December 10, 2013

Anthony A. Klecha
Principal Environmental Scientist
Southern California Gas Company
P.O. Box 30777
Los Angeles, CA 90030

Subject: **Jurisdictional Delineation Report**
Potential Well Sites, Playa del Rey Storage Facility

Dear Mr. Klecha:

This letter report documents the findings of a routine jurisdictional delineation conducted by ICF International (ICF) for the Southern California Gas Company (SoCalGas) at the Potential Well Sites at the Playa del Rey Storage Facility (project). The purpose of the delineation is to assess the limits of potential features subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and the California Coastal Commission (CCC) pursuant to Sections 404 and 401 of the Clean Water Act, Section 13260 of the Porter-Cologne Water Quality Control Act (California Water Code 13260[a]), Section 1602 of the California Fish and Game Code, and the California Coastal Act. Specifically, the delineation was conducted for the purpose of providing SoCalGas the location of potential jurisdictional resources within seven separate potential project footprints.

Project Location

The project site is located at an existing SoCalGas facility in Playa del Rey in Los Angeles County, California (Figure 1). The facility is found on the U.S. Geological Survey (USGS) 7.5-minute topographical map Venice quadrangle (dated 1964 and photorevised in 1981) within an un-sectioned portion of Township 2 South and Range 15 West (Figure 2). It is generally located northeast of the intersection of Falmouth Avenue and West 83rd Street (Figure 3).

Within the existing facility, the study area consists of seven separate potential project footprints. Sites 1 and 2 are located at the upper portion of the existing facility, located north of the intersection of Gulana Avenue and West 29th Street, and are approximately 150 feet above mean sea level (msl). Sites 3–7 are located at the lower portion of the existing facility, approximately 300 feet northwest of the upper facility, at the western terminus of Falmouth Street. These sites are located approximately 5 feet above msl. The coordinates for the approximate centerpoint for each of the seven potential sites are listed below (Table 1).

Table 1. Project Location on USGS 7.5 Minute Quadrangles

Site	Latitude	Longitude
1	33.962914°	-118.436739°
2	33.962875°	-118.437491°
3	33.963281°	-118.439935°
4	33.962849°	-118.440713°
5	33.964415°	-118.438851°
6	33.964864°	-118.436117°
7	33.965152°	-118.435449°

Methodology

The study area consisted of the seven separate potential project footprints, plus a 50-foot buffer around each footprint. However, where the potential project footprint or buffer extended into an area that had previously been subject to jurisdictional delineation by WRA Environmental Consultants (WRA), the study area for this delineation was reduced so that no overlap occurred. The findings for the previous delineation are documented in the Ballona Creek Wetlands Ecological Reserve Preliminary Delineation of Wetlands and Non-Wetland Waters, prepared by WRA and dated August 2011.

ICF senior biologist Paul Schwartz and senior regulatory specialist Megan Jameson conducted a routine jurisdictional delineation at the site on December 2, 2013, and Paul Schwartz conducted a follow-up visit on December 6, 2013. Prior to beginning the field delineation, a 200-scale color aerial photograph was analyzed to determine the locations of potential areas of USACE, RWQCB, CDFW and/or CCC jurisdiction. During the fieldwork, the study area was surveyed on foot. Jurisdictional limits were recorded onto a 200-scale color aerial photograph using visible landmarks and were mapped using a Trimble Yuma global positioning system (GPS) unit with a Trimble Pro XT receiver, which provided sub-meter accuracy. Common plant species observed were identified by visual characteristics and morphology in the field. Taxonomic nomenclature for plants follows *The Jepson Manual: Higher Plants of California*, 2nd edition (Baldwin et al. 2012).

Potentially jurisdictional features within the study area were evaluated for the presence of a definable channel and/or wetland vegetation, soils, and hydrology. The project area was analyzed for potential wetlands using the methodology set forth in the USACE 1987 Wetland Delineation Manual (Wetland Manual) (Environmental Laboratory 1987) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 (Arid West Supplement) (USACE 2008a). Lateral limits of non-wetland waters were identified using field indicators of an Ordinary High Water Mark (OHWM) (USACE 2008b). Wetland indicator status for plants was determined using the Arid West 2013 Regional Wetland Plant List (USACE 2013).

For features potentially subject to USACE and RWQCB jurisdiction, non-wetland waters were delineated based on the presence of OHWM indicators. At each evaluation area, three criteria were considered to determine whether the sample point was within a wetland. The three criteria that

must be fulfilled in order to classify an area as a jurisdictional USACE wetland (in normal conditions) are: (1) a predominance of hydrophytic vegetation, (2) the presence of hydric soils, and (3) the presence of wetland hydrology.

CDFW jurisdiction typically includes water features with a defined bed and bank and extent of associated riparian or wetland vegetation. Evaluation of potentially jurisdictional areas followed the guidance of relevant standard practices by CDFW personnel. Briefly, CDFW jurisdiction was delineated by measuring the outer width and length boundaries of potentially jurisdictional areas, consisting of the greater of either the top of bank measurement or the extent of associated riparian or wetland vegetation.

To identify CCC jurisdiction, the study areas were first evaluated for inclusion within the coastal zone. Sites 1 and 2 were not within the coastal zone; however, Sites 3–7 were within the coastal zone. Subsequently, CCC jurisdiction is identified using the same parameters listed above for USACE and RWQCB wetland determinations. However, while the USACE determines a feature to be a wetland only if it exhibits all three criteria (in normal conditions), the CCC determines a feature to be a wetland if it exhibits any of the three criteria. Therefore, any features within Sites 3–7 that exhibited any of the three USACE criteria listed above are considered a CCC wetland.

Environmental Setting

Sites 1 and 2 are located on top of the bluffs overlooking the Ballona Creek Wetland Ecological Reserve, approximately 150 feet above msl, and Sites 3–7 are located on the southern edge of the Ballona Reserve, approximately 5 feet above msl. Average annual rainfall for the study area (Santa Monica Pier, California) totals 12.62 inches per year (Western Regional Climate Center 2013).

The lower sites receive flows primarily through runoff from the adjacent bluffs and residential areas, both from rainfall and from nuisance flows such as irrigation. Furthermore, the lower sites are south of and adjacent to a low-lying, undeveloped area known as the Ballona Creek Wetlands, and north of the Ballona Creek Wetlands are the Ballona Channel and the Marina del Rey Marina. The upper facility is bounded on the north by a steep slope leading down to the lower facility and by residential properties to the south, east, and west. The lower facility is bounded by slopes along the southern side and the Ballona Creek Wetlands to the north, east, and west. The slope along the southern side of the lower facility supports the upper SoCalGas facility as well as residential properties at the east and west ends. The lower facility is adjacent to open areas mapped by the USFWS National Wetlands Inventory as Freshwater Emergent, Freshwater Forested/Shrub, and Estuarine and Marine, but the study areas specific to this delineation were not mapped as wetlands (USFWS 2013).

The SoCalGas facility has been in use since approximately the 1940s. Within the limits of the upper facility vegetation is limited to low-growing grasses such as Bermuda grass (*Cynodon dactylon;* FACU) and iceplant (*Carpobrotus edulis;* UPL) and intermittent trees such as eucalyptus (*Eucalyptus* sp.). Within the limits of the lower facility, vegetation is also limited to low growing grasses consisting chiefly of Bermuda grass, dallis grass (*Paspalum dilatatum;* FAC), and iceplant, with the exception of the southeast end of the facility. Within the southeast end of the lower facility, large stands of pampas grass (*Cortaderia selloana;* FACU) and arroyo willow (*Salix lasiolepis;* FACW) are

found, as well as leafy spurge (*Euphorbia esula;* UPL), western goldentop (*Euthamnia occidentalis;* FACW), fennel (*Foeniculum vulgare;* UPL), and iceplant. Additional detail on the vegetation species identified at each site is provided below.

Results

Within the study areas for Sites 1, 2, and 3, no potential jurisdictional features were noted. Within Sites 4, 5, 6, and 7, features subject only to the jurisdiction of the CCC were identified based on the presence of hydrology and/or vegetation indicators (Table 2). Within Sites 4 and 6, the identified CCC jurisdiction was located within the 50-foot buffer; within Sites 5 and 7, the identified CCC jurisdiction was located within the proposed project footprint (Table 3). The findings for the study area at each site are listed, described in greater detail below, and shown in photos (attached Figures 4a–d and photo log).

The information and results presented herein document the investigation, best professional judgment, and conclusions of ICF. It is correct and complete to the best of our knowledge. However, all jurisdictional determinations should be considered preliminary until reviewed and approved by the regulatory agencies. In addition, it should be noted that the CCC generally requires 100-foot buffers to protect wetlands from effects of disturbance and to provide necessary habitat for species associated with wetlands (CCC 1994).

Table 2. Potential Agency Jurisdiction Within Study Area

Study Area Site #	USACE/RWQCB	CDFW	CCC Wetland
1	None	None	N/A
2	None	None	N/A
3	None	None	None
4	None	None	0.049 acre
5	None	None	0.012 acre
6	None	None	0.003 acre
7	None	None	0.088 acre

Table 3. Potential CCC Jurisdiction Within Proposed Project Footprint and Buffer Area

Study Area Site #	Proposed Project Footprint	Buffer Area	Total
4	N/A	0.049 acre	0.049 acre
5	0.012 acre	N/A	0.012 acre
6	N/A	0.003 acre	0.003 acre
7	0.004 acre	0.084 acre	0.088 acre

Site 1

The study area for Site 1 consists of a large open storage area, existing paved road, and surrounding disturbed, vegetated area. In addition to the open area, two structures are located within the study area: a tank and a brick building. The site slopes gently from east to west. The open storage area is

covered with small rocks and is currently being used to store materials and equipment. Vegetation found in the study area consists of ruderal species such as iceplant, telegraph weed (*Heterotheca grandifolia;* UPL), rattlesnake weed (*Chamaesyce* sp.), acacia (*Acacia* sp.), castor bean (*Ricinus communis;* FACU), bermuda grass, fennel, and two eucalyptus trees.

No jurisdictional features were observed within the Site 1 study area (Figure 4a).

Site 2

The study area for Site 2 is located almost entirely within a developed portion of the existing gas facility that is already used for operations. The study area is mostly paved, except for small vegetated areas adjacent to roads and gates that support the same ruderal herbaceous species discussed above for Site 1.

No jurisdictional features were observed within the Site 2 study area (Figure 4a).

Site 3

The study area for Site 3 consists of an existing paved access road and two vegetated areas, one north and one south of the road. Each of the vegetated areas is occupied primarily by iceplant.

No jurisdictional features were observed within the Site 3 study area (Figure 4b; Wetland Data Form 3A).

Site 4

The study area for Site 4 consists of a paved, gravel and dirt access road and several adjacent vegetated open areas. The vegetated open areas within the fenced SoCalGas property consist primarily of ruderal species that include iceplant, pampas grass, bermuda grass, red-stemmed filaree (*Erodium cicutarium;* UPL), and telegraph weed. To the south of the SoCalGas property, within the study area, is an area with multiple slopes primarily covered in iceplant.

The east side of Site 4 is bound by a culvert and corrugated steel pipe that accepts flows from Falmouth Street and the adjacent residential neighborhood. The culvert is located between two headwalls, on a concrete pad, at the northern terminus of Falmouth Street, which is an asphalt road on a hill. The culvert opens into a large (18- to 24-inch) corrugated steel pipe that extends approximately 200 feet to the north, beyond the limits of the SoCalGas property. The corrugated steel pipe is located above the grade of the adjacent vegetated areas (between Sites 3 and 4) but is covered in vegetation and is not readily apparent without close examination.

At the time of the field visit, nuisance flows were running down Falmouth Street into the culvert and approximately 1–4 inches of sediment deposition was present, both at the initial debris blockers and at the entrance to the culvert. The deposited sediment was heavily vegetated with herbaceous species that can grow in one season. Species observed included dallis grass, umbrella sedge (*Cyperus esculentus;* FACW), leafy spurge, field mustard (*Hirschfeldia incana;* UPL), perennial ryegrass (*Festuca perenne;* UPL), wild radish (*Raphanus sativa;* UPL), horseweed (*Erigeron Canadensis;* FACU), and willow herb (*Epilobium ciliatum;* FACW). Although the vegetated areas met the hydrophytic vegetation requirements, the vegetation was growing atop of a few inches of sediment

that was completely underlined by concrete. This area is generally considered a previously impacted area and would be scalped during a storm event. In addition, the immature form of the vegetation indicated that this wetland has only been established for one growing season, as no older, mature vegetation was observed and as any sediment and vegetation are probably regularly displaced by heavy flows following storm events. As such, this area was not determined to be a CCC jurisdictional wetland (Figure 4b; Wetland Data Form 4A). However, as noted previously in this report, all jurisdictional determinations should be considered preliminary until reviewed and approved by the regulatory agencies.

Along the south side of the Site 4 study area, outside the fenced limits of SoCalGas property, a low point that supports a large arroyo willow was identified at the bottom of the converging slopes. This area was mapped as an area of potential CCC jurisdiction based on the presence of hydrophytic vegetation (Figure 4b; Wetland Data Forms 4A-D) and is located entirely within the buffer area.

Site 5

The study area for Site 5 consists of a paved area currently being used for material storage and a flat vegetated area. The vegetated area consists primarily of ruderal species such as Bermuda grass and dallis grass.

Within the Site 5 study area, a low wet spot was identified that exhibited indicators of hydrology. As no OHWM was evident in this site and this low spot did not exhibit all three wetland criteria, it was determined to be a wetland only subject to CCC jurisdiction, based on the presence of hydrology indicators and hydric soil indicators (Figure 4c; Wetland Data Forms 5A and 5B) and is located entirely within the proposed project footprint.

Site 6

The study area for Site 6 consists of an existing gravel and dirt road and adjacent vegetated areas. Vegetation within this area consists primarily of iceplant, western goldentop, acacia, eucalyptus, and fennel.

A small area of potential CCC jurisdiction was mapped along the northeast corner of the Site 6 study area based on the presence of hydrophytic vegetation (western goldentop) (Figure 4d) and is located entirely within the buffer area.

Site 7

The study area for Site 7 consists of an existing gravel and dirt road and adjacent vegetated areas. Vegetation within this study area consists primarily of western goldentop, leafy spurge, arroyo willow, pampas grass, horseweed, and fennel.

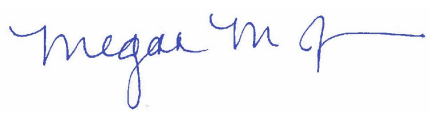
Within the Site 7 study area, three polygons of potential CCC jurisdiction were mapped based on the presence of hydrophytic vegetation and/or hydric soils (Figure 4d; Wetland Data Forms 7A-C). At this site the features subject to CCC jurisdiction were located both in the proposed project footprint and the buffer area.

Conclusion

Four of the seven study areas assessed during this jurisdictional delineation were found to support one or more features subject to the jurisdiction of the CCC. No potential features that exhibited any indicators of USACE/RWQCB and/or CDFW jurisdiction were identified. Of those four sites, two sites had features subject to CCC jurisdiction within the proposed project footprint and three sites had features subject to CCC jurisdiction within the buffer area. As noted above, the information and results presented herein document the investigation, best professional judgment, and conclusions of ICF and are correct and complete to the best of our knowledge. However, all jurisdictional determinations should be considered preliminary until reviewed and approved by the regulatory agencies.

If you have any questions about the information in this report, please contact me at (949) 333-6633 or megan.jameson@icfi.com.

Sincerely,



Megan Jameson
Senior Regulatory Specialist

Figures:

Figure 1: Regional Vicinity Map
Figure 2: USGS Map
Figure 3: Local Vicinity Map
Figure 4a: Sites 1 & 2 – Jurisdictional Delineation Results
Figure 4b: Sites 3 & 4 – Jurisdictional Delineation Results
Figure 4c: Site 5 – Jurisdictional Delineation Results
Figure 4d: Sites 6 & 7– Jurisdictional Delineation Results

Attachments:

Photo Log
Wetland Determination Data Forms

References

Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, editors (Baldwin). 2012. The Jepson manual: Vascular Plants of California, second edition. University of California Press, Berkeley.

California Coastal Commission (CCC). 1994. Procedural Guidance for the Review of Wetland Projects in California's Coastal Zone. http://www.coastal.ca.gov/wetrev/wettitle.html

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual.* Technical Report Y-87-1. Vicksburg, MS: U.S. Army Engineer Waterways Experimental Station.

U.S. Army Corps of Engineers (USACE). 2008a. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0). Vicksburg, MS: U.S. Army Engineer Research and Development Center. Report dated September 2008.

———. 2008b. *A Field Guide to the Identification of the OHWM in the Arid West Region of the Western United States: A Determination Manual*. Available: http://www.crrel.usace.army.mil/library/technicalreports/ERDC-CRREL-TR-08-12.pdf. August.

———. 2013. *Arid West 2013 Regional Wetland Plant List*. Cold Regions Research and Engineering Laboratory (CRREL).

U.S. Fish and Wildlife Service (USFWS). 2013. National Wetlands Inventory. <http://www.fws.gov/wetlands/Data/Mapper.html>. Accessed: December 2013.

U.S. Geological Survey (USGS). (dated 1964 and photorevised in 1981). 7.5-Minute *Venice, California* quadrangle.

Western Regional Climate Center. 2013. Period of Record Monthly Climate Summary: Santa Monica Pier, California. Available: < http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7953 > Accessed: December 2013.

WRA Environmental Consultants (WRA), 2011. Ballona Creek Wetlands Ecological Reserve Preliminary Delineation of Wetlands and Non-Wetland Waters, Los Angeles County, California. Prepared for California State Coastal Conservancy.

Figures

Figure 1
Regional Vicinity Map
SoCal Gas Potential Well Sites, Playa del Rey

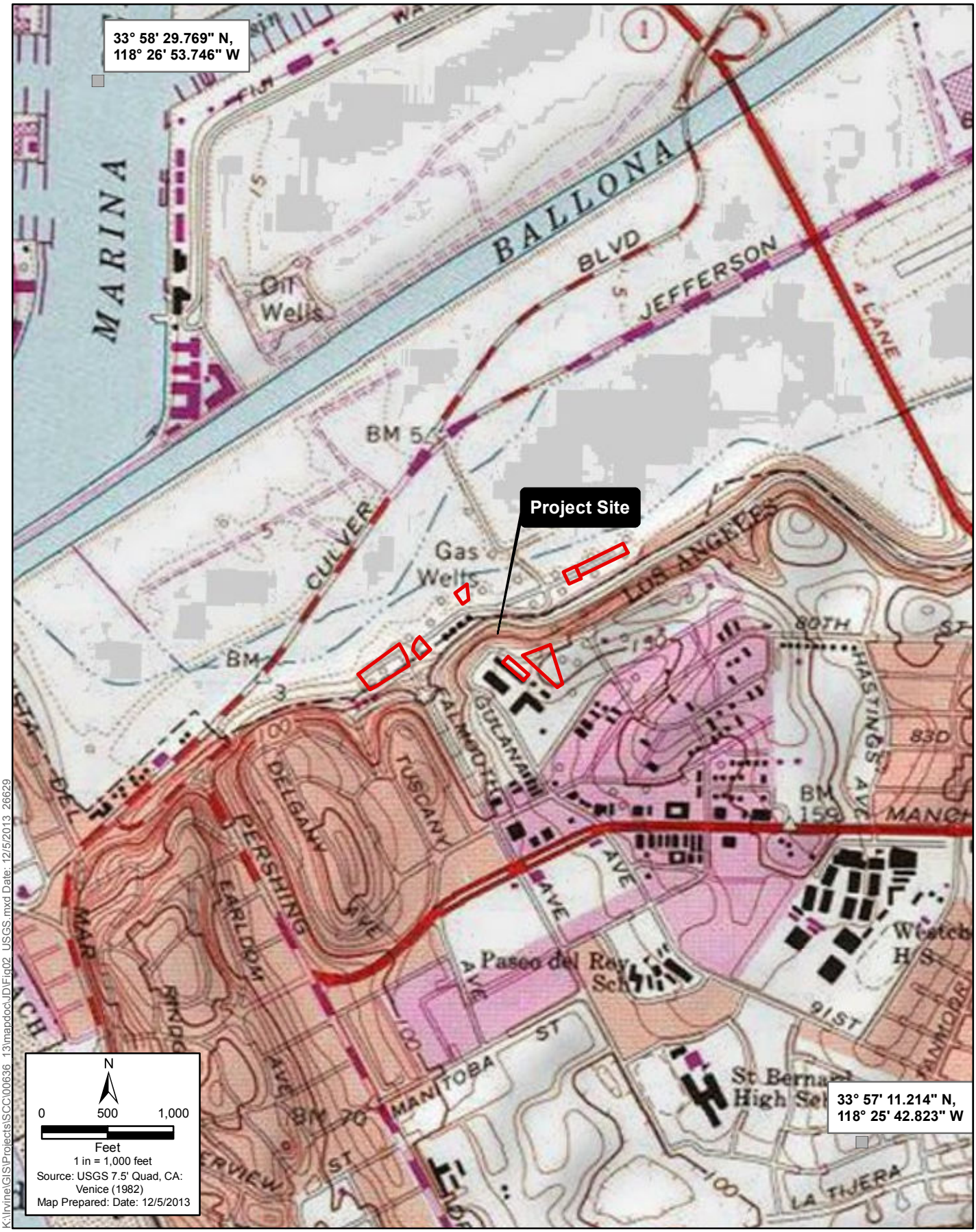


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Figure 2
USGS Map
SoCal Gas Potential Well Sites, Playa del Rey

Figure 3
Local Vicinity Map
SoCal Gas Potential Well Sites, Playa del Rey

0 25 50 100
Feet
1 in = 70 feet

Figure 4a: Sites 1 & 2
Jurisdictional Delineation Results
SoCal Gas Potential Well Sites, Playa del Rey

Figure 4b: Sites 3 & 4
Jurisdictional Delineation Results
SoCal Gas Potential Well Sites, Playa del Rey

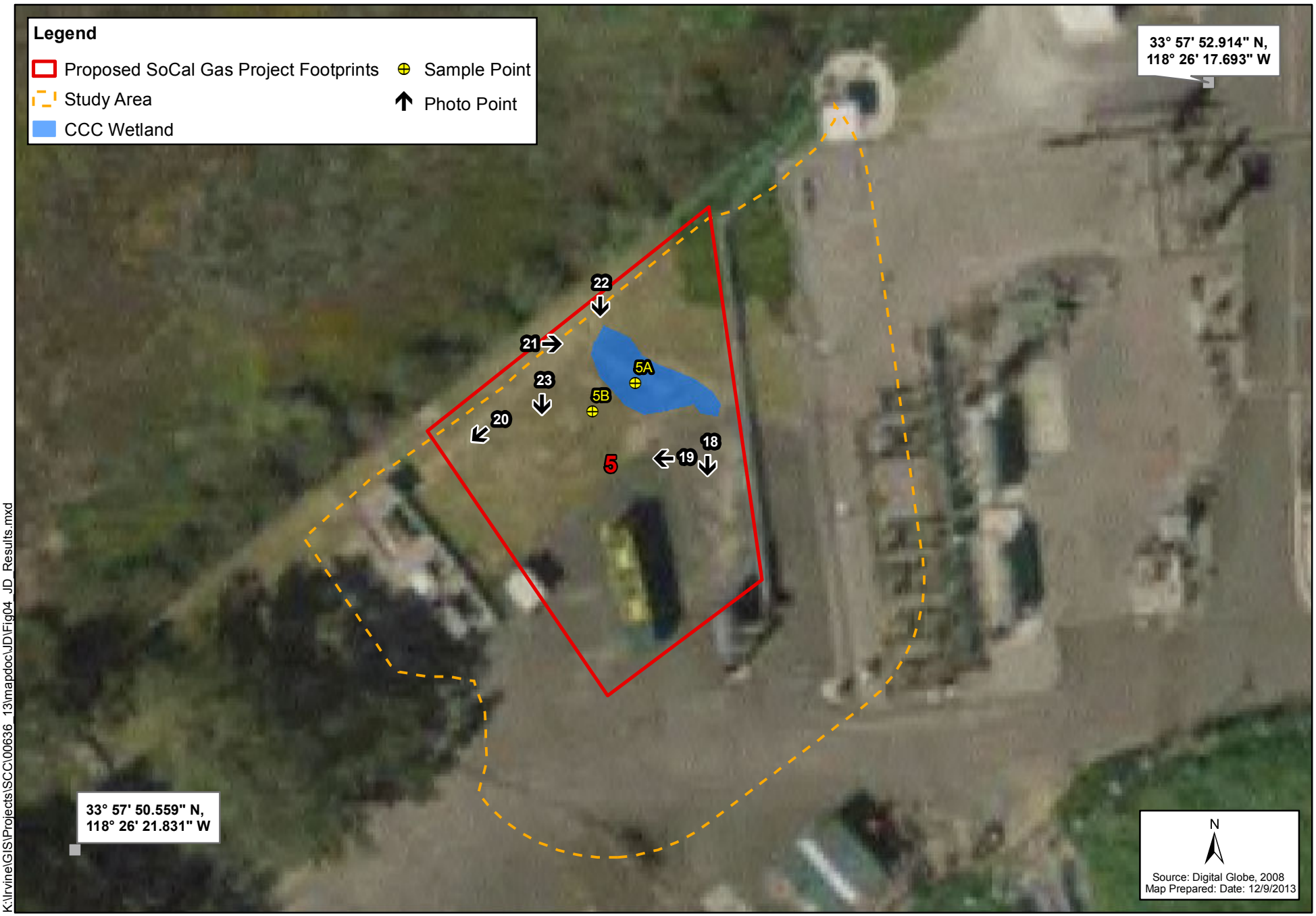


Figure 4c: Site 5
Jurisdictional Delineation Results
SoCal Gas Potential Well Sites, Playa del Rey

Figure 4d: Sites 6 & 7
Jurisdictional Delineation Results
SoCal Gas Potential Well Sites, Playa del Rey

Photo Log

Photograph # 1

Photo Date 12/2/13

Location Site 1

Direction East

Comment Gravel storage yard

Photograph # 2

Photo Date 12/2/13

Location Site 1

Direction West

Comment Gravel storage yard

Photograph # 3

Photo Date 12/2/13

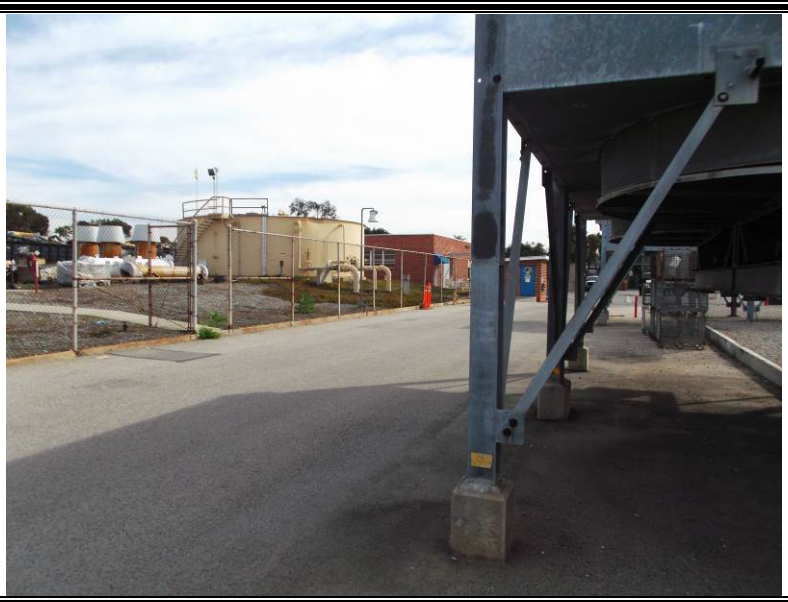
Location Site 1

Direction Southwest

Comment Open area

Photograph #	4
Photo Date	12/2/13
Location	Site 2
Direction	Northwest
Comment	Paved, already-used part of the facility

Photograph #	5
Photo Date	12/2/13
Location	Site 2
Direction	West
Comment	Paved, already-used part of the facility



Photograph #	6
Photo Date	12/2/13
Location	Site 2
Direction	Southeast
Comment	Paved, already-used part of the facility

Photograph #	7
Photo Date	12/2/13
Location	Site 3
Direction	Northeast
Comment	Vegetated area south of access road, at toe of slopes

Photograph #	8
Photo Date	12/2/13
Location	Site 3
Direction	East
Comment	Vegetated area north of access road

Photograph #	9
Photo Date	12/6/13
Location	Site 3
Direction	Northwest
Comment	Wetland data point 3A (non-wetland); vegetated area south of access road, at toe of slope

Photograph #	10
Photo Date	12/2/13
Location	Site 4
Direction	North
Comment	Deposited sediment and associated vegetation on asphalt road at mouth of culvert

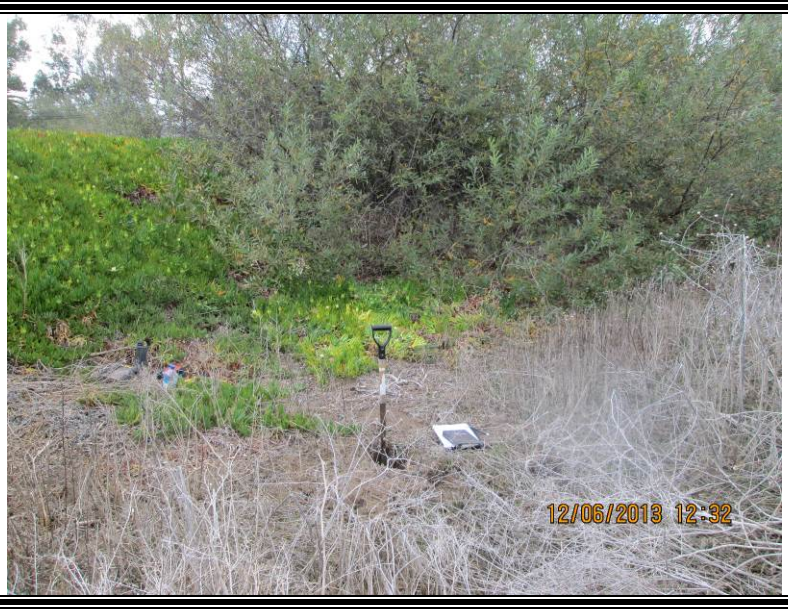
Photograph #	11
Photo Date	12/2/13
Location	Site 4
Direction	North
Comment	Deposited sediment and associated vegetation on asphalt road at base of hill, outside culvert

Photograph #	12
Photo Date	12/2/13
Location	Site 4
Direction	North
Comment	Deposited sediment and associated vegetation on asphalt road at base of hill, outside culvert; wetland data point 4A (non-wetland)

Photograph #	13
Photo Date	12/2/13
Location	Site 4
Direction	East
Comment	Gravel and dirt access road and open, vegetated area

Photograph #	14
Photo Date	12/2/13
Location	Site 4
Direction	South
Comment	Gravel and dirt access road and open, vegetated area

Photograph #	15
Photo Date	12/6/13
Location	Site 4
Direction	Southwest
Comment	Vegetated area adjacent to arroyo willow; wetland data point 4D (non-wetland)

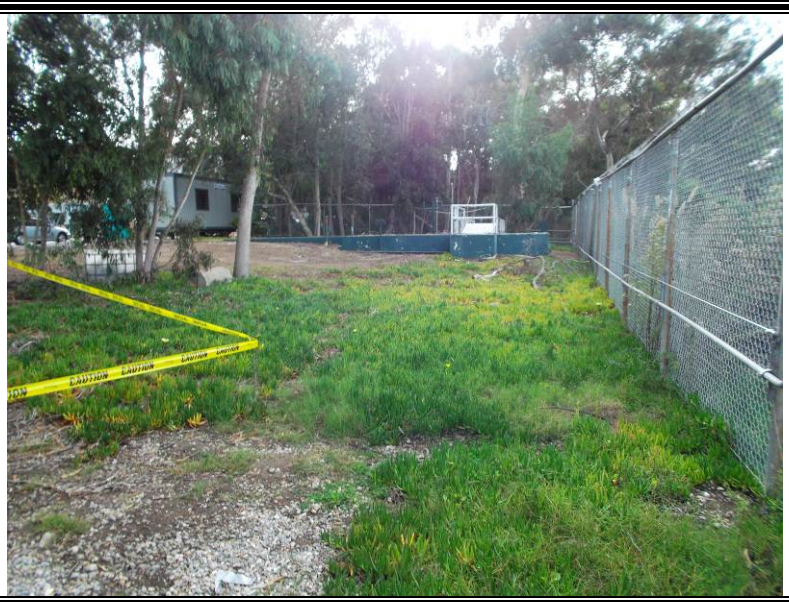


Photograph #	16
Photo Date	12/6/13
Location	Site 4
Direction	Northeast
Comment	Vegetated area adjacent to arroyo willow; wetland data point 4C (non-wetland)

Photograph #	17
Photo Date	12/6/13
Location	Site 4
Direction	Northeast
Comment	CCC wetland located at toe of slope; arroyo willow; wetland data point 4B (CCC wetland)

Photograph #	18
Photo Date	12/2/13
Location	Site 5
Direction	South
Comment	Paved storage area

Photograph #	19
Photo Date	12/2/13
Location	Site 5
Direction	Northwest
Comment	Vegetated area adjacent to paved facility



Photograph #	20
Photo Date	12/2/13
Location	Site 5
Direction	Southwest
Comment	Vegetated area adjacent to paved facility

Photograph #	21
Photo Date	12/2/13
Location	Site 5
Direction	South
Comment	CCC wetland feature in vegetated area adjacent to paved facility

Photograph #	22
Photo Date	12/2/13
Location	Site 5
Direction	South
Comment	Wetland data point 5A (CCC wetland)

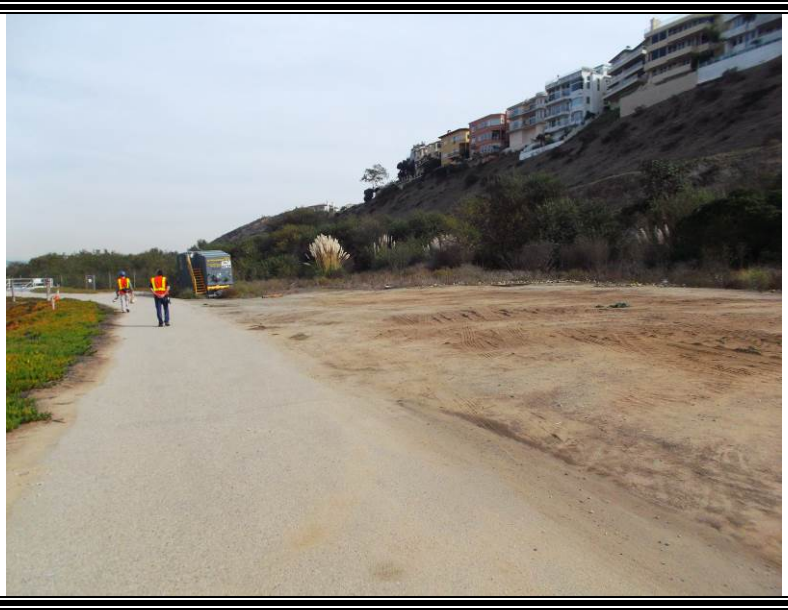
Photograph #	23
Photo Date	12/2/13
Location	Site 5
Direction	South
Comment	Wetland data point 5B (non-wetland point)

Photograph #	24
Photo Date	12/2/13
Location	Site 6
Direction	Southeast
Comment	Gravel and dirt access road and adjacent vegetated area

Photograph #	25
Photo Date	12/2/13
Location	Site 6
Direction	North
Comment	Gravel and dirt access road and adjacent vegetated area

Photograph #	26
Photo Date	12/2/13
Location	Site 6 (and Site 7 beyond)
Direction	Northeast
Comment	Gravel and dirt access road

Photograph #	27
Photo Date	12/2/13
Location	Site 6 (Feature 6-1)
Direction	North
Comment	CCC wetland feature adjacent to fence



Photograph #	28
Photo Date	12/2/13
Location	Site 7
Direction	Northwest
Comment	Asphalt access road and adjacent unvegetated , dirt open area

Photograph #	29
Photo Date	12/2/13
Location	Site 7
Direction	South
Comment	Vegetated area adjacent to unvegeted, dirt open area

Photograph #	30
Photo Date	12/2/13
Location	Site 7
Direction	Northeast
Comment	Vegetated area adjacent to existing access road and bare dirt area

Photograph #	31
Photo Date	12/2/13
Location	Site 7
Direction	Northeast
Comment	Wetland data point 7A (non-wetland)

Photograph #	32
Photo Date	12/2/13
Location	Site 7
Direction	South
Comment	Wetland data point 7B (CCC wetland)

Photograph #	33
Photo Date	12/2/13
Location	Site 7
Direction	North
Comment	Wetland data point 7C (non-wetland)

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potential Well Sites City/County: Playa Del Rey, Los Angeles Sampling Date: 12/6/13

Applicant/Owner: Southern California Gas Co. State: CA Sampling Point: 3A

Investigator(s): Paul Schwartz, Megan Jameson Section, Township, Range: Unsectioned, T2S, R15W

Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): none Slope (%): ~1%

Subregion (LRR): Mediterranean CA Lat: 33.963132 Long: -118.439735 Datum: NAD 83

Soil Map Unit Name: Not Available NWI classification: Not mapped as wetland

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

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

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

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

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

Remarks:

Looking to ID presence/absence of CCC wetland only. No evidence of OHWM. No CCC wetland present.

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: 5')			
1. Carpobrotus edulis	20	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	20 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 60 % 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

20% litter in herb stratum

SOIL

Sampling Point: 3A

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
0-16"	10YR 5/4	100					Sand	

[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: None

Depth (inches): _____

Hydric Soil Present? Yes _____ 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)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potential Well Sites City/County: Playa Del Rey, Los Angeles Sampling Date: 12/2/13

Applicant/Owner: Southern California Gas Co. State: CA Sampling Point: 4A

Investigator(s): Paul Schwartz, Megan Jameson Section, Township, Range: Unsectioned, T2S, R15W

Landform (hillslope, terrace, etc.): terrace of floodplain Local relief (concave, convex, none): None Slope (%): <1-2%

Subregion (LRR): Mediterranean CA Lat: 33.963993 Long: -118.440223 Datum: NAD 83

Soil Map Unit Name: Not Available NWI classification: Not mapped as wetland

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

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

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

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

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

Remarks:

Looking to ID presence/absence of CCC wetland only. Site consists of sediment deposited on top of asphalt and concrete in front of culvert entrance that has accumulated from neighborhood nuisance flows. Deposited sediment is now vegetated. While CCC vegetation and hydrology are present, bc it overlays a concrete/asphalt area, considered already impacted and is also regularly displaced by flows following storm events.

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: limits of veg)			
1. Cyperus esculentis	25	Yes	FACW
2. Euphorbia esula	20	Yes	UPL
3. Festuca perenne	15	Yes	UPL
4. Paspalum dalatatum	15	Yes	FAC
5. Raphanus sativa	10	No	UPL
6. Erigeron canadensis	5	No	FACU
7. Hirshfeldia incana	5	No	UPL
8. Epilobium ciliatum	5	No	FACW
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % 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: 4 (B)

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species _____	x 1 = _____	
FACW species 30	x 2 = 60	
FAC species 15	x 3 = 45	
FACU species 5	x 4 = 20	
UPL species 50	x 5 = 250	
Column Totals: 100 (A)	375 (B)	

Prevalence Index = B/A = 3.75

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

Veg cover is limited to where sediment has been deposited. Veg cover estimate reflect polygon only. Remainder of area is asphalt or concrete. All vegetation is immature herbaceous, indicating the site is probably new and regularly is washed away.

SOIL

Sampling Point: 4A

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, 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 soils taken. Only 1-4" sediment deposited on top of concrete and asphalt.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ✓ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

At time of survey, flowing water running running down the hill from the adjacent residential neighborhood into this point. Point occurs on asphalt and concrete at culvert entrance.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potential Well Sites City/County: Playa Del Rey, Los Angeles Sampling Date: 12/6/13

Applicant/Owner: Southern California Gas Co. State: CA Sampling Point: 4B

Investigator(s): Paul Schwartz, Megan Jameson Section, Township, Range: Unsectioned, T2S, R15W

Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): concave Slope (%): <1%

Subregion (LRR): Mediterranean CA Lat: 33.962628 Long: -118.440552 Datum: NAD 83

Soil Map Unit Name: Not Available NWI classification: Not mapped as wetland

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

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

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

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

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

Remarks:

Looking to ID presence/absence of CCC wetland only. No evidence of OHWM. CCC wetland present based on hydrophytic vegetation.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiolepsis	65	Yes	FACW
2.			
3.			
4.			
	65 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5')			
1. Carpobrotus edulis	25	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0 % 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species _____	x 1 =	_____
FACW species 65	x 2 =	130
FAC species _____	x 3 =	_____
FACU species _____	x 4 =	_____
UPL species 25	x 5 =	125
Column Totals: 90 (A)		255 (B)

Prevalence Index = B/A = 2.8

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

Lots of leaf litter under willow.

SOIL

Sampling Point: 4B

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 3/2	96	7YR 4/6	4	C	PL/M	SCL	

[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: None

Depth (inches): ___

Hydric Soil Present? Yes ___ No ✓

Remarks:

Approximately 10" of leaf litter under willow.
SCL=Sandy Clay Loam
Almost meets F6.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ___ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potential Well Sites City/County: Playa Del Rey, Los Angeles Sampling Date: 12/6/13

Applicant/Owner: Southern California Gas Co. State: CA Sampling Point: 4C

Investigator(s): Paul Schwartz, Megan Jameson Section, Township, Range: Unsectioned, T2S, R15W

Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): concave Slope (%): <1%

Subregion (LRR): Mediterranean CA Lat: 33.962580 Long: -118.440634 Datum: NAD 83

Soil Map Unit Name: Not Available NWI classification: Not mapped as wetland

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

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

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

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

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

Remarks:

Looking to ID presence/absence of CCC wetland only. No evidence of OHWM. No CCC wetland present.

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: 5)			
1. Chrysanthemum coranatum	35	Yes	UPL
2. Carpobrotus edulis	25	Yes	UPL
3. Bromus diandrus	5	No	UPL
4.			
5.			
6.			
7.			
8.			
	65 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 35 % 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 _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 4C

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"	10YR 3/2	100					SL	

[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: None

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

SL=Sandy Loam

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potential Well Sites City/County: Playa Del Rey, Los Angeles Sampling Date: 12/6/13

Applicant/Owner: Southern California Gas Co. State: CA Sampling Point: 4D

Investigator(s): Paul Schwartz, Megan Jameson Section, Township, Range: Unsectioned, T2S, R15W

Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): concave Slope (%): ~1%

Subregion (LRR): Mediterranean CA Lat: 33.962679 Long: -118.440394 Datum: NAD 83

Soil Map Unit Name: Not Available NWI classification: Not mapped as wetland

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

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

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

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

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

Remarks:

Looking to ID presence/absence of CCC wetland only. No evidence of OHWM. No CCC wetland present.

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: 5')			
1. Carpobrotus edulis	85	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 60 % 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 _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

15% litter in herb stratum

SOIL

Sampling Point: 4D

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
0-16"	10YR 3/2	100					SL	

[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: None

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

SL= Sandy Loam

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potential Well Sites City/County: Playa Del Rey, Los Angeles Sampling Date: 12/2/13

Applicant/Owner: Southern California Gas Co. State: CA Sampling Point: 5A

Investigator(s): Paul Schwartz, Megan Jameson Section, Township, Range: Unsectioned, T2S, R15W

Landform (hillslope, terrace, etc.): terrace of floodplain Local relief (concave, convex, none): None Slope (%): <1%

Subregion (LRR): Mediterranean CA Lat: 33.964444 Long: -118.438816 Datum: NAD 83

Soil Map Unit Name: Not Available NWI classification: Not mapped as wetland

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

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

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

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

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

Remarks:

CCC wetland only based on presence of wetland hydrology. No evidence of OHWM.

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: 5')			
1. Cynodon dactylon	60	Yes	FACU
2. Paspalum dilatatum	5	No	FAC
3. Chamaesyce albomarginata	5	No	UPL
4. Medicago polymorpha	3	No	FACU
5. Euthamnia occidentalis	2	No	FACW
6. Erigeron canadensis	2	No	FACU
7.			
8.			
	77 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 23 % 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	0	x 1 =	0
FACW species	2	x 2 =	4
FAC species	5	x 3 =	15
FACU species	65	x 4 =	260
UPL species	5	x 5 =	25
Column Totals:	77 (A)		304 (B)

Prevalence Index = B/A = 3.94

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 5A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6"	10YR 3/2	100						Sandy clay loam
6-14"	10YR 4/4	95	7.5YR 4/6	5				Sandy loam

[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:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ✓ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

Soil cracking in area slightly lower than surrounding vegetated area.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potential Well Sites City/County: Playa Del Rey, Los Angeles Sampling Date: 12/2/13

Applicant/Owner: Southern California Gas Co. State: CA Sampling Point: 5B

Investigator(s): Paul Schwartz, Megan Jameson Section, Township, Range: Unsectioned, T2S, R15W

Landform (hillslope, terrace, etc.): terrace of floodplain Local relief (concave, convex, none): None Slope (%): <1%

Subregion (LRR): Mediterranean CA Lat: 33.964404 Long: -118.438908 Datum: NAD 83

Soil Map Unit Name: Not Available NWI classification: Not mapped as wetland

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

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

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

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

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

Remarks:

Looking to ID presence/absence of CCC wetland only. No evidence of OHWM. No CCC wetland present.

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: 5')			
1. Cynodon dactylon	60	Yes	FACU
2. Cortaderia selloana	5	No	FACU
3. Erigeron canadensis	3	No	FACU
4. Paspalum dilatatum	2	No	FAC
5.			
6.			
7.			
8.			
	70 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 30 % 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 2	x 3 =	6
FACU species 68	x 4 =	272
UPL species _____	x 5 =	_____
Column Totals: 70 (A)		278 (B)

Prevalence Index = B/A = 3.97

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 5B

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3"	10YR 3/2	100						Sandy clay loam
3-12"	7.5YR 4/4	100						Sand

[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:

Very hard, compact soil but no concrete chunks or layers as in other areas.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

No indicators noted.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potential Well Sites City/County: Playa Del Rey, Los Angeles Sampling Date: 12/2/13

Applicant/Owner: Southern California Gas Co. State: CA Sampling Point: 7A

Investigator(s): Paul Schwartz, Megan Jameson Section, Township, Range: Unsectioned, T2S, R15W

Landform (hillslope, terrace, etc.): terrace of floodplain Local relief (concave, convex, none): None Slope (%): <1%

Subregion (LRR): Mediterranean CA Lat: 33.964939 Long: -118.435586 Datum: NAD 83

Soil Map Unit Name: Not Available NWI classification: Not mapped as wetland

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

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

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

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

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

Remarks:

Looking to ID presence/absence of CCC wetland only. No evidence of OHWM. No CCC wetland present.

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: 5')			
1. Euphorbia esula	65	Yes	UPL
2. Foeniculum vulgare	10	No	UPL
3. Chrysanthemum coronarium	9	No	UPL
4. Cortaderia selloana	5	No	FACU
5. Erigeron canadensis	1	No	FACU
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 10 % 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 6	x 4 = 24
UPL species 84	x 5 = 420
Column Totals: 90 (A)	444 (B)

Prevalence Index = B/A = 4.93

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 7A

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
0-12"	10YR 3/2	100						Sandy clay loam

[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:

At 12" hit impenetrable surface (concrete?).

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

No indicators noted.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potential Well Sites City/County: Playa Del Rey, Los Angeles Sampling Date: 12/2/13

Applicant/Owner: Southern California Gas Co. State: CA Sampling Point: 7B

Investigator(s): Paul Schwartz, Megan Jameson Section, Township, Range: Unsectioned, T2S, R15W

Landform (hillslope, terrace, etc.): terrace of floodplain Local relief (concave, convex, none): None Slope (%): <1%

Subregion (LRR): Mediterranean CA Lat: 33.964858 Long: -118.435903 Datum: NAD 83

Soil Map Unit Name: Not Available NWI classification: Not mapped as wetland

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

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

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

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

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

Remarks:

Looking to ID presence/absence of CCC wetland only. No evidence of OHWM. CCC wetland only, based on presence of hydrophytic vegetation.

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: 5')			
1. Euthamnia occidentalis	45	Yes	FACW
2. Euphorbia esula	40	Yes	UPL
3. Foeniculum vulgare	13	No	UPL
4. Helminotheca echioides	2	No	FACU
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 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 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 7B

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
0-10"	10YR 3/2	100						Sandy loam
10-12"	10YR 2/1	99	7.5YR 5/6	1				Sandy clay loam

[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:

At approximately 12" hit impenetrable chunks or surface (concrete?).

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

No indicators noted.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Potential Well Sites City/County: Playa Del Rey, Los Angeles Sampling Date: 12/2/13

Applicant/Owner: Southern California Gas Co. State: CA Sampling Point: 7C

Investigator(s): Paul Schwartz, Megan Jameson Section, Township, Range: Unsectioned, T2S, R15W

Landform (hillslope, terrace, etc.): terrace of floodplain Local relief (concave, convex, none): None Slope (%): <1%

Subregion (LRR): Mediterranean CA Lat: 33.964882 Long: -118.435945 Datum: NAD 83

Soil Map Unit Name: Not Available NWI classification: Not mapped as wetland

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

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

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

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

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

Remarks:

Looking to ID presence/absence of CCC wetland only. No evidence of OHWM. No CCC wetland present.

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: 5')			
1. Euphorbia esula	60	Yes	UPL
2. Helminotheca echioides	15	No	FACU
3. Cortaderia selloana	10	No	FACU
4. Euthamnia occidentalis	5	No	FACW
5. Foeniculum vulgare	5	No	UPL
6.			
7.			
8.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 5 % 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 _____	x 1 = _____
FACW species 5	x 2 = 10
FAC species 25	x 3 = 75
FACU species _____	x 4 = _____
UPL species 65	x 5 = 325
Column Totals: 95 (A)	410 (B)

Prevalence Index = B/A = 4.32

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 7C

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10"	10YR 3/2	100						Sandy loam
10-12"	10YR 2/1	100						Sandy clay loam (alot of concret

[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:

At approximately 12" impenetrable. Alot of concrete chunks throughout.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

No indicators noted.