURISDICTIONAL WATERS

RWQCB is the regional agency responsible for protecting water quality in California. The jurisdiction of this agency includes waters of the state as mandated by both the federal CWA Section 401 and the California Porter-Cologne Water Quality Control Act. If a potential vernal pool meets the ACOE wetland criteria, but is considered an isolated water by the ACOE, the RWQCB asserts jurisdiction under the Porter-Cologne Water Quality Control Act.

Chapter 4 - Methods

A jurisdictional delineation, following the guidelines set forth by ACOE (1987, 2008), was performed to gather field data at potential wetland and waters of the U.S. and State sites in the survey area. To account for all potential project impact areas and provide a greater landscape context to sensitive aquatic resources, the survey area includes a 150-foot buffer from the center of the transmission line, a 20-foot buffer on either side of all access roads, and a 50-foot buffer surrounding temporary project features such as staging yards and stringing sites (Figure 3). RECON wetland specialists Michael Nieto, J.R. Sundberg, and Cailin O'Meara delineated jurisdictional waters on the 336.8-acre survey area on May 14 and 22, 2014. Additional site visits were conducted on July 28 and November 3, 2014 to assess jurisdictional waters within the additional project areas to investigate potential vernal pools. Chambers Group wetland specialists Ian Maunsell and Christina Congedo; ICF wetland specialist Lanika Cervantes; and SDG&E Aquatic Resource Specialist Tamara Spear conducted an additional site visit on March 20, 2015.

Prior to conducting the field delineation, the following sources were consulted to identify land use history and provide additional context to potentially atypical and problematic jurisdictional wetlands within the project area, including:

- USGS Otay Mesa quadrangle topographic map (USGS 1971)
- USGS Imperial Beach quadrangle topographic map (USGS 1975)
- Historical aerial photographs (www.historicaerials.com)
- National Wetland Inventory (USFWS 2014a)
- California Natural Diversity Database (CNDDB) search for sensitive vernal pool endemic species (State of California 2014)
- USFWS Critical Habitat for San Diego Fairy Shrimp (USFWS 2014b)
- USFWS Critical Habitat for Spreading Navarretia (USFWS 2014b)
- Draft Otay Mesa Vernal Pool HCP mapping (San Diego Association of Governments [SANDAG] 2014)
- Otay Ranch Preserve Fairy Shrimp Surveys (RECON 2013)
- Transmission Construction and Maintenance (TCM) 2009 Vernal Pool Data Accuracy Assessment Report (AECOM 2009)

Once on-site, the potential wetland sites were examined to determine the presence of any of the three wetland parameters or drainage channels. Soil type and classification data used in the delineation were provided by the Natural Resource Conservation Service's web soil survey (U.S. Department of Agriculture [USDA] 2014).

Potential waters and wetland locations observed within the survey area were evaluated using the methodology set forth in the ACOE Wetland Delineation Manual (ACOE 1987) and the Arid Supplement (ACOE 2008). Wetland hydrology indicators included evidence of inundation, saturation, watermarks, drift lines, and sediment deposits. Vegetation was analyzed using dominant species' wetland indicator status (ACOE 2014). Suspected jurisdictional areas were evaluated for the presence of definable channels, wetland vegetation, an ordinary high water mark, and connectivity to a traditional navigable waterway (TNW).

As the survey was conducted during a drought year, likely wetland areas without persistent wetland vegetation were treated as "problem areas" and analysis was adjusted accordingly.

4.1 VERNAL POOL BASELINE SURVEYS, 2009-2011

Surveys assessing potential vernal pools located within the dirt access road associated with TL649 were initially conducted by Scott McMillan with AECOM in 2009 and were recorded in the 2009 Vernal Pool Data Accuracy Assessment Report. The 2009 effort included a detailed assessment of vernal pool resources within and adjacent to SDG&E access roads. While faunal diversity and hydrology were evaluated, methods for the 2009 survey report focused on use of endemic vernal pool flora to define vernal pool basins. For the purpose of the 2009 Vernal Pool Data Accuracy Assessment, a vernal pool was considered to be any basin area supporting at least one indicator plant species (included in Appendix 2 of the 2009 Vernal Pool Accuracy Assessment Report). Follow-up surveys using the same protocol were conducted by AECOM and Chambers in 2010 and 2011. The data from these surveys, 2009-2011, was used as a baseline for assessing vernal pools in the 2014 and 2015 vernal pool surveys.

4.2 2014/2105 VERNAL POOL EVALUATIONS

All vernal pools previously described and mapped during the 2009-2011 baseline surveys were observed and documented. Although no formal wetland data sheets were completed for baseline pools, conditions of known baseline vernal pools were documented and photographed as reference sites for vernal pool evaluations.

Due to the location of most baseline pools within existing utility service roads, some baseline pools were observed to have shifted or expanded, likely due to vehicular disturbance. Where known vernal pools were observed to have shifted or expanded, the limits of the baseline pools were updated to reflect the current extent of the jurisdictional area based on endemic floral species and hydrological indicators such as surface soil crack, ponding, or saturation. The previously described limits of 2009-2011 baseline vernal pools were not reduced in size during the 2014 and 2015 field surveys.

Following evaluation of the baseline vernal pools, the remainder of the survey area was evaluated for basins supporting or potentially supporting vernal pool indicator species. Vernal pools located within access roads are subject to continuous vehicular disturbance and can, in the absence of vegetation, constitute an "atypical situation." In addition, the surveys were conducted after three consecutive drought years. Therefore, alternative methods described in the Arid Supplement were used to delineate wetland areas. When endemic flora was not observed within a basin due to presumed disturbance, presence of endemic flora was assumed if the basin was within proximity to known/mapped vernal pool complexes.

Road ruts were differentiated from jurisdictional disturbed vernal pools if they met the following criteria:

1) They did not occur within or adjacent to known or historic vernal pool complexes;

2) They occur within areas not typically associated with vernal pools (i.e., cut roads within hillsides, along a hillslope);

3) They were unvegetated or dominated by upland vegetation; and

4) They were not included in the 2009 through 2011 baseline surveys (these older surveys were conducted during normal or near normal rain seasons and therefore, vernal pool determinations made during these previous surveys were upheld during the current field efforts).

Soil tests pits were not dug within potential vernal pools due to the documented presence of the federally endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*; AECOM 2009). Hydric soils in vernal pools were inferred based on the presence of hydrology indicators (basin). Vernal pool watersheds were visually based on changes in the local microtopography and documented using a sub-meter global positioning system.

Chapter 5 - Results of Field Survey

A description of the major vegetation units observed, soil types encountered, and a discussion of the local hydrology in the project area are presented below. Copies of the field data forms summarizing information on vegetation, soils, and hydrology observed at each sample site are provided in Attachment 2.

5.1 VEGETATION

A total of thirteen vegetation communities and land cover types occur in the survey area. Of these, five vegetation communities support hydrophytic vegetation: riparian scrub, riparian forest, vernal pool, disturbed wetland, and meadow/seep.

5.1.1 Areas Supporting Hydrophytic Vegetation

5.1.1.1 Vernal Pool Complex (44000)

Vernal pool complex vegetation occurs within the survey area. This vegetation community was mapped at a landscape scale and includes both vernal pool basins and associated, interstitial, uplands within the vernal pool complex. Uplands and wetlands within a vernal pool complex are often ecologically related (species dispersal, pollination, water quality, etc.) and are commonly mapped as a single unit. Vernal pools are seasonally flooded depressions often associated with hummocks or mima-mound-topography. Vernal pools often support endemic plant and animal species adapted to extreme variability in hydrologic conditions (Oberbauer et al 2008). Plant species present in the vernal pool complexes within the survey area include woolly marbles (*Psilocarphus brevissimus*, OBL), annual beard grass (*Polypogon monspeliensis*, FACW), and Italian ryegrass (*Festuca perennis*, FAC). Areas with this vegetation type within the project area include the entirety of coastal mesas with mima-mound-topography and some depressions within access roads on a clay terrace near the Otay river floodplain.

5.1.1.2 Meadow/Seep (45400)

Meadow/seep vegetation is dominated by low-growing, perennial wetland species. This vegetation community is often found in previously disturbed areas where wetland species have not yet fully established (Oberbauer et al 2008). Species within the emergent wetland include Italian ryegrass, beardless wild-rye (*Elymus triticoides*, FAC), and common rush (*Juncus effusus*, FACW).

5.1.1.3 Riparian Scrub (63000)

Riparian scrub vegetation is dominated by small trees or shrubs typically in major river systems where flood scour occurs (Oberbauer et al 2008). Typical species within the survey area include San Diego marsh elder (*Iva hayesiana,* FACW), desert fragrance (*Ambrosia* [=*Hymenoclea*] *monogyra*, UPL), and mule fat.

5.1.1.4 Riparian Forest (61000)

Southern willow scrub vegetation is characterized by dense willow (*Salix* sp.) stands and repeated flooding (Oberbauer et al 2008). The riparian forest within the survey area is dominated by arroyo willow (*Salix lasiolepis*, FACW).

5.1.1.5 Disturbed Wetland (11200)

Disturbed wetland vegetation may contain native and non-native species and occurs in perennial or ephemeral wetlands that have been modified by human activity (Oberbauer et al 2008). Characteristic weed species within the survey area include salt cedar (*Tamarix ramosissima,* UPL) and fennel (*Foeniculum vulgare*, UPL). Some native species, including San Diego marsh elder, blue elderberry (*Sambucus nigra,* FAC), and desert fragrance, are also present.

5.1.2 Areas Lacking Hydrophytic Vegetation

A total of 10 upland vegetation communities and land cover types occur within the survey area: Diegan coastal sage scrub, maritime succulent scrub, valley needlegrass grassland, non-native grassland, Tecate cypress forest, southern mixed chaparral, disturbed habitat, bare ground, urban/developed, and landscaped/ornamental. These vegetation communities and land cover types are generally composed of upland plant species, bare ground, and/or development, and do not meet the hydrophytic vegetation criteria for wetlands.

5.2 SOILS

A total of eight soil series mapped by USDA (1973) occur in the survey area: Diablo, Gravel Pits, Linne, Olivenhain, Riverwash, Salinas, Stockpen, and Visalia (Figures 4-1 through 4-18). The acreages of these soil series are listed in Table 1.

TABLE 1: ACREAGES OF SOIL SERIES FOUND WITHIN THE SURVEY AREA

Soil Series	Acres
Diablo – suitable for supporting vernal pools	
clay, 2 to 9 percent slopes	19.36
clay, 9 to 15 percent slopes	55.57
clay, 15 to 30 percent slopes	54.06
clay, 30 to 50 percent slopes	30.75
Gravel pits	3.87
Linne – suitable for supporting vernal pools	
clay loam, 9 to 30 percent slopes	27.32
Olivenhain – suitable for supporting vernal pools	
cobbly loam, 2 to 9 percent slopes	17.33
cobbly loam, 9 to 30 percent slopes	3.32
cobbly loam, 30 to 50 percent slopes	27.50
Riverwash	15.88
Salinas	
clay loam, 0 to 2 percent slopes	1.54
clay loam, 2 to 9 percent slopes	44.04
clay, 0 to 2 percent slopes	0.54
Stockpen – suitable for supporting vernal pools	
gravelly clay loam, 0 to 2 percent slopes	28.12
Visalia	
gravelly sandy loam, 2 to 5 percent slopes	7.58

5.2.1 Soils Considered Suitable for the Formation of Vernal Pools

Soil series were evaluated for suitability for vernal pool formation based on slope and permeability. Soils with less than 10 percent slopes and an impermeable subsurface layer (0.06 inch per hour or less permeability) are considered suitable for the formation of vernal pools (Bauder and McMillan 1998). A total of five soil series contained slopes and permeability that were considered suitable for the formation of vernal pools: Diablo, Linne, Olivenhain, Salinas, and Stockpen.

- The Diablo series consists of well-drained moderately deep to deep clays derived from soft calcareous sandstone and shale. These soils are found on uplands (USDA 1973). This soil series meets the permeability criteria for vernal pools at slopes of less than 10 percent (Bauder and McMillan 1998). This soil series is scattered throughout the survey area at elevations of 160 to 600 feet.

- The Linne series consists of well-drained, moderately deep clay loams derived from soft calcareous sandstone and shale. At 9 to 30 percent slopes, this soil type is characterized

as rolling to hilly soil on uplands (USDA 1973). This soil type meets the permeability criteria for vernal pools at slopes of less than 10 percent (Bauder and McMillan 1998). This series occurs in the western and eastern portions of the survey area at elevations from 160 to 590 feet.

- The Olivenhain series consists of well-drained, moderately deep to deep cobbly loams with very cobbly clay subsoil. This series developed in old gravelly and cobbly alluvium and are located on dissected marine terraces. Mima mounds associated with vernal pool complexes are known to occur in many areas where the 2 to 9 percent slopes subcategory occurs (USDA 1973). This soil series is also known to support vernal pools in San Diego County coastal mesas and meets the permeability criteria for vernal pools at slopes of less than 10 percent (Bauder and McMillan 1998). This series occurs throughout the survey area soils at elevations from 160 to 540 feet.

- The Stockpen series consists of moderately well-drained, moderately deep gravelly clay loams located on marine terraces (USDA 1973). This soil series meets the permeability criteria for vernal pools at slopes of less than 10 percent and is known to support vernal pools in Otay Mesa (Bauder and McMillan 1998). This soil type occurs in the northeastern portion of the survey area at elevations of 520 to 560 feet and contains the highest amount of vernal pools of any soil series within the survey area.

5.2.2 Soils Not Considered Suitable for the Formation of Vernal Pools

Soils with greater than 10 percent slopes and a permeable subsurface (greater than 0.06 inch per hour) were not considered suitable for the formation of vernal pools (Bauder and McMillan 1998). A total of three soil series were not considered suitable for the formation of vernal pools:

- Gravel Pits consist of areas that have been excavated for sand or gravel. The areas are mostly on broad outwash plains and terraces of stream valleys. The gravel pits within the survey area are likely associated with the gravel mining that occurs within the Otay River Valley. This series occurs at elevations of 170 to 190 feet.

- The Riverwash series occurs in intermittent stream channels and is typically sandy, gravelly, or cobbly (USDA 1973). This soil type occurs in the Otay River Valley in the central and northeastern portion of the survey area at elevations of 200 to 300 feet.

- The Visalia series consists of very deep sandy loams underlain by loam and sandy loam derived from granitic alluvium. It occurs on alluvial fans and flood plains (USDA 1973).

This soil type occurs in the northeastern portion of the survey area at elevations of 280 feet.

5.3 HYDROLOGY

The project occurs within a dissected coastal mesa and canyon system on the southern bank of the Otay River near Otay Mesa. Topography within the project area includes steep canyon slopes, ephemeral drainages, river terraces, vegetated riparian valleys, and clay coastal mesas. The project area generally occurs within undeveloped open space, with the exception of minor agricultural uses within the Otay River floodplain. Coastal mesas within the project are either developed (residential) or contain vernal pool complexes of varying size and quality. Larger intact canyon systems within the project area (e.g., Johnson Canyon, O'Neal Canyon, Dennery Canyon) generally contain riparian scrub vegetation, while smaller drainage systems in the area typically contain ephemeral drainages or vegetated swales with intermittent evidence of wetland hydrology. All drainages and wetlands in the area are within the Otay River watershed and have direct hydrologic connectivity to the Otay River. The Otay River flows into the Pacific Ocean (a TNW via San Diego Bay, 5.9 miles west of the project site).

Vernal pools and their associated watersheds were observed on project access roads at several locations within the survey area. A majority of the vernal pools occur on clay mesa tops dissected by large drainages in the eastern portion of the project area. The remaining vernal pools occur within the access road that runs east-west on a clay river terrace on the southern bank of the Otay River.

5.3.1 Otay River Floodplain

The survey area is located primarily on the southern bank of the Otay River floodplain. The Otay River flows west through the survey area to the Pacific Ocean, where it empties into Egger Highlands at the San Diego Bay National Wildlife Refuge.

5.3.2 Tributaries & Natural Drainages

The survey area contains three major tributaries to the Otay River: Dennery Canyon, O'Neal Canyon, and Johnson Canyon. All three drainages flow north into the Otay River, a Relatively Permanent Water (RPW), and, ultimately, the Pacific Ocean, a TNW. Various smaller unnamed ephemeral drainages occur scattered throughout the survey area and drain north into the Otay River. There were 21 jurisdictional features identified in the survey area. The access road crosses through drainages at 12 of the above mentioned 21 locations.

5.3.3 Clay-pan Mesa Vernal Pool Complex

The northeastern portion of the survey area is located on mesa tops dissected by drainages. The mesa tops contain access roads with clay-pan vernal pools formed from road ruts. The roads are further surrounded by vernal pool complexes characterized by mima-mound-topography. These vernal pool complexes generally drain south and north into drainages associated with the Otay River, an RPW, via subsurface flows and/or sheet flow.

5.3.4 Man-made Structures

Man-made structures within the project area include concrete brow ditches and energy dissipaters. In the central portion of the survey area, the brow ditch and energy dissipater were constructed to drain an upland fill slope of a freeway bridge abutment. Water conveyed by the brow ditch and energy dissipater sheet flows across a maintained, concrete Arizona crossing onto an existing project access road and dissipates into upland.

5.3.5 Swales

Nine swales were identified in the survey area. Water conveyed by the swales sheet flow across existing unpaved, unculverted access roads and dissipate into upland.

5.3.6 Erosional Feature

One erosional feature occurs within the southern portion of the survey area. The erosional feature consists of a ditch that runs parallel to the access road and drains into upland.

5.3.7 Road Ruts

Road ruts occur within the survey area on access roads that are generally flat, unpaved, and underlain by clay soils. Rutting occurs when heavy equipment compresses and/or displaces saturated soils to form linear cavities within the access road footprint. Locations of road ruts on the project site were observed to change over time. Road rutting is a dynamic process and depends on soil saturation, soil type, as well as frequency and type of vehicular traffic. Although deep road ruts will exhibit seasonal depressional hydrology and may act as habitat for sensitive vernal pool fauna such as fairy shrimp which can indicate seasonal ponding (i.e., be an indicator for hydrology), they are generally not considered jurisdictional vernal pools.

Chapter 6 - Jurisdictional Delineation

Figures 5-1 through 5-18 identify the locations of ACOE, CDFW, and RWQCB jurisdictional waters within the survey area. Table 2 summarizes the acreages of each jurisdiction.

TABLE 2: EXISTING JURISDICTIONAL WATERS WITHIN THE SURVEY AREA

Jurisdictional Waters	Acres
ACOE Jurisdiction	
Wetlands total	4.45
Vernal Pool Wetlands	0.80
Riparian Scrub	2.50
Southern Willow Scrub	0.53
Disturbed Wetland	0.24
Emergent Wetland	0.38
Non-wetland waters of the U.S.	1.09
ACOE Total Jurisdiction	**5.55**
CDFW Jurisdiction	
Riparian	4.70
Riparian Scrub	3.63
Southern Willow Scrub	0.53
Disturbed Wetland	0.24
Emergent Wetland	0.30
Unvegetated Streambed	1.09
CDFW Total Jurisdiction	**5.79**
RWQCB Jurisdiction	
Wetland Waters of the State	4.45
Vernal Pool Wetlands	0.80
Riparian Scrub	2.50
Southern Willow Scrub	0.53
Disturbed Wetland	0.24
Emergent Wetland	0.38
Non-wetland waters of the State	1.09
RWQCB Total Jurisdiction	**5.55**

6.1 ACOE JURISDICTION

ACOE jurisdictional waters total 5.55 acres, including 4.45 acres of wetlands (of which 0.80 acres of vernal pool wetlands were observed) and 1.09 acre of non-wetland waters of the U.S.

6.1.1 Wetlands

A total of 4.45 acres of jurisdictional wetlands were delineated within the survey area. Jurisdictional wetlands within the survey area consist of coastal and valley freshwater marsh, emergent wetland, southern willow scrub, disturbed wetland, and vernal pool wetlands.

6.1.1.1 Vernal Pool Wetlands

Of the 0.80 acre delineated as vernal pool wetlands, fifty-two vernal pools were identified in the surveys and are likely considered jurisdictional by ACOE and RWQCB. Of these vernal pools, eight are naturally occurring (i.e., not located within an access road and; therefore, undisturbed), and the remaining disturbed vernal pools occur within existing access roads. Of these disturbed vernal pools, six are unvegetated and thirty-eight are vegetated.

According to the CNDDB, two access roads within the project survey area (adjacent to the Donovan state prison) occurs on a mesa top within documented occurrences of the federal and state endangered ACOE vernal pool botanic indicator species, Otay Mesa mint (*Pogogyne nudiuscula*) and San Diego button celery (*Eryngium aristulatum* var. *parishii*).

6.1.2 Non-wetland Waters of the U.S.

A total of 1.09 acres of ACOE non-wetland waters of the U.S. occur within the survey area. The non-wetland waters consist of ephemeral drainages. These drainages contain an ordinary high watermark and display connectivity to the Otay River, a RPW.

6.1.3 Non-Jurisdictional Features

Road ruts, swales, erosional features, and man-made features do not meet the definition of an ACOE water of the U.S. (i.e., contain an OHWM or three parameter wetland), as they typically dissipate within uplands and do not exhibit connectivity to a TNW. These features are also not considered RWQCB jurisdictional as RWQCB follow ACOE guidance for delineation of waters of the State. In addition, these features do not support a bed and bank and therefore, are not considered jurisdictional by CDFW.

A small patch of riparian scrub was mapped on a project staging yard; however, it is only sparse riparian vegetation that is colonizing a constructed, upland fill slope fed by irrigation runoff. This area does not meet a three parameter wetland nor is it associated with a streambed or lake and therefore, is likely not considered jurisdictional by ACOE, RWQCB, or CDFW.

6.2 CDFW JURISDICTION, SECTION 1600 OF THE CALIFORNIA DEPARTMENT OF FISH AND GAME CODE, STREAMBED ALTERATION AGREEMENT

CDFW jurisdiction within the survey area totals 5.79acres, which includes 1.09 acres of CDFW streambed and 4.70 acres of CDFW riparian. CDFW streambed within the survey area consists of unvegetated streambed. CDFW riparian includes 1.13 acres of riparian scrub not considered jurisdictional by ACOE. The vernal pools in the project area are not within CDFW Section 1600 jurisdiction. However, CDFW does assert jurisdiction over state threatened and endangered species that may occur within vernal pools though the California Endangered Species Act (CESA).

6.3 RWQCB JURISDICTION

RWQCB jurisdiction within the survey area totals 5.55 acres of RWQCB waters of the state. RWQCB waters of the state consist of unvegetated streambed, coastal and valley freshwater marsh, emergent wetland, riparian scrub, southern willow scrub, disturbed wetland, and vernal pools.

Chapter 7 - Permit Authorization

ACOE, CDFW, and RWQCB jurisdictional waters are regulated by the federal, state, and local government. All impacts to jurisdictional waters need to be avoided and minimized to the greatest extent possible.

Unavoidable impacts to jurisdictional waters may be authorized by ACOE, CDFW, and ACOE through permit authorizations from ACOE (Section 404 permit program), from CDFW through a 1602 Streambed Alteration Agreement, and from RWQCB through a 401 State Water Quality Certification. In addition, impacts to isolated waters of the state will require a Waste Discharge Permit from the RWQCB.

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ATTACHMENTS

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ATTACHMENT 1: AQUATIC FEATURES DESCRIPTIONS

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Attachment 1: Aquatic Features Occurring with the TL 649 Project Area

Aquatic Feature Number	Description	Location Description	Jurisdictional Determination Reasoning	Agency Jurisdiction	Sample Point	Map Page Number	Photograph
AF1	Vegetated drainage	Between Location 1 and Location 2	Vegetated drainage with an OHWM and connectivity containing emergent marsh vegetation dominated by southern cattail (*Typha domingensis*, OBL) and mule fat (*Baccharis salicifolia*, FAC). This feature is considered an ACOE wetland water of the U.S., CDFW wetland, and RWQCB water of the state. As the project transmission line spans this feature, no impacts are anticipated.	ACOE/CDFW/ RWQCB	NA	2	Photograph 1
AF2	Ephemeral drainage	Between Location 3 and Location 4	Ephemeral drainage with an OHWM and connecting containing fringing riparian scrub vegetation dominated by mule fat. The drainage channel of this feature is likely considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state, while the riparian scrub fringing the drainage is considered CDFW wetland only. As the project transmission line spans this feature, no impacts are anticipated.	ACOE/CDFW/ RWQCB	NA	2	Photograph 2
AF3	Ephemeral drainage	Between Location 6 and Location 7	Ephemeral drainage with an OHWM and connectivity containing fringing riparian scrub vegetation dominated by mule fat and castor bean (*Ricinus communis*, FACU). The drainage channel of this feature is likely considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state, while the riparian scrub fringing the drainage is likely CDFW only. The drainage channel of Feature 3 flows across a maintained, unpaved, unculverted, existing project access road. Project activity includes vehicular access through the drainage as it crosses the road.	ACOE/CDFW/ RWQCB	NA	3	Photograph 3
AF4	man-made detention basin	southwest of Location 5	Man-made detention basin vegetated with riparian scrub vegetation dominated by mule fat and salt cedar (*Tamarix chinensis*, FAC), with occasional herbaceous understory vegetation consisting of dock (*Rumex* sp.). Feature 4 is not connected to a TNW, and does not exhibit a defined OWHM or streambed. The detention basin is likely considered an ACOE wetland waters and RWQCB water of the state occurring as a result of urban runoff from surrounding development to the west and sheet flow from paved roads to the south. As this feature is outside of proposed work areas, no impacts are anticipated.	ACOE and RWQCB	NA	3	Photograph 4

Attachment 1: Aquatic Features Occurring with the TL 649 Project Area

Aquatic Feature Number	Description	Location Description	Jurisdictional Determination Reasoning	Agency Jurisdiction	Sample Point	Map Page Number	Photograph
AF5	Vegetated drainage	Southeast of Location 14	Vegetated drainage with an OHWM and connectivity dominated by mule fat and black willow *(Salix goodingii*, FACW). The drainage channel of this feature is likely considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state, while the riparian scrub fringing the drainage is likely considered ACOE wetland water, CDFW wetland, and RWQCB water of the state. The drainage channel of Feature 5 flows into a 3-foot box culvert and does not cross project features. As this feature is outside of proposed work areas, no impacts are anticipated.	ACOE/CDFW/ RWQCB	NA	4	Photograph 5
AF6	Ephemeral drainage	East of pole Location 17 and immediately west of Heritage Road	Ephemeral drainage with an OHWM and connectivity dominated by San Diego marsh elder (*Iva hayesiana*, FACW) and mule fat. The ephemeral drainage is likely considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state. As the project transmission line spans this feature, no impacts are anticipated.	ACOE/CDFW/ RWQCB	NA	5	Photograph 6
AF7	Swale	Between Location 21 and Location 22	Non-jurisdiction swale dominated by disturbed vegetation, including castor bean and non-native upland grasses. This feature is not considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state due to lack of OHWM, defined streambed, and dissipation of flow to upland vegetation south of the project access road.	Non-jurisdictional	NA	6	Photograph 7
AF8	Swale	Between poles Location 26 and Location 27	Non-jurisdiction swale dominated by disturbed vegetation, including castor bean and non-native upland vegetation. Incidental patches of giant reed *(Arundo donax*, FACW) occur north of the project access road. The swale is not considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state due to lack of OHWM or defined streambed. Feature 8 sheet flows across a maintained, unpaved, unculverted, existing project access road.	Non-jurisdictional	NA	6	Photograph 8
AF9	Swale	Directly east of Location 27	Non-jurisdictional swale dominated by upland non-native grasses. The swale is not considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state due to lack of OHWM or defined streambed. Feature 9 sheet flows across a maintained, unpaved, unculverted, existing project access road.	Non-jurisdictional	NA	6	Photograph 9

Attachment 1: Aquatic Features Occurring with the TL 649 Project Area

Aquatic Feature Number	Description	Location Description	Jurisdictional Determination Reasoning	Agency Jurisdiction	Sample Point	Map Page Number	Photograph
AF10	Ephemeral drainage	Between Location 32 and Location 33	Ephemeral drainage dominated by disturbed vegetation, including castor bean and purple falsebrome (*Brachypodium distachyon*, UPL). The ephemeral drainage exhibits an average 1-foot wide OHWM and streambed with cut banks ranging from .5-1.5 feet. This un-named tributary of the Otay River is considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state. The drainage channel of Feature 10 flows across a maintained, unpaved, unculverted, existing project access road. Project activity includes vehicular access through the drainage as it crosses the road.	ACOE/CDFW/ RWQCB	NA	7	Photograph 10
AF11	Ephemeral drainage	East of Location 36	Ephemeral drainage with fringing riparian scrub vegetation dominated by desert fragrance (*Ambrosia [Hymenoclea] monogyra*, UPL) with occasional mule fat. The drainage channel of this feature is likely considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state, while the riparian scrub fringing the drainage is likely CDFW wetland only. The drainage channel of Feature 11 flows across a maintained, unpaved, unculverted, existing project access road. Project activity includes vehicular access through the drainage as it crosses the road.	ACOE/CDFW/ RWQCB	NA	8	Photograph 11
AF12	Swale	Between Location 38 and Location 39	Non-jurisdictional swale dominated by upland grass species. The swale is not considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state due to lack of OHWM or defined streambed, dissipating south of the project access road into upland. Water conveyed by Feature 12 sheet flows across a maintained, unpaved, unculverted, existing project access road.	Non-jurisdictional	NA	8	Photograph 12
AF13	Adjacent weltand	North of the project from Location 38 east to Location 42	Adjacent wetland to the Otay River composed of disturbed riparian scrub dominated by mule fat, blue elderberry (*Sambucus nigra*, FAC), salt cedar, black willow, southwestern spiny rush (*Juncus acutus ssp. leopoldii*, FACW), and desert fragrance. The adjacent wetland area of Feature 13 exhibits areas of standing surface water and is likely considered ACOE wetland water of the US, CDFW riparian wetland, and RWQCB water of the state.	ACOE/CDFW/ RWQCB	NA	8 and 9	Photograph 13

Attachment 1: Aquatic Features Occurring with the TL 649 Project Area

Aquatic Feature Number	Description	Location Description	Jurisdictional Determination Reasoning	Agency Jurisdiction	Sample Point	Map Page Number	Photograph
AF14	Ephemeral drainage	South of project access road and west of Location 41 extending to the north and west	Ephemeral drainage and un-named tributary to the Otay River dominated by upland lemonade berry (*Rhus integrifolia*, UPL). Feature 14 is characterized by an approximately 1 to 1.5 foot OHWM and streambed, and intersects an existing project access road approximately 100 feet west of Location 41, where is redirected to the west by an existing road berm. The feature continues along the cobbled north shoulder of the access road for approximately 100 feet to the west, before turning north through an installed energy dissipater and entering the Otay River floodplain. The ephemeral drainage is likely considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state. Project activity includes vehicular access through the drainage as it crosses the road.	ACOE/CDFW/ RWQCB	NA	9	Photograph 14
AF15	Swale	South of Location 43	is a non-jurisdictional swale containing upland lemonade berry, fennel (*Foeniculum vulgare*, UPL), and upland grasses. Feature 13 is not considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state due to lack of OHWM or defined streambed; however, sufficient flow occurs within the feature south of the Location 43 resulting in occasional areas of non-contiguous erosion and scouring, before flow dissipates immediately south of Location 43 into upland. Feature 15 sheet flows across a maintained, unpaved, unculverted, existing project access road.	Non-jurisdictional	NA	9	Photograph 15
AF16	Swale	Between Location 46 and Location 47	is a non-jurisdictional swale containing non-native grassland vegetation dominated by rip-gut brome (*Bromus diandrus*, UPL) and slender wild oat (*Avena barbata*, UPL) (Photograph 16, Map Page 10). Feature 16 is located in between Location 46 and Location 47. The swale is not considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state due to lack of OHWM or defined streambed. Feature 16 sheet flows across a maintained, unpaved, unculverted, existing project access road.	Non-jurisdictional	NA	10	Photograph 16
AF17	Man-made storm water system	East of Locations 50.1 and 50.2	Non-jurisdictional concrete brow ditch and energy dissipater east of Locations 50.1 and 50.2 constructed wholly in uplands and designed to drain upland fill slope of a freeway bridge abutment. This feature is a constructed BMP and; therefore, is likely exempt from jurisdiction. Feature 17 sheet flows across a maintained, concrete Arizona crossing on an existing project access road.	Non-jurisdictional	NA	10	Photograph 17

Attachment 1: Aquatic Features Occurring with the TL 649 Project Area

Aquatic Feature Number	Description	Location Description	Jurisdictional Determination Reasoning	Agency Jurisdiction	Sample Point	Map Page Number	Photograph
AF18	Swale	Within String Site 14; Between Location 52 and Location 53	Non-jurisdictional swale containing red brome (*Bromus madritensis* ssp. *rubens*, UPL), fennel, and sparse, occasional, mule fat. The swale is not considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state due to lack of OHWM or defined streambed, dissipating north of the project access road into upland non-native grasses. Feature 18 sheet flows across a maintained, unpaved, unculverted, existing project access road.	Non-jurisdictional	NA	11	Photograph 18
AF19	Erosional feature	East and south of Location 55	Non-jurisdictional erosional feature occurring along the shoulder of an unmaintained dirt access road. This feature lacks OHWM and a defined bed and bank. Feature 19 sheet flows across a maintained, unpaved, unculverted, existing project access road.	Non-jurisdictional	NA	11 and 12	Photograph 19
AF20	Ephemeral drainage	Approximately 25 feet west of Location 56	Vegetated ephemeral drainage with an OHWM and connectivity dominated by fennel and mule fat. The ephemeral drainage is likely considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state. The drainage channel of Feature 20 flows across a maintained, unpaved, unculverted, existing project access road. Project activity includes vehicular access through the drainage as it crosses the road.	ACOE/CDFW/ RWQCB	NA	12	Photograph 20
AF21	Ephemeral drainage	Between Location 57 and Location 58	Un-vegetated ephemeral drainage with an OHWM and connectivity. The ephemeral drainage is likely considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state. The drainage channel of Feature 21 flows beneath the maintained project access road via two approximately 2-foot-diameter corrugated pipe culverts. Project activity includes vehicular access through the drainage as it crosses the road.	ACOE/CDFW/ RWQCB	NA	12	Photograph 21
AF22	Emergent wetland	Approximately 7 feet east of Location 59	Emergent wetland dominated by beardless wild-rye (*Elymus triticoides*, FAC). The wetland is not associated with a streambed, but rather is a closed-depressional feature and; therefore, is not considered jurisdictional by CDFW. The wetland is likely considered an ACOE wetland water of the U.S. and RWQCB water of the state. The replacement pole will be installed west of the existing pole, and will not impact this feature.	ACOE and RWQCB	SP3	12	Photograph 22

Attachment 1: Aquatic Features Occurring with the TL 649 Project Area

Aquatic Feature Number	Description	Location Description	Jurisdictional Determination Reasoning	Agency Jurisdiction	Sample Point	Map Page Number	Photograph
AF23	Swale	Between Locations 60 and Locations 61 and spur road to location 60	Non-jurisdictional swale containing non-native grassland vegetation dominated by broom baccharis (*Baccharis sarothroides*, FACU), rip-gut grass, and slender wild oat. The swale is not considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state due to lack of OHWM or defined streambed. Feature 23 sheet flows across a maintained, unpaved, unculverted, existing project spur road and continues to the north across an existing project access road.	Non-jurisdictional	NA	13	Photograph 23
AF24-north of access road	Ephemeral drainage	Approximately 40 feet northeast of Location 62	Ephemeral drainage containing non-native grassland vegetation dominated by slender wild oat. The ephemeral drainage is likely considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state characterized by an approximately 1.5 foot OHWM and streambed north of the existing project access road.	ACOE/CDFW/ RWQCB	NA	13	Photograph 24
AF 24 – south of access road	Swale	Approximately 40 feet northeast of Location 62	South of the existing project access road (upstream of the defined channel), Feature 24 is characterized as a non-jurisdictional swale lacking an OHWM or defined streambed, and is dominated by non-native grassland vegetation. Feature 24 flows across a maintained, unpaved, unculverted, existing project access road. Project activity includes vehicular access through the drainage as it crosses the road.	Non-jurisdictional	NA	13	Photograph 24
AF25	Ephemeral drainage	Between Location 65 and Location 66	Ephemeral drainage and un-named tributary of the Otay River dominated by broom baccharis with an understory dominated by California fuchsia (*Epilobium canum*). The ephemeral drainage is likely considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state. The drainage channel of Feature 25 flows across a maintained, unpaved, unculverted, existing project access road. Project activity includes vehicular access through the drainage as it crosses the road.	ACOE/CDFW/ RWQCB	NA	14	Photograph 25

Attachment 1: Aquatic Features Occurring with the TL 649 Project Area

Aquatic Feature Number	Description	Location Description	Jurisdictional Determination Reasoning	Agency Jurisdiction	Sample Point	Map Page Number	Photograph
AF26	Emergent wetland	East-northeast of Location 69	Emergent marsh dominated by Italian ryegrass (*Lolium perenne*, FAC) and common rush (*Juncus effusus*, FACW). This feature is likely considered an ACOE wetland water of the U.S. and RWQCB water of the state. The emergent wetlands at Feature 26 are located directly south of the existing access road, is not associated with a streambed and; therefore is not considered jurisdictional by CDFW. This feature is located immediately south of the existing project access road, and is not expected to be impacted by vehicular use.	ACOE and RWQCB	SP9	15	Photograph 26
AF27	Ephemeral drainage	Southwest of Location 70	Ephemeral drainage and unnamed tributary of the Otay River dominated by upland coastal sage scrub vegetation. The ephemeral drainage is likely considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state. The drainage channel of Feature 27 flows across a maintained, unpaved, unculverted, existing project access road. Project activity includes vehicular access through the drainage as it crosses the road.	ACOE/CDFW/ RWQCB	NA	16	Photograph 27
AF28	Ephemeral stream	Between Location 74 and Location 75, south and west of Location 77, and east of Location 78	Ephemeral stream and unnamed tributary of the Otay River. The ephemeral stream is characterized by a cobbled bed with upland broom baccharis and Tecate cypress (*Cupressus forbesii*; UPL) occurring on the banks. The feature is likely considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state. Portions of the project access road cross this feature northwest of Location 77 and east of Location 78. This feature flows across several portions of maintained, unpaved, unculverted, existing project access road. Project activity includes vehicular access through the drainage as it crosses the road.	ACOE/CDFW/ RWQCB	NA	17	Photograph 28
AF29	Riparian scrub	Northwest of Stringing Site 20	Fringing riparian scrub vegetation dominated by mule fat, and black willow associated with Feature 28. Although the drainage channel of Feature 28 is likely considered an ACOE non-wetland water of the U.S., CDFW streambed, and RWQCB water of the state, the riparian scrub of Feature 29 fringing the drainage is likely CDFW riparian only. The riparian area of feature 29 extends to the south immediately adjacent to an existing dirt access road. This feature is located immediately north of the existing project access road, and is not expected to be impacted by vehicular use. Additionally, as the project transmission line spans this feature, no impacts are anticipated.	CDFW	NA	17	Photograph 29

Attachment 1: Aquatic Features Occurring with the TL 649 Project Area

Aquatic Feature Number	Description	Location Description	Jurisdictional Determination Reasoning	Agency Jurisdiction	Sample Point	Map Page Number	Photograph
AF30	Ephemeral stream	Along access road Between Location 86 and Location 87	Un-named tributary of the Otay River containing southern willow scrub dominated by arroyo willow (*Salix lasiolepis*, FACW) and mulefat. This feature is likely considered an ACOE wetland water of the U.S., CDFW streambed, and RWQCB water of the state. The drainage channel of Feature 30 flows beneath a concrete bridge on the maintained access road via a culvert. The drainage area extends to the west below the project alignment south of Location 86. Project activity includes vehicular access through the drainage as it crosses the road. Additionally, as the project transmission line spans this feature, no impacts are anticipated.	ACOE/CDFW/ RWQCB	SP20	19 and 20	Photograph 30
AF31	Ephemeral drainage	West of Location 100	Ephemeral drainage with an OHWM and connectivity containing disturbed wetland and emergent marsh vegetation. The disturbed wetland vegetation south of the project access road is dominated by salt cedar. The emergent marsh wetland north of the project access road is dominated by San Diego marsh elder. Flowing water within the channel was present at the time of the survey effort. The ephemeral drainage is likely considered an ACOE wetland water of the U.S., CDFW streambed, and RWQCB water of the state. The drainage channel of Feature 31 flows beneath the maintained project access road via a culvert. Project activity includes vehicular access through the drainage as it crosses the road.	ACOE/CDFW/ RWQCB	NA	22 and 23	Photograph 31
AF32	Erosional feature	East of Stringing Site 27 and Location 109, extending south to Location 116	Non-jurisdictional erosional feature apparently formed by the formation of a road berm east of the Project access road and agricultural land activities to the east. The feature is expected to carry surface water runoff, and does not directly connect to a TNW.	Non-jurisdictional	NA	24, 25 and 26	Photograph 32

ATTACHMENT 2: VERNAL POOL DESCRIPTIONS

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Attachment 2: Vernal Pools Occurring Within the TL 649 Project Area

Vernal Pool Number	Included in Baseline	AECOM Pool Number	Vegetated or Unvegetated during time of survey	Location Description	Jurisdictional Determination Reasoning	Sample Point	Map Page Number	Photograph
VP1	No	NA	Vegetated	Approximately 40 feet northeast of Location 60	Located on a utility access road. This pool is dominated by beard grass (*Polypogon monspeliensis*, FACW) and Italian rye grass (*festuca perennis*, FAC). This pool is hydrologically connected to Vernal pool 2011-VP-12 by a non-jurisdictional swale. Although vernal pool indicator species were not observed at the time of the survey, during periods of sufficient rainfall and inundation, this road rut may support the vernal pool indicator species due to proximity to adjacent vernal pools.	SP5	13	Photograph 33
VP2	Yes	2011-VP-12	Vegetated	Located on the spur road to Location 60	Located on a utility access road. Vegetation within the pool is dominated by grass poly and slender wooly heads (*Psilocarphus tenellus*, OBL). This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	NA	13	Photograph 34
VP3	Yes	2010-VP-14	Unvegetated	Approximately 150 feet west of Location 63	Located within access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	NA	14	Photograph 35
VP4	Yes	2011-VP-11	Unvegetated	Approximately 55 feet east of Location 63, and 75 feet west of Location 63.1	Located within access road,previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report. Located within access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	NA	14	Photograph 36
VP5	Yes	2009-VP-36	Unvegetated	Approximately 35 feet northwest of Location 67	Located within access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	SP6	15	Photograph 37
VP6	Yes	2009-VP-37	Unvegetated	Approximately 120 feet southwest of Location 69	Located within access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	SP7	15	Photograph 38

Attachment 2: Vernal Pools Occurring Within the TL 649 Project Area

Vernal Pool Number	Included in Baseline	AECOM Pool Number	Vegetated or Unvegetated during time of survey	Location Description	Jurisdictional Determination Reasoning	Sample Point	Map Page Number	Photograph
VP7	Yes	2011-VP-10	Vegetated	Immediately southwest of Location 69	Located within an access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report, located on a utility access road. At the time of the survey the pool was sparsely vegetated by slender wooly heads along the southern road shoulder. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	NA	15	Photograph 39
VP8	No	NA	Vegetated	Approximately 120 feet north of Location 69	Located within an access road, delineated during the 2015 survey effort, located on an alternate utility access road. At the time of the survey, vegetation within the pool included grass poly (*Lythrum hyssopifolium*, OBL). This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	SP45	15	Photograph 40
VP9	No	NA	Vegetated	Approximately 145 feet northeast of Location 69	Located within an access road, delineated during the 2015 survey effort, located on an alternate utility access road. At the time of the survey, vegetation within the pool included grass poly, slender wooly heads, and common rush. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	SP44	15	Photograph 41
VP10	Yes	2009-VP-38	Unvegetated	Immediately southwest of Location 69	Located within an access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report, located on a utility access road immediately southwest of Location 69 (Photograph 42, Map Page 16, SP 8). This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	SP8	15	Photograph 42
VP11	Yes	2011-VP-09	Vegetated	Immediately south of Location 72	Located within an access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report, located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool was dominated by slender wooly heads.	NA	16	Photograph 43
VP12	Yes	2010-VP-15	Vegetated	Located north of Location 75 and Location 0 approximately 60 feet north of stringing site 20	Naturally occurring vernal pool within the Otay River floodplain and was previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report. Wooly marbles (*Psilocarphus brevissmus ssp. brevissmus*, OBL) was observed to occur within this pool during the 2014 and 2015 survey efforts. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	NA	17	Photograph 44

Attachment 2: Vernal Pools Occurring Within the TL 649 Project Area

Vernal Pool Number	Included in Baseline	AECOM Pool Number	Vegetated or Unvegetated during time of survey	Location Description	Jurisdictional Determination Reasoning	Sample Point	Map Page Number	Photograph
VP13	Yes	2011-VP-08	Vegetated	Approximately 200 feet west of Location 77	Located within an access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report, located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	SP10	17	Photograph 45
VP14	Yes	2011-VP-07	Unvegetated	Approximately 210 feet southwest of Location 77	Located within an access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report, located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	SP11	17	Photograph 46
VP15	Yes	2010-VP-21	Vegetated	Approximately 100 feet southwest of Location 84	Naturally occurring vernal pool located within the San Diego mesa claypan vernal pool complex west of location 84 and was previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	NA	19	Photograph 47
VP16	Yes	2010-VP-04	Vegetated	Approximately 50 feet southwest of Location 84	Naturally occurring vernal pool located within the San Diego mesa claypan vernal pool complex west of location 84 and was previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	NA	19	Photograph 67
VP17	Yes	2010-VP-10	Vegetated	Approximately 75 feet south-southwest of Location 84	Naturally occurring vernal pool located within the San Diego mesa claypan vernal pool complex west of location 84 and was previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	NA	19	Photograph 67
VP18	Yes	2009-VP-48	Vegetated	Approximately 15 feet south of Location 85	Located within an access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report, located on a utility access road. At the time of the survey, vegetation within the pool was included wooly marbles, beard grass, and Italian rye grass. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	NA	19	Photograph 47

Attachment 2: Vernal Pools Occurring Within the TL 649 Project Area

Vernal Pool Number	Included in Baseline	AECOM Pool Number	Vegetated or Unvegetated during time of survey	Location Description	Jurisdictional Determination Reasoning	Sample Point	Map Page Number	Photograph
VP19	Yes	2009-VP-47	Vegetated	Approximately 100 feet south of Location 85	Located within an access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report, located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool was included wooly marbles, beard grass, and Italian rye grass.	NA	19	Photograph 48
VP20	No	NA	Vegetated	Approximately 85 feet north of Location 86	Located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool was included wooly marbles and beardless wild rye.	SP48	19	Photograph 49
VP21	No	NA	Unvegetated	Approximately 30 feet northeast of Location 86	Located on a utility access road. Although vernal pool indicator species were not observed at the time of the survey, during periods of sufficient rainfall and inundation, this road rut may support the vernal pool indicator species due to proximity to adjacent vernal pools. If vernal pool indicator species are observed, this pool is may be considered jurisdictional by ACOE and RWQCB due to hydrology and connectivity with the surrounding, natural, vernal pool areas.	SP19	19	Photograph 50
VP22	Yes	2011-VP-05	Vegetated	Approximately 50 feet west of Location 87	Naturally occurring vernal pool located within the San Diego mesa claypan vernal pool complex west of location 87 and was previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report. San Diego button celery (*Eryngium aristulatum ssp. parishii;* OBL) was observed to occur within this pool during the 2014 and 2015 survey efforts. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. Note: CDFW has jurisdiction over San Diego button celery through CESA.	NA	20	Photograph 67
VP23	Yes	2009-VP-40	Vegetated	Approximately 60 feet northwest of Location 89	Naturally occurring vernal pool located within the San Diego mesa claypan vernal pool complex west of location 89 and was previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	NA	20	Photograph 67

Attachment 2: Vernal Pools Occurring Within the TL 649 Project Area

Vernal Pool Number	Included in Baseline	AECOM Pool Number	Vegetated or Unvegetated during time of survey	Location Description	Jurisdictional Determination Reasoning	Sample Point	Map Page Number	Photograph
VP24	Yes	2009-VP-41	Vegetated	Approximately 45 feet west of Location 89	Naturally occurring vernal pool located within the San Diego mesa claypan vernal pool complex west of location 89 and was previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	NA	20	Photograph 67
VP25	Yes	2010-VP-01	Vegetated	Approximately 10 feet south of Location 89	Located within an access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report, located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool was included toad rush (*Juncus bufonius*, FACW), wooly marbles, beard grass, and Italian rye grass.	SP21	20	Photograph 51
VP26	No	NA	Vegetated	Approximately 120 feet north of Location 90	Located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool included, Mediterranean barley (*Hordeum marinum*, FAC), wooly marbles, beard grass, Italian rye grass, Australian saltbush (*Atriplex semibaccata*, FAC).	SP22	20	Photograph 52
VP27	Yes	2011-VP-06	Vegetated	Approximately 110 feet north of Location 90	Disturbed vernal pool located immediately west of the existing utility road shoulder and east of the Donovan State Prison road within a depression. This pool was previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	NA	20	Photograph 53
VP28	Yes	2011-VP-06	Vegetated	Approximately 115 feet north of Location 90	Located within an access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report, located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool was included toad rush, Mediterranean barley, wooly marbles, beard grass, and Italian rye grass.	SP23	20	Photograph 54

Attachment 2: Vernal Pools Occurring Within the TL 649 Project Area

Vernal Pool Number	Included in Baseline	AECOM Pool Number	Vegetated or Unvegetated during time of survey	Location Description	Jurisdictional Determination Reasoning	Sample Point	Map Page Number	Photograph
VP29	No	NA	Vegetated	Approximately 20 feet southeast of Location 90	R Located on Donovan State Prison access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool included, Mediterranean barley, wooly marbles, Italian rye grass, and wild oat.	SP24	20	Photograph 55
VP30	No	NA	Vegetated	Approximately 25 feet southwest of Location 90	Located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool included wooly marbles.	NA	20	Photograph 56
VP31	No	NA	Vegetated	Approximately 10 feet north of Location 91	Located within an access road, dominated by Italian ryegrass, woolly marbles, Mediterranean barley, and Australian saltbush in a dirt access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	SP25	21	Photograph 57
VP32	No	NA	Vegetated	Approximately 15 feet southeast of Location 90	Located on Donovan State Prison access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool included beard grass and Italian rye grass.	SP26	21	Photograph 58
VP33	No	NA	Vegetated	Approximately 40 feet south of Location 91	Located on access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report, located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool was included toad rush Mediterranean barley, wooly marbles, and Italian rye grass.	SP27	21	Photograph 59
VP34	Yes	2011-VP-04 and 2009-VP-43	Vegetated	Approximately 65 feet north of Location 92	Located on access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report, located on a utility access road. The 2011 mapped limits of the pool extend beyond the east road shoulder to a low lying depression located between the existing utility access road and the Donovan State Prison Access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool was included toad rush Mediterranean barley, grass poly, toad rush, and Italian rye grass.	SP28	21	Photograph 60

Attachment 2: Vernal Pools Occurring Within the TL 649 Project Area

Vernal Pool Number	Included in Baseline	AECOM Pool Number	Vegetated or Unvegetated during time of survey	Location Description	Jurisdictional Determination Reasoning	Sample Point	Map Page Number	Photograph
VP35	No	NA	Vegetated	Approximately 70 feet northeast of Location 92	Located on Donovan State Prison access road. At the time of the survey, vegetation within the pool included beard grass and Italian rye grass. Although vernal pool indicator species were not observed at the time of the survey, during periods of sufficient rainfall and inundation, this road rut may support the vernal pool indicator species due to proximity to adjacent vernal pools. If vernal pool indicator species occur, this pool is may be considered jurisdictional by ACOE and RWQCB due to hydrology and connectivity with the surrounding, natural, vernal pool areas.	SP29	21	Photograph 60
VP36	No	NA	Vegetated	Approximately 20 feet east-northeast of Location 92	Located on Donovan State Prison access road. At the time of the survey, vegetation within the pool included beard grass and Italian rye grass. Although vernal pool indicator species were not observed at the time of the survey, during periods of sufficient rainfall and inundation, this road rut may support the vernal pool indicator species due to proximity to adjacent vernal pools. If vernal pool indicator species occur, this pool is may be considered jurisdictional by ACOE and RWQCB due to hydrology and connectivity with the surrounding, natural, vernal pool areas.	SP30	21	Photograph 60
VP37	Yes	2009-VP-44	Vegetated		Road rut, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report, located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool was included Italian rye grass, beard grass, and wooly marbles.	SP31	21	Photograph 61
VP38	Yes	2011-VP-03	Vegetated	Approximately 55 feet south of Location 92	Disturbed vernal pool located immediately west of the existing utility road shoulder and east of the Donovan State Prison road within a depression. This pool was previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	NA	21	Photograph 61

Attachment 2: Vernal Pools Occurring Within the TL 649 Project Area

Vernal Pool Number	Included in Baseline	AECOM Pool Number	Vegetated or Unvegetated during time of survey	Location Description	Jurisdictional Determination Reasoning	Sample Point	Map Page Number	Photograph
VP39	Yes	2009-VP-45	Vegetated	Approximately 90 feet southwest of Location 92	Located on access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report, located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool was included wooly marbles.	NA	21	Photograph 62
VP40	No	NA	Vegetated	Approximately 105 feet south of Location 92	Located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool included wooly marbles.	NA	21	Photograph 62
VP41	No	NA	Vegetated	Approximately 125 feet northeast of Location 93	Located on Donovan State Prison access road. At the time of the survey, vegetation within the pool included beard grass and Italian rye grass. Although vernal pool indicator species were not observed at the time of the survey, during periods of sufficient rainfall and inundation, this road rut may support the vernal pool indicator species due to proximity to adjacent vernal pools. If vernal pool indicator species occur, this pool is may be considered jurisdictional by ACOE and RWQCB due to hydrology and connectivity with the surrounding, natural, vernal pool areas.	SP32	21	Photograph 62
VP42	No	NA	Vegetated	Approximately 85 feet northeast of Location 93	Located on Donovan State Prison access road. At the time of the survey, vegetation within the pool included beard grass and Italian rye grass. Although vernal pool indicator species were not observed at the time of the survey, during periods of sufficient rainfall and inundation, this road rut may support the vernal pool indicator species due to proximity to adjacent vernal pools. If vernal pool indicator species occur, this pool is may be considered jurisdictional by ACOE and RWQCB due to hydrology and connectivity with the surrounding, natural, vernal pool areas.	SP33	21	Photograph 62
VP43	Yes	2011-VP-02	Vegetated		Disturbed vernal pool located immediately west of the existing utility road shoulder and east of the Donovan State Prison road within a depression. This pool was previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report and is likely considered jurisdictional by ACOE and RWQCB.	NA	21	Photograph 62

Attachment 2: Vernal Pools Occurring Within the TL 649 Project Area

Vernal Pool Number	Included in Baseline	AECOM Pool Number	Vegetated or Unvegetated during time of survey	Location Description	Jurisdictional Determination Reasoning	Sample Point	Map Page Number	Photograph
VP44	Yes	2009-VP-46	Vegetated	immediately west of Location 91	Located on access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report, located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool was included Mediterranean barley, wooly marbles, and Italian rye grass.	SP34	21	Photograph 63
VP45	Yes	2010-VP-13	Vegetated	Approximately 115 feet southwest of Location 93	Naturally occurring vernal pool located within the San Diego mesa claypan vernal pool complex west of location 93 (Photograph 63, Map Page 21). This pool occurs approximately 115 feet southwest of location 93 and was previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report. This vernal pool is likely considered jurisdictional by ACOE and RWQCB.	NA	21	Photograph 63
VP46	No	NA	Vegetated	Approximately 60 feet southeast of Location 93	Located on Donovan State Prison access road. At the time of the survey, vegetation within the pool included beard grass and Italian rye grass. Although vernal pool indicator species were not observed at the time of the survey, during periods of sufficient rainfall and inundation, this road rut may support the vernal pool indicator species due to proximity to adjacent vernal pools. If vernal pool indicator species occur, this pool is may be considered jurisdictional by ACOE and RWQCB due to hydrology and connectivity with the surrounding, natural, vernal pool areas.	SP35	21	Photograph 63
VP47	Yes	2011-VP-13	Vegetated	Approximately 80 feet south of Location 94	Located on access road, previously delineated during the 2009 Vernal Pool Data Accuracy Assessment Report, located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool was included Mediterranean barley, wooly marbles, Italian rye grass, and sea spurreys (*Spergularia* sp., FACW).	SP36	21 & 22	Photograph 64

Attachment 2: Vernal Pools Occurring Within the TL 649 Project Area

Vernal Pool Number	Included in Baseline	AECOM Pool Number	Vegetated or Unvegetated during time of survey	Location Description	Jurisdictional Determination Reasoning	Sample Point	Map Page Number	Photograph
VP48	No	NA	Vegetated	Approximately 130 feet southeast of Location 94	Located on Donovan State Prison access road. At the time of the survey, vegetation within the pool included beard grass, wild oat, and Australian saltbush. Although vernal pool indicator species were not observed at the time of the survey, during periods of sufficient rainfall and inundation, this road rut may support the vernal pool indicator species due to proximity to adjacent vernal pools. If vernal pool indicator species occur, this pool is may be considered jurisdictional by ACOE and RWQCB due to hydrology and connectivity with the surrounding, natural, vernal pool areas.	SP37	21 & 22	Photograph 64
VP49	No	NA	Vegetated	adjacent to and north of Location 95	Located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool included wooly marbles, beard grass, and Italian rye grass.	SP38	22	Photograph 65
VP50	No	NA	Vegetated	Approximately 40 feet east of Location 95	Located on Donovan State Prison access road. At the time of the survey, vegetation within the pool included sea spurreys and cow thistle (*Sonchus oleraceous*, UPL); however, this pool exhibits hydrological connectivity to adjacent vernal pools 48 and 50, as well as the natural San Diego mesa claypan vernal pool habitat to the west. Vernal pool indicator species were not observed to occur at the time of the survey. During periods of sufficient rainfall and inundation, this road rut may support the vernal pool indicator species due to proximity to adjacent vernal pools. If vernal pool indicator species are observed, this pool may be considered jurisdictional by ACOE and RWQCB due to hydrology and connectivity with the surrounding, natural, vernal pool areas.	SP39	22	Photograph 65
VP51	No	NA	Vegetated	Approximately 75 feet south of Location 95	Located on a utility access road. This vernal pool is likely considered jurisdictional by ACOE and RWQCB. At the time of the survey, vegetation within the pool included wooly marbles and beard grass.	SP40	22	Photograph 66

Attachment 2: Vernal Pools Occurring Within the TL 649 Project Area

Vernal Pool Number	Included in Baseline	AECOM Pool Number	Vegetated or Unvegetated during time of survey	Location Description	Jurisdictional Determination Reasoning	Sample Point	Map Page Number	Photograph
VP52	No	NA	Vegetated	Approximately 75 feet southeast of Location 95	Located on Donovan State Prison access road. At the time of the survey, vegetation within the pool included cow thistle and sea spurreys; however, this pool exhibits hydrological connectivity to adjacent vernal pools (VP 50), as well as the natural San Diego mesa claypan vernal pool habitat to the west. Vernal pool indicator species were not observed at the time of the survey. During periods of sufficient rainfall and inundation, this road rut may support the vernal pool indicator species due to proximity to adjacent vernal pools. If vernal pool indicator species are observed, this pool may be considered jurisdictional by ACOE and RWQCB due to hydrology and connectivity with the surrounding, natural, vernal pool areas.	SP41	22	Photograph 65

ATTACHMENT 3: PHOTOGRAPHIC DOCUMENTPROJECT

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Photograph 1: Feature 1 is a vegetated drainage and emergent wetland located between Location 1 and Location 2. As the project transmission line spans this feature, no impacts are anticipated. Photograph taken facing northeast

Photograph 2: Feature 2 is an ephemeral drainage located between Location 3 and Location 4. As the project transmission line spans this feature, no impacts are anticipated. Photograph taken facing southwest.

Photograph 3: Feature 3 an ephemeral drainage located between Location 6 and Location 7. Photograph taken facing west. Project activity includes vehicular access through the drainage as it crosses the road.

Photograph 4: Feature 4 is a man-made detention basin located southwest of Location 5. As this feature is outside of proposed work areas, no impacts are anticipated. Photograph taken facing northwest.

Photograph 5: Feature 5 is a vegetated drainage located southeast of location 14. As this feature is outside of proposed work areas, no impacts are anticipated. Photograph taken facing north.

Photograph 6: Feature 6 is an ephemeral drainage located east of pole Location 17 and immediately west of Heritage Road. As the project transmission line spans this feature, no impacts are anticipated. Photograph taken facing east.

Photograph 7: Feature 7 is a non-jurisdiction swale located between Location 21 and Location 22. Project activity includes vehicular access through the drainage as it crosses the road. Photograph taken facing southeast.

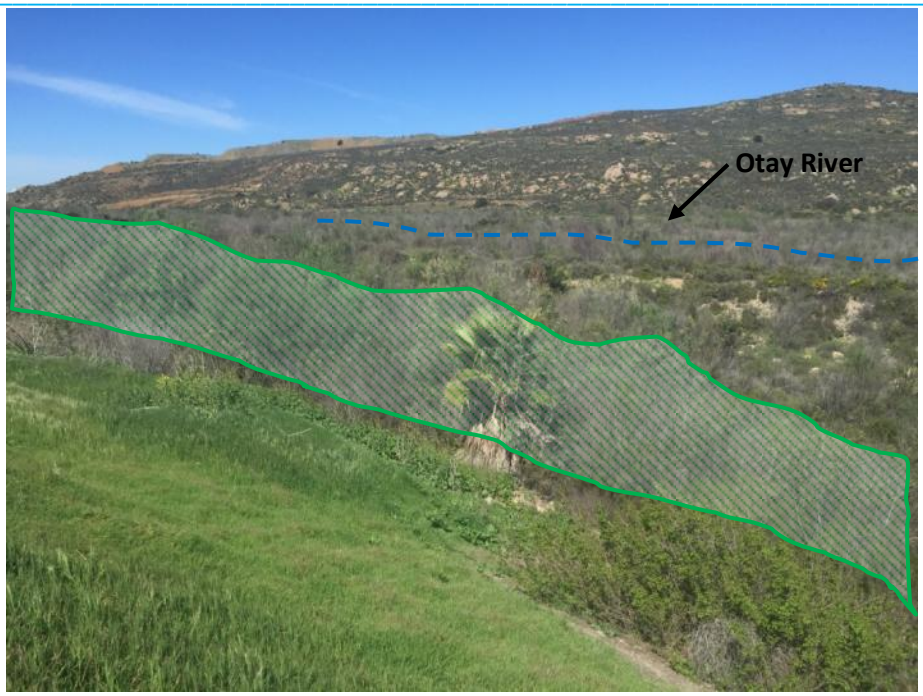
Photograph 8: Feature 8 is a non-jurisdiction swale located between Location 26 and Location 27. Feature 8 sheet flows across a maintained, unpaved, unculverted, existing project access road and dissipates into upland. Photograph taken facing northwest.

Photograph 9: Feature 9 is a non-jurisdictional swale directly east of Location 27. Feature 9 sheet flows across a maintained, unpaved, unculverted, existing project access road and dissipates into upland. Photograph taken facing northwest.

Photograph 10: Feature 10 is an ephemeral drainage located between Location 32 and Location 33. Project activity includes vehicular access through the drainage as it crosses the road. Photograph taken facing northeast.

Photograph 11: Feature 11 is an ephemeral drainage located east of Location 36. Project activity includes vehicular access through the drainage as it crosses the road. Photograph taken facing east.

Photograph 12: Feature 12 is a non-jurisdictional swale located between Location 38 and Location 39. Water conveyed by Feature 12 sheet flows across a maintained, unpaved, unculverted, existing project access road and dissipates into upland. Photograph taken facing north.



Photograph 13: Feature 13 is an adjacent wetland within the floodplain of the Otay River. The feature occurs north of the project from Location 38 east to Location 42.

Photograph 14: Feature 14 is an ephemeral drainage and un-named tributary of the Otay River. Project activity includes vehicular access through the drainage as it crosses the road. Photograph taken facing northwest, where feature exits road into floodplain.

Photograph 15: Feature 15 is a non-jurisdictional swale. Feature 15 sheet flows across a maintained, unpaved, unculverted, existing project access road near location 43. Photograph taken facing south.

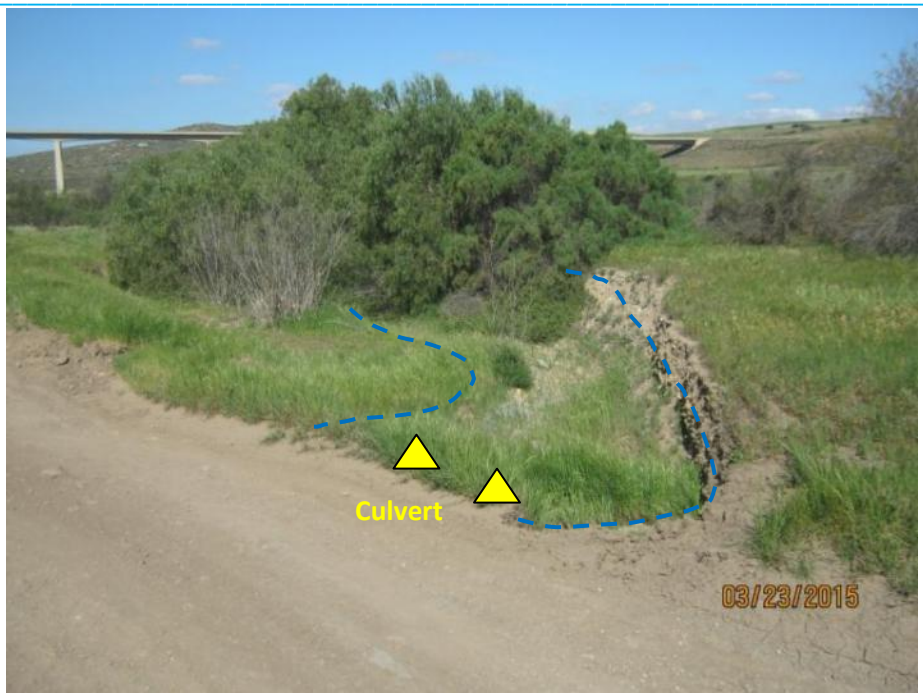
Photograph 16: Feature 16 is non-jurisdictional swale located in between Location 46 and Location 47. Feature 16 sheet flows across a maintained, unpaved, unculverted, existing project access road and dissipates into upland. Photograph taken facing north.

Photograph 17: Feature 17 is a non-jurisdictional concrete brow ditch and energy dissipater east of Locations 50.1 and 50.2. Feature 17 sheet flows across a maintained, concrete Arizona crossing on an existing project access road. Photograph taken facing north.

Photograph 18: Feature 18 is non-jurisdictional swale located in between Location 52 and Location 53, and crosses Stringing Site 14. Photograph taken facing northwest.

Photograph 19: Feature 19 is a non-jurisdictional erosional feature immediately to the east of Location 55 occurring along the shoulder of an unmaintained dirt access road extending to the south of Location 55. Photograph taken facing south.

Photograph 20: Feature 20 is an ephemeral drainage located approximately 25 feet west of Location 56. Project activity includes vehicular access through the drainage as it crosses the road. Photograph taken facing north.

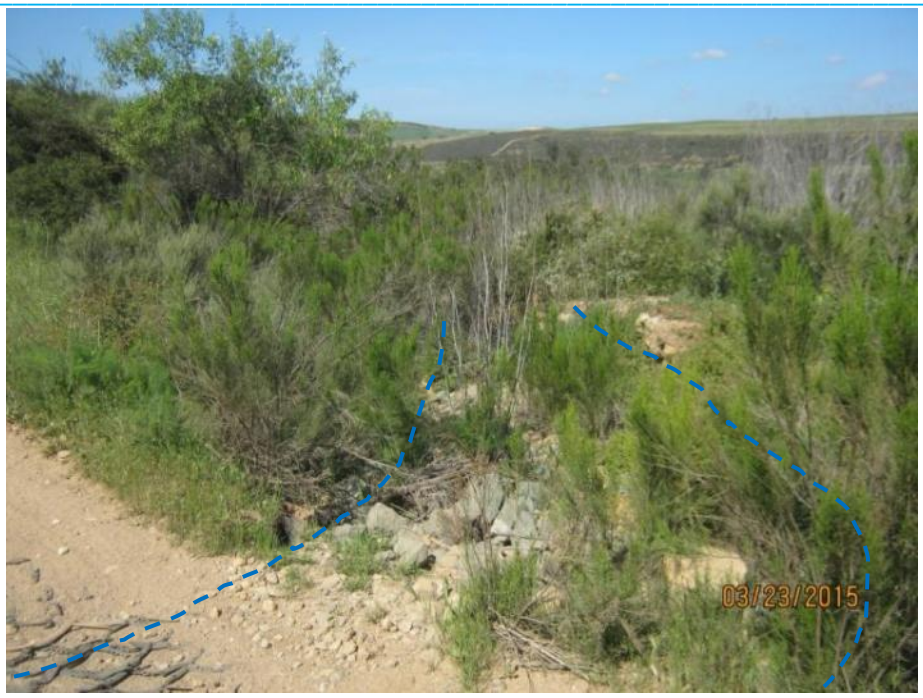


Photograph 21: Feature 21 is an un-vegetated ephemeral drainage located in between Location 57 and Location 58. Project activity includes vehicular access through the drainage as it crosses the road. Photograph taken facing north.

Photograph 22: Feature 22 is an isolated emergent wetland located approximately 7 feet east of Location 59. The replacement pole will be installed west of the existing pole, and will not impact this feature. Photograph taken facing north.

Photograph 23: Feature 23 is non-jurisdictional swale located in between Locations 60 and Locations 61, and intersects the existing project spur road to Location 60. Photograph taken facing west.

Photograph 24: Feature 24 is an ephemeral drainage located approximately 40 feet northeast of Location 62. Project activity includes vehicular access through the drainage as it crosses the road. Photograph taken facing north.



Photograph 25: Feature 25 is an ephemeral drainage located in between Location 65 and Location 66. Project activity includes vehicular access through the drainage as it crosses the road. Photograph taken facing northwest.

Photograph 26: Feature 26 is a jurisdictional emergent marsh located east-northeast of Location 69. This feature is located immediately south of the existing project access road, and are not expected to be impacted by vehicular use. Photograph taken facing south.

Photograph 27: Feature 27 is an ephemeral drainage located southwest of Location 70. Project activity includes vehicular access through the drainage as it crosses the road. Photograph taken facing south.

Photograph 28: Feature 28 is a ephemeral stream and unnamed tributary of the Otay River located in between Location 74 and Location 75, south and west of Location 77, and east of Location 78. Project activity includes vehicular access through the drainage as it crosses the road. Photograph taken facing northwest.

Photograph 29: Feature 29 is characterized as fringing riparian scrub vegetation located immediately north of the existing project access road near location 75, and is not expected to be impacted by vehicular use. Photograph taken facing north.

Photograph 30: Feature 30 is a drainage and un-named tributary of the Otay River occurring along an access road between Location 86 and Location 87. Project activity includes vehicular access through the drainage as it crosses the road. Photograph taken facing northeast.

Photograph 31: Feature 31 is an ephemeral drainage with CDFW riparian scrub habitat located west of Location 100. Project activity includes vehicular access through the drainage as it crosses the road. Photograph taken facing southwest.

Photograph 32: Feature 32 is a non-jurisdictional erosional feature east of Stringing Site 27 and Location 109, extending south to Location 116. The feature is expected to carry surface water runoff, and does not connect to a TNW. Photograph taken facing south.

Photograph 33: Vernal pool 1 is located on a utility access road approximately 40 feet northeast of Location 60. Photograph taken facing west.

Photograph 34: Vernal pool 2 (vernal pool 2011-VP-12) is located on the spur road to Location 60. Photograph taken facing west.

Photograph 35: Vernal pool 3 (vernal pool 2010-VP-14) is located on a utility access road approximately 150 feet west of Location 63. Photograph taken facing east.

Photograph 36: Vernal pool 4 (vernal pool 2011-VP-11) is located on a utility access road approximately 55 feet east of Location 63, and 75 feet west of Location 63.1. Photograph taken facing east.

Photograph 37: Vernal pool 5 (vernal pool 2009-VP-36) located on a utility access road approximately 35 feet northwest of Location 67. Photograph taken facing east.

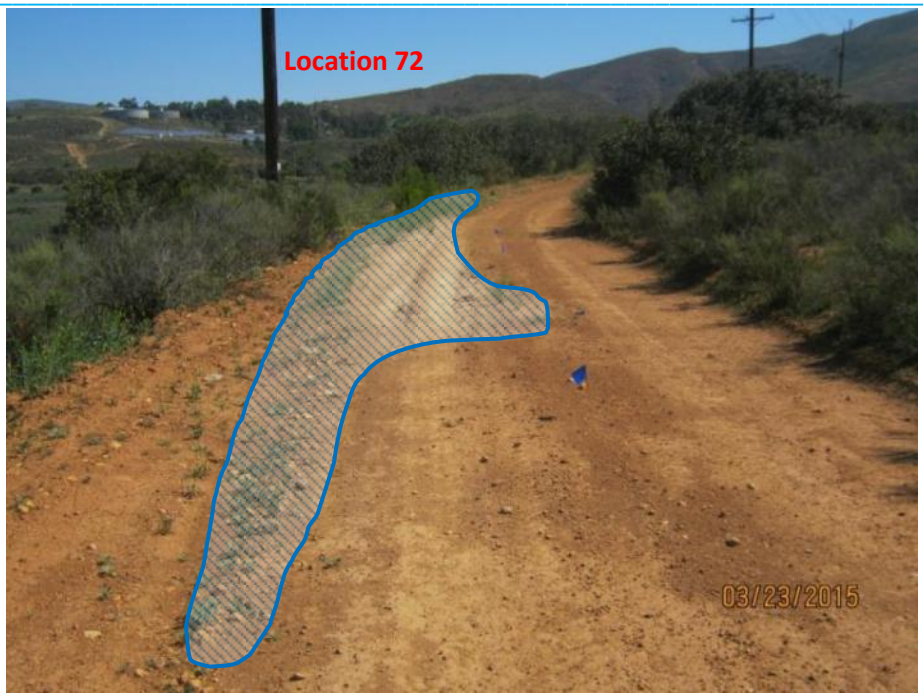
Photograph 38: Vernal pool 6 (vernal pool 2009-VP-37) is located on a utility access road approximately 120 feet southwest of Location 69. Photograph taken facing east.

Photograph 39: Vernal pool 7 (vernal pool 2011-VP-10) is located on a utility access road immediately southwest of Location 69. Photograph taken facing east.

Photograph 40: Vernal pool 8 is located on an alternate utility access road approximately 120 feet north of Location 69. Photograph taken facing north.

Photograph 41: Vernal pool 9 is located on an alternate utility access road approximately 145 feet northeast of Location 69. Photograph taken facing north.

Photograph 42: Vernal pool 10 (vernal pool 2009-VP-38) is located on a utility access road immediately southwest of Location 69. Photograph taken facing northeast.



Photograph 43: Vernal pool 11 (vernal pool 2011-VP-09) is located on a utility access road immediately south of Location 72. Photograph taken facing east.

Photograph 44: Vernal pool 12 (vernal pool 2010-VP-15) is a naturally occurring vernal pool (within a vernal pool complex) located north of Location 75 and Location 0 within the Otay River floodplain. Photograph taken facing north.

Photograph 45: Vernal pool 13 (vernal pool 2011-VP-08) is located on a utility access road approximately 200 feet west of Location 77. Photograph taken facing north.

Photograph 46: Vernal pool 14 (vernal pool 2011-VP-07) is located on a utility access road approximately 210 feet southwest of Location 77. Photograph taken facing east.

Photograph 47: Vernal pool 18 (vernal pool 2009-VP-47) is located on a utility access road approximately 15 feet south of Location 85. Photograph taken facing south.

Photograph 48: Vernal pool 19 (vernal pool 2009-VP-47) is located on a utility access road approximately 100 feet south of Location 85. Photograph taken facing south.

Photograph 49: Vernal pool 20 is located on a utility access road approximately 85 feet north of Location 86. Photograph taken facing south.

Photograph 50: Vernal pool 21 is located on the Donovan State Prison access raod approximately 30 feet northeast of Location 86. Photograph taken facing south.

Photograph 51: Vernal pool 25 (vernal pool 2010-VP-01) is located on a utility access road approximately 10 feet south of Location 89. Photograph taken facing south.

Photograph 52: Vernal pool 26 is located on a utility access road approximately 120 feet north of Location 90. Photograph taken facing south.

Photograph 53: Vernal pool 27 (vernal pool 2011-VP-06) is a vegetated depression located 110 feet north of Location 90.

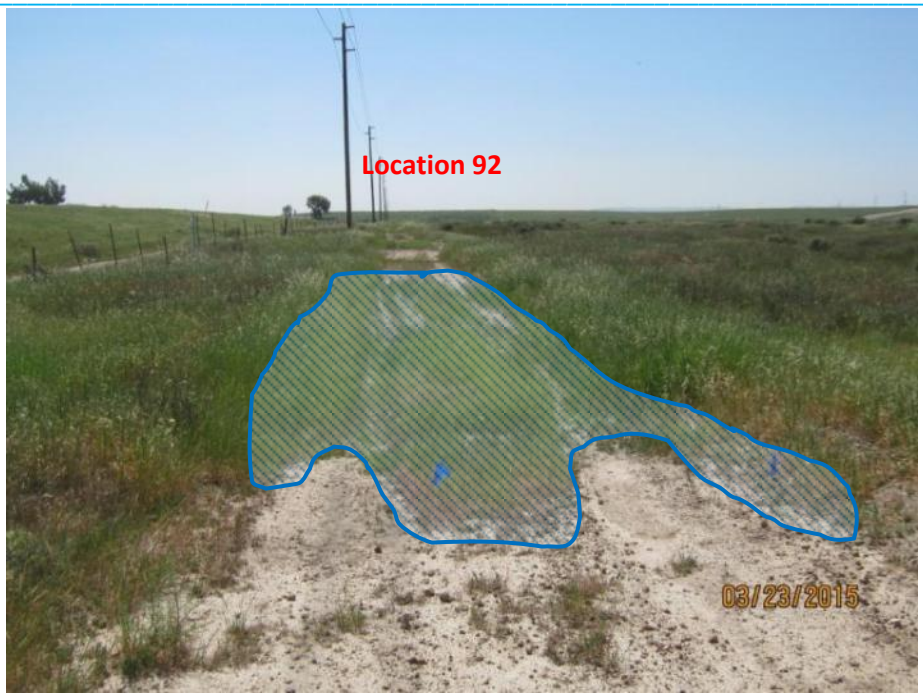
Photograph 54: Vernal pool 28 (vernal pool 2010-VP-19 and 2011-VP-01) is located on a utility access road approximately 115 feet north of Location 90. Photograph taken facing north.

Photograph 55: Vernal pool 29 is located on Donovan State Prison access road approximately 20 feet southeast of Location 90. Photograph taken facing southeast.

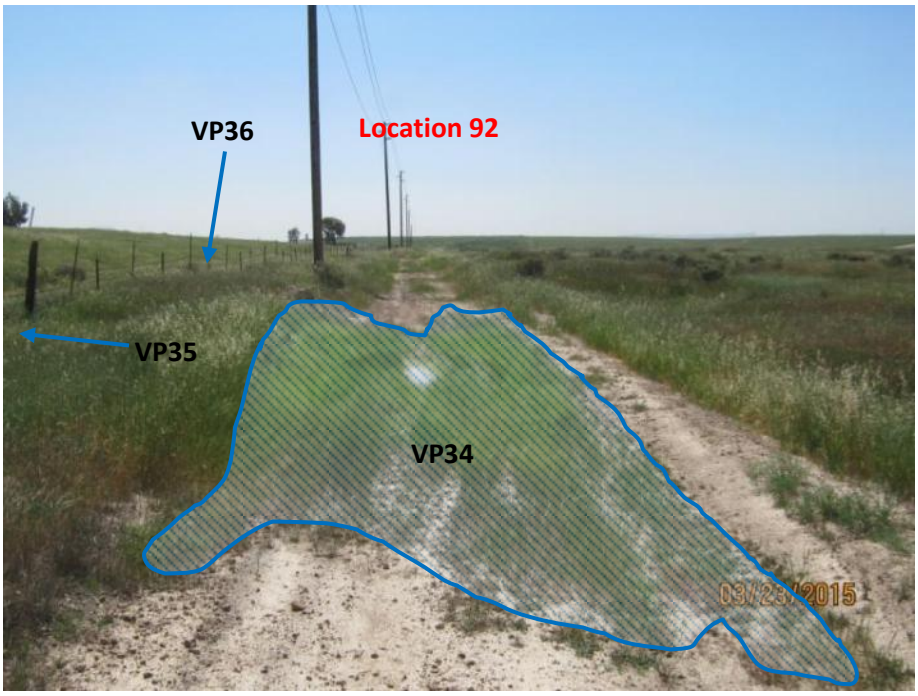
Photograph 56: Vernal pool 30 is located on a utility access road approximately 25 feet southwest of Location 90. Photograph taken facing south.

Photograph 57: Vernal pool 31 is located within an access road approximately 10 feet north of Location 91. Photograph taken facing south.

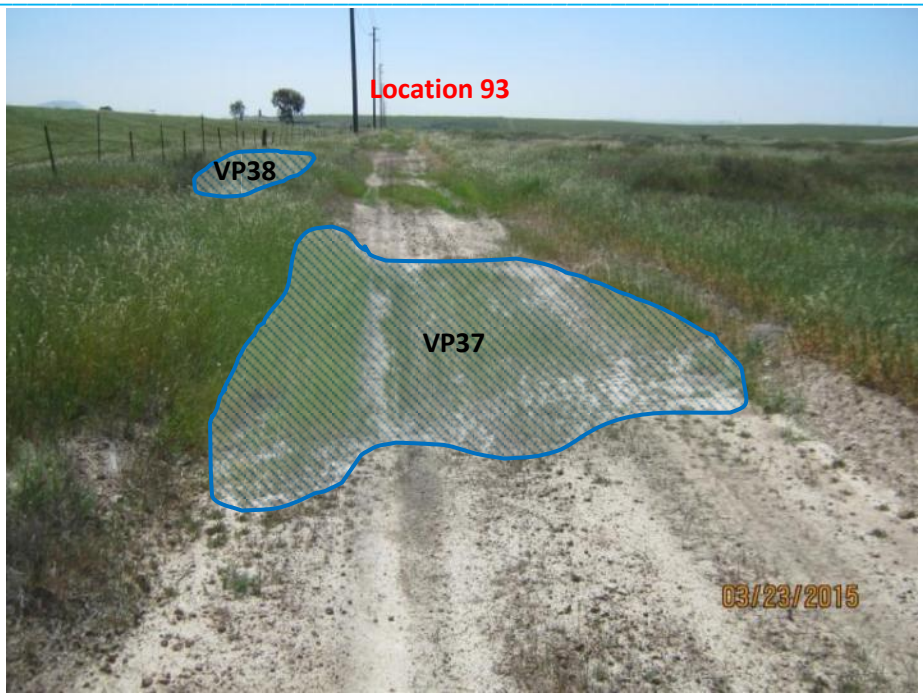
Photograph 58: Vernal pool 32 is located on Donovan State Prison access road approximately 15 feet southeast of Location 91. Photograph taken facing south.



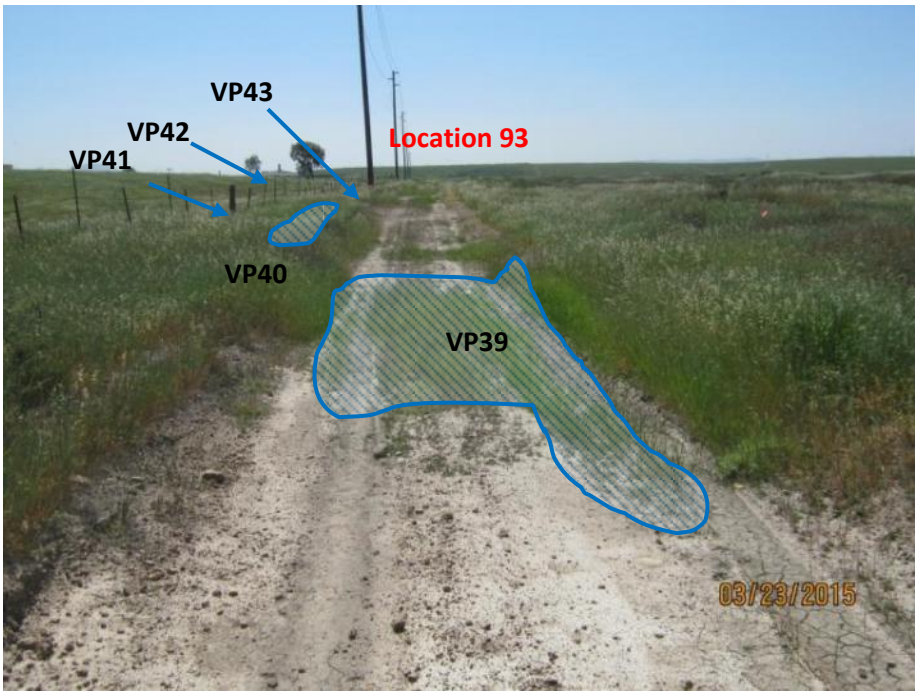
Photograph 59: Vernal pool 33 (vernal pool 2009-VP-42) is located on a utility access road approximately 40 feet south of Location 91. Photograph taken facing south.



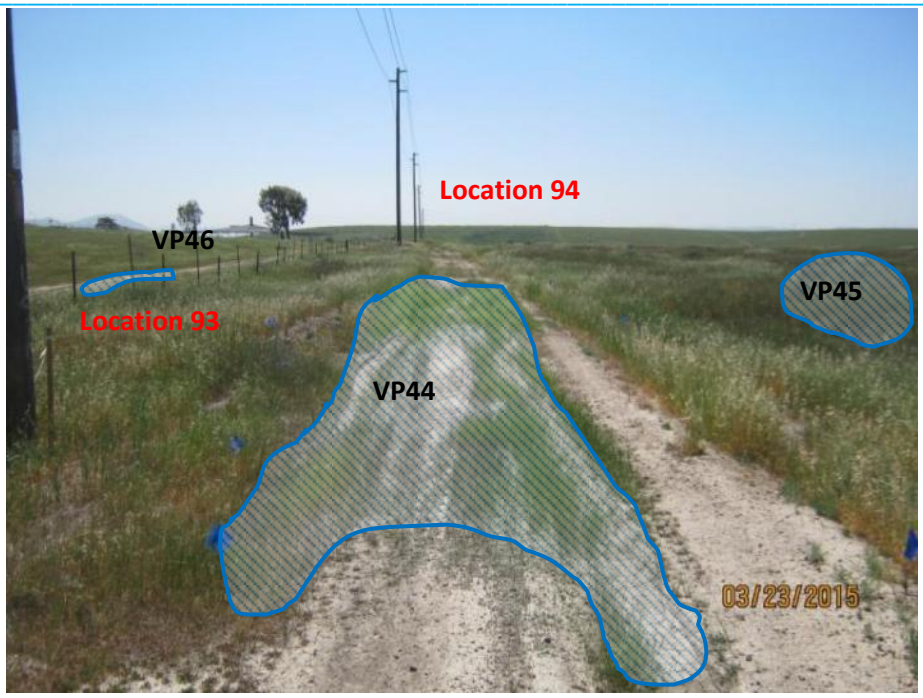
Photograph 60: Vernal pool 34 (vernal pool 2011-VP-04 and 2009-VP-43) is located on a utility access road approximately 65 feet north of Location 92. Photograph taken facing south. Vernal pool 35 and vernal pool 36 are vegetated road ruts located on the Donovan State Prison access road northeast of Location 92.



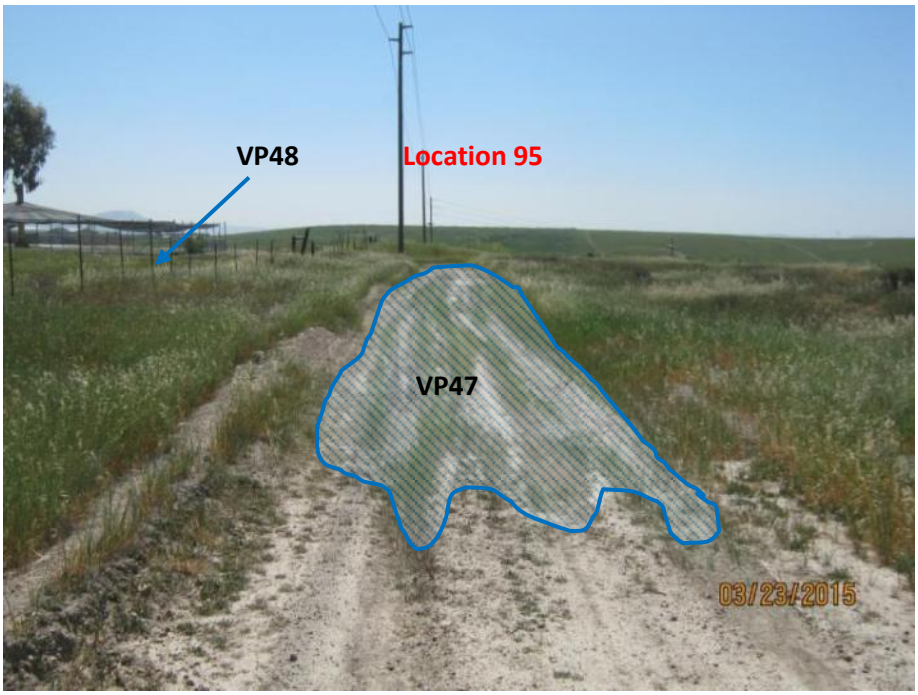
Photograph 61: Vernal pool 37 (vernal pool 2009-VP-44) is located on a utility access road approximately 80 feet south of Location 92. Vernal pool 38 within disturbed habitat east of access road. Photograph taken facing south.



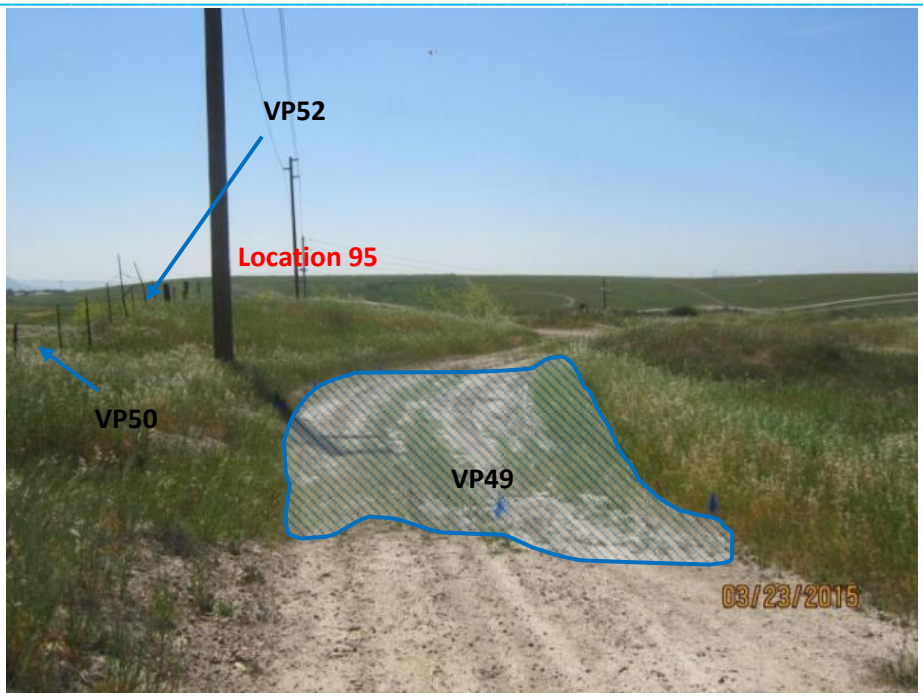
Photograph 62: Vernal pool 39 (vernal pool 2009-VP-45) is located on a utility access road approximately 90 feet southwest of Location 92. Vernal pool 40 and vernal pool 43 within disturbed habitat east of access road. Vernal pool 41 and vernal pool 42 located on Donovan State Prison access road. Photograph taken facing south.



Photograph 63: Vernal pool 44 (vernal pool 2009-VP-46) is located on a utility access road immediately west of Location 93. Vernal pool 45 within San Diego mesa claypan vernal pool habitat. Vernal pool 46 on Donovan State Prison access road. Photograph taken facing south.

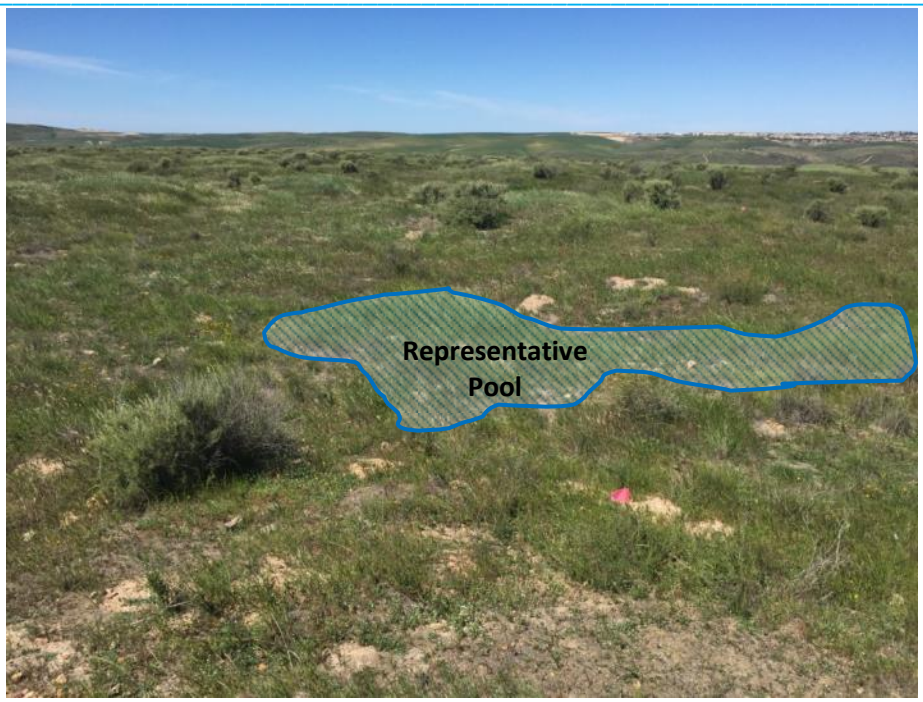


Photograph 64: Vernal pool 47 (vernal pool 2011-VP-13) is located on a utility access road located approximately 80 feet south of Location 94. Vernal pool 48 located on Donovan State Prison access road. Photograph taken facing south.



Photograph 65: Vernal pool 49 is located on a utility access road adjacent to and north of Location 95. Vernal pool 50 and vernal pool 52 are vegetated road ruts located on the Donovan State Prison access road northeast of Location 92. Photograph taken facing south.

Photograph 66: Vernal pool 51 is located on a utility access road approximately 75 feet south of Location 95. Photograph taken facing south.



Photograph 67: Representative photograph of San Diego mesa claypan vernal pool complex located west of Location 86 south to Location 97. The mesa top exhibits soil cracks, water marks, and mima mounds, in addition to vernal pool indicator species including San Diego button celery and San Diego goldenstar. Photograph taken facing northwest from Location 88. Mapped vernal pool features within this area include VP15, VP16, VP17, VP22, VP23, and VP24.

ATTACHMENT 4: FIGURES

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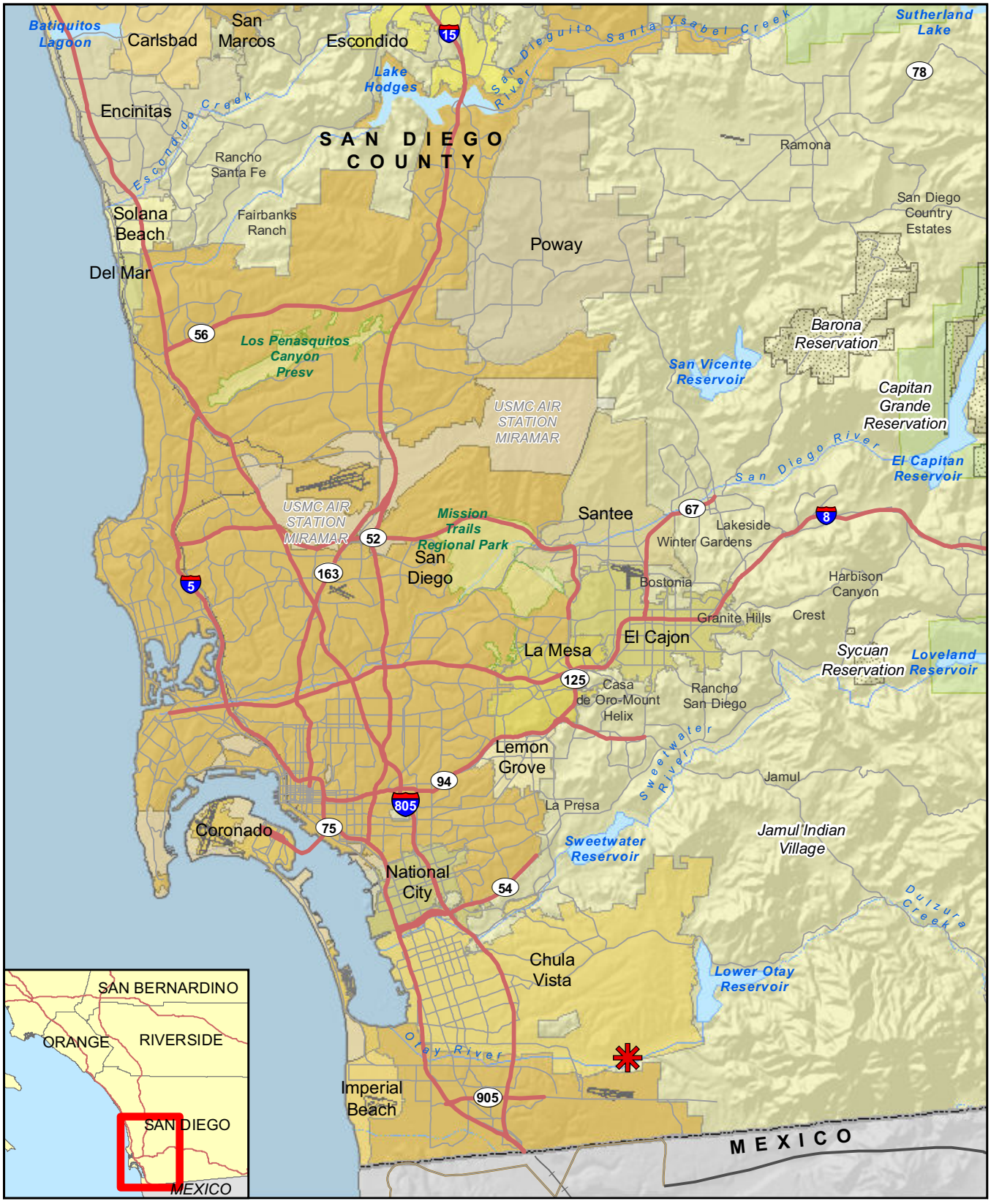


Project Location

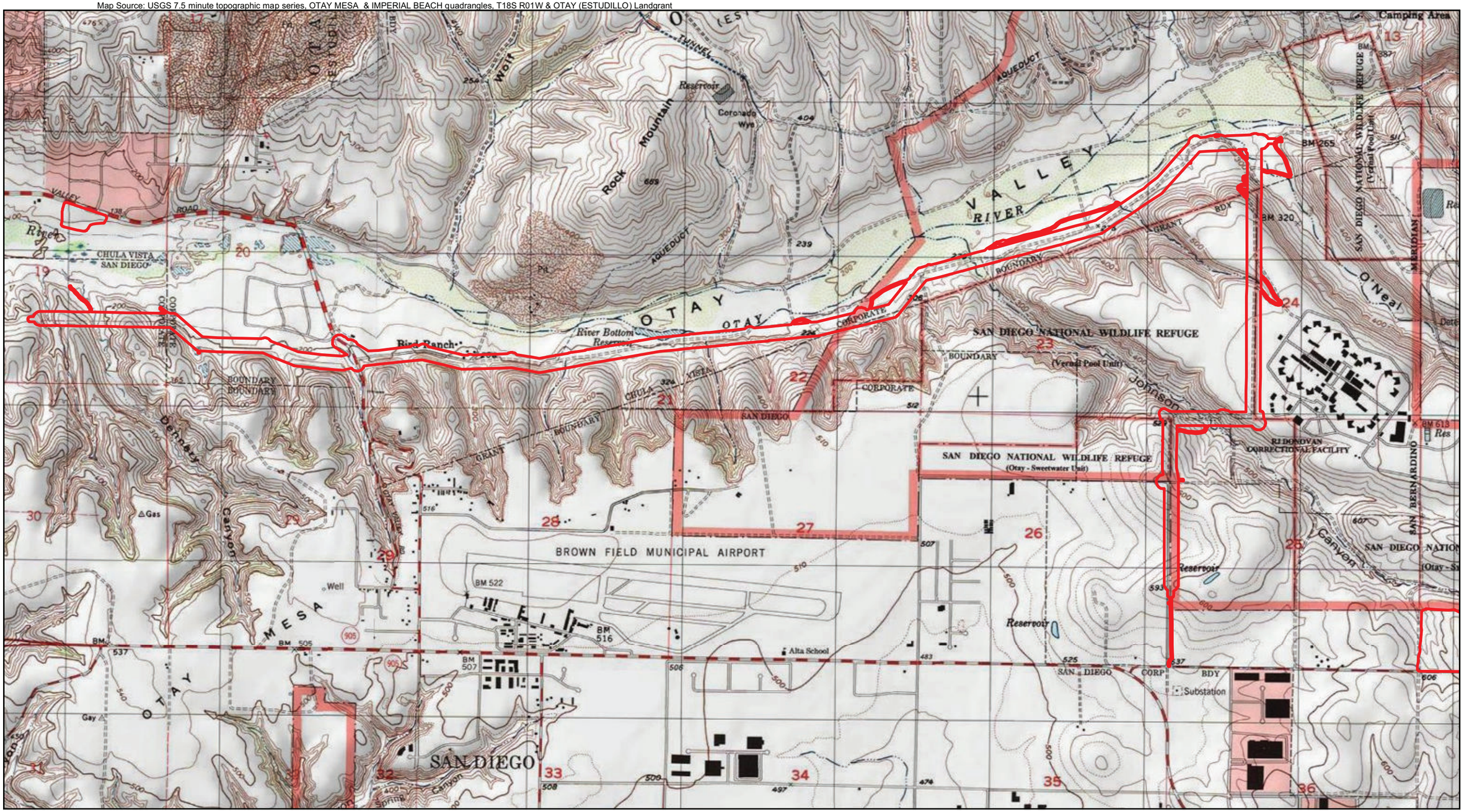
FIGURE 1

Regional Location of the TL649 Wood to Steel Project

RECON

M:\JOBS4\7153\common_gis\fig1.mxd 7/17/2014 sab

Map Source: USGS 7.5 minute topographic map series, OTAY MESA & IMPERIAL BEACH quadrangles, T18S R01W & OTAY (ESTUDILLO) Landgrant



Survey Area

RECON

M:\JOBS4\7153\common_gis\fig2.mxd 12/9/2014 ccn

FIGURE 2

USGS Map of the TL649 Wood to Steel Project

Image Source: SanGIS (flown May 2012)

Survey Area

RECON

M:\JOBS4\7153\common_gis\fig3.mxd 12/9/2014 ccn

FIGURE 3

Aerial Photograph of the TL649 Wood to Steel Project

Legend

Staging Yard

Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

Gravel pits - Not hydric

Salinas

clay loam, 2 to 9 percent slopes - Not hydric

N

0 50 100 200

Feet

Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

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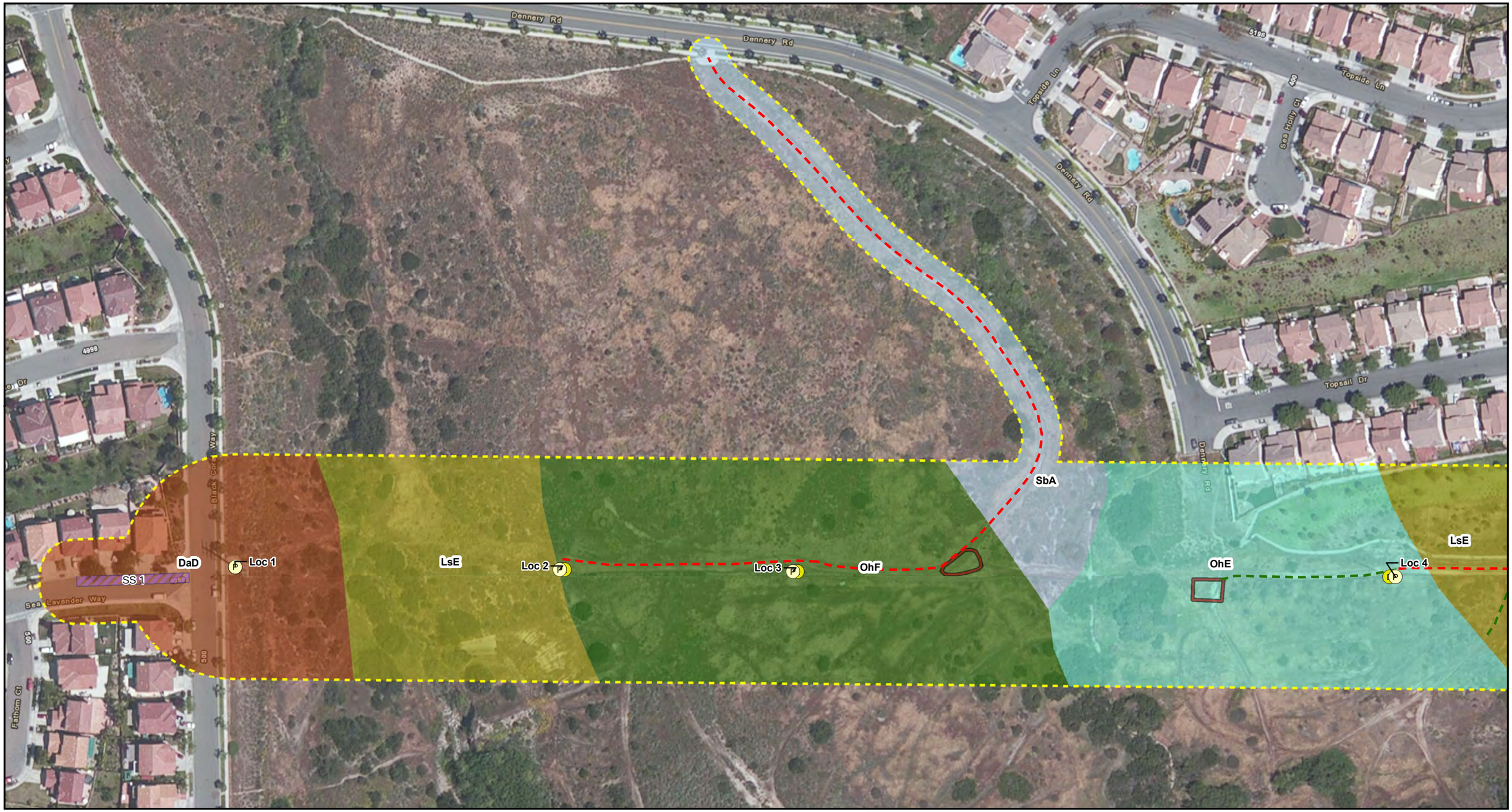

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Turnaround Area
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 9 to 15 percent slopes - Not hydric

Linne – suitable for supporting vernal pools

- clay loam, 9 to 30 percent slopes - Not hydric

Olivenhain – suitable for supporting vernal pools

- cobbly loam, 30 to 50 percent slopes - Not hydric
- cobbly loam, 9 to 30 percent slopes - Partially hydric

Salinas

- clay loam, 0 to 2 percent slopes - Not hydric

N

0 50 100 200

Feet

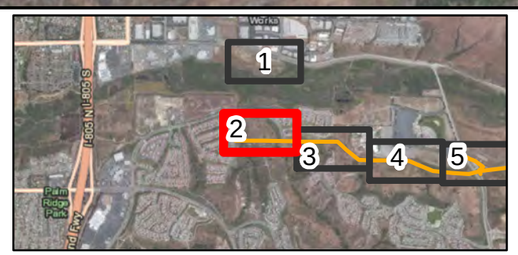

Figure 4
Soil Types
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

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Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 9 to 15 percent slopes - Not hydric

Linne – suitable for supporting vernal pools

- clay loam, 9 to 30 percent slopes - Not hydric

Olivenhain – suitable for supporting vernal pools

- cobbly loam, 9 to 30 percent slopes - Partially hydric

Salinas

- clay loam, 2 to 9 percent slopes - Not hydric

N

0 50 100 200

Feet

Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

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Entertainment Cir

Entertainment Cir

Spyglass Hill Rd

Spyglass Hill Rd

Loc 11

Loc 12

Loc 0

Loc 13

SbC

Loc 14

DaD

DaD

Loc 15

DaF

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 30 to 50 percent slopes - Not hydric
- clay, 9 to 15 percent slopes - Not hydric

Salinas

- clay loam, 2 to 9 percent slopes - Not hydric

N

0 50 100 200

Feet

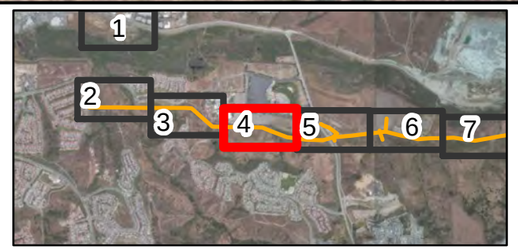
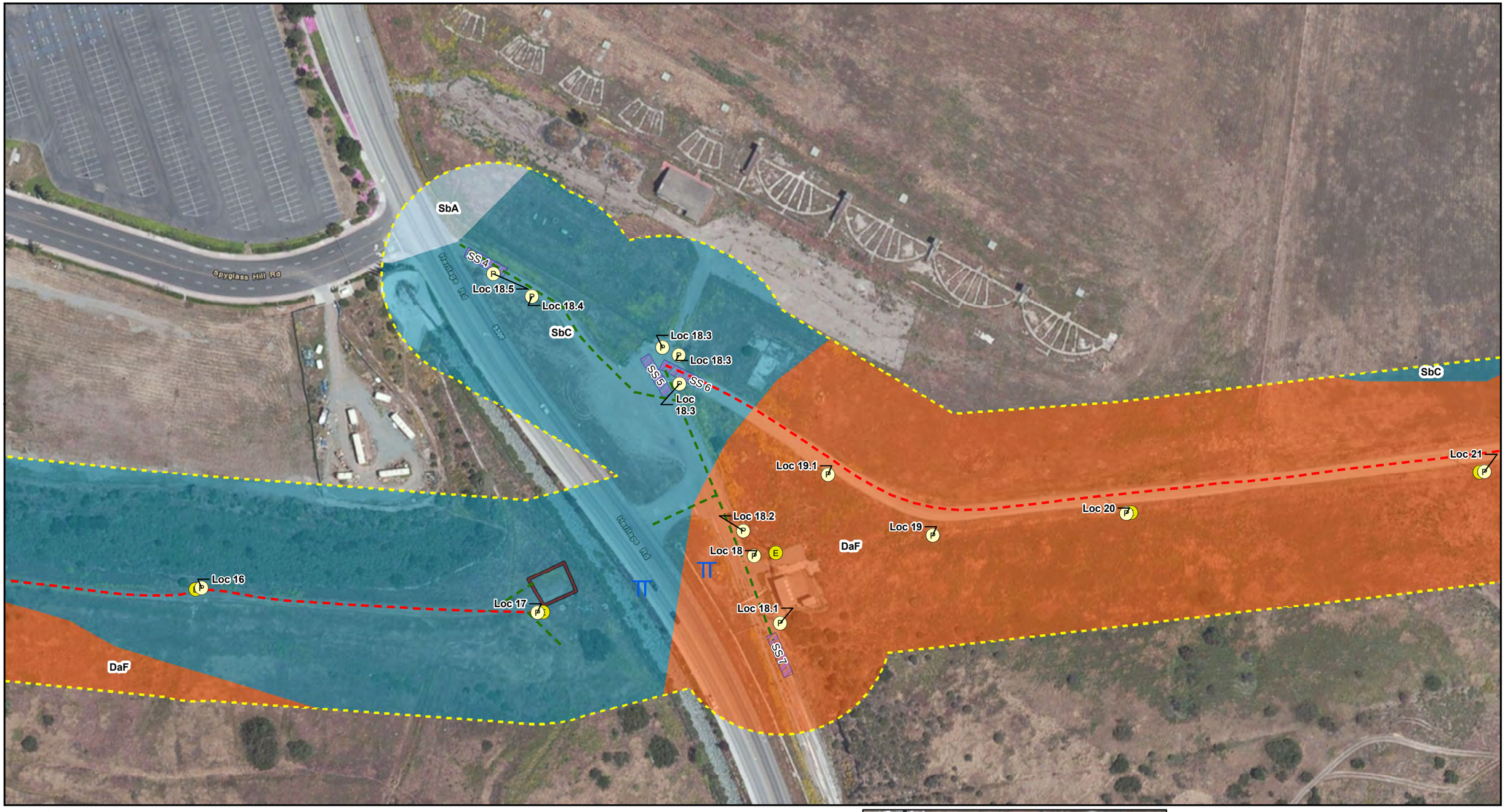


Figure 4
Soil Types
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP



Legend

- Project Pole
- Existing Pole
- Guard Structure
- Existing Non-TCM Access Road
- Access Road
- String Site
- Turnaround Area
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 30 to 50 percent slopes - Not hydric

Salinas

- clay loam, 0 to 2 percent slopes - Not hydric
- clay loam, 2 to 9 percent slopes - Not hydric

N

0 50 100 200

Feet

Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP

SbC
Loc 22
Loc 23
SS 8
SS 9
Loc 22
Loc 23
Loc 24
DaF
Loc 25
Loc 26
Loc 27
SbC
SbC

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Turnaround Area
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 30 to 50 percent slopes - Not hydric

Salinas

- clay loam, 2 to 9 percent slopes - Not hydric

N

0 50 100 200

Feet

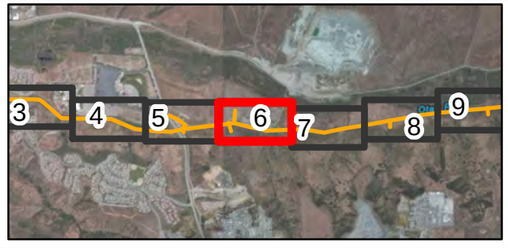


Figure 4
Soil Types
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

SbC
SbC
SbC
SS 10
SS 11
Loc 28
Loc 29
Loc 29
Loc 30
DaF
Loc 31
Loc 32
DaE
Loc 33
Loc 34

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 15 to 30 percent slopes - Not hydric
- clay, 30 to 50 percent slopes - Not hydric

Salinas

- clay loam, 2 to 9 percent slopes - Not hydric

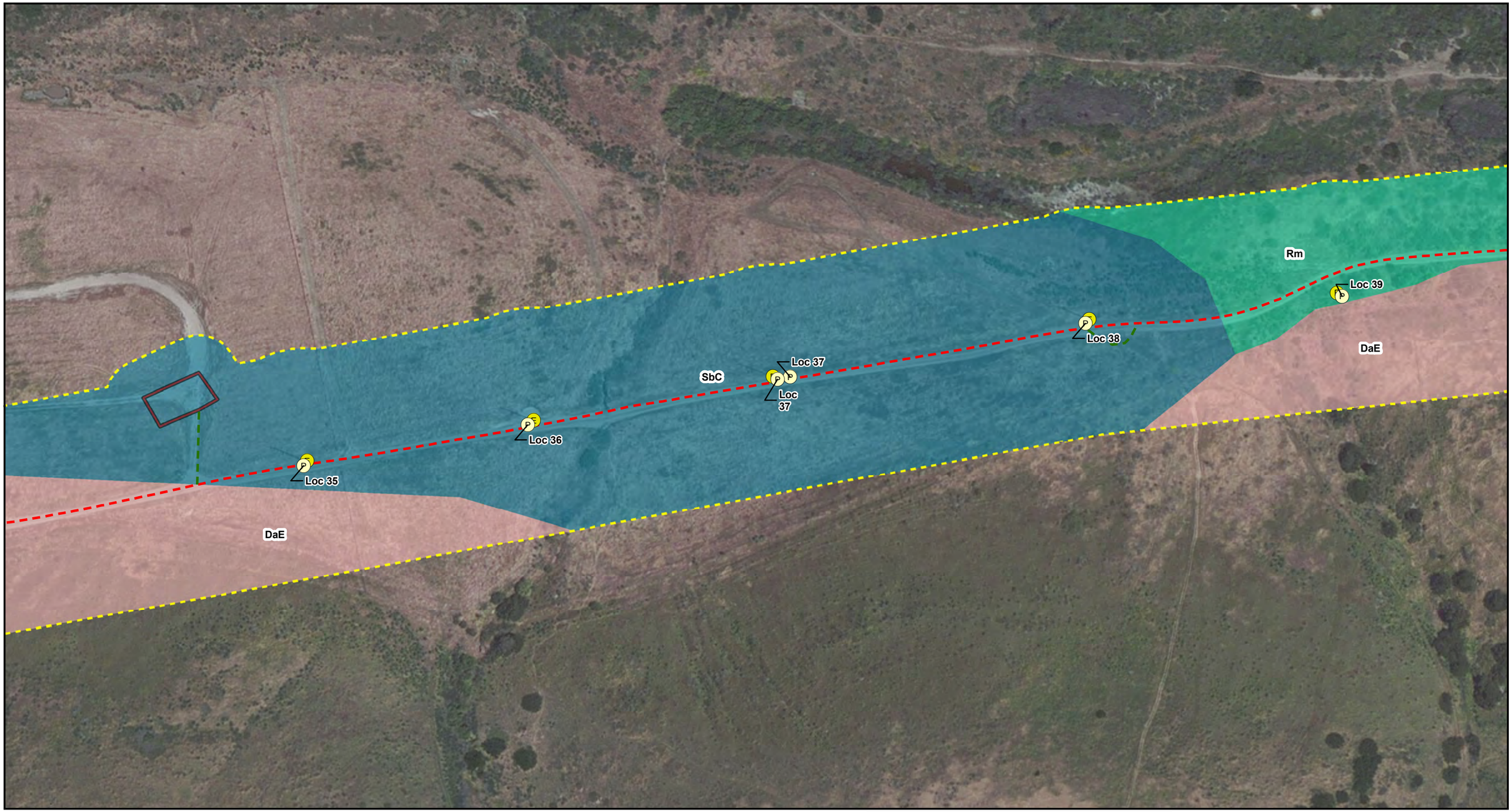
N

0 50 100 200

Feet

Figure 4
Soil Types
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre
CHAMBERS GROUP



Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Turnaround Area
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 15 to 30 percent slopes - Not hydric

Salinas

- clay loam, 2 to 9 percent slopes - Not hydric

Riverwash

- Riverwash - All hydric

N

0 50 100 200

Feet

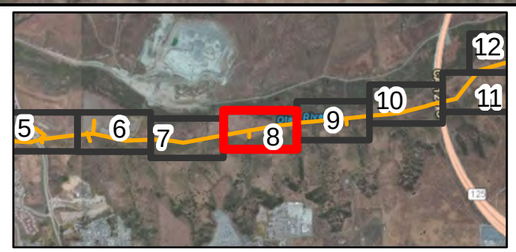


Figure 4
Soil Types
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP

GP
Rm
Rm
DaE
OhF
OhF
Loc 0
Loc 40
Loc 41
Loc 42
Loc 43
Loc 44
Otay River
Chula Vista

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 15 to 30 percent slopes - Not hydric
- Gravel pits - Not hydric

Olivenhain – suitable for supporting vernal pools

- cobbly loam, 30 to 50 percent slopes - Not hydric

Riverwash

- Riverwash - All hydric

N

0 50 100 200

Feet

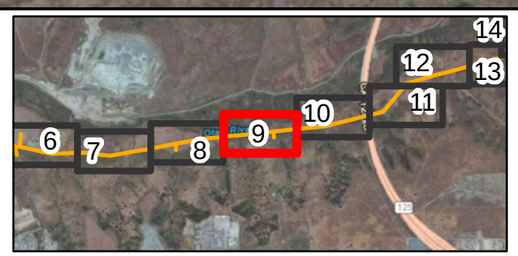
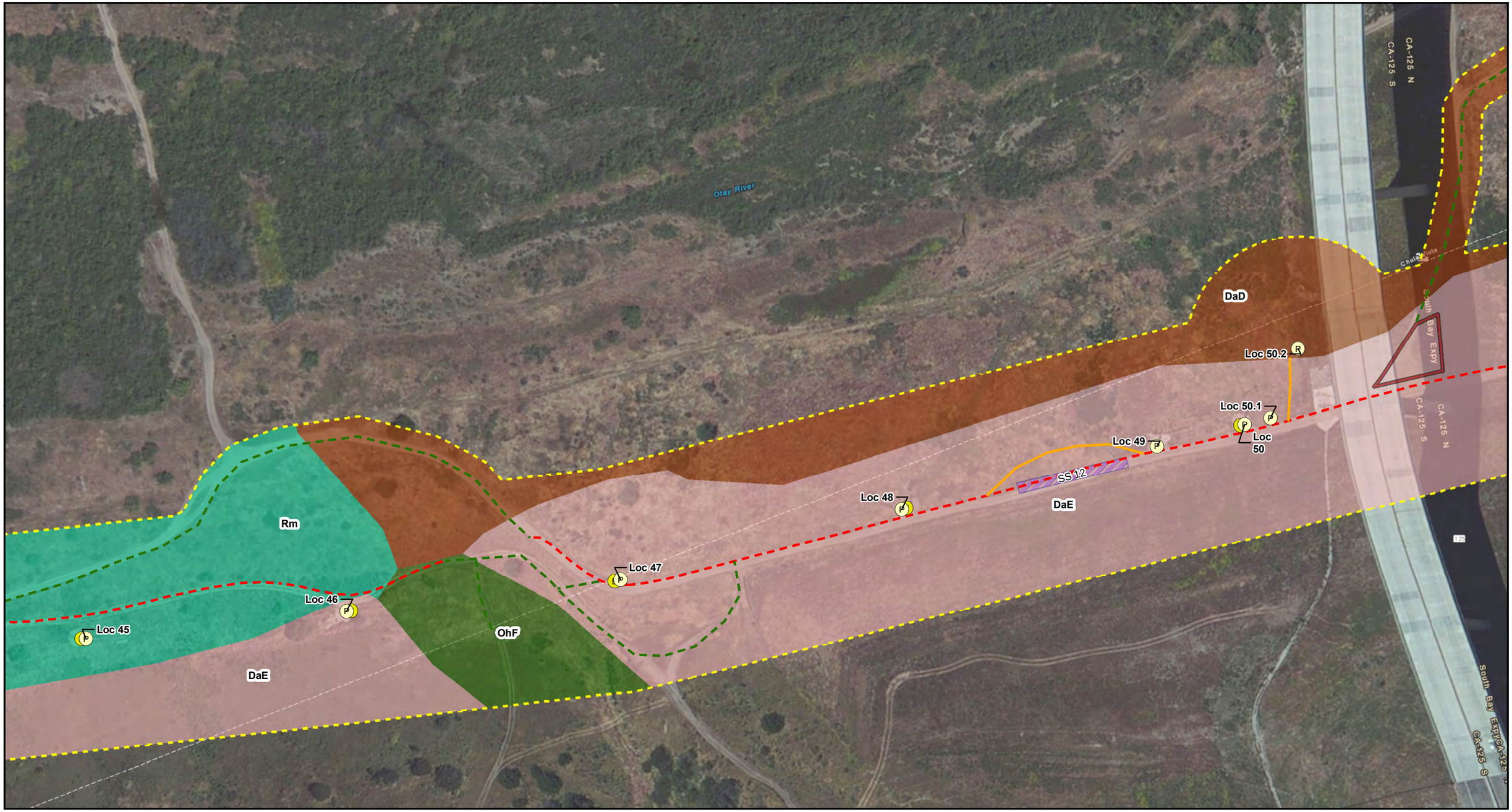


Figure 4
Soil Types
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP



Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Overland Travel
- String Site
- Turnaround Area
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 15 to 30 percent slopes - Not hydric
- clay, 9 to 15 percent slopes - Not hydric

Olivenhain – suitable for supporting vernal pools

- cobbly loam, 30 to 50 percent slopes - Not hydric

Riverwash

- Riverwash - All hydric

N

0 50 100 200

Feet

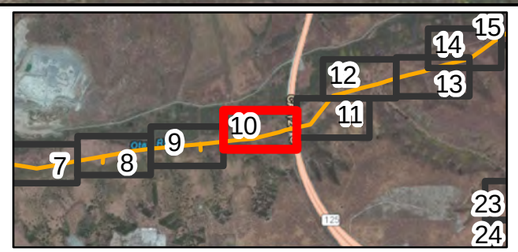


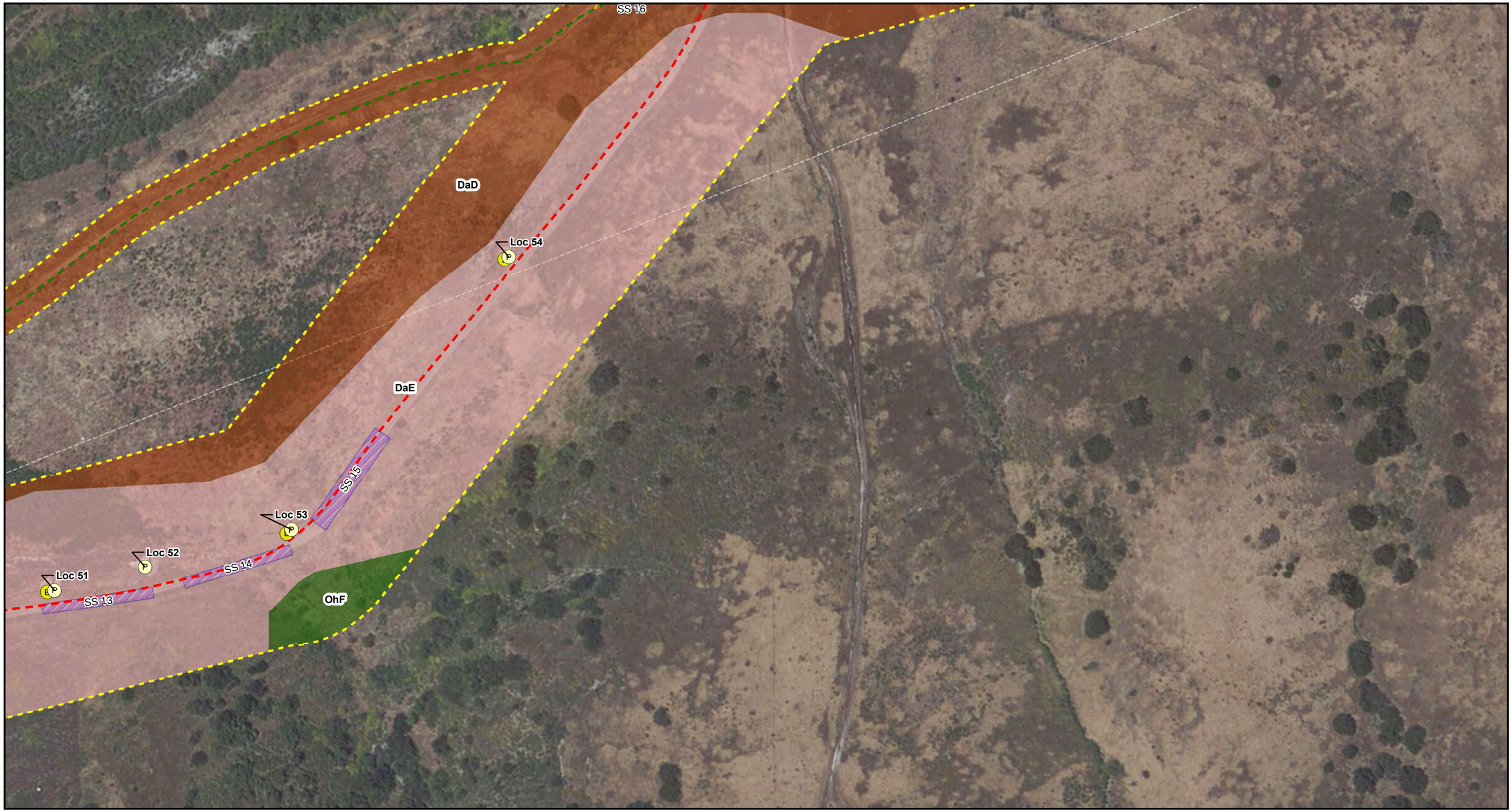
Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP



Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Overland Travel
- String Site
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 15 to 30 percent slopes - Not hydric
- clay, 9 to 15 percent slopes - Not hydric

Olivenhain – suitable for supporting vernal pools

- cobbly loam, 30 to 50 percent slopes - Not hydric

N

0 50 100 200

Feet

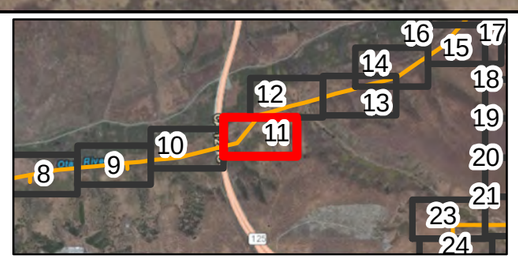


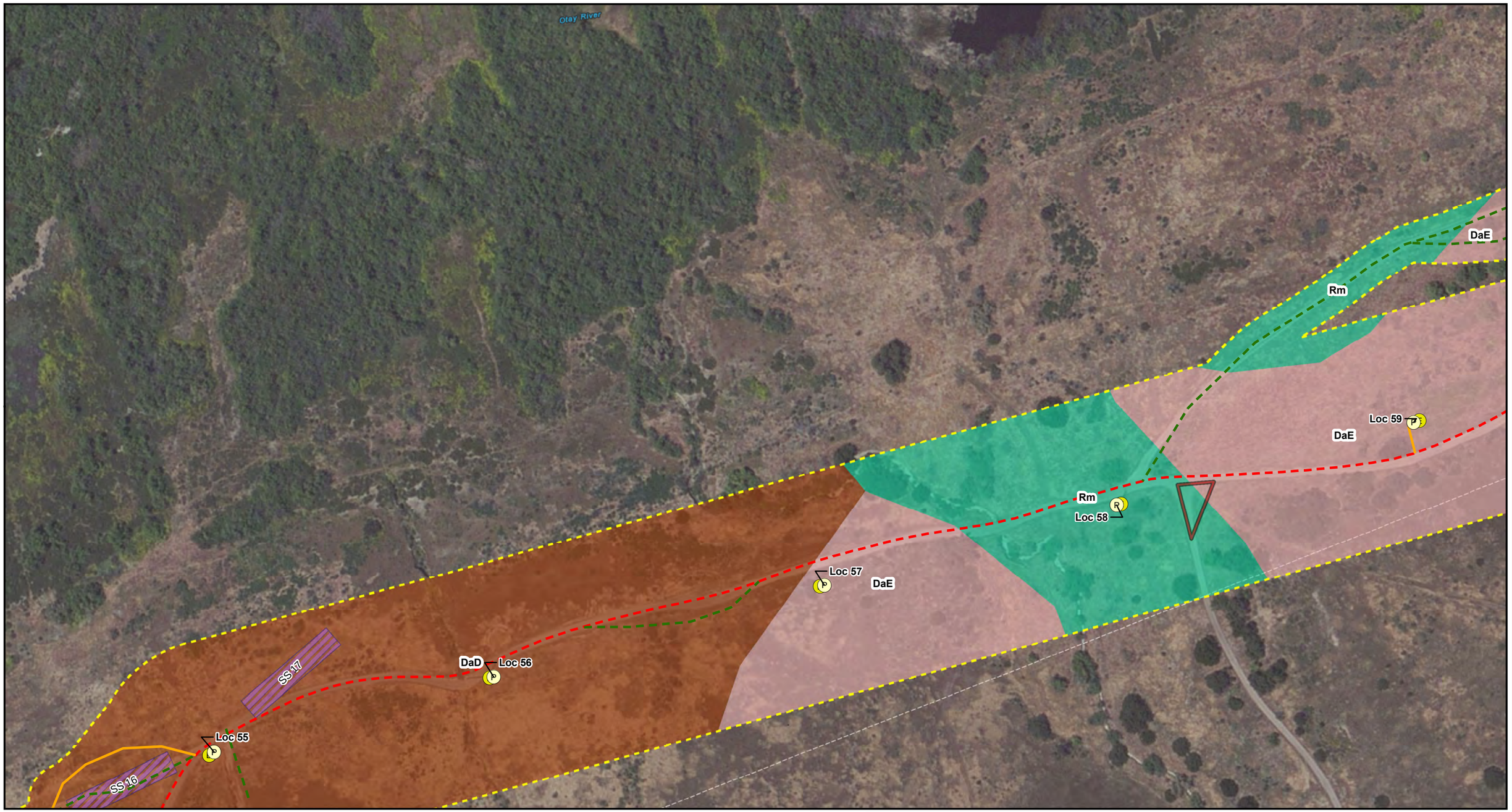
Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP



Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Overland Travel
- String Site
- Turnaround Area
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 15 to 30 percent slopes - Not hydric
- clay, 9 to 15 percent slopes - Not hydric

Riverwash

- Riverwash - All hydric

N

0 50 100 200

Feet

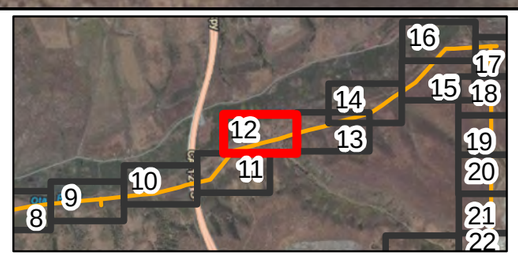


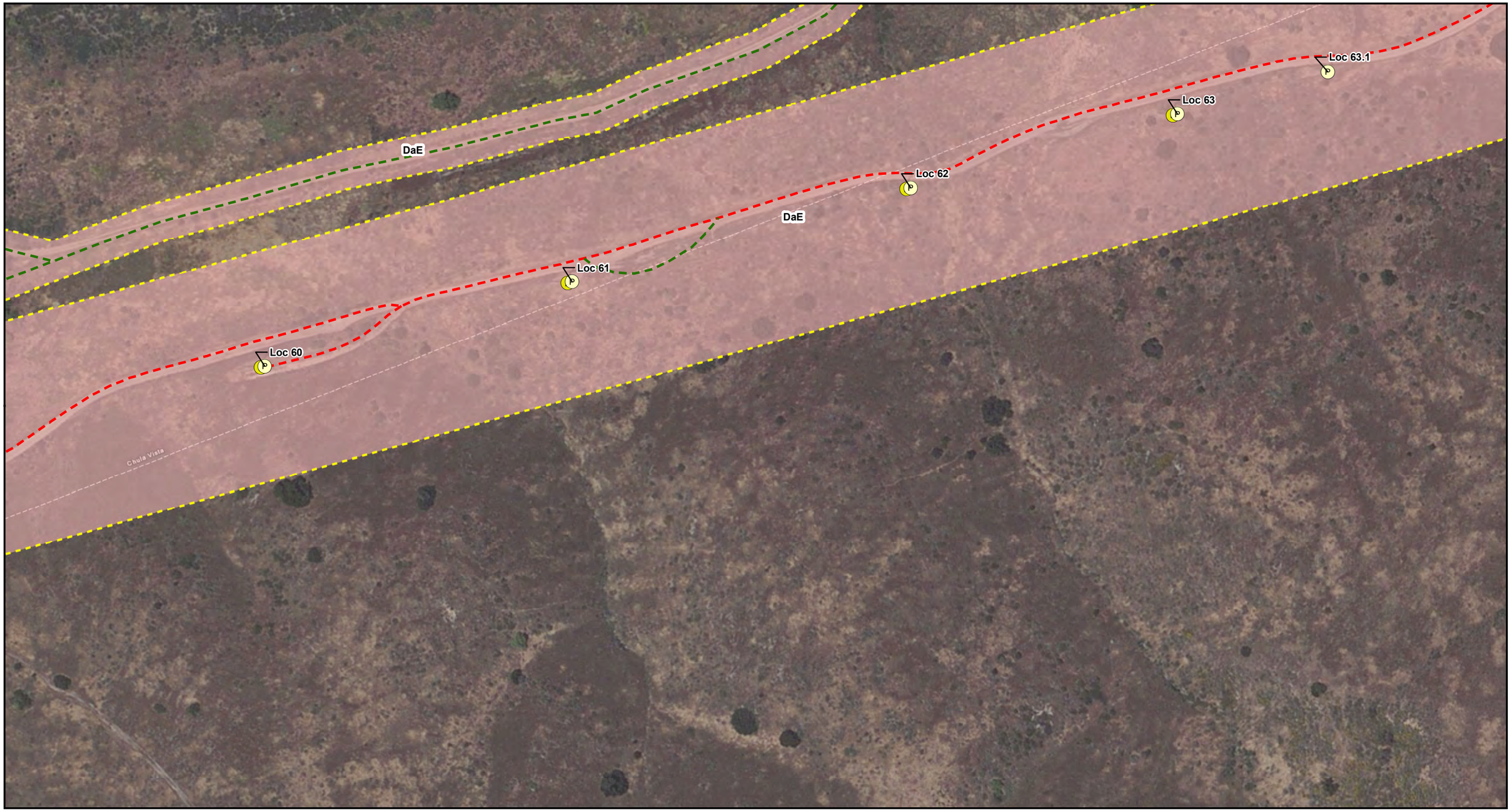
Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP



Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

clay, 15 to 30 percent slopes - Not hydric

N

0 50 100 200

Feet

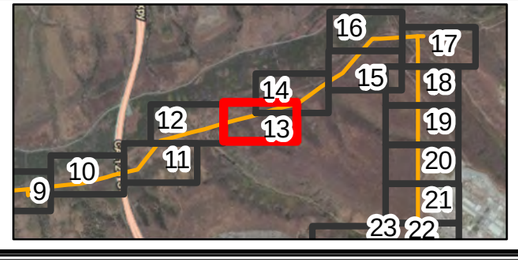


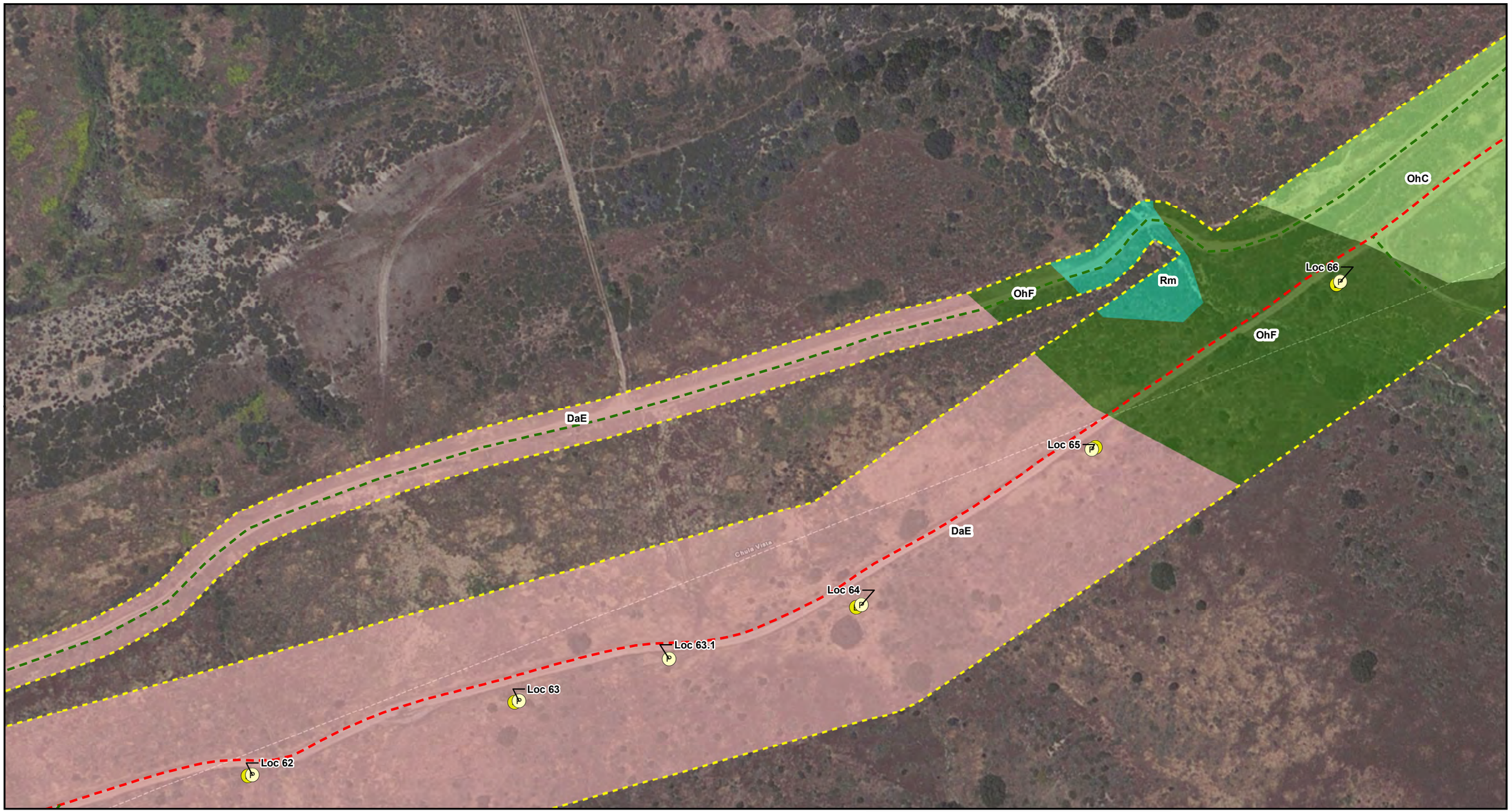
Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP



Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 15 to 30 percent slopes - Not hydric

Olivenhain – suitable for supporting vernal pools

- cobbly loam, 2 to 9 percent slopes - Partially hydric
- cobbly loam, 30 to 50 percent slopes - Not hydric

Riverwash

- Riverwash - All hydric

N

0 50 100 200

Feet

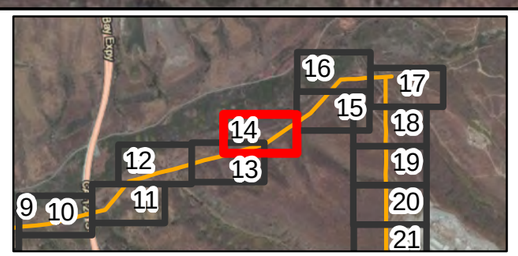


Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP

Rm

Loc 69

OhC

Loc 68

Loc 67

OhF

Chula Vista

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor

SSURGO Soils

Olivenhain – suitable for supporting vernal pools

- cobbly loam, 2 to 9 percent slopes - Partially hydric
- cobbly loam, 30 to 50 percent slopes - Not hydric

Riverwash

- Riverwash - All hydric

N

0 50 100 200

Feet

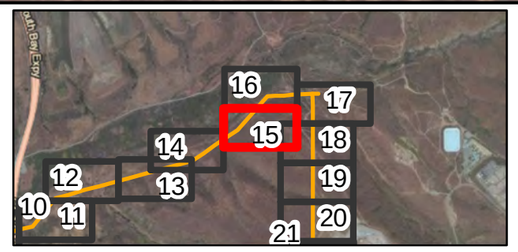
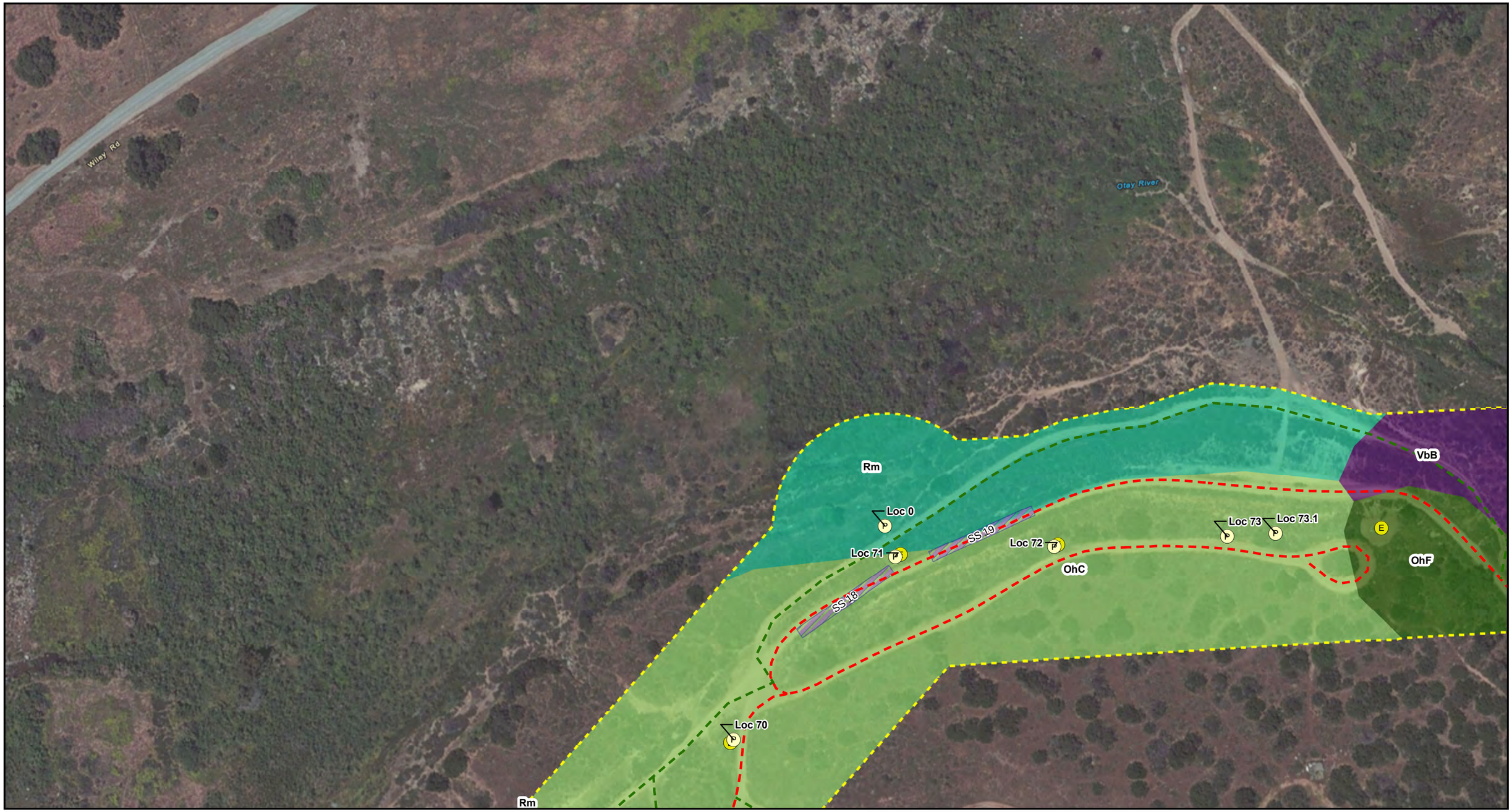


Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre



Legend

- P — Project Pole
- E — Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Survey Corridor

SSURGO Soils

Olivenhain – suitable for supporting vernal pools

- cobbly loam, 2 to 9 percent slopes - Partially hydric
- cobbly loam, 30 to 50 percent slopes - Not hydric

Visalia

- gravelly sandy loam, 2 to 5 percent slopes - Not hydric

Riverwash

- Riverwash - All hydric

N

0 50 100 200

Feet

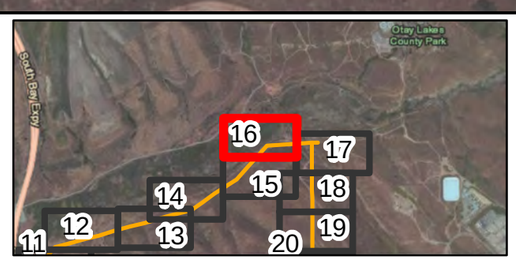


Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP

Loc 0
Loc 76
SS 20
SS 21
Loc 75
OhC
VbB
Loc 77
Loc 78
OhF

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Turnaround Area
- Survey Corridor

SSURGO Soils

Olivenhain – suitable for supporting vernal pools

- cobbly loam, 2 to 9 percent slopes - Partially hydric
- cobbly loam, 30 to 50 percent slopes - Not hydric

Visalia

- gravelly sandy loam, 2 to 5 percent slopes - Not hydric

N

0 50 100 200

Feet

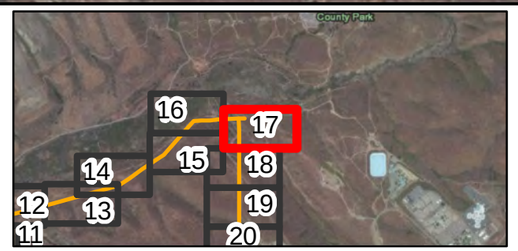


Figure 4
Soil Types
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre
CHAMBERS GROUP

Loc 79

OhF

Loc 80

Loc 81

Loc 82

Loc 83

SuA

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor

SSURGO Soils

Olivenhain – suitable for supporting vernal pools

cobbly loam, 30 to 50 percent slopes - Not hydric

Stockpen – suitable for supporting vernal pools

gravelly clay loam, 0 to 2 percent slopes - Partially hydric

N

0 50 100 200

Feet

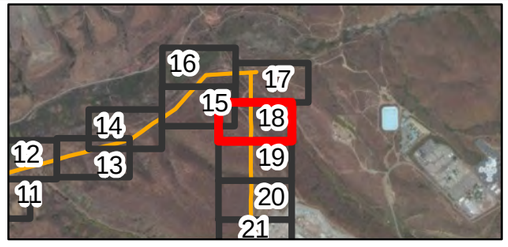


Figure 4
Soil Types
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor

SSURGO Soils

Olivenhain – suitable for supporting vernal pools

- cobbly loam, 30 to 50 percent slopes - Not hydric

Stockpen – suitable for supporting vernal pools

- gravelly clay loam, 0 to 2 percent slopes - Partially hydric

N

0 50 100 200

Feet

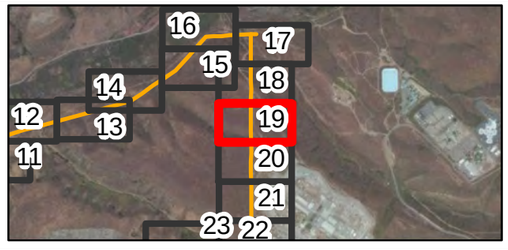


Figure 4
Soil Types
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP

Loc 87
OhF
Loc 88
OhF
SuA
Loc 89
SuA
Loc 90

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor

SSURGO Soils

Olivenhain – suitable for supporting vernal pools

- cobbly loam, 30 to 50 percent slopes - Not hydric

Stockpen – suitable for supporting vernal pools

- gravelly clay loam, 0 to 2 percent slopes - Partially hydric

N

0 50 100 200

Feet

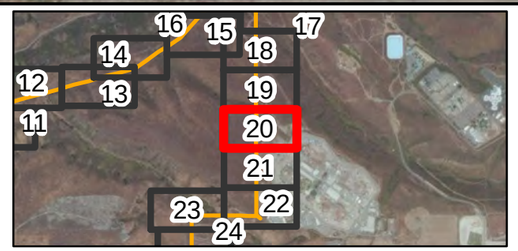


Figure 4
Soil Types
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

Loc 91

Loc 92

SuA

Loc 93

Loc 94

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor

SSURGO Soils

Stockpen – suitable for supporting vernal pools

gravelly clay loam, 0 to 2 percent slopes - Partially hydric

N

0 50 100 200

Feet

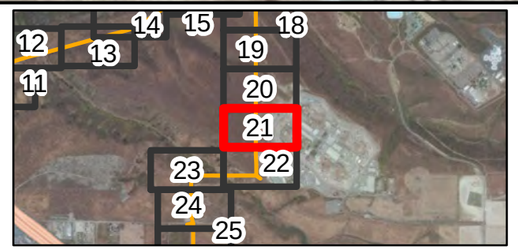


Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP

Loc 95
Loc 96
SuA
SS 22
SS 24
SS 23
Loc 100
OhF
Loc 99
Loc 98
Loc 97
Loc 97.1
LsE

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Overland Travel
- String Site
- Survey Corridor

SSURGO Soils

Linne – suitable for supporting vernal pools

clay loam, 9 to 30 percent slopes - Not hydric

Olivenhain – suitable for supporting vernal pools

cobbly loam, 30 to 50 percent slopes - Not hydric

Stockpen – suitable for supporting vernal pools

gravelly clay loam, 0 to 2 percent slopes - Partially hydric

N

0 50 100 200

Feet

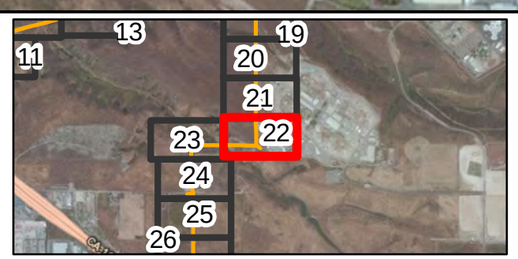


Figure 4
Soil Types
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre
CHAMBERS GROUP

OhF
OhF
SS 25
LsE
Loc 103
Loc 102
Loc 101
Loc 104

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Survey Corridor

SSURGO Soils

Linne – suitable for supporting vernal pools

clay loam, 9 to 30 percent slopes - Not hydric

Olivenhain – suitable for supporting vernal pools

cobbly loam, 30 to 50 percent slopes - Not hydric

N

0 50 100 200

Feet

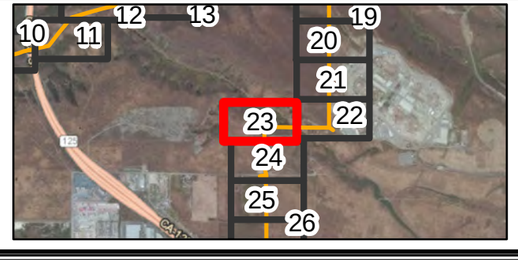


Figure 4
Soil Types
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

Loc 105
Loc 106
LsE
Loc 107
SS 26
DaC
Loc 108
Loc 108.1
SS 27
Lonestar Rd
Lonestar Rd

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Overland Travel
- String Site
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 2 to 9 percent slopes - Not hydric

Linne – suitable for supporting vernal pools

- clay loam, 9 to 30 percent slopes - Not hydric

N

0 50 100 200

Feet

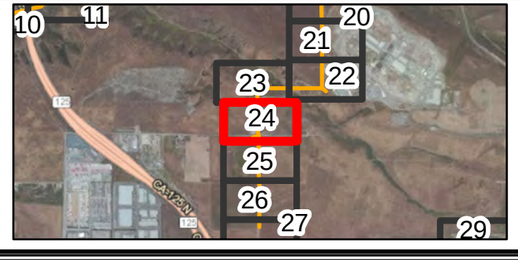


Figure 4
Soil Types
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 2 to 9 percent slopes - Not hydric
- clay, 9 to 15 percent slopes - Not hydric

N

0 50 100 200

Feet

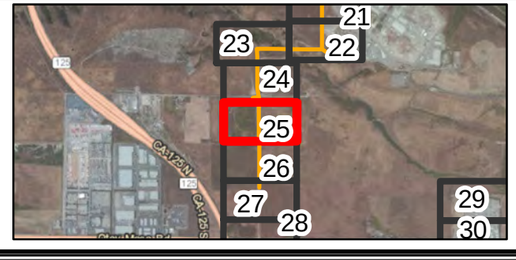


Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 2 to 9 percent slopes - Not hydric
- clay, 9 to 15 percent slopes - Not hydric

N

0 50 100 200

Feet

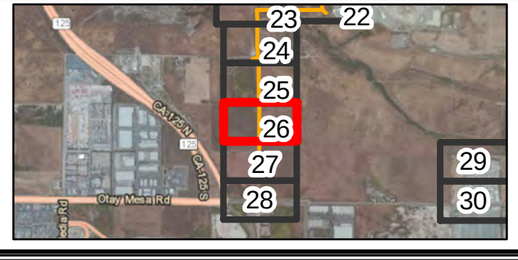


Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP

Legend

- Existing Non-TCM Access Road
- Access Road
- String Site
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 2 to 9 percent slopes - Not hydric

N

0 50 100 200

Feet

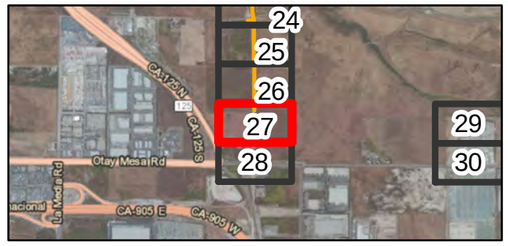
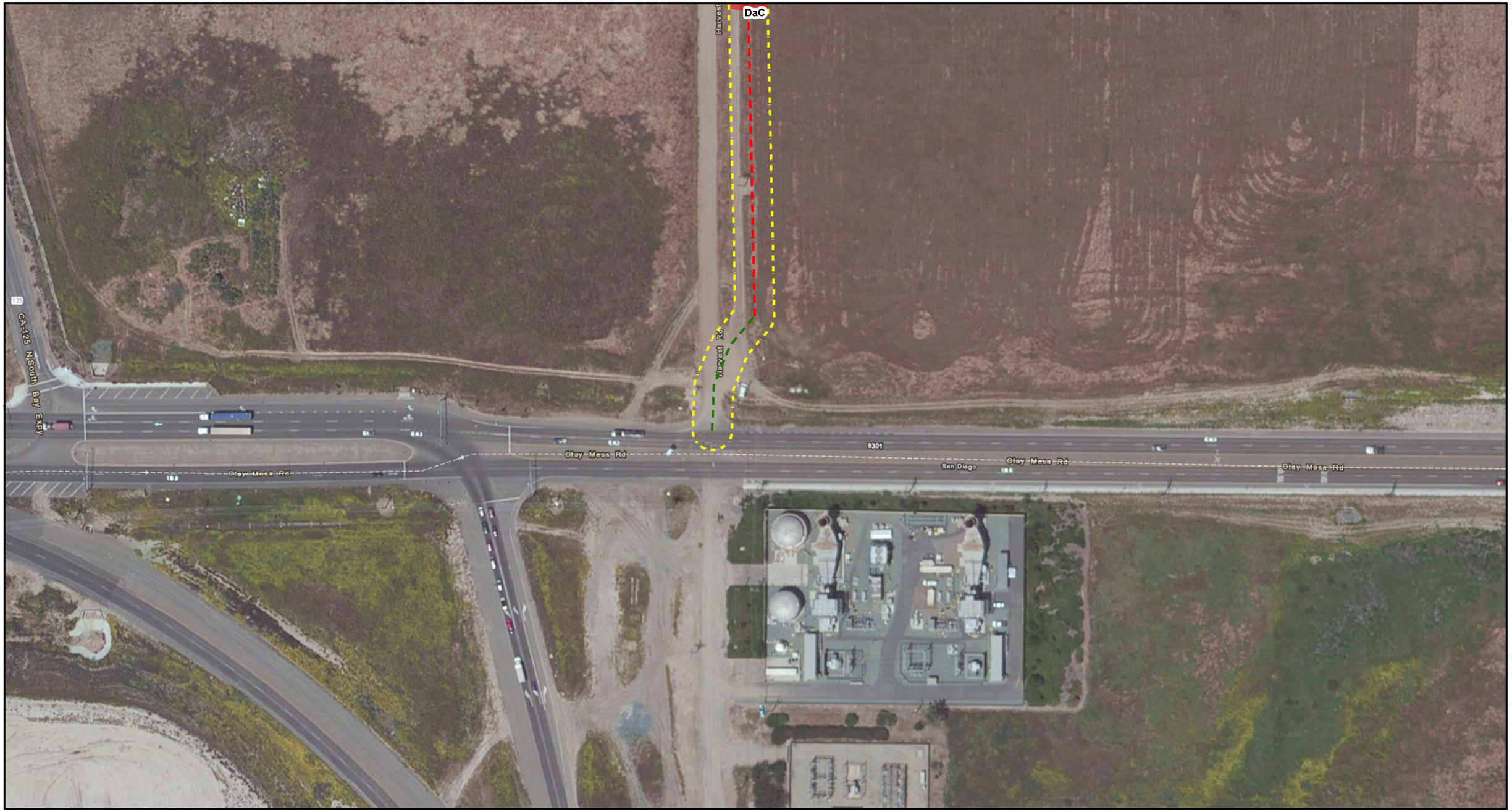


Figure 4
Soil Types
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP



Legend

- Existing Non-TCM Access Road
- Access Road
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

clay, 2 to 9 percent slopes - Not hydric

N

0 50 100 200

Feet

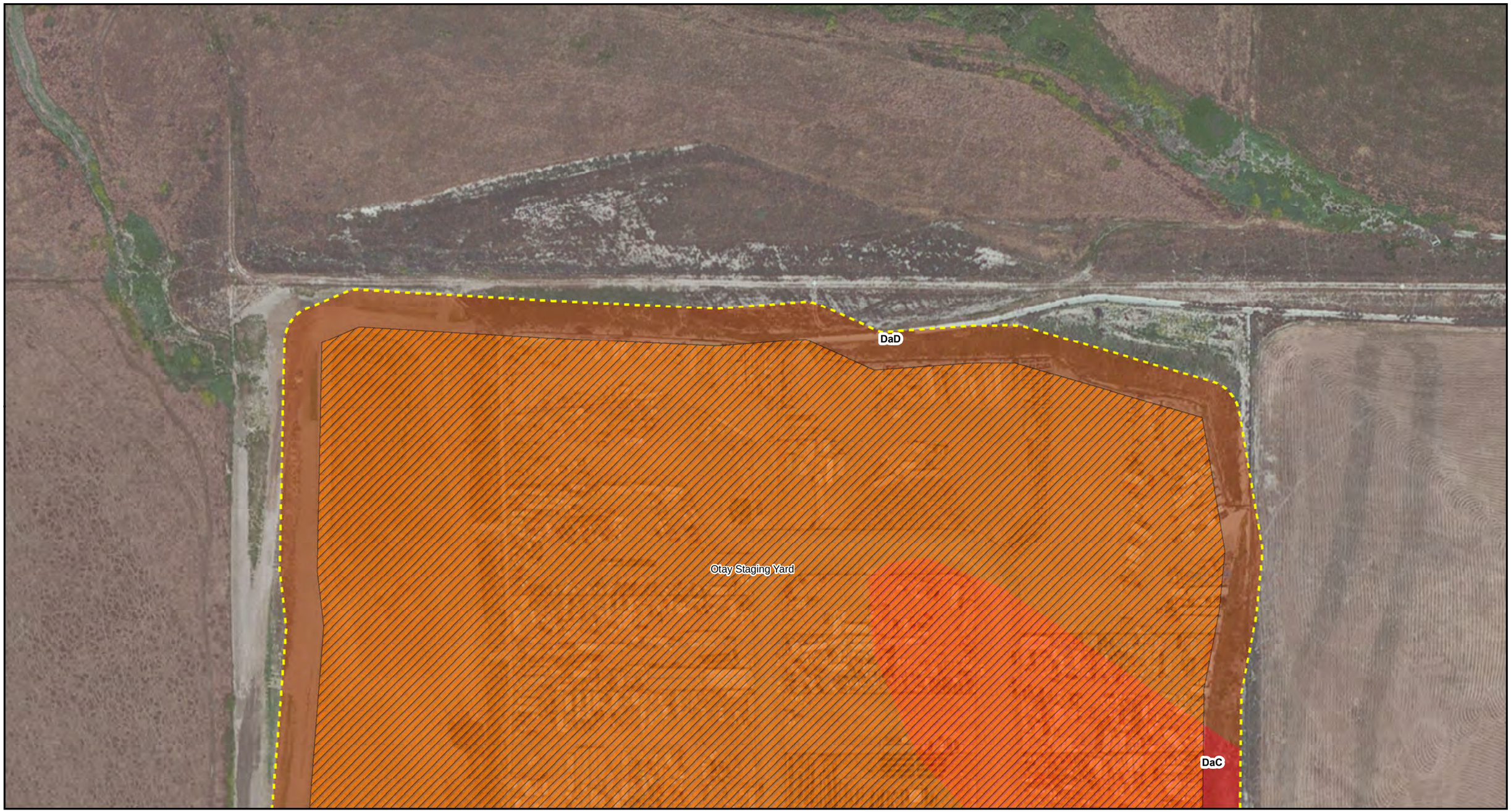
Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

CHAMBERS GROUP



Legend

- Staging Yard
- Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

- clay, 2 to 9 percent slopes - Not hydric
- clay, 9 to 15 percent slopes - Not hydric

N

0 50 100 200

Feet

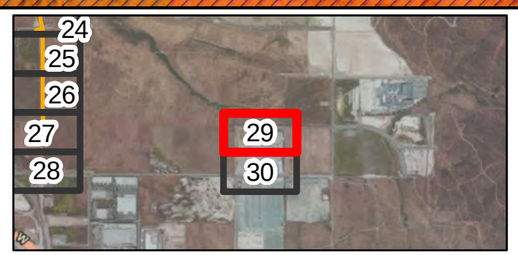
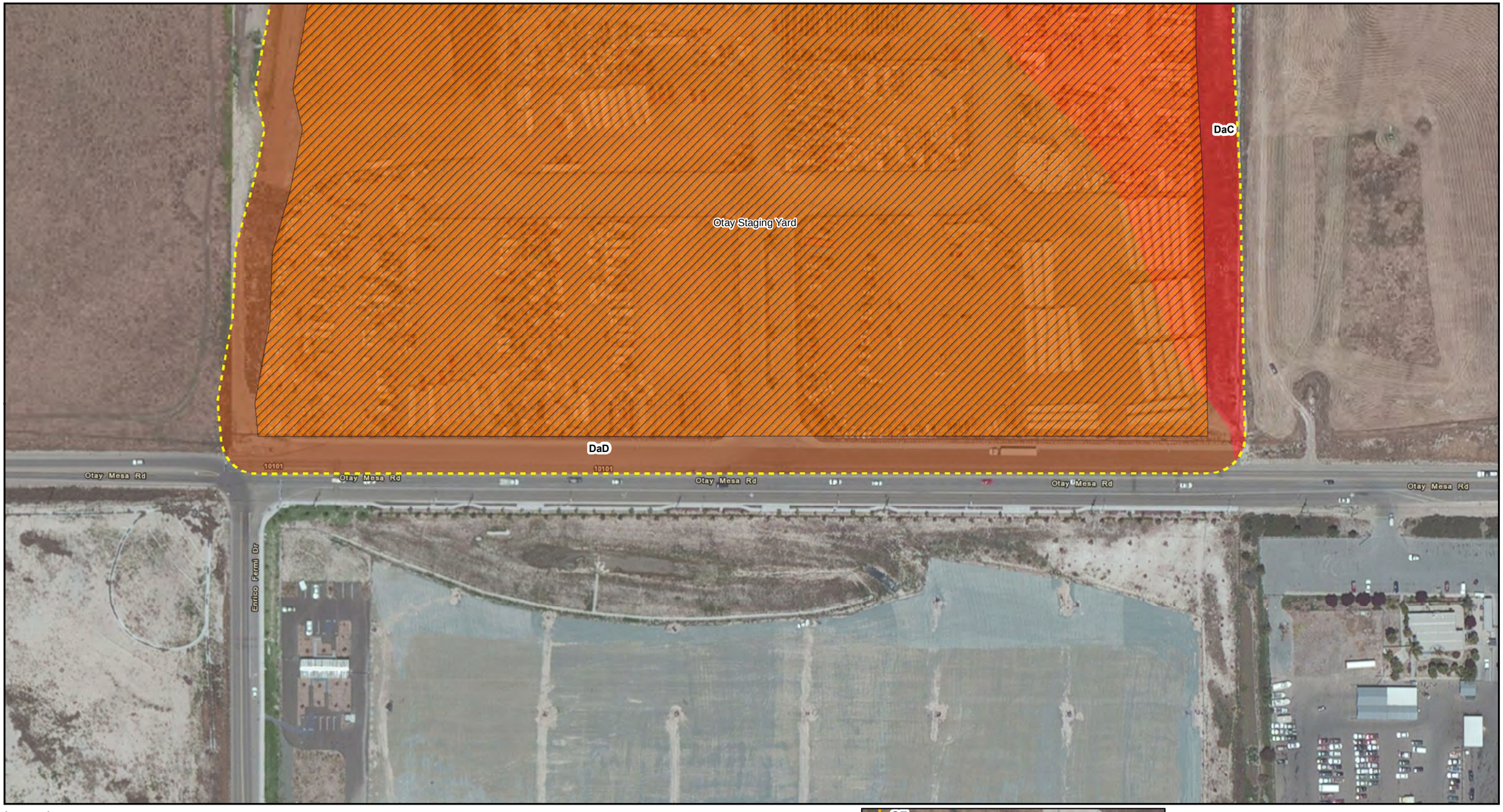


Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre



Legend

Staging Yard

Survey Corridor

SSURGO Soils

Diablo – suitable for supporting vernal pools

clay, 2 to 9 percent slopes - Not hydric

clay, 9 to 15 percent slopes - Not hydric

N

0 50 100 200

Feet

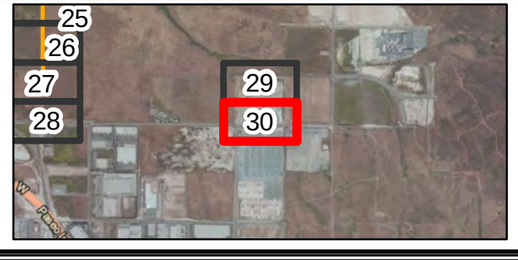


Figure 4

Soil Types

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig4 Soil Types.Mxd
Print Date: 4/20/2015, Author: stondre

Legend

- Staging Yard
- Survey Corridor
- Non-jurisdictional Road Rut [Bare Ground]

N

0 50 100 200

Feet

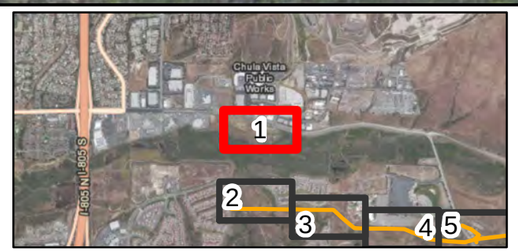


Figure 5

Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

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Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Turnaround Area
- Survey Corridor
- ACOE Non-wetland Waters, CDFW Streambed, RWQCB Waters of the State
- ACOE Wetland Waters, CDFW Riparian, RWQCB Waters of the State [Emergent Wetland]
- CDFW Riparian [Riparian Scrub]

N

0 50 100 200

Feet

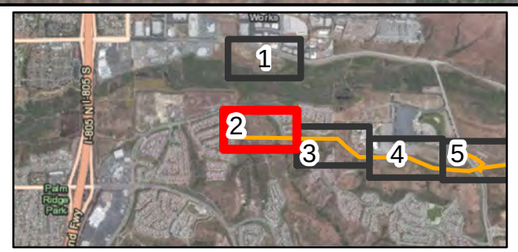


Figure 5
Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

CHAMBERS GROUP

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Survey Corridor
- ACOE Non-wetland Waters, CDFW Streambed, RWQCB Waters of the State
- ACOE Wetland Waters, RWQCB Waters of the State [Riparian Scrub Wetland – Man-made Detention Basin]
- CDFW Riparian [Riparian Scrub]

N

0 50 100 200

Feet

Figure 5
Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

Entertainment Cir

Entertainment Cir

Spyglass Hill Rd

Spyglass Hill Rd

Loc 11

Loc 12

Loc 0

Loc 13

Loc 14

AF 5

Loc 15

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor
- Culvert
- ACOE Non-wetland Waters, CDFW Streambed, RWQCB Waters of the State
- ACOE Wetland Waters, CDFW Riparian, RWQCB Waters of the State [Riparian Scrub]

N

0 50 100 200

Feet

Figure 5

Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

CHAMBERS GROUP

Legend

- P — Project Pole
- E — Existing Pole
- Guard Structure
- Existing Non-TCM Access Road
- Access Road
- String Site
- Turnaround Area
- Survey Corridor
- ACOE Non-wetland Waters, CDFW Streambed, RWQCB Waters of the State

N

0 50 100 200

Feet

Figure 5

Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

CHAMBERS GROUP

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Turnaround Area
- Survey Corridor
- Non-jurisdictional Road Rut [Bare Ground]
- Non-jurisdictional Swale

N

0 50 100 200

Feet

Figure 5

Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

CHAMBERS GROUP

RR 5
RR 4
SP 1
SS 10
SS 11
Loc 28
Loc 29
Loc 29
Loc 30
Loc 31
Loc 32
Loc 33
Loc 34
AF 10

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Survey Corridor
- Soil Pit
- ACOE Non-wetland Waters, CDFW Streambed, RWQCB Waters of the State
- Non-jurisdictional Road Rut [Bare Ground]

N

0 50 100 200

Feet

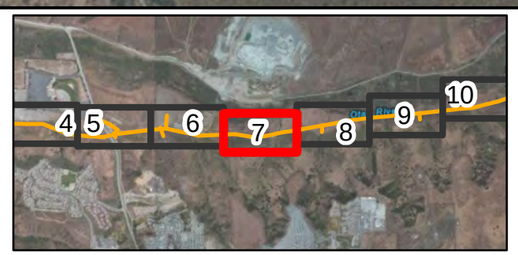


Figure 5
Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

AF 11
AF 13
AF 12
Loc 39
Loc 38
Loc 37
Loc 37
Loc 36
Loc 35
AF 11

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Turnaround Area
- Survey Corridor
- ACOE Non-wetland Waters, CDFW Streambed, RWQCB Waters of the State
- ACOE Wetland Waters, CDFW Riparian, RWQCB Waters of the State [Riparian Scrub]
- CDFW Riparian [Riparian Scrub]
- Non-jurisdictional Swale

N

0 50 100 200

Feet

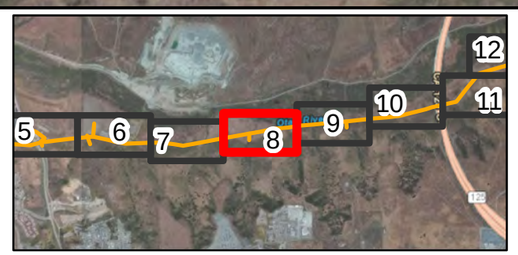


Figure 5
Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

AF 13
Otay River
AF 13
Loc 42
Loc 41
Loc 40
AF 14
Loc 0
Loc 44
Loc 43
AF 15
Chula Vista

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor
- ACOE Non-wetland Waters, CDFW Streambed, RWQCB Waters of the State
- ACOE Wetland Waters, CDFW Riparian, RWQCB Waters of the State [Riparian Scrub]
- Non-jurisdictional Swale

N

0 50 100 200

Feet

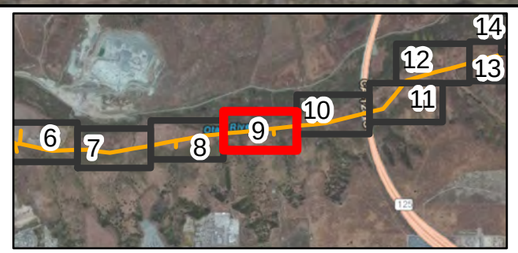


Figure 5
Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Overland Travel
- String Site
- Turnaround Area
- Survey Corridor
- Non-jurisdictional Brow Ditch and Dissapator [Bare Ground]
- Non-jurisdictional Road Rut [Bare Ground]
- Non-jurisdictional Swale

N

0 50 100 200

Feet

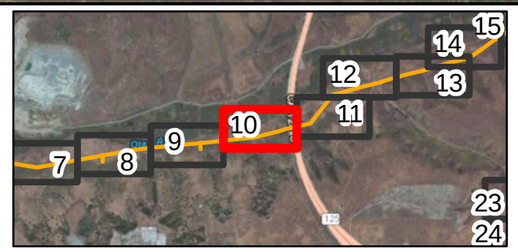


Figure 5
Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

CHAMBERS GROUP

SS 16
AF 19
Loc 54
SS 15
RR 7
Loc 53
Loc 52
SS 14
Loc 51
SS 13
AF 18

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Overland Travel
- String Site
- Survey Corridor
- Non-jurisdictional Road Rut [Bare Ground]
- Non-jurisdictional Swale
- Non-jurisdictional Erosional Feature

N

0 50 100 200
Feet

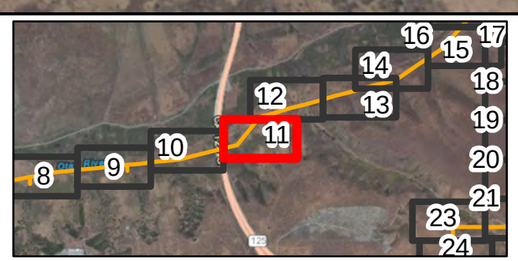


Figure 5
Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

Otay River

AF 22
Loc 59
SP 4
SP 3
RR 15
AF 21
Loc 58
RR 14
RR 12
RR 11
AF 20
SP 2
Loc 57
RR 13
RR 9
Loc 56
SS 17
RR 10
Loc 55
AF 19
SS 16
RR 8

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Overland Travel
- String Site
- Turnaround Area
- Survey Corridor
- Culvert
- Soil Pit
- ACOE Non-wetland Waters, CDFW Streambed, RWQCB Waters of the State
- ACOE Wetland Waters, RWQCB Waters of the State [Emergent Wetland]
- Non-jurisdictional Road Rut [Bare Ground]
- Non-jurisdictional Erosional Feature

N

0 50 100 200
Feet

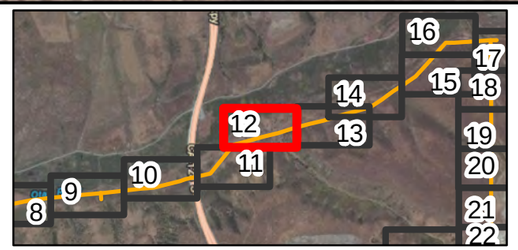
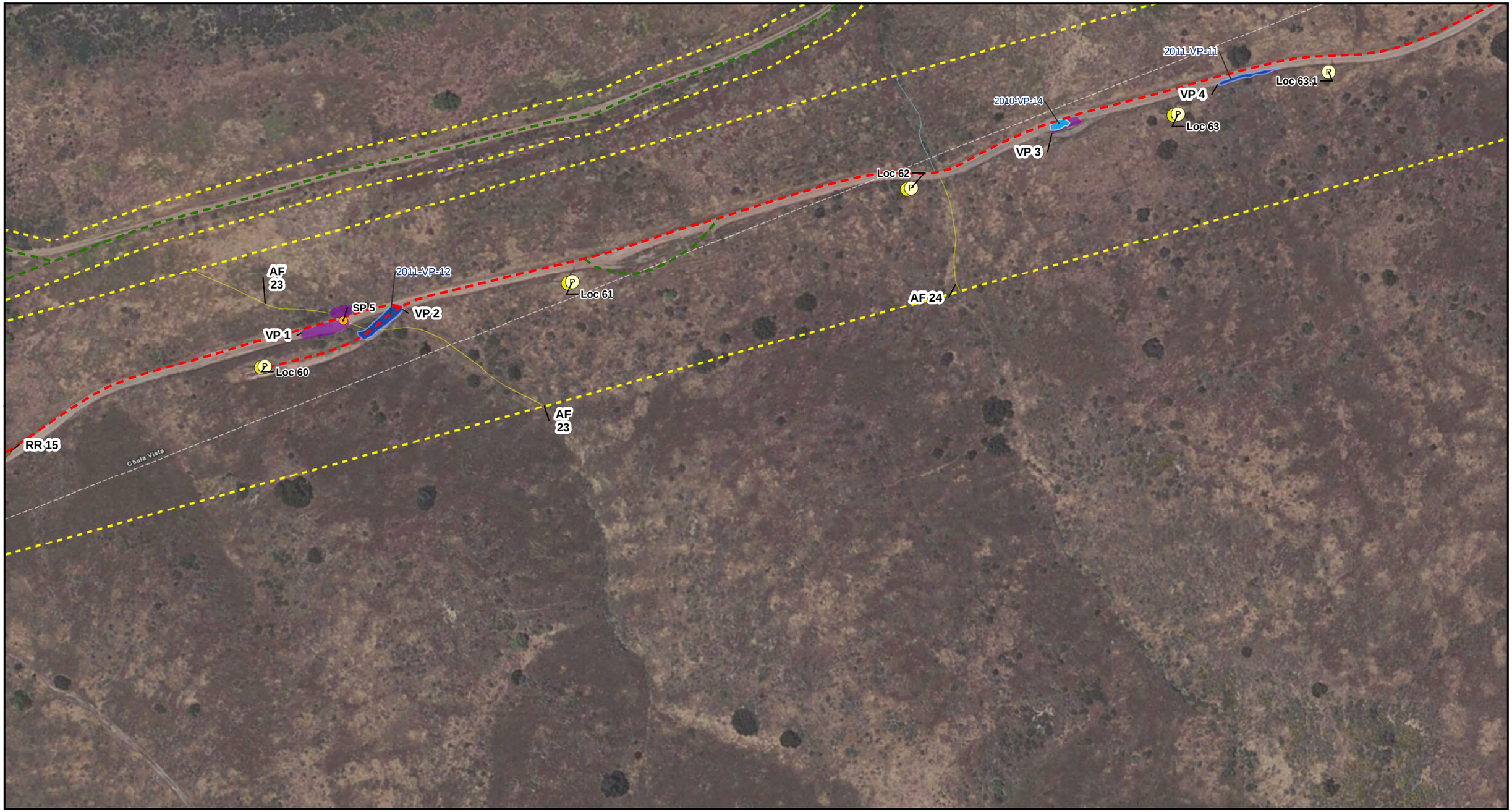


Figure 5
Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre
CHAMBERS GROUP



Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor
- Soil Pit
- Vernal Pool-2010, ACOE Wetland Waters, RWQCB Waters of the State
- Vernal Pool-2011, ACOE Wetland Waters, RWQCB Waters of the State
- ACOE Non-wetland Waters, CDFW Streambed, RWQCB Waters of the State
- ACOE Wetland Waters, RWQCB Waters of the State [Vernal Pool]
- Non-jurisdictional Road Rut [Bare Ground]
- Non-jurisdictional Swale

N

0 50 100 200

Feet

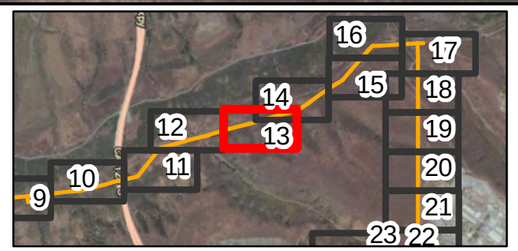


Figure 5

Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

CHAMBERS GROUP

AF 25
Loc 66
RR 16
Loc 65
Chula Vista
Loc 64
2011-VP-11
VP 4
Loc 63.1
AF 24
2010-VP-14
VP 3
Loc 63
Loc 62

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor
- Vernal Pool-2010, ACOE Wetland Waters, RWQCB Waters of the State
- Vernal Pool-2011, ACOE Wetland Waters, RWQCB Waters of the State
- ACOE Non-wetland Waters, CDFW Streambed, RWQCB Waters of the State
- ACOE Wetland Waters, RWQCB Waters of the State [Vernal Pool]
- Non-jurisdictional Road Rut [Bare Ground]
- Non-jurisdictional Swale

N

0 50 100 200

Feet

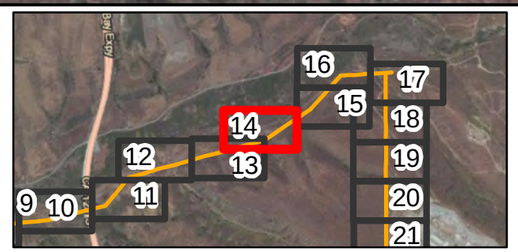


Figure 5
Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

SP 44
VP 9
AF 27
SP 8
2009-VP-38
SP 45
VP 8
SP 9
VP 10
AF 26
2011-VP-10
Loc 69
VP 7
2009-VP-37
SP 7
VP 6
Loc 68
VP 5
SP 6
Loc 67
2009-VP-36
Chula Vista

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Overland Travel
- Survey Corridor
- Soil Pit
- Vernal Pool-2009, ACOE Wetland Waters, RWQCB Waters of the State
- Vernal Pool-2011, ACOE Wetland Waters, RWQCB Waters of the State
- ACOE Non-wetland Waters, CDFW Streambed, RWQCB Waters of the State
- ACOE Wetland Waters, RWQCB Waters of the State [Emergent Wetland]
- ACOE Wetland Waters, RWQCB Waters of the State [Vernal Pool]

N

0 50 100 200
Feet

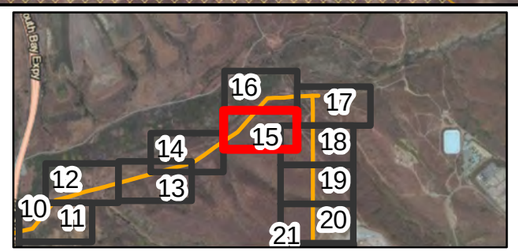


Figure 5
Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

Wiley Rd

Otay River

Loc 0

Loc 71

SS 19

Loc 72

VP 11

2011-VP-09

Loc 73

Loc 73.1

RR 18

SP 47

SS 18

SP 46

RR 17

AF 27

Loc 70

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Survey Corridor
- Vernal Pool-2011, ACOE Wetland Waters, RWQCB Waters of the State
- ACOE Non-wetland Waters, CDFW Streambed, RWQCB Waters of the State
- ACOE Wetland Waters, RWQCB Waters of the State [Vernal Pool]
- Non-jurisdictional Road Rut [Bare Ground]

N

0 50 100 200

Feet

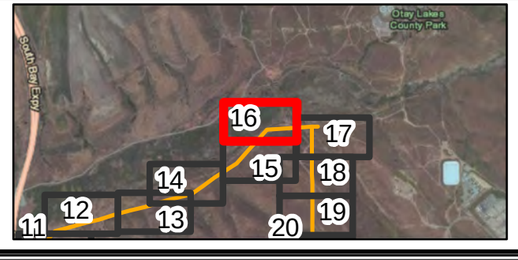
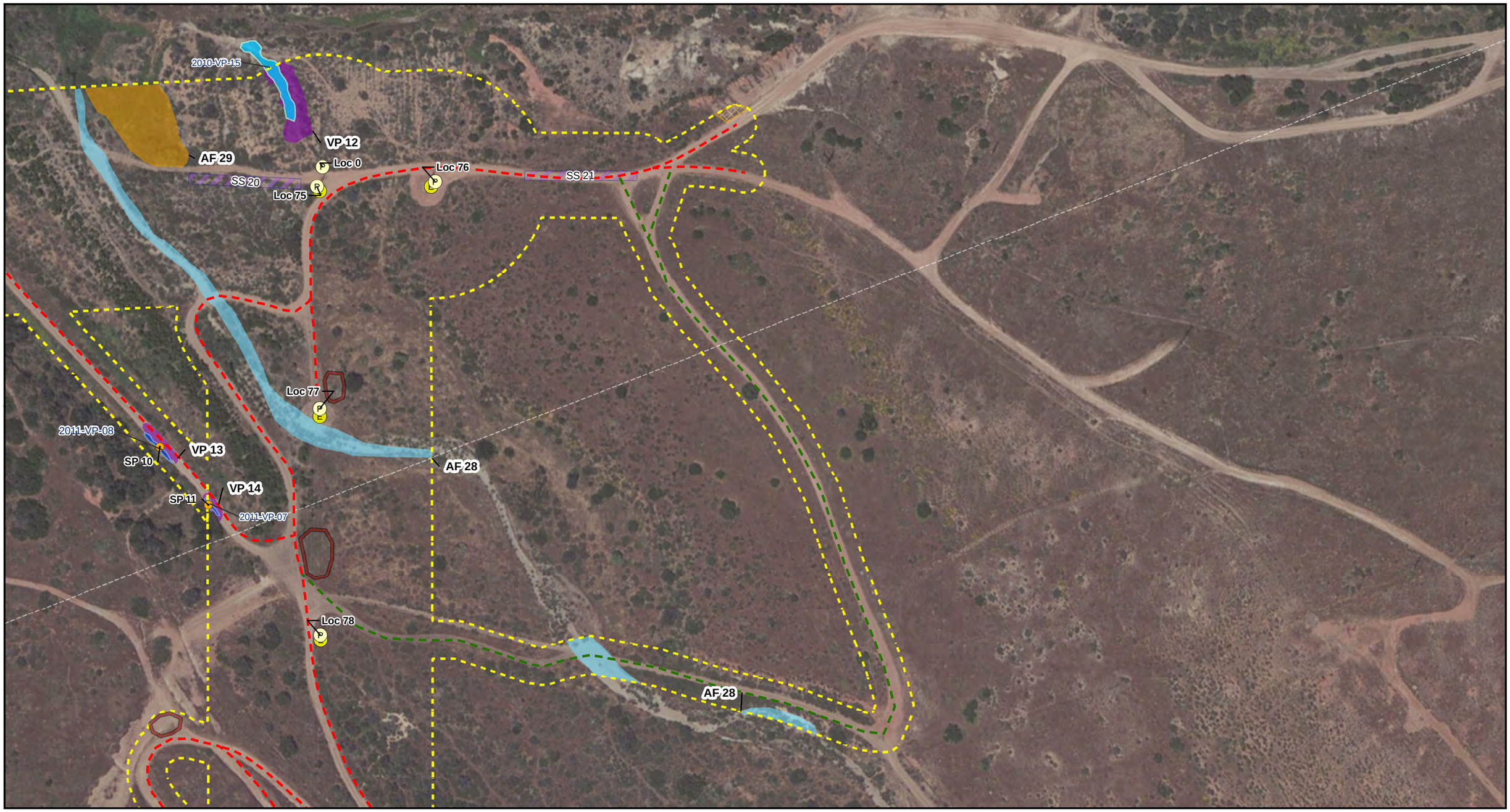


Figure 5

Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

CHAMBERS GROUP



Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Turnaround Area
- Survey Corridor
- Soil Pit
- Vernal Pool-2010, ACOE Wetland Waters, RWQCB Waters of the State
- Vernal Pool-2011, ACOE Wetland Waters, RWQCB Waters of the State
- San Diego Mesa Claypan Vernal Pool Complex - ACOE Wetland Waters, RWQCB Waters of the State
- ACOE Non-wetland Waters, CDFW Streambed, RWQCB Waters of the State
- ACOE Wetland Waters, RWQCB Waters of the State [Vernal Pool]
- CDFW Riparian [Riparian Scrub]

N

0 50 100 200

Feet

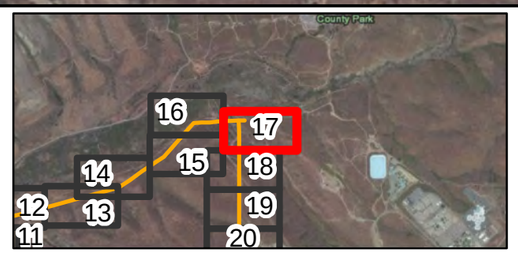


Figure 5

Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

Loc 79

Loc 80

Loc 81

Loc 82

Loc 83

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor
- San Diego Mesa Claypan Vernal Pool Complex - ACOE Wetland Waters, RWQCB Waters of the State

N

0 50 100 200

Feet

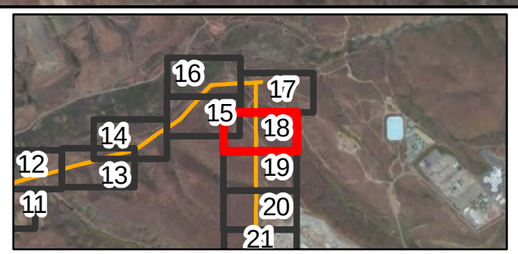


Figure 5

Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

CHAMBERS GROUP

Loc 84
2010-VP-04
2010-VP-21
VP 16
2010-VP-10
VP 15
VP 17
Loc 85
2009-VP-48
SP 17
VP 18
VP 19
2009-VP-47
SP 18
VP 20
SP 48
VP 21
SP 19
Loc 86
AF 30

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor
- Soil Pit
- Vernal Pool-2009, ACOE Wetland Waters, RWQCB Waters of the State
- Vernal Pool-2010, ACOE Wetland Waters, RWQCB Waters of the State
- San Diego Mesa Claypan Vernal Pool Complex - ACOE Wetland Waters, RWQCB Waters of the State
- ACOE Wetland Waters, CDFW Riparian, RWQCB Waters of the State [Southern Willow Scrub]
- ACOE Wetland Waters, RWQCB Waters of the State [Vernal Pool]

N

0 50 100 200
Feet

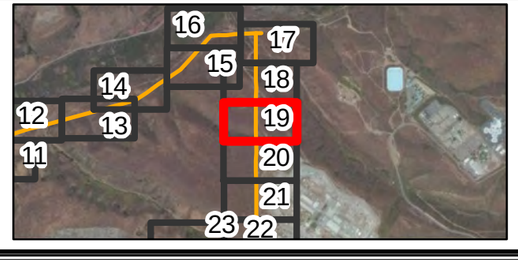


Figure 5
Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre
CHAMBERS GROUP

2011-VP-05
Loc 87
AF 30
VP 22
Loc 88
2009-VP-40
VP 23
SP 20
AF 30
2009-VP-41
Loc 89
2010-VP-01
VP 24
SP 21
VP 25
VP 26
SP 22
VP 27
2011-VP-06
SP 23
2010-VP-19
2011-VP-01
VP 28
VP 29
Loc 90
SP 24
VP 30

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor
- Culvert
- Soil Pit
- Vernal Pool-2009, ACOE Wetland Waters, RWQCB Waters of the State
- Vernal Pool-2010, ACOE Wetland Waters, RWQCB Waters of the State
- Vernal Pool-2011, ACOE Wetland Waters, RWQCB Waters of the State
- San Diego Mesa Claypan Vernal Pool Complex - ACOE Wetland Waters, RWQCB Waters of the State
- ACOE Wetland Waters, CDFW Riparian, RWQCB Waters of the State [Southern Willow Scrub]
- ACOE Wetland Waters, RWQCB Waters of the State [Vernal Pool]

N

0 50 100 200
Feet

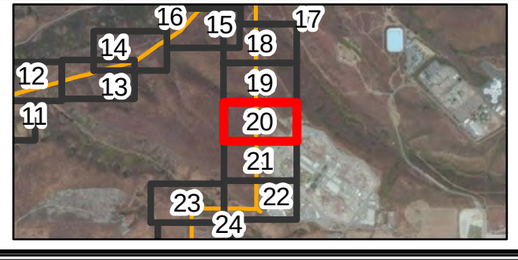
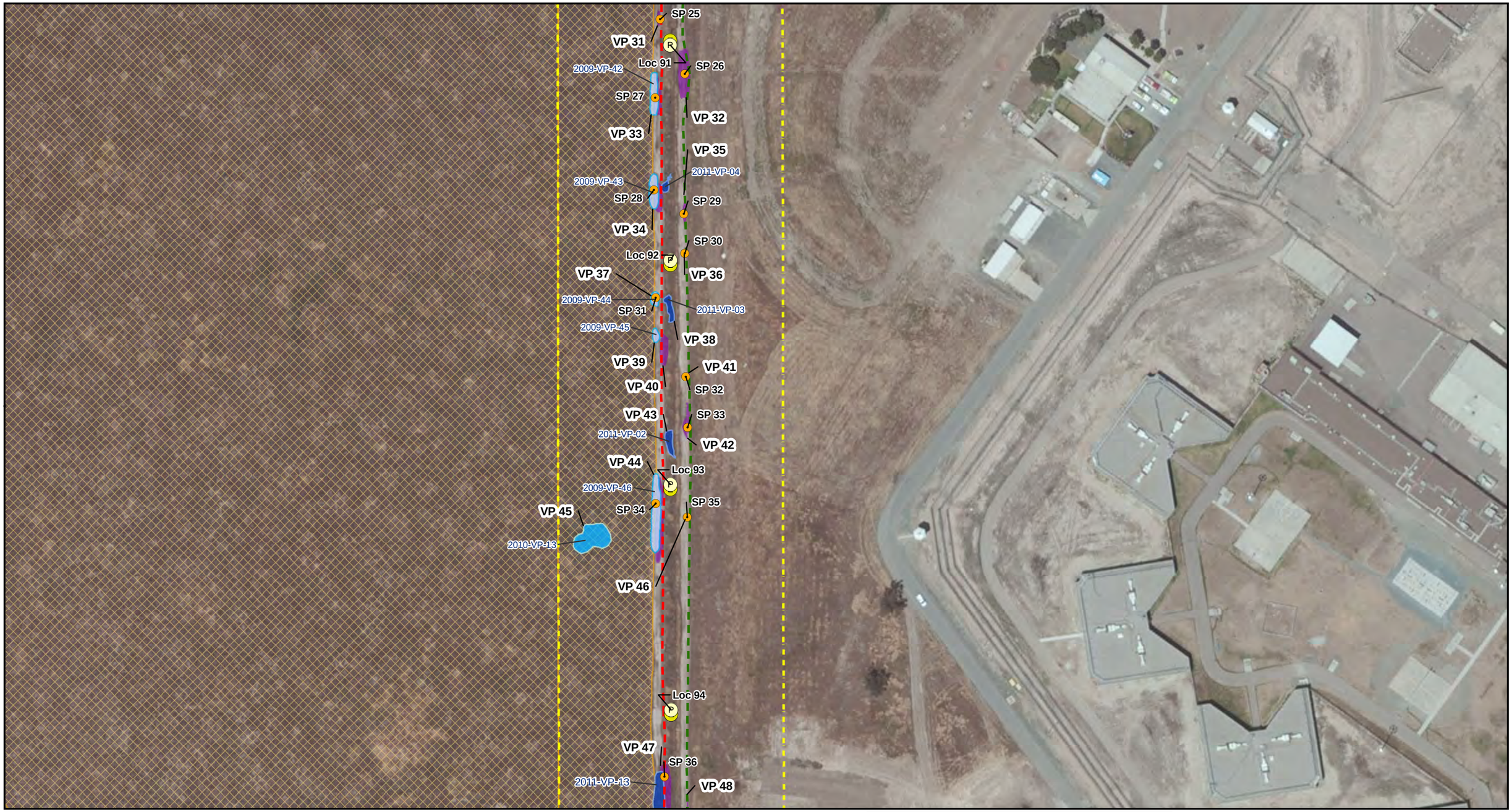


Figure 5
Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre
CHAMBERS GROUP



Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Survey Corridor
- Soil Pit
- Vernal Pool-2009, ACOE Wetland Waters, RWQCB Waters of the State
- Vernal Pool-2010, ACOE Wetland Waters, RWQCB Waters of the State
- Vernal Pool-2011, ACOE Wetland Waters, RWQCB Waters of the State
- San Diego Mesa Claypan Vernal Pool Complex - ACOE Wetland Waters, RWQCB Waters of the State
- ACOE Wetland Waters, RWQCB Waters of the State [Vernal Pool]

N

0 50 100 200

Feet

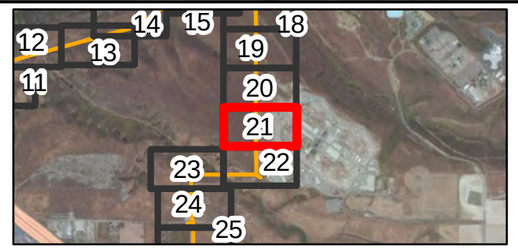
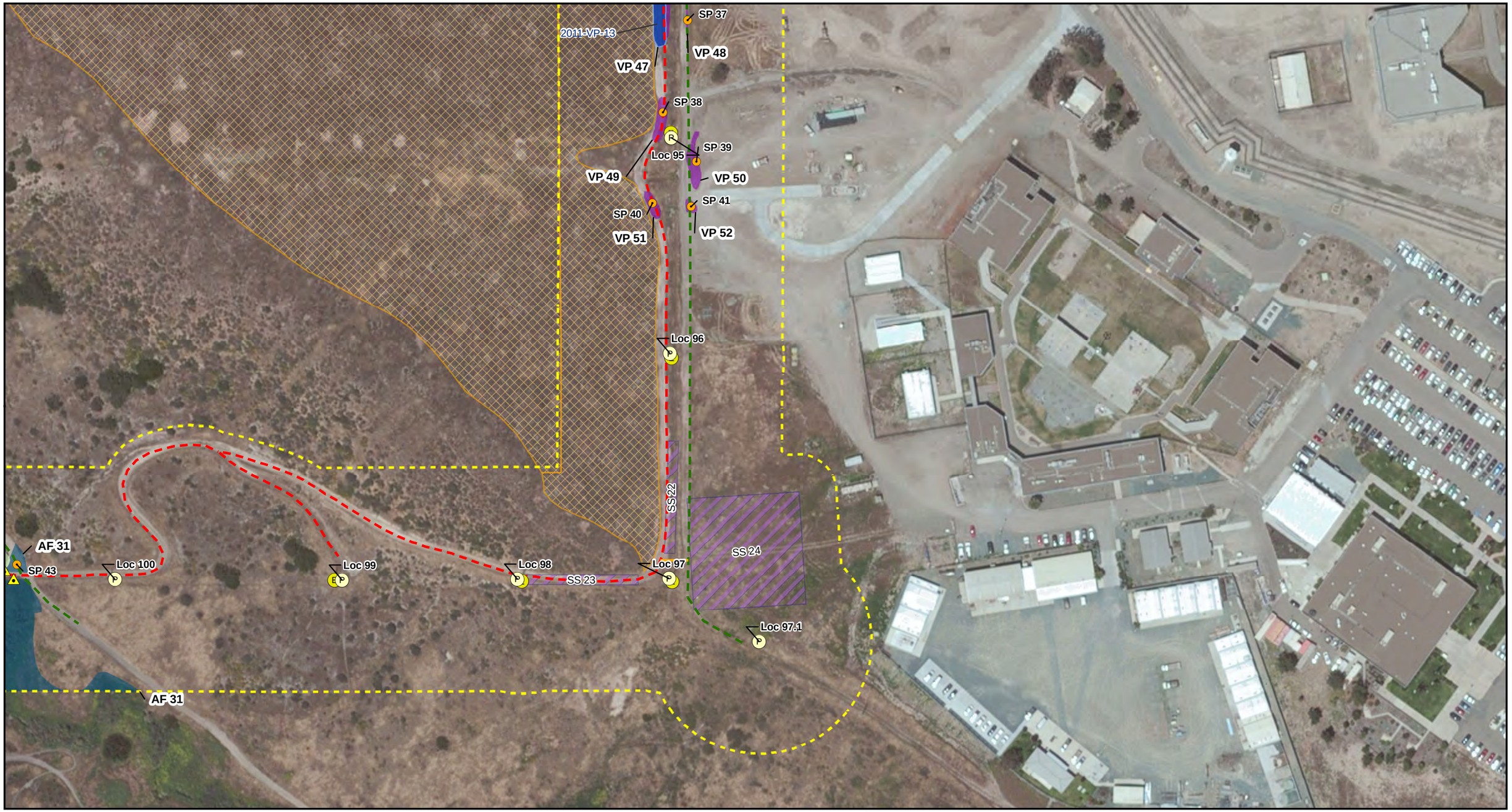


Figure 5

Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

CHAMBERS GROUP



Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Overland Travel
- String Site
- Survey Corridor
- Culvert
- Soil Pit
- Vernal Pool-2011, ACOE Wetland Waters, RWQCB Waters of the State
- San Diego Mesa Claypan Vernal Pool Complex - ACOE Wetland Waters, RWQCB Waters of the State
- ACOE Wetland Waters, CDFW Riparian, RWQCB Waters of the State [Disturbed Wetland]
- ACOE Wetland Waters, CDFW Riparian, RWQCB Waters of the State [Riparian Scrub]
- ACOE Wetland Waters, RWQCB Waters of the State [Vernal Pool]

N

0 50 100 200

Feet

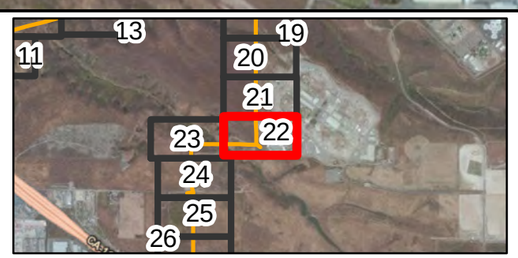


Figure 5
Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Survey Corridor
- Culvert
- Soil Pit
- ACOE Wetland Waters, CDFW Riparian, RWQCB Waters of the State [Disturbed Wetland]
- ACOE Wetland Waters, CDFW Riparian, RWQCB Waters of the State [Riparian Scrub]

N

0 50 100 200
Feet

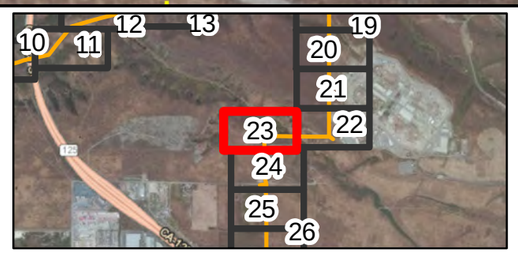


Figure 5
Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- Overland Travel
- String Site
- Survey Corridor
- Non-jurisdictional Swale

N

0 50 100 200

Feet

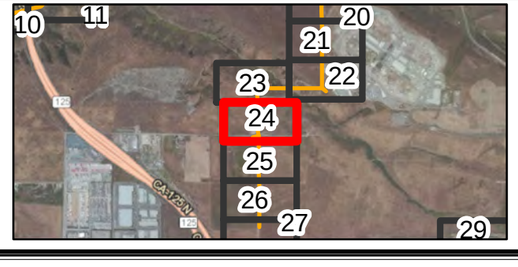


Figure 5

Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

CHAMBERS GROUP

Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Survey Corridor
- Non-jurisdictional Swale

N

0 50 100 200

Feet

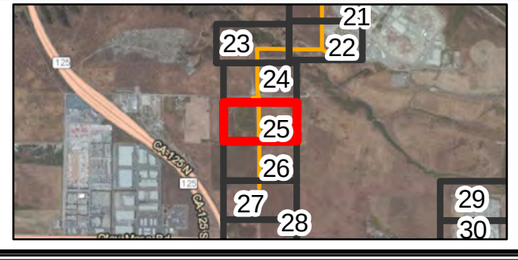
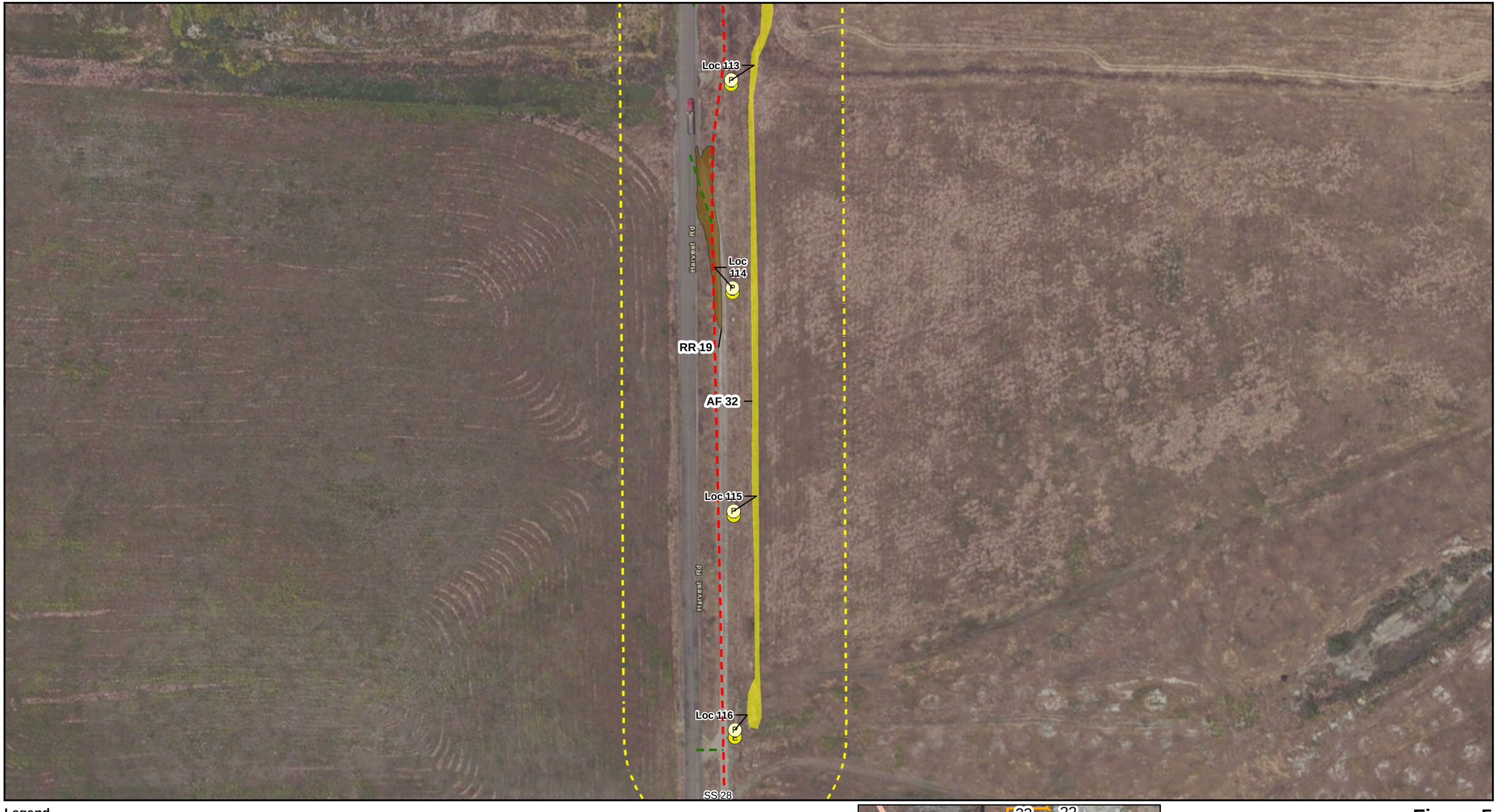


Figure 5

Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

CHAMBERS GROUP



Legend

- Project Pole
- Existing Pole
- Existing Non-TCM Access Road
- Access Road
- String Site
- Survey Corridor
- Non-jurisdictional Road Rut [Bare Ground]
- Non-jurisdictional Swale

N

0 50 100 200

Feet

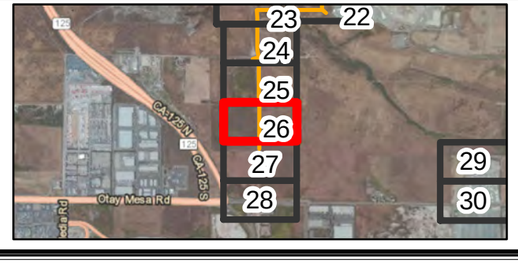


Figure 5

Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

CHAMBERS GROUP

Legend

- Existing Non-TCM Access Road
- Access Road
- String Site
- Survey Corridor

N

0 50 100 200

Feet

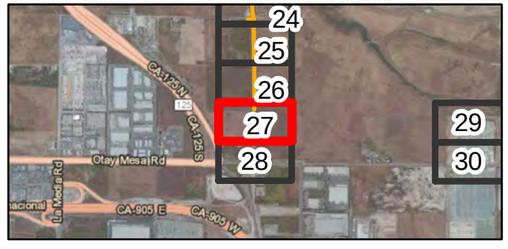
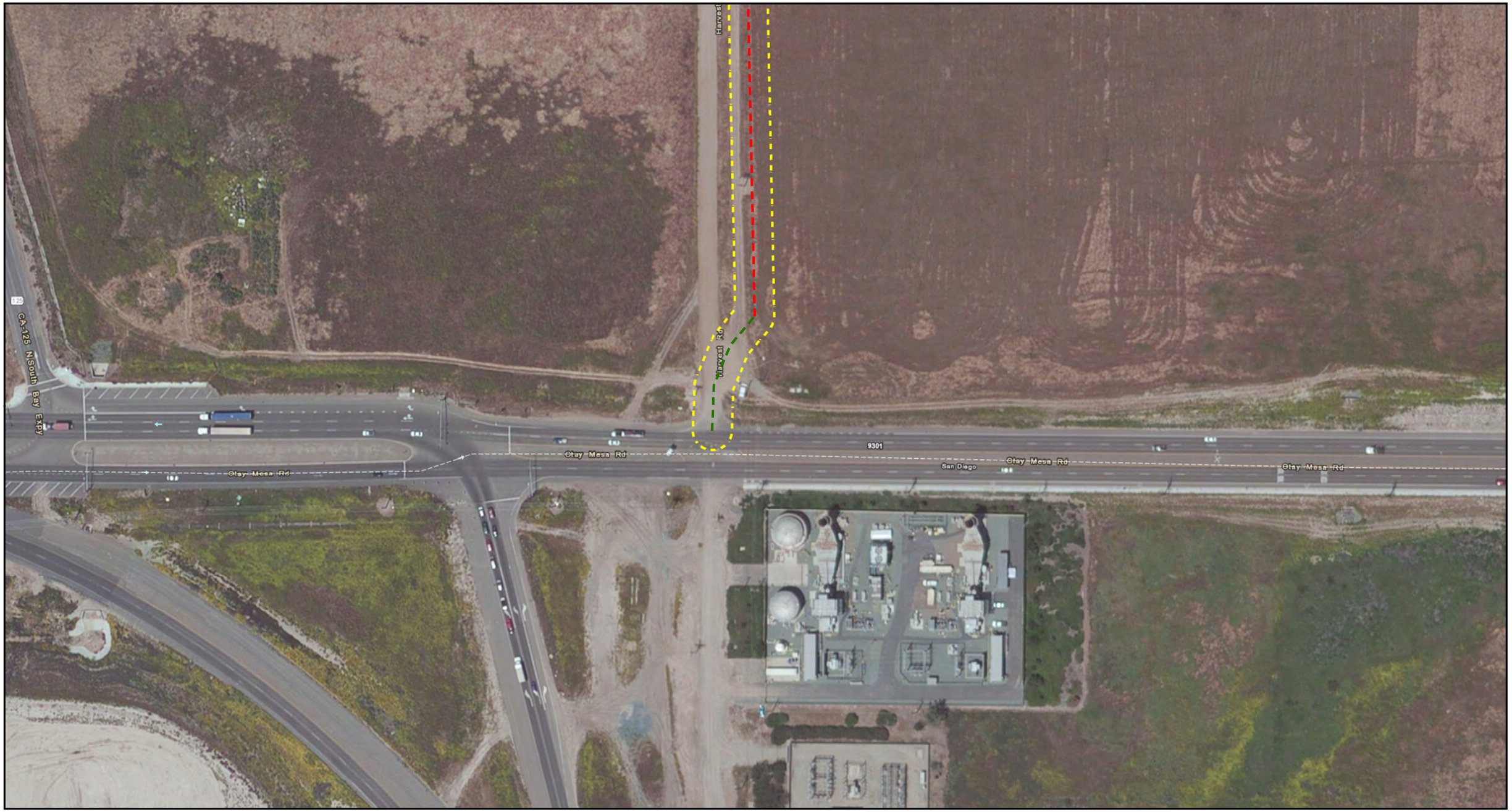


Figure 5

Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

CHAMBERS GROUP



Legend

- Existing Non-TCM Access Road
- Access Road
- Survey Corridor

N

0 50 100 200

Feet

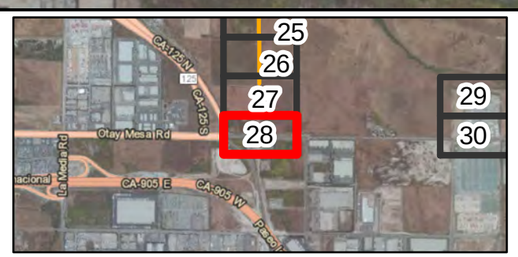


Figure 5

Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

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Legend

Staging Yard

Survey Corridor

N

0 50 100 200

Feet

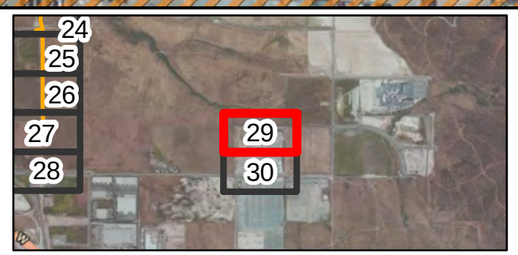

Figure 5

Jurisdictional Resources

TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd

Print Date: 4/30/2015, Author: stondre

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Otay Staging Yard

10101 Otay Mesa Rd

10101 Otay Mesa Rd

Otay Mesa Rd

Otay Mesa Rd

Otay Mesa Rd

Enrico Fermi Dr

Legend

- Staging Yard
- Survey Corridor

N

0 50 100 200

Feet

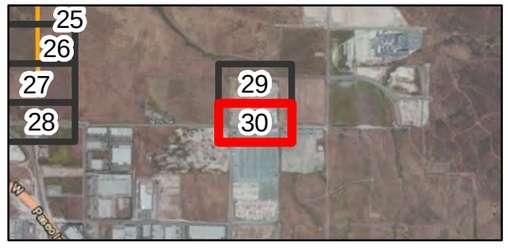

Figure 5

Jurisdictional Resources
TL-649 Wood-to-Steel Project

Name: 20775 JD Fig5 JD Resources 2015.Mxd
Print Date: 4/30/2015, Author: stondre

CHAMBERS GROUP

ATTACHMENT 5: FIELD DATA FORMS

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WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: TL-649 Otay San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 03/20/2015

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 1

Investigator(s): Ian Maunsell, Christina Congedo Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): C - Mediterranean California Lat: 32.58526 Long: -116.99113 Datum: NAD-83

Soil Map Unit Name: Diablo clay NWI classification: Palustrine

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

Are Vegetation [X] 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 ( )	**Is the Sampled Area within a Wetland?** Yes ( ) No (•)
Wetland Hydrology Present?	Yes (•)	No ( )	

Remarks: Vegetation nonexistent within access road. Area sampled due to high potential for San Diego fairy shrimp. Road rut pool does not traverse a known vernal pool complex and no vernal pool indicator plant species observed to occur.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *None*	0	No	
2.			
3.			
4.			
Total Cover:	0 %		
Sapling/Shrub Stratum			
1. *None*	0	No	
2.			
3.			
4.			
5.			
Total Cover:	0 %		
Herb Stratum			
1. *None*	0	No	
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	0 %		
Woody Vine Stratum			
1. *None*	0	No	
2.			
Total Cover:	0 %		

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

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 0 (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 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	(A)		0 (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)
- [X] Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ( ) No (•)

Remarks: Sampling conducted within a road rut pool. Hydrophytic vegetation is not expected to occur in undisturbed conditions based on surrounding conditions.

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

[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 soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils assumed due to strong hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☒ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ 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)
- ☐ 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): 6

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: Road rut pool with surface water present at time of survey. Spadefoot toad tadpoles (B13) present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: TL-649 Otay San Ysidro Border Wood to Steel | City/County: Chula Vista/San Diego | Sampling Date: 03/20/2015

Applicant/Owner: San Diego Gas & Electric | State: CA | Sampling Point: 2

Investigator(s): Ian Maunsell, Christina Congedo | Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): C - Mediterranean California | Lat: 32.19502 | Long: -116.96015 | Datum: NAD-83

Soil Map Unit Name: Diablo clay | NWI classification: Palustrine

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

Are Vegetation [X] 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 ( )	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks: Sparse upland vegetation present within access road. Area sampled due to high potential for San Diego fairy shrimp. Road rut pool does not traverse a known vernal pool complex and no vernal pool indicator plant species observed to occur.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *None*	0	No	
2.			
3.			
4.			
Total Cover:	0 %		
Sapling/Shrub Stratum			
1. *None*	0	No	
2.			
3.			
4.			
5.			
Total Cover:	0 %		
Herb Stratum			
1. *Schismus barbatus*	.5	Yes	UPL
2. *Hypochaeris glabra*	.25	Yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	0.75%		
Woody Vine Stratum			
1. *None*	0	No	
2.			
Total Cover:	0 %		

% Bare Ground in Herb Stratum 99.25% | % Cover of Biotic Crust 0 %

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: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species	0.75	x 5 =	3.75
Column Totals:	0.75 (A)		3.75 (B)

Prevalence Index = B/A = 5.00

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)
- [X] Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: Sampling conducted within a road rut pool. Hydrophytic vegetation is not expected to occur in undisturbed conditions based on surrounding conditions including habitat and topographic relief.

SOIL

Sampling Point: 2

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

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

[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 soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils assumed due to strong hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☒ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ 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)
- ☐ 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): 7
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: Road rut pool with surface water present at time of survey. Spadefoot toad tadpoles (B13) present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 3

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): LRR-C Lat: 32°35'31.14"N Long: 116°57'24.88"W Datum: NAD-83

Soil Map Unit Name: Diablo clay NWI classification: Palustrine

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? No Are "Normal Circumstances" present? Yes x No

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Sampling point located within emergent marsh.

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.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Elymus triticoides*	90	Yes	FAC
2. *Rumex crispus*	2	No	FAC
3. *Bromus diandrus*	1	N0	UPL
4. *Bromus hordaceous*	1	No	FACU
5.			
6.			
7.			
8.			
	94% = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 6% % Cover of Biotic Crust

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

x Dominance Test is >50%

Prevalence Index is ≤3.0[1]

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

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No

Remarks:

SOIL

Sampling Point: 3

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	5 YR 3/2	90	2.5 YR 4/6	10	C	PL	Silty clay loam	
7-18	5 YR 2.5/1	100	-	-	-	-	Clay loam	

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes x No _____

Remarks:

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)
- x 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)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: TL-649 Otay San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 03/20/2015

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 4

Investigator(s): Ian Maunsell, Christina Congedo Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): C - Mediterranean California Lat: 32.59168 Long: -116.95676 Datum: NAD-83

Soil Map Unit Name: Diablo clay NWI classification: Palustrine

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

Are Vegetation [X] 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 ( )	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks: Sparse facultative vegetation present within access road, likely due to surface water accumulation within road rut. Area sampled due to high potential for San Diego fairy shrimp and nearby wet meadow. Road rut pool does not traverse a known vernal pool complex and no vernal pool indicator plant species observed to occur.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *None*	0	No	
2.			
3.			
4.			
Total Cover:	0 %		
Sapling/Shrub Stratum			
1. *None*	0	No	
2.			
3.			
4.			
5.			
Total Cover:	0 %		
Herb Stratum			
1. *Distichilis spicata*	1	No	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	1 %		
Woody Vine Stratum			
1. *None*	0	No	
2.			
Total Cover:	0 %		

% Bare Ground in Herb Stratum 99 % % Cover of Biotic Crust 0 %

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 0 (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 =	0
FACW species		x 2 =	0
FAC species	1	x 3 =	3
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	1 (A)		3 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: Sampling conducted within a road rut pool. Hydrophytic vegetation is not expected to dominate area in undisturbed conditions due to local relief and surrounding upland grassland habitat.

SOIL

Sampling Point: 4

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

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

[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 soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils assumed due to strong hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ 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)
- ☐ 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: Road rut pool with surface soil cracks present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 5

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): LRR-C Lat: 32°35'31.88"N Long: 116°57'18.75"W Datum: NAD-83

Soil Map Unit Name: Diablo clay NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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. *Polypogon monspeliensis*	1	N	FACW
2. *Festuca perennis*	5	Y	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	6	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 94 % 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: 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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 5

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 6

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): LRR-C Lat: 32°35'42.62"N Long: 116°56'49.16"W Datum: NAD-83

Soil Map Unit Name: Olivenhain cobbly loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (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 x No		
Wetland Hydrology Present?	Yes x No		

Remarks: Vegetation is lacking due to disturbance from access road. Hydrophytic vegetation assumed due to prevalence of hydrophytic vegetation in nearby undisturbed vernal pools.

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.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	0	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= 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: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (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 x

Remarks: Sampling was conducted in a vernal pool within an access road. Hydrophytic vegetation assumed based on nearby undisturbed vernal pools.

SOIL Sampling Point: 6

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 7

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): LRR-C Lat: 32°35'47.10"N Long: 116°56'43.18"W Datum: NAD-83

Soil Map Unit Name: Olivenhain cobbly loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation is lacking due to disturbance from access road. Hydrophytic vegetation assumed due to prevalence of hydrophytic vegetation in nearby undisturbed vernal pools.

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.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	0	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= 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: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (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)
- x Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No

Remarks: Sampling was conducted in a vernal pool within an access road. Hydrophytic vegetation assumed based on nearby undisturbed vernal pools.

SOIL

Sampling Point: 7

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: SNo soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 8

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): Otay Valley Hydrologic Area Lat: 32°35'49.47"N Long: 116°56'39.63"W Datum: NAD-83

Soil Map Unit Name: Olivenhain cobbly loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation is lacking due to disturbance from access road. Hydrophytic vegetation assumed due to prevalence of hydrophytic vegetation in nearby undisturbed vernal pools.

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.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	0	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= 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: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (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)
- x Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No

Remarks: Sampling was conducted in a vernal pool within an access road. Hydrophytic vegetation assumed based on nearby undisturbed vernal pools.

SOIL Sampling Point: 8

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 9

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): LRR-C Lat: 32°35'48.12"N Long: 116°56'40.19"W Datum: NAD-83

Soil Map Unit Name: Olivenhain cobbly loam NWI classification: Palustrine

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? No Are "Normal Circumstances" present? Yes x No

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Sampling point is located within emergent marsh.

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.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Juncus effusus*	65	Yes	FACW
2. *Bromus madritensis*	2	No	UPL
3. *Bromus diandrus*	1	No	UPL
4.			
5.			
6.			
7.			
8.			
	68% = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 32% % Cover of Biotic Crust

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

x Dominance Test is >50%

Prevalence Index is ≤3.0[1]

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

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No

Remarks:

SOIL

Sampling Point: 9

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	5 YR 3/1	98	2.5 YR 4/8	2	C	PL	Silty clay loam	See remarks below

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes x No _____

Remarks: Rocky substrate precludes digging. Redoximorphic concentrations observed on clay lining rocks and roots. Hydric soils assumed due to presence of redoximorphic features on soil surface, as well as strong hydrophytic vegetation and hydrology indicators.

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)
- x Oxidized Rhizospheres along Living Roots (C3)
- x 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)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 10

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): LRR-C Lat: 32°35'49.84"N Long: 116°56'23.42"W Datum: NAD-83

Soil Map Unit Name: Olivenhain cobbly loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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. *Polypogon monspeliensis*	2	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	2	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 98 % 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: 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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 10

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
x Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
x 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 11

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): LRR-C Lat: 32°35'49.61"N Long: 116°56'23.30"W Datum: NAD-83

Soil Map Unit Name: Olivenhain cobbly loam NWI classification: Palustrine

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

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

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

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

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

Remarks: Vegetation is lacking due to disturbance from access road. Hydrophytic vegetation assumed due to prevalence of hydrophytic vegetation in nearby undisturbed vernal pools.

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.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	0	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= 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: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (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)
- x 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 x

Remarks: Sampling was conducted in a vernal pool within an access road. Hydrophytic vegetation assumed based on nearby undisturbed vernal pools.

SOIL Sampling Point: 11

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks: Wetland hydrology is present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 12

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): LRR-C Lat: 32°35'56.00"N Long: 116°56'11.41"W Datum: NAD-83

Soil Map Unit Name: Olivenhain cobbly loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation is mostly non-native due to disturbance from access road. Hydrophytic vegetation assumed due to prevalence of hydrophytic vegetation in nearby undisturbed vernal pools.

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.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Schismus barbatus*	2	Yes	UPL
2. *Psilocarphus brevissimus var. brevissimus*	1	Yes	FACW
3. *Erodium cicutarium*	1	Yes	FACU
4. *Deinandra fasciculata*	0.5	No	FACU
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	0	x 1 =	0
FACW species	1	x 2 =	2
FAC species	0	x 3 =	0
FACU species	1	x 4 =	4
UPL species	2	x 5 =	10
Column Totals:	4 (A)		16 (B)

Prevalence Index = B/A = 4

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)
- x Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No

Remarks: Sampling was conducted in a vernal pool within an access road. Hydrophytic vegetation assumed based on nearby undisturbed vernal pools.

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 13

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): LRR-C Lat: 32°35'55.76"N Long: 116°56'4.94"W Datum: NAD-83

Soil Map Unit Name: Huerhuero loam, Riverwash NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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. *Polypogon monspeliensis*	1	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	1	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 99 % 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: 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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 13

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
x Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
x 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 14

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): Convex Slope (%): 2%

Subregion (LRR): LRR-C Lat: 32°35'55.43"N Long: 116°56'1.58"W Datum: NAD-83

Soil Map Unit Name: Riverwash NWI classification: Riverine

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? No Are "Normal Circumstances" present? Yes x No

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Sampling point within emergent marsh vegetation located within drainage.

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. *Iva hayesiana*	70	Yes	FACW
2. *Foeniculum vulgare*	3	No	UPL
3. *Tamarix ramossisima*	2	No	FAC
4.			
5.			
	75 = Total Cover		
Herb Stratum (Plot size:)			
1. *Polypogon monspeliensis*	2	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	2 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 88% % 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:

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 x No

Remarks:

SOIL

Sampling Point: 14

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 %	Type[1]	Loc[2]	Texture	Remarks
0-1.5	4/3 7.5 YR	100	-	-	-	-	Silty clay loam	-
2-15	4/2 10 YR	97	5 YR 5/6	3	C	PL	Silty clay	Organic material present in layer

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes x No _____

Remarks:

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 15

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec 13 & 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'48.60"N Long: 116°55'45.73"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation is lacking due to disturbance from access road. Hydrophytic vegetation assumed due to prevalence of hydrophytic vegetation in nearby undisturbed vernal pools.

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. *Erodium botrys*	1	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	1	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 99 % Cover of Biotic Crust 0

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	1	x 4 =	4
UPL species	0	x 5 =	0
Column Totals:	1 (A)		4 (B)

Prevalence Index = B/A = 4.0

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)
- x Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No

Remarks: Sampling was conducted in a vernal pool within an access road. Hydrophytic vegetation assumed under normal circumstances.

SOIL Sampling Point: 15

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 16

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec 13 & 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'48.51"N Long: 116°55'44.49"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation is mostly non-native due to disturbance from access road. Hydrophytic vegetation assumed due to prevalence of hydrophytic vegetation in nearby undisturbed vernal pools.

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. *Erodium botrys*	2	Yes	FACU
2. *Deinandra fasciculata*	3	Yes	FACU
3. *Centaurea melitensis*	1	No	UPL
4.			
5.			
6.			
7.			
8.			
	6	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 94 % Cover of Biotic Crust 0

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	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	1	x 5 =	5
Column Totals:	6	(A)	25 (B)

Prevalence Index = B/A = 4.17

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)
- x Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No

Remarks: Sampling was conducted in a vernal pool within an access road. Hydrophytic vegetation assumed based on nearby undisturbed vernal pools.

SOIL Sampling Point: 16

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 17

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'29.19"N Long: 116°56'21.86"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Psilocarphus brevissimus var. brevissimus*	8	Yes	FACW
2. *Polypogon monspeliensis*	3	Yes	FACW
3. *Festuca perennis*	2	No	FAC
4.			
5.			
6.			
7.			
8.			
	13 = 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: 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:

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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 17

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 18

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'28.64"N Long: 116°56'21.94"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Psilocarphus brevissimus var. brevissimus*	3	Yes	FACW
2. *Polypogon monspeliensis*	3	Yes	FACW
3. *Festuca perennis*	1	No	FAC
4.			
5.			
6.			
7.			
8.			
	7 = 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: 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:

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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 18

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 19

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'28.30"N Long: 116°56'21.89"W Datum: NAD-83

Soil Map Unit Name: SStockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation is lacking due to disturbance from access road. Hydrophytic vegetation assumed due to prevalence of hydrophytic vegetation in nearby undisturbed vernal pools.

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.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	0	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= 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: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (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)
- x 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 x

Remarks: Sampling was conducted in a vernal pool within an access road. Hydrophytic vegetation assumed based on nearby undisturbed vernal pools.

SOIL Sampling Point: 19

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
_x_ 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 _x_ No ___

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
_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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No _x_ Depth (inches): _____
Water Table Present? Yes ___ No _x_ Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes ___ No _x_ Depth (inches): _____

Wetland Hydrology Present? Yes _x_ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 20

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): Convex Slope (%): 1-4%

Subregion (LRR): LRR-C Lat: 32°35'20.24"N Long: 116°56'15.43"W Datum: NAD-83

Soil Map Unit Name: Olivenhain cobbly loam NWI classification: Riverine

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? No Are "Normal Circumstances" present? Yes x No

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Sampling located in southern willow scrub vegetation within drainage.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix lasiolepis*	35%	Yes	FACW
2. *Salix goodingii*	25%	Yes	FACW
3.			
4.			
	60%	= Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1. *Baccharis pilularis*	2%	Yes	UPL
2.			
3.			
4.			
5.			
	2%	= 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 98% % 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 x No

Remarks:

SOIL

Sampling Point: 20

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

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

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

Restrictive Layer (if present):

Type: Rocky conglomerate

Depth (inches): _____

Hydric Soil Present? Yes x No _____

Remarks: Rocky conglomerate precludes digging. Hydric soils assumed based on strong hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

x 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**)
x 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 x No ___ Depth (inches): 4

Water Table Present? Yes x No ___ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes x No ___ Depth (inches): 0

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 21

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'19.47"N Long: 116°56'21.86"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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. *Psilocarphus brevissimus var. brevissimus*	25	Y	FACW
2. *Festuca perennis*	5	N	FAC
3. *Polypogon monspeliensis*	7	N	FACW
4.			
5.			
6.			
7.			
8.			
	37	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 63 % 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: 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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 21

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
_x_ 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 _x_ No ___

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
_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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No _x_ Depth (inches): _____
Water Table Present? Yes ___ No _x_ Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes ___ No _x_ Depth (inches): _____

Wetland Hydrology Present? Yes _x_ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 22

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'18.27"N Long: 116°56'21.86"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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. *Psilocarphus brevissimus var. brevissimus*	2	Y	FACW
2. *Festuca perennis*	3	Y	FAC
3. *Polypogon monspeliensis*	5	Y	FACW
4. *Atriplex semibaccata*	2	N	FAC
5.			
6.			
7.			
8.			
	20	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= 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: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 22

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 23

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'18.95"N Long: 116°56'21.85"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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. *Psilocarphus brevissimus var. brevissimus*	3	Y	FACW
2. *Festuca perennis*	5	Y	FAC
3. *Polypogon monspeliensis*	5	Y	FACW
4. *Avena barbata*	1	N	UPL
5.			
6.			
7.			
8.			
	14	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 86 % Cover of Biotic Crust 0

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: 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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 23

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
x Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
x 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 24

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'16.20"N Long: 116°56'21.52"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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. *Polypogon monspeliensis*	2	Y	FACW
2. *Festuca perennis*	1	Y	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	3	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 97 % 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: 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 x No

Remarks: Hydrophytic vegetation is present.

SOIL

Sampling Point: 24

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 25

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'13.55"N Long: 116°56'21.84"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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. *Psilocarphus brevissimus var. brevissimus*	5	Y	FACW
2. *Festuca perennis*	5	Y	FAC
3. *Polypogon monspeliensis*	7	Y	FACW
4. *Atriplex semibaccata*	3	N	FAC
5.			
6.			
7.			
8.			
	20	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= 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: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 25

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 26

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): Otay Valley Hydrologic Area Lat: 32°35'12.91"N Long: 116°56'21.45"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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. *Polypogon monspeliensis*	1	Y	FACW
2. *Festuca perennis*	1	Y	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	2	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 98 % 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: 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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 26

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks: Wetland hydrology is present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 27

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'12.42"N Long: 116°56'21.89"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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. *Psilocarphus brevissimus var. brevissimus*	12	Y	FACW
2. *Festuca perennis*	6	Y	FAC
3. *Polypogon monspeliensis*	12	Y	FACW
4.			
5.			
6.			
7.			
8.			
	30	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 70 % Cover of Biotic Crust 0

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: 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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 27

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 28

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'11.74"N Long: 116°56'21.93"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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. *Salsola tragus*	1	N	FACU
2. *Festuca perennis*	10	Y	FAC
3. *Polypogon monspeliensis*	20	Y	FACW
4.			
5.			
6.			
7.			
8.			
	31	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 69 % 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: 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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 28

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
_x_ 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 _x_ No ___

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
_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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No _x_ Depth (inches): _____
Water Table Present? Yes ___ No _x_ Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes ___ No _x_ Depth (inches): _____

Wetland Hydrology Present? Yes _x_ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 29

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'11.05"N Long: 116°56'21.43"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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. *Salsola tragus*	1	N	FACU
2. *Festuca perennis*	5	Y	FAC
3. *Polypogon monspeliensis*	7	Y	FACW
4.			
5.			
6.			
7.			
8.			
	13	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 87 % 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: 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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 29

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 30

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'10.63"N Long: 116°56'21.48"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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. *Polypogon monspeliensis*	2	Y	FACW
2. *Festuca perennis*	2	Y	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	4	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 96 % 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: 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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 30

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 31

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'9.75"N Long: 116°56'21.86"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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. *Psilocarphus brevissimus var. brevissimus*	3	N	FACW
2. *Festuca perennis*	5	N	FAC
3. *Polypogon monspeliensis*	15	Y	FACW
4. *Atriplex semibaccata*	5	N	FAC
5.			
6.			
7.			
8.			
	28	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 72 % 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: 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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 31

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 32

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'8.95"N Long: 116°56'21.49"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Polypogon monspeliensis*	5	Yes	FACW
2. *Festuca perennis*	2	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	7 = 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: 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:

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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 30

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 33

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'8.33"N Long: 116°56'21.44"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Polypogon monspeliensis*	7	Yes	FACW
2. *Festuca perennis*	2	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	9 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 92% % 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:

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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 33

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 34

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'9.75"N Long: 116°56'21.86"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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. *Psilocarphus brevissimus var. brevissimus*	3	No	FACW
2. *Festuca perennis*	5	Yes	FAC
3. *Polypogon monspeliensis*	10	Yes	FACW
4. *Atriplex semibaccata*	5	Yes	FAC
5.			
6.			
7.			
8.			
	23	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 77 % Cover of Biotic Crust 0

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: 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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 31

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 35

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'6.95"N Long: 116°56'21.40"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Polypogon monspeliensis*	6	Yes	FACW
2. *Festuca perennis*	2	Yes	FAC
3. *Salsola tragus*	1	No	FACU
4.			
5.			
6.			
7.			
8.			
	9 = 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: 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:

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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 35

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 36

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'3.64"N Long: 116°56'21.84"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Festuca perennis*	5	Yes	FAC
2. *Polypogon monspeliensis*	5	Yes	FACW
3. *Spergularia sp.*	3	Yes	FACW
4. *Psilocarphus brevissimus var. brevissimus*	2	No	FACW
5.			
6.			
7.			
8.			
	15 = 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: 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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL Sampling Point: 36

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 %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
- x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
- 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 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)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 37

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'3.63"N Long: 116°56'21.46"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Polypogon monspeliensis*	5	Yes	FACW
2. *Atriplex semibaccata*	3	Yes	FAC
3. *Avena barbata*	3	Yes	UPL
4.			
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: 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	0	x 1 =	0
FACW species	4.5	x 2 =	9
FAC species	1	x 3 =	3
FACU species	2	x 4 =	8
UPL species	2.5	x 5 =	12.5
Column Totals:	9.5 (A)		32.5 (B)

Prevalence Index = B/A = 3.4

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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL

Sampling Point: 37

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
_x_ 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 _x_ No ___

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
_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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes _x_ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 38

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'2.18"N Long: 116°56'21.90"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation is mostly non-native due to disturbance from access road. Hydrophytic vegetation assumed due to prevalence of hydrophytic vegetation in nearby undisturbed vernal pools.

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.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Polypogon monspeliensis*	4	Yes	FACW
2. *Sonchus oleraceous*	2	Yes	UPL
3. *Erodium cicutarium*	2	Yes	FACU
4. *Festuca perennis*	1	No	FAC
5. *Psilocarphus brevissimus var. brevissimus*	0.5	No	FACW
6. *Chamaesyce sp.*	0.5	No	UPL
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	0	x 1 =	0
FACW species	4.5	x 2 =	9
FAC species	1	x 3 =	3
FACU species	2	x 4 =	8
UPL species	2.5	x 5 =	12.5
Column Totals:	9.5 (A)		32.5 (B)

Prevalence Index = B/A = 3.4

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)
- x Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No

Remarks: Sampling was conducted in a vernal pool within an access road. Hydrophytic vegetation assumed based on nearby undisturbed vernal pools.

SOIL Sampling Point: 38

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 39

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'1.06"N Long: 116°56'21.44"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation is mostly non-native due to disturbance from access road. Hydrophytic vegetation assumed due to prevalence of hydrophytic vegetation in nearby undisturbed vernal pools.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Spergularia sp.*	5	Yes	FACW
2. *Sonchus oleraceous*	3	Yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	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: 1 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	3	x 5 =	15
Column Totals:	8 (A)		25 (B)

Prevalence Index = B/A = 3.125

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)
- x Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No

Remarks: Sampling was conducted in a vernal pool within an access road. Hydrophytic vegetation assumed under normal circumstances.

SOIL Sampling Point: 39

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrology indicators.

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**)
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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes x No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 40

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'0.63"N Long: 116°56'22.05"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation significantly disturbed from access road.

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.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Psilocarphus brevissimus var. brevissimus*	3	Yes	FACW
2. *Polypogon monspeliensis*	2	Yes	FACW
3. *Erodium botrys*	1	No	FACU
4. *Sonchus oleraceous*	0.5	No	UPL
5.			
6.			
7.			
8.			
	6.5 = 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: 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:

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 x No

Remarks: Sampling was conducted in a vernal pool within an access road.

SOIL

Sampling Point: 40

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 %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
_x_ 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 _x_ No ___

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrophytic vegetation and hydrology indicators.

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**)
_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 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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes _x_ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 41

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°35'18.95"N Long: 116°56'21.86"W Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

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

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Vegetation and hydrology altered due to disturbance from access road. Hydrophytic vegetation and hydrology assumed due to prevalence of hydrophytic vegetation and hydrology indicators in nearby undisturbed vernal pools.

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.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Sonchus oleraceous*	9	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	9 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 91% % 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: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	9	x 5 =	45
Column Totals:	9 (A)		45 (B)

Prevalence Index = B/A = 5

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)
- x Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No

Remarks: Sampling was conducted in a vernal pool within an access road. Hydrophytic vegetation assumed based on nearby undisturbed vernal pools.

SOIL

Sampling Point: 41

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [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)
x 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 x No _____

Remarks: No soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils were assumed due to strong hydrology and hydrophytic indicators in nearby vernal pools.

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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes x No _____

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

Remarks: Soil surface is disturbed from access road. Hydrology assumed due to basin topography suitable for ponding and strong hydrology indicators (surface soil cracks) in nearby vernal pools

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 42

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 25, Otay Mesa quadrangle

Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): Convex Slope (%): 1-3

Subregion (LRR): LRR-C Lat: 32°34'56.01"N Long: 116°56'32.61"W Datum: NAD-83

Soil Map Unit Name: Linne clay loam NWI classification: Palustrine

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? No Are "Normal Circumstances" present? Yes x No

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Sampling point within emergent marsh vegetation located within drainage.

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. *Juncus acutus*	20	Yes	FACW
2. *Baccharis salicifolia*	15	Yes	FAC
3. *Iva hayesiana*	12	Yes	FACW
4. *Tamarix ramossisima*	2	No	FAC
5.			
	49	= Total Cover	
Herb Stratum (Plot size:)			
1. *Polypogon monspeliensis*	0.5	Yes	FACW
2. *Heliotropum curassavicum*	2	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	2.5	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 87.5% % 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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (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 x No

Remarks:

SOIL

Sampling Point: 42

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 %	Type[1]	Loc[2]	Texture	Remarks

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

Restrictive Layer (if present):

Type: Rocky conglomerate

Depth (inches): ___

Hydric Soil Present? Yes x No ___

Remarks: Rocky conglomerate precludes digging. Hydric soils assumed based on strong hrophytic vegetation and hydrology indicators.

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes x No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TL-649 Otay-San Ysidro Border Wood to Steel City/County: Chula Vista/San Diego Sampling Date: 05/22/2014

Applicant/Owner: San Diego Gas & Electric State: CA Sampling Point: 43

Investigator(s): Michael Nieto, Cailin O'Meara Section, Township, Range: T18S, R01W, Sec. 25, Otay Mesa quadrangle

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

Subregion (LRR): LRR-C Lat: 32°34'55.51"N Long: 116°56'32.79"W Datum: NAD-83

Soil Map Unit Name: Linne clay loam NWI classification: Not applicable

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? No Are "Normal Circumstances" present? Yes x No

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

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

Remarks: Sampling point located on upland slope adjacent to drainage.

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.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Bromus diandrus*	65	Yes	UPL
2. *Hirschfeldia incana*	2	No	UPL
3. *Avena barbata*	15	No	UPL
4.			
5.			
6.			
7.			
8.			
	85% = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 15% % 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: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	85	x 5 =	425
Column Totals:	85 (A)		425 (B)

Prevalence Index = B/A = 5.0

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 x

Remarks: Sampling point within non-native grassland.

SOIL Sampling Point: 43

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
0-16	7.5 YR 4/3	100	-	-	-	-	Sandy loam	-

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

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No x

Remarks: No hydric soil indicators observed.

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)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): _____
Water Table Present? Yes _____ No x Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): _____

Wetland Hydrology Present? Yes _____ No x

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

Remarks: No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: TL 649 Otay/San Ysidro Border. WRS | City/County: Chula Vista/San Diego | Sampling Date: 03/20/2015

Applicant/Owner: SDG&E | State: CA | Sampling Point: 44

Investigator(s): Ian Maunsell, Christina Congedo | Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): C - Mediterranean California | Lat: 32.59706 | Long: -116.94486 | Datum: NAD-83

Soil Map Unit Name: Olvenhain Cobbly Loam | NWI classification: Palustrine

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

Are Vegetation [X] 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 ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks: Disturbed vernal pool within access road

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *None*	0	No	
2.			
3.			
4.			
Total Cover:	0 %		
Sapling/Shrub Stratum			
1. *None*	0	No	
2.			
3.			
4.			
5.			
Total Cover:	0 %		
Herb Stratum			
1. *Psilocarphus tenellus*	1	No	OBL
2. *Lythrum hyssopifolia*	2	Yes	OBL
3. *Juncus effusus*	4	Yes	FACW
4.			
5.			
6.			
7.			
8.			
Total Cover:	7 %		
Woody Vine Stratum			
1. *None*	0	No	
2.			
Total Cover:	0 %		

% Bare Ground in Herb Stratum 93 % | % 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: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	3	x 1 =	3
FACW species	4	x 2 =	8
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	7 (A)		11 (B)

Prevalence Index = B/A = 1.57

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: Vernal pool within access road, vegetation disturbed, assumed based on presence of vegetation and adjacent vernal pools.

SOIL

Sampling Point: 44

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 %	Type[1]	Loc[2]	Texture	Remarks

[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 soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils assumed due to strong hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ 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)
- ☐ 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): 3
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: strong hydrological indicators.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: TL 649 Otay/San Ysidro Border. WRS | City/County: Chula Vista/San Diego | Sampling Date: 03/20/2015

Applicant/Owner: SDG&E | State: CA | Sampling Point: 45

Investigator(s): Ian Maunsell, Christina Congedo | Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): C - Mediterranean California | Lat: 32.59687 | Long: -116.94510 | Datum: NAD-83

Soil Map Unit Name: Olvenhain Cobbly Loam | NWI classification: Palustrine

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

Are Vegetation [X] 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 ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks: Disturbed vernal pool within access road

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *None*	o	No	
2.			
3.			
4.			
Total Cover:	0 %		
Sapling/Shrub Stratum			
1. *None*	0	No	
2.			
3.			
4.			
5.			
Total Cover:	0 %		
Herb Stratum			
1. *Triglochin scilloides*	5	Yes	OBL
2. *Lythrum hyssopifolia*	1	No	OBL
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	6 %		
Woody Vine Stratum			
1. *None*	0	No	
2.			
Total Cover:	0 %		

% Bare Ground in Herb Stratum 93 % | % 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: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	6	x 1 =	6
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	6 (A)		6 (B)

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: Vernal pool within access road, vegetation disturbed, assumed based on presence of vegetation and adjacent vernal pools.

SOIL

Sampling Point: 45

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 %	Type[1]	Loc[2]	Texture	Remarks

[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: hydric soils assumed based on ponded surface water, soil pit not dug due to presence of fairy shrimp.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☒ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ 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)
- ☐ 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: strong hydrological indicators.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: TL 649 Otay/San Ysidro Border. WRS | City/County: Chula Vista/San Diego | Sampling Date: 03/20/2015

Applicant/Owner: SDG&E | State: CA | Sampling Point: 46

Investigator(s): Ian Maunsell, Christina Congedo | Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): C - Mediterranean California | Lat: 32.59762 | Long: -116.94380 | Datum: NAD-83

Soil Map Unit Name: Olvenhain Cobbly Loam | NWI classification: Palustrine

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

Are Vegetation [X] 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 ( )	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks: Road rut exhibiting occasional hydrophytic vegetation on. Road berm shows evidence of erosion due to water carried along road and lack or ponding.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *None*	0	No	
2.			
3.			
4.			
Total Cover:	0 %		
Sapling/Shrub Stratum			
1. *None*	o	No	
2.			
3.			
4.			
5.			
Total Cover:	0 %		
Herb Stratum			
1. *Logfia filaginoides*	5	Yes	Not Listed
2. *Psilocarphus tenellus*	2	No	OBL
3. *Plagiobothrys acanthocarpus*	1	No	OBL
4.			
5.			
6.			
7.			
8.			
Total Cover:	8 %		
Woody Vine Stratum			
1. *None*	0	No	
2.			
Total Cover:	0 %		

% Bare Ground in Herb Stratum 93 % | % Cover of Biotic Crust 0 %

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	3	x 1 =	3
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	8 (A)		28 (B)

Prevalence Index = B/A = 3.50

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: Disturbed vegetation within road and along road shoulder. Occasional hydrophytic vegetation occurring in moist road ruts and is non-dominant. Non-dominant and not expected to be prevalent in undisturbed conditions. P. tenellus occur adjacent to road on slope and is non-dominant in undisturbed areas. Natural landform of site occurs on the semi-terraced hillslope of the Otay river. Vernal pools not expected to form under undisturbed conditions.

SOIL

Sampling Point: 46

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 %	Type[1]	Loc[2]	Texture	Remarks

[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 soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils assumed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ 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)
- ☐ 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: Soil surface cracks present, however hydrology is expected to occur as a result of erosion from stormwater carried along roadside berm.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: TL 649 Otay/San Ysidro Border. WRS | City/County: Chula Vista/San Diego | Sampling Date: 03/20/2015

Applicant/Owner: SDG&E | State: CA | Sampling Point: 47

Investigator(s): Ian Maunsell, Christina Congedo | Section, Township, Range: Otay Mesa quad, Otay (Estudillo) land grant

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

Subregion (LRR): C - Mediterranean California | Lat: 32.59808 | Long: -116.94374 | Datum: NAD-83

Soil Map Unit Name: Olvenhain Cobbly Loam | NWI classification: Palustrine

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

Are Vegetation [X] 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 ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *None*	0	No	
2.			
3.			
4.			
Total Cover:	0 %		
Sapling/Shrub Stratum			
1. *None*	0	No	
2.			
3.			
4.			
5.			
Total Cover:	0 %		
Herb Stratum			
1. *Psilocarphus tenellus*	10	No	OBL
2. *Logfia filaginoides*	30	Yes	Not Listed
3. *Brassica nigra*	20	Yes	Not Listed
4. *Hypochaeris glabra*	17	Yes	Not Listed
5. *Schismus barbatus*	5	No	Not Listed
6. *Erodium botrys*	5	No	FACU
7.			
8.			
Total Cover:	87 %		
Woody Vine Stratum			
1. *None*	0	No	
2.			
Total Cover:	0 %		

% Bare Ground in Herb Stratum 93 % | % Cover of Biotic Crust 0 %

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species	5	x 4 =	20
UPL species	72	x 5 =	360
Column Totals:	87 (A)		390 (B)

Prevalence Index = B/A = 4.48

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: Disturbed vegetation on road berm and within road rut.

SOIL

Sampling Point: 47

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 %	Type[1]	Loc[2]	Texture	Remarks

[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 soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils assumed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ 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)
- ☐ 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: Thin soil cracks and evidence of sheet water flow alongside of road due to berm (water concentration).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: TL 649 Otay/San Ysidro Border. WRS City/County: Chula Vista/San Diego Sampling Date: 03/20/2015

Applicant/Owner: SDG&E State: CA Sampling Point: 48

Investigator(s): Ian Maunsell, Christina Congedo Section, Township, Range: T18S, R01W, Sec. 24, Otay Mesa quadrangle

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

Subregion (LRR): C - Mediterranean California Lat: 32.59121 Long: -116.93942 Datum: NAD-83

Soil Map Unit Name: Stockpen gravelly clay loam NWI classification: Palustrine

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

Are Vegetation [X] 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 ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks: Vegetation disturbed due to location with access road. Data point immediately adjacent to natural claypan vernal pool habitat to the west.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *None*	0	No	
2.			
3.			
4.			
Total Cover:	0 %		
Sapling/Shrub Stratum			
1. *None*	0	No	
2.			
3.			
4.			
5.			
Total Cover:	0 %		
Herb Stratum			
1. *Psilocarphus tenellus*	1	No	OBL
2. *Erodium botrys*	5	Yes	FACU
3. *Elymus triticoides*	10	Yes	FAC
4. *Lepidium nitidum*	2	No	FAC
5.			
6.			
7.			
8.			
Total Cover:	18 %		
Woody Vine Stratum			
1. *None*	0	No	
2.			
Total Cover:	0 %		

% Bare Ground in Herb Stratum 93 % % 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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	1	x 1 =	1
FACW species		x 2 =	0
FAC species	12	x 3 =	36
FACU species	5	x 4 =	20
UPL species		x 5 =	0
Column Totals:	18 (A)		57 (B)

Prevalence Index = B/A = 3.17

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: Disturbed vernal pool occurring within access road. Vegetation assumed due to adjacent undisturbed vernal pools and strong hydrological indicators.

SOIL

Sampling Point: 48

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 %	Type[1]	Loc[2]	Texture	Remarks

[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)
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- ☐ 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 soil pit was dug due to the documented presence of San Diego fairy shrimp. Hydric soils assumed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☒ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ 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)
- ☐ 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: Soil cracks and water marks present.