**CALIFORNIA COASTAL COMMISSION**
ENERGY, OCEAN RESOURCES AND FEDERAL CONSISTENCY
455 MARKET STREET, SUITE 300
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# F9b

**9-23-0817**

**(Southern California Gas Co.)**

**July 12, 2024**

# EXHIBITS

**Exhibit 1 -** Location Maps and Project Plans

**Exhibit 2 -** Aquatic Resources Delineation Report, DR4, DR 9

**Exhibit 3 -** Natural Resources Technical Memorandum, DR4 and DR 9

**Exhibit 4 -** Applicant Proposed Avoidance and Minimization Measures

**Exhibit 5 -** Restoration Plan for Del Rey 4 Plug and Abandonment Project

**Exhibit 6** - Spill Prevention and Response Plan for Del Rey 4 and Del Rey 9

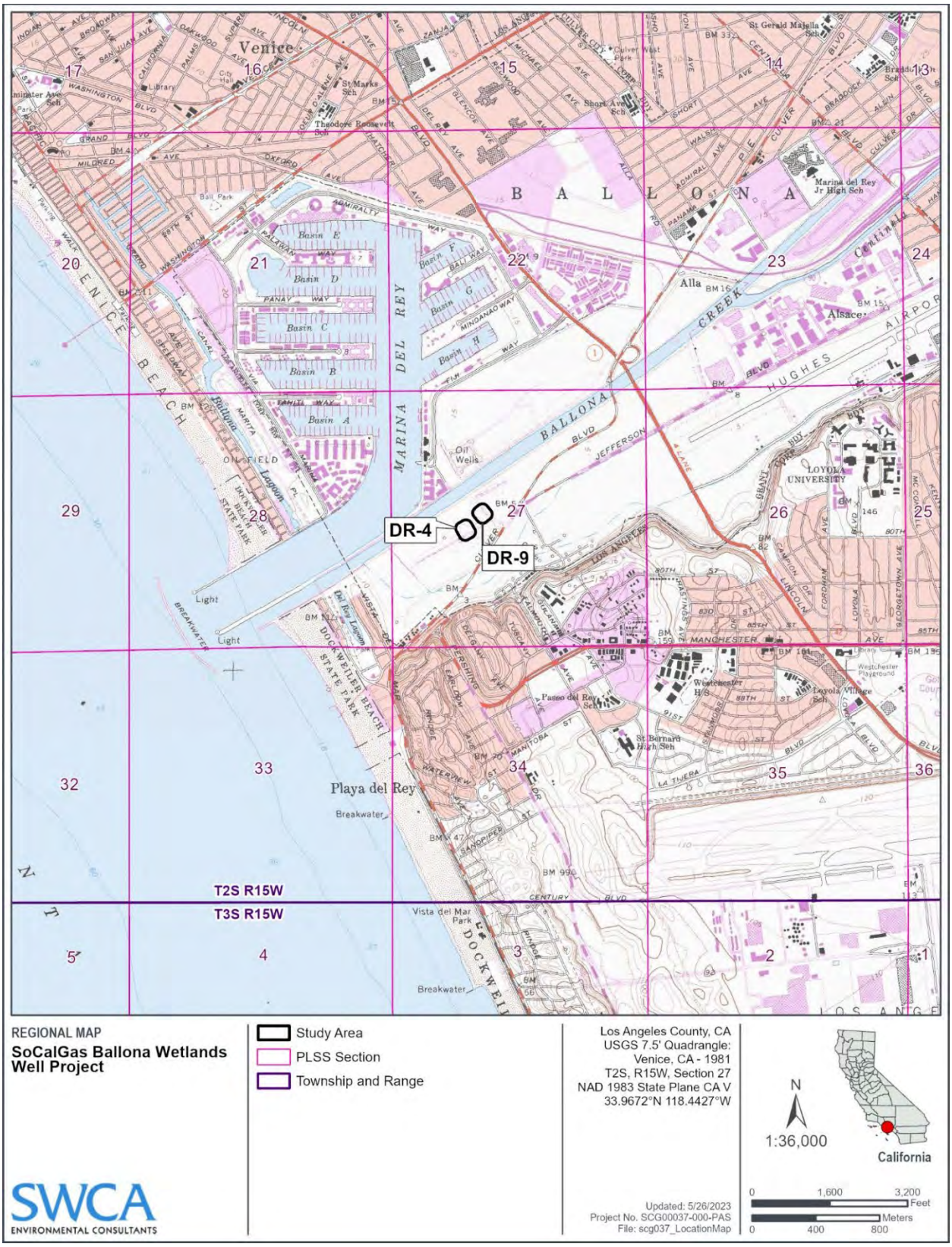
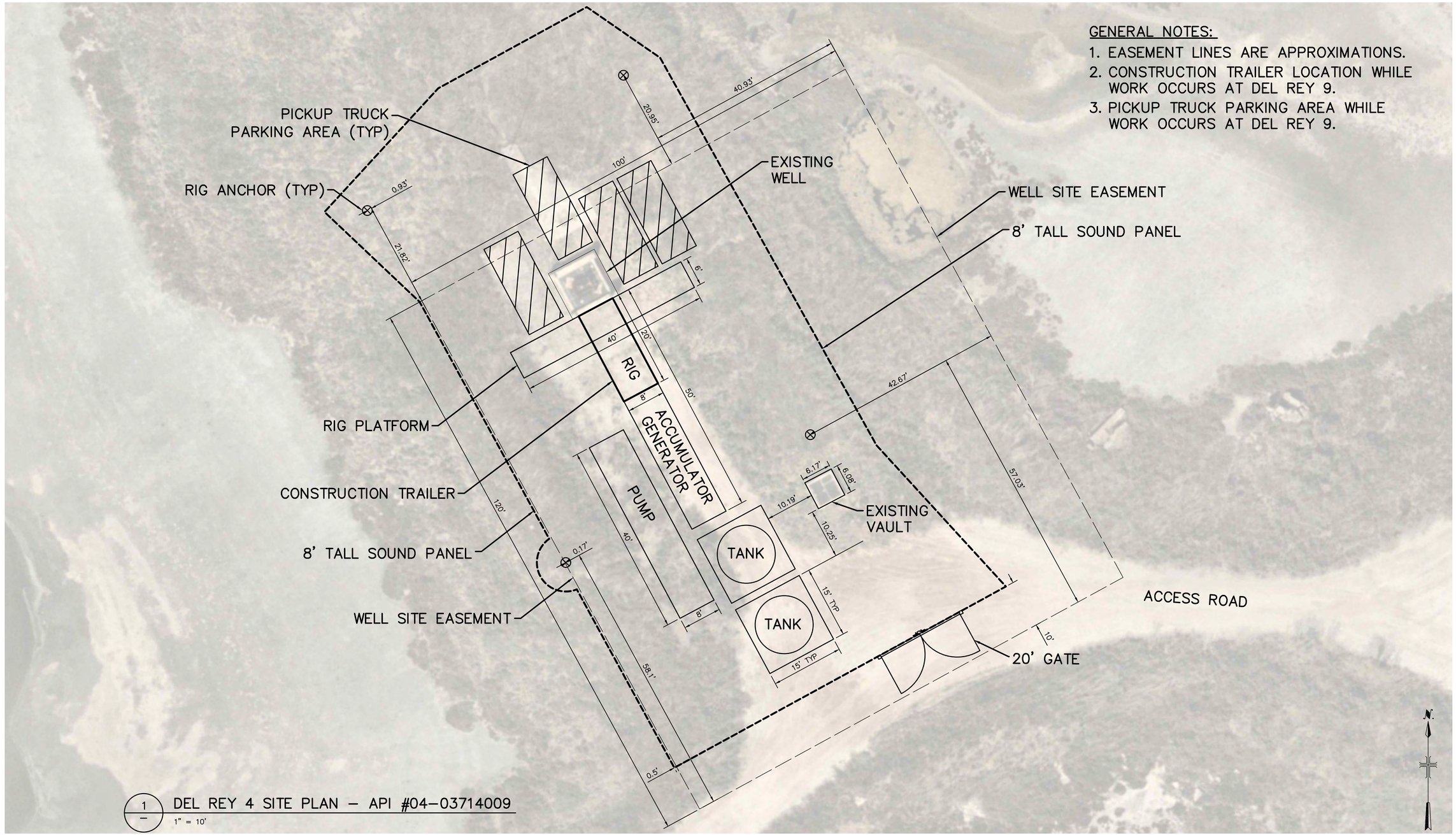



**Figure A-1. Topographic regional map.**


**Figure A-2. Vicinity map on aerial imagery.**




1 — DEL REY 4 SITE PLAN – API #04-03714009

1" = 10'

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|---|---|---|---|---|---|
| | | | | | |

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY
DATE

Geosyntec consultants
engineers | scientists | innovators

SoCalGas
A Sempra Energy utility

# DEL REY 4 PLUG AND ABANDONMENT PROJECT: SITE PLAN

PLAYA DEL REY, CA

| | |
|---|---|
| JOB NO. | SC0766 |
| DRAWING NO. | C-01 |
| SCALE | 1" = 10' |
| SHEET NO. | 1 OF 7 |

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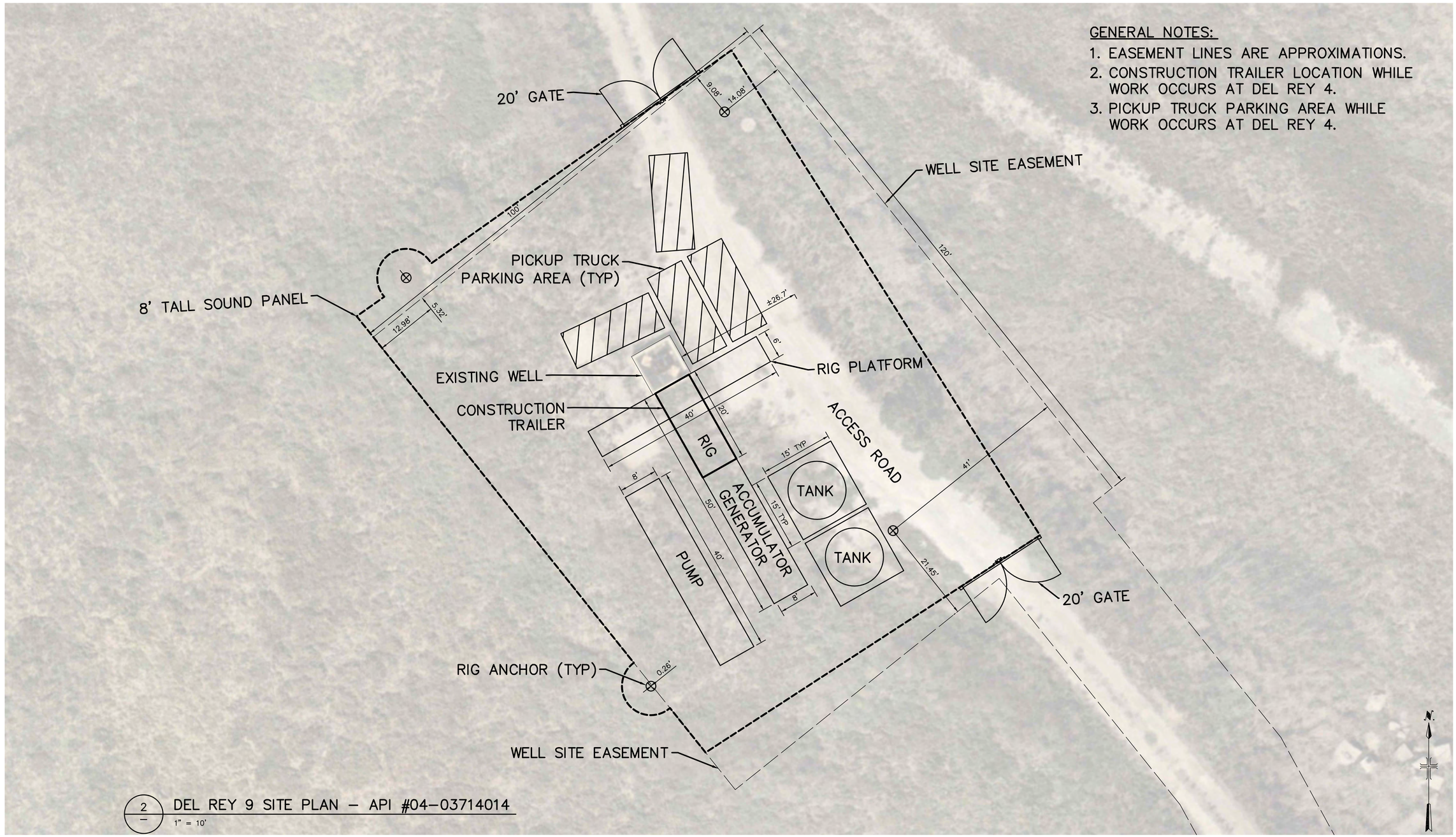
March 04, 2024 – 8:56am Darin.Son

GENERAL NOTES:

1. EASEMENT LINES ARE APPROXIMATIONS.
2. CONSTRUCTION TRAILER LOCATION WHILE WORK OCCURS AT DEL REY 4.
3. PICKUP TRUCK PARKING AREA WHILE WORK OCCURS AT DEL REY 4.




2 — DEL REY 9 SITE PLAN – API #04-03714014

1" = 10'

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DESIGNED BY

DRAWN BY

CHECKED BY

APPROVED BY

DATE

Geosyntec consultants
engineers | scientists | innovators

SoCalGas
A Sempra Energy utility

# DEL REY 9 PLUG AND ABANDONMENT PROJECT: SITE PLAN

PLAYA DEL REY, CA

| | |
|---|---|
| JOB NO. | SC0766 |
| DRAWING NO. | C-02 |
| SCALE | 1" = 10' |
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March 04, 2024 – 9:02am Darin.Son

# Aquatic Resources Delineation Report for SoCalGas Ballona Wetlands Well Removal Project

## (Del Rey 4, and Del Rey 9)

MAY 2023 (RVSD JUNE 2024)

PREPARED FOR

**Southern California Gas Company**
**555 West 5th Street**
**Los Angeles, California 90013**

PREPARED BY

**SWCA Environmental Consultants**
**320 N. Halstead Street Ste. 120**
**Pasadena, California 91107**

# AQUATIC RESOURCES DELINEATION REPORT FOR SOCALGAS BALLONA WETLANDS WELL REMOVAL PROJECT (DEL REY 4 AND DEL REY 9)

Prepared for

Anthony Klecha

**Southern California Gas Company**
555 West 5th Street
Los Angeles, California 90013

Prepared by

Bonnie Rogers, M.S., PWS

**SWCA Environmental Consultants**
320 N. Halstead Street Ste. 120
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SWCA Project No. SCG 37

May 2023 (RVSD JUNE 2024)

# EXECUTIVE SUMMARY

This Aquatic Resources Delineation Report (ARDR) has been conducted in accordance with the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual (USACE 1987), the *USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0) (UASCE 2008a, and USACE *South Pacific Division Map and Drawing Standards*. The purpose of the ARDR is to record the extent of aquatic resources and make a preliminary determination of state and federal jurisdiction potentially subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), State or Regional Water Quality Control Board (Water Boards) under Section 401 of the CWA and Porter Cologne Water Quality Control Act, the California Department of Fish and Wildlife (CDFW) under Section 1602 of the California Fish and Game Code, and the California Coastal Commission (CCC) under Public Resource Code (PRC) Section 30121 of the California Coastal Act.

This ARDR was prepared by SWCA Environmental Consultants (SWCA) for use by the Southern California Gas Company (SoCalGas) for the Ballona Wetlands Well Removal Project (project). The project is located at two SoCalGas maintenance areas (Work Areas) overlapping with SoCalGas right-of-way easements, with each containing a natural gas monitoring well and located within the CDFW Ballona Wetlands Ecological Reserve. The purpose of this ARDR is to record aquatic resource field conditions in conformance with regulatory procedures and guidance, determine potential jurisdictional statuses, and provide recommendations about the need for aquatic resource permits associated with anticipated well removal activities.

**The aquatic resource findings of this report are summarized below:**

Wells: Del Rey (DR) DR-4 and DR-9.

Total acreage of the Work Areas: 0.48 acre (DR-4: 0.23 acre; DR-9: 0.25 acre).

Potential aquatic jurisdiction within well Work Areas: 0.01 acre (DR-4: 0.01 acre; DR-9: 0 acre).

# CONTENTS



## Appendices

# Figures



# Tables

# 1 INTRODUCTION

## 1.1 Contact Information

Applicant: Southern California Gas Company, Anthony Klecha (Team Lead, Planning and Project Support); AKlecha@socalgas.com.

Representative: SWCA Environmental Consultants, Bonnie Rogers (Senior Wetland Scientist); Bonnie.Rogers@swca.com

## 1.2 Regulatory Background

The purpose of this report is to identify and describe aquatic resources in the Review Area and Work Areas and facilitate efforts to:

1. Provide background information about site context and environmental conditions.
2. Document aquatic resource boundaries.
3. Provide early review of known and potentially sensitive resources.
4. Avoid and minimize impacts to regulated resources during the planning and design process.

This Aquatic Resources Delineation Report (ARDR) provides the framework, methods, and results of a jurisdictional delineation, their aquatic resources, and their vegetation communities. The purpose of the ARDR is to record the extent of aquatic resources and make a preliminary determination of state and federal jurisdiction potentially subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act of 1899, State or Regional Water Quality Control Board (Water Boards) under Section 401 of the CWA and Porter Cologne Water Quality Control Act, the California Department of Fish and Wildlife (CDFW) under Section 1602 of the California Fish and Game Code, and the California Coastal Commission (CCC) under Public Resource Code (PRC) Section 30121 of the California Coastal Act.

At the time of this report the state of California is implementing the 2023 Waters of the United States regulations. However, due to the recent Supreme Court of the United States decision on the Sackett v. U.S. Environmental Protection Agency (EPA), additional information from the USACE and EPA is needed to understand how the EPA and USACE will implement their current regulatory programs moving forward.

Under the CWA, state and federal non-wetland waters are delineated by the Ordinary High Water Mark (OHWM) and may be considered jurisdictional by USACE and the Water Boards. Features lacking connectivity to downstream regulated resources may also be considered jurisdictional by the Water Boards under the Porter-Cologne Water Quality Control Act. Under Section 1602 of the California Fish and Game Code, the streambed includes a bed and bank, and/or riparian vegetation. Under Section 30121, the CCC recognizes wetlands within the California Coastal Zone Management Area (CZMA).

An area must meet all of the following three parameters to be considered a federal wetland water of the United States (WOUS): 1) the presence of wetland hydrology (typically consisting of inundation or saturation near the ground surface during the growing season) meeting the indicator requirements; 2) a dominance of hydrophytic vegetation meeting the indicator requirements; and 3) hydric soils displaying indicators of biological activity as a result of anaerobic conditions (USACE 2008a) and meeting the indicator requirements.

Under the Water Board's more recent *Implementation Guidance for the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Procedures) (Waterboard 2020), an area must meet at least two of the following parameters to be considered a wetland: 1) the presence of wetland hydrology (consisting of inundation or saturation near the ground surface during the growing season); 2) hydric soils displaying indicators of biological activity as a result of anaerobic conditions; and 3) five percent or more aerial coverage of vegetation at the peak of the growing season with a dominance of hydrophytic vegetation, but is not required to determine presence of a wetland if the above hydrologic and hydric soil indicators are met.

Under the California Code of Regulations Title 14, the CCC uses a one-parameter definition for wetlands. To be considered a coastal wetland, an area must exhibit at least one of the following characteristics: the presence of wetland hydrology, a dominance of hydrophytic vegetation, or hydric soils.

## 1.3 Project Setting and Review Area

Southern California Gas Company (SoCalGas) intends to perform mechanical integrity testing and/or plug and abandon natural gas monitoring wells within the Ballona Wetlands Ecological Reserve.

Well removal would not require any dirt access road grading within the Reserve. Each Work Area would be prepared by installing sound walls to minimize construction-related noises. Sound walls would be positioned around the perimeter of Work Areas at DR-4 and DR-9. Sounds walls would consist of two K-rail concrete barrier blocks (3 feet wide) placed side-by-side resulting in a 6-foot wide base footprint, with a 20-foot high sound wall affixed on top of the K-rail. An alternative option includes installing 1-foot diameter posts into the ground 4 feet deep and affixing 16-foot tall soundwalls resulting in an approximately 1-foot-wide base footprint at posts.

Within a portion of the Work Areas of DR-4 and DR-9 minor grading would occur to create a flat surface for use during construction. The flat surfaces would allow for operation of vehicles within the small space and for the temporary placement ('laydown') of well removal equipment.

The project involves reviewing existing aquatic resource conditions at each of the following well site Review Areas: Del Rey (DR) DR-4 and DR-9.

Review Areas for aquatic resources include the Work Areas and a 50-foot review area around the wells. All other biological resources were assessed within a 150-foot review area buffer (Biological Resources Review Area) around the Work Areas.

Wells DR-4 and DR-9 are within the Ballona Creek Watershed (HUC-10 1807010403) alongside Ballona Creek, which conveys flow east to west draining into the Pacific Ocean one mile southwest. DR-4 and DR-9 are located within the Reserve south of Ballona Creek. Soils are mapped as Typic Fluvaquents-Typic Xerorthents, dredged spoil complex, 0 to 1 percent slopes, containing placed non-native sediment resulting in artificial berms and elevated topographies (**Appendix A**). The project does not include any U.S. Fish and Wildlife Service (USFWS) designated Critical Habitat for endangered and threatened federally listed species (USFWS 2022a).

The Reserve area is part of the pending Ballona Wetlands Restoration Project proposed by CDFW and the Los Angeles County Department of Public Works under a joint USACE Environmental Impact Statement / CDFW Environmental Impact Report ('Ballona EIS/EIR') (USACE and CDFW 2017) that considers re-design of the Ballona Creek levee system, design of a meandering Ballona Creek, removal of fill material, removal and relocation of SoCalGas wells, and other on-site natural resource restoration activities. The restoration project aims to enhance tidal influence for certain areas of the Reserve and

improve aquatic resource functions and services. While the SoCalGas well removal project is a separate project from the Ballona Wetlands Restoration Project, SoCalGas well removal activities would directly support goals for the Ballona Wetlands Restoration Project.

# 2 LOCATION

The project is located within the city of Los Angeles and partially within unincorporated Los Angeles County in Section 27, Township 2 South, Range 15 West, as depicted on the 2018 U.S. Geological Survey (USGS) Venice, California, 7.5-minute quadrangle (**Figure 1**). DR-4 is centered at approximately 33.966380, -118.443628 and DR-9 is centered at approximately 33.967221, -118.442391 (**Figure 2**). The site may be reached by traveling on Interstate-405 and exiting Culver Boulevard, which continues through the center of the Reserve. Well sites are located south of Ballona Creek and can be accessed from Culver Boulevard. A series of dirt access roads are present throughout the Reserve, which provide SoCalGas well maintenance access.

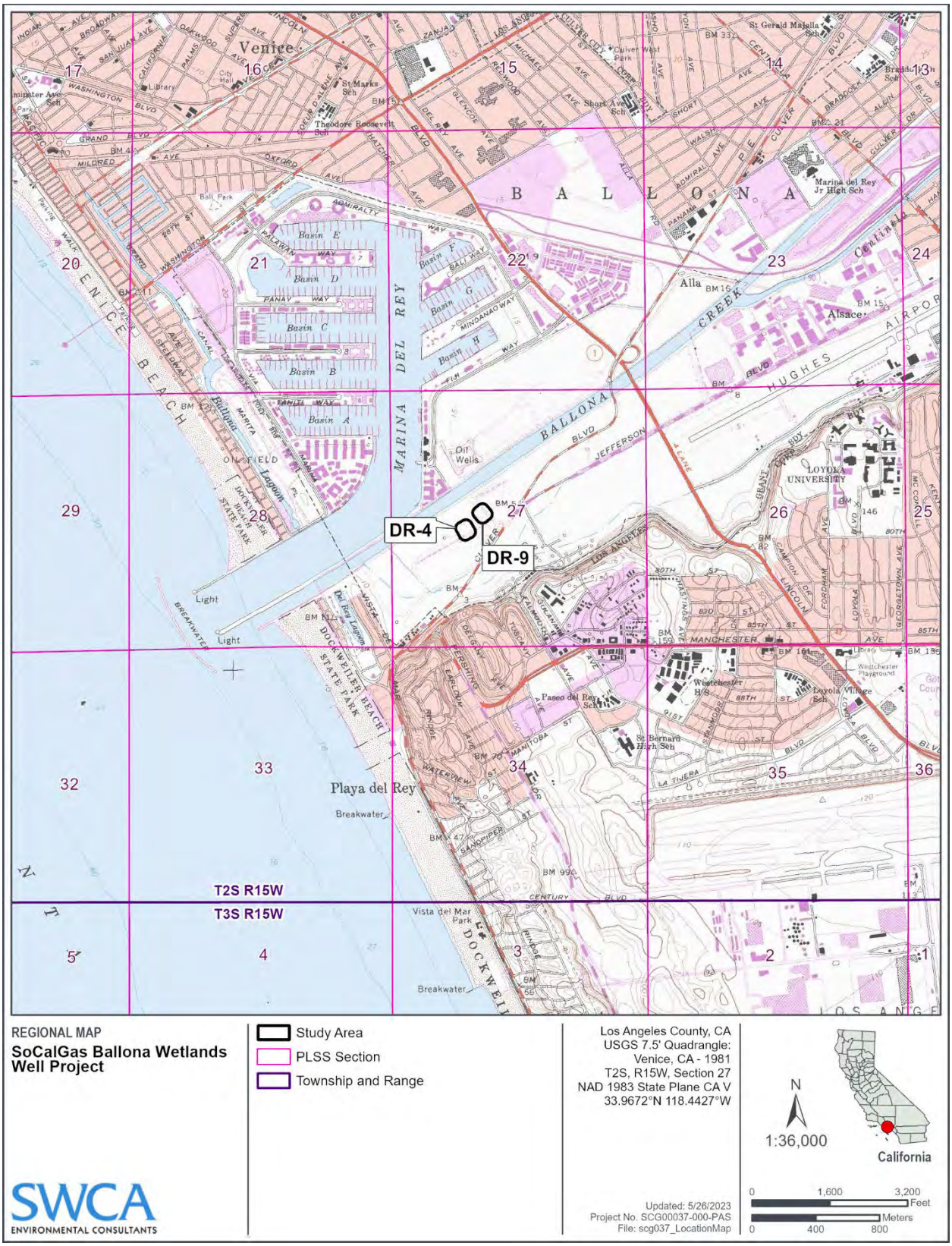


**Figure 1. Project (DR-4 and DR-9) on USGS 7.5-minute quadrangle base map.**


**Figure 2. Vicinity (DR-4 and DR-9) on aerial base map.**

# 3 METHODS

## 3.1 Existing Desktop Data Review and Synthesis

A prior delineation of DR-4 was conducted by SWCA Environmental Consultants, and the results were summarized in a technical memorandum titled *Aquatic Resources Technical Memorandum for SoCalGas Ballona Wetlands Well Removal Project (Del Rey 4, 5, and Vidor 1)*, dated November 2022 (SWCA 2022). The prior delineation did not include DR-9.

SWCA reviewed available regional, local, and site-specific natural resources information from the following sources:

- *Aquatic Resources Technical Memorandum for SoCalGas Ballona Wetlands Well Removal Project (Del Rey 4, 5, and Vidor 1)* (November 2022);
- USGS quadrangle maps, to review streams, topography, and general land uses (2023);
- Google Earth historic and current aerial imagery, to review wet signatures, connectivity, and physical features potentially affecting flow (Google Earth 2023);
- USFWS National Wetland Inventory (NWI) (2023b);
- California Native Plant Society (CNPS) rare and endangered plant inventory; and
- USFWS Critical Habitat Mapper (USFWS 2023a).

Tidal waters were previously mapped as part of the pending Ballona Wetlands Restoration Project (USACE and CDFW 2017). These Rivers and Harbors Act of 1899 Section 10 WOUS were mapped as areas below the mean high water (MHW) line of 4.75-foot elevation NAVD-88 (North American Vertical Datum of 1988) (USACE and CDFW 2017) (see **Appendix A**).

NWI results show wetlands south of Ballona Creek (see **Appendix A**).

Soils are within Los Angeles County, California, Southern Part (CA696). Soils are mapped in the Typic Fluvaquents-Typic Xerorthents, dredged spoil complex, 0 to 1% slope map unit at both well sites (see **Appendix A**). This map unit is comprised of 95% urban land and 5% minor components. The series in its entirety is not considered hydric. The map unit is considered manipulated. The soil map unit is consistent with all the elevated fill terraces; however, soils beyond the elevated fill terraces vary.

## 3.2 Field Survey

An aquatic resources delineation field survey was conducted by a SWCA delineator on May 11, 2023, within the 50-foot Review Areas and Work Areas (**Table 1**; see **Figure 4a**). Aquatic resource features were assessed and mapped, and wetland sampling determination plots were evaluated as-needed to assess conditions. Biological resources were assessed within the 150-foot Biological Resources Review Area.

USACE Wetland Determination Data Forms – Arid West were completed to document the findings at four wetland determination sampling plots (SP-01, DR-4; SP-02, DR-4; SP-03, DR-9; and SP-04, DR-9), and photographs and photo-points were documented. All data were recorded using the ESRI ArcGIS Field Maps collector application paired to a Juniper Systems Geode with sub-meter location accuracy.

Mapped jurisdictional resources within the Review Areas but outside of the Work Areas were determined based on the findings of examined wetland determination sampling plots with similar physical

characteristics including topography, surface hydrology indicators, and vegetation composition. Following the collection of field data, data were reviewed and processed for mapping.

**Table 1. Well Sites and Work Area**

| Relative Location | Well* | Geographic Coordinates | Work Area (acre) |
|---|---|---|---|
| South of Ballona Creek, and North of Culver Blvd. | DR-4 | 33.966384, -118.443633 | 0.23 |
| South of Ballona Creek, and North of Culver Blvd. | DR-9 | 33.967229, -118.442401 | 0.25 |

Note: * DR = Del Rey.

# 4 RESULTS

Potential CCC coastal wetland synonymous with federal wetland WOUS resources occur south of Ballona Creek adjacent to the Work Areas of DR-4 and DR-9 but not within Work Areas (**Table 2**). One-parameter wetlands were not observed in isolation of three-parameter wetland WOUS. Photographs and photo-points were recorded in support of findings (see **Appendix B; Figure 3**). Four wetland determination sampling plots in support of the two well sites were recorded to delineate a wetland point and nearest paired non-wetland point for each site (see **Table 2;** see **Appendix C, Figure 4a and 4b**).

**Table 2. Wetland Determination Sampling Plot Results**

| Plot | Well* | Hydrologic Indicators | Hydric Soil Indicator | Hydrophytic Vegetation Indicator | Wetland/ Non-wetland Result | Relative Plot Location | Geographic Coordinate |
|---|---|---|---|---|---|---|---|
| SP-01 | DR-4 | **Yes** | **Yes** | **Yes** | **Wetland** | West of DR-4 within flat terrace adjacent to a toe-of-slope. | 33.9664606, -118.4437564 |
| SP-02 | DR-4 | No | No | No | Non-wetland | West of DR-4 within hillslope adjacent to a toe-of-slope. | 33.9664731, -118.4437403 |
| SP-03 | DR-9 | No | No | No | Non-wetland | West of DR-9 within hillslope adjacent to a toe-of-slope. | 33.9672011, -118.4425572 |
| SP-04 | DR-9 | **Yes** | **Yes** | **Yes** | **Wetland** | West of DR-9 within flat terrace adjacent to a toe-of-slope . | 33.9671722, -118.4425961 |

Note: *DR = Del Rey.

Well sites are situated on artificially elevated terraces higher in elevation than adjacent terrain. This is consistent with previous studies showing well sites above the Section 10 MHW line of 4.75-foot elevation NAVD-88 (USACE and CDFW 2017; SWCA 2021). Terraces supporting the wells are known to be constructed of compacted fill which varies in texture from loamy to gravelly. The slopes from the lower terrain up to the terraces vary from approximately 30° to 55° slopes. The slopes support a vegetation gradient which varies in species composition and vegetation density from the lower terrain to the terraces. The lower terrain largely supports a higher native diversity of species than the terraces, which exhibit sparser cover and higher invasive species composition.

## 4.1 Hydrology, Soils, and Vegetation

The results from wetland determination sampling plots (**Appendix C**) and vegetation community mapping recorded in the field are described below (**Figure 3**).

### *4.1.1 DR-9*

*V-9 Hydrology*

V-9 is located on an elevated and compacted fill terrace (see **Figure 3**). The Work Area is mapped as an estuarine and marine wetland (E2USP) in the NWI (USFWS 2022b) (see **Appendix A**). It is probable salt content drives vegetation establishment prevalence. Terraces abut the elevated well fill terrace. A slope of approximately 45° separates the lower elevation and the elevated compacted fill supporting the well.

Two wetland determination sampling plots (SP-03 and SP-04) were examined adjacent to DR-9. SP-04 was examined within a vegetated terrace immediately adjacent to the toe-of-slope that separates the terrace from the elevated compacted fill terrace. While the soils were moist throughout the associated 16-inch pedon, no water table or saturation was observed. SP-03 was examined at the base of a hillslope between the toe-of-slope of the lower elevation and the upper compacted fill terrace. No wetland hydrology indicators were observed. In addition, no hydrology indicators were observed in the elevated compacted fill terrace within the Work Area. SP-03 and SP-04 typify the transition between lower elevation and higher elevation from the existing dirt road. The transition was used to define the best Work Area. In summary, hydrology indicators were present at SP-04 outside the Work Area but not observed at SP-03 inside the Work Area.

*DR-9 Soils*

Soils on the DR-9 elevated fill terrace are compacted and consist of sandy clay loam. The lower terraces consist of an uncompacted silty clay texture. At SP-04 hydric soils were observed within the lowest terraces abutting the toe-of-slope, consisting of redox dark surface 0 to 9 inches from the soil surface. Therefore, hydric soil indicators were present at SP-04 outside the Work Area but not at SP-03 inside the Work Area.

*DR-9 Vegetation*

The 150-foot Biological Resources Review Area for DR-9 supports two vegetation communities; pickleweed mats (*Sarcocornia pacifica* (*Salicornia depressa*) Herbaceous Alliance) and Upland mustards or star-thistle fields (*Brassica nigra - Centaurea* (*solstitialis*, *melitensis*) Herbaceous Semi-Natural Alliance). Vegetation withing the elevated compacted fill surface and the immediate adjacent terraces consists of Upland mustards and star-thistle fields. Dominant species include crown daisy (*Glebionis coronaria* [no indicator; assumed upland]), Geraldton carnation weed (*Euphorbia terracina* [no indicator; assumed upland]), wild radish (*Raphanus sativa* [no indicator; assumed upland]), and red brome (*Bromus madritensis* ssp. *rubens* [UPL]). Adjacent to the Upland mustards or star-thistle fields, on the lower terraces, the vegetation community consists of pickleweed mats. The pickleweed mats withing the Biological Resources Review Area are disturbed and consist largely of common pickleweed (*Salicornia pacifica* [OBL]), alkali heath (*Frankenia salina* [FACW]), red brome, and Geraldton carnation weed. Adjacent to the pickleweed mats are Unvegetated mudflats. Vegetation was problematic (dominated by non-native and invasive species) within the DR-9 Biological Resources Review Area, and a dominance of hydrophytic vegetation was not observed at SP-03 or SP-04; however, SP-04 exhibited hydric soils and hydrology indicators while SP-03 lacked hydric soils and hydrology indicators. Because hydric soils and hydrology indicators were present at SP-04 and vegetation was problematic, the sampling plot was determined to be positive for wetland WOUS. Pickleweed mats are present within 50 feet of the well.

*DR-9 Summary*

The DR-9 Work Area lacks three parameter wetlands and is primarily uplands. The Work Area does not contain wetland WOUS or wetland WOS. A dominance of crown daisy vegetation occurs within the central portion of the Work Area intermixed with Geraldton carnation weed, wild radish, red brome, and sparse emergent saltgrass (*Distichlis spicata* [FAC]). This vegetation dominance does not meets the one parameter conditions for it to be CCC coastal wetland WOS. Pickleweed mats are located within 50 feet of the well.

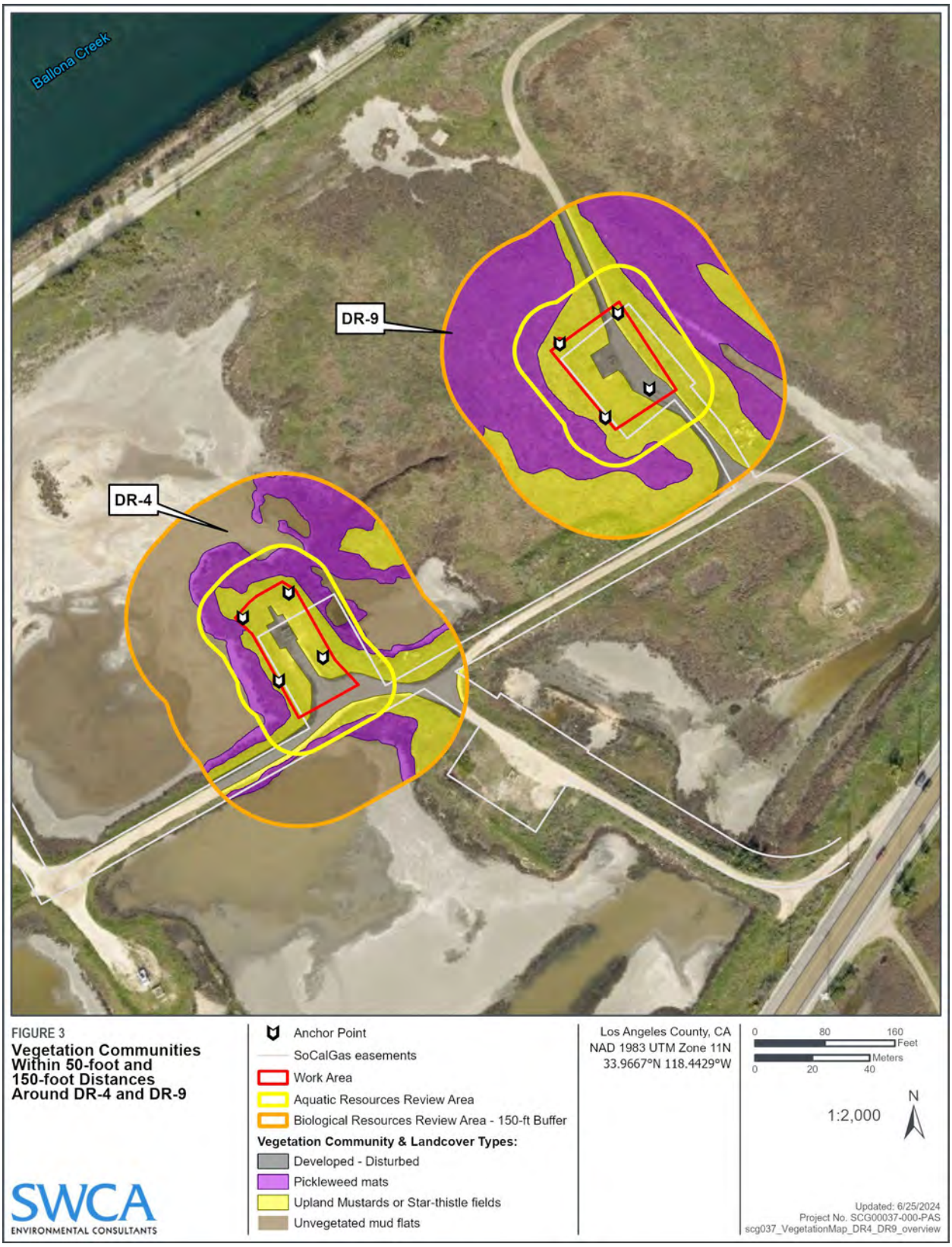


**Figure 3. Vegetation communities within 50-foot and 150-foot distances around DR-4 and DR-9.**

### 4.1.2 DR-4

*DR-4 Hydrology*

DR-4 is located on an elevated and compacted fill terrace (see **Figure 3** above) and is mapped as E2USP in the NWI (see **Appendix A**). The terrace is adjacent to a wetland complex that is intermittently inundated from tidal influence. Ballona Creek conveys flow to the DR-4 adjacent lowlands via two culverts located at approximate coordinates 33.965229°N, 118.448629°W and 33.964291°N, 118.450228°W, respectively. The lowest topographic points in the immediate vicinity of DR-4 consist of unvegetated salt flats. It is anticipated salt content controls vegetation establishment. At the margins of the salt flats are terraces with approximately a vertical foot difference which support hydrophytic vegetation. These terraces abut the elevated well fill terrace. The slope separates the lower terrace from the compacted fill terrace and varies from approximately 15° to 40°.

A wetland determination sampling plot (SP-02) was examined within the elevated compacted fill portion of the DR-4 Work Area. A second plot (SP-01) was evaluated at a lower elevation nearby. Observations associated with SP-01 and SP-02 were extrapolated to areas within the DR-4 Work Area which contained similar physical characteristics, including topography and vegetation composition.

*DR-4 Soils*

Soils on the DR-4 elevated fill terrace are compacted and consist of clay loam. A wetland determination sampling plot (SP-02) was examined within a hillslope of the elevated fill terrace of the DR-4 Work Area which was negative for hydric soil and wetland hydrology indicators. A lack of visible wetland hydrology signatures, vegetation, and conditions resulted in a negative wetland determination.

*DR-4 Vegetation*

Vegetation alliances identified at DR-4 include pickleweed mats and Upland mustards or star-thistle fields. Vegetation withing the elevated compacted fill surface and the immediate adjacent terraces consists of Upland mustards and star-thistle fields. Dominant species include crown daisy and red brome. Adjacent to the Upland mustards or star-thistle fields, on the lower terraces, the vegetation community consists of pickleweed mats. The pickleweed mats withing the Biological Resources Review Area are disturbed and consist largely of common pickleweed, alkali heath, red brome, and ripgut grass (*Bromus diandrus* [no indicator, assumed upland]). Adjacent to the pickleweed mats are Unvegetated mudflats. Vegetation was problematic (dominated by non-native and invasive species) within the DR-4 Biological Resources Review Area, and a dominance of hydrophytic vegetation was not observed at SP-01 or SP-02; however, SP-01 exhibited hydric soils and hydrology indicators while SP-02 lacked hydric soils and hydrology indicators. Because hydric soils and hydrology indicators were present at SP-01 and vegetation was problematic, the sampling plot was determined to be within wetland WOUS. Pickleweed mats are present within 50 feet of the well.

*DR-4 Summary*

The DR-4 Work Area is primarily upland and contains a small section of wetland WOUS and wetland WOS. One parameter wetlands were not observed in the absence of areas that exhibited three parameter wetlands. Consequently, CCC wetlands were determined to be consistent with wetland WOUS/wetland WOS. Pickleweed mats are present within 50 feet of the well.

## 4.2 Jurisdictional Aquatic Resources and Impacts

Potentially jurisdictional resources were observed outside the Work Areas of DR-4 and DR-9 (**Figure 4a and 4b; Table 3**). No CDFW streambed occurs within the project, so it is excluded from the table and impact assessment.

### *4.2.1 USACE WOUS*

Less than 0.01-acre potential wetland WOUS jurisdiction overlaps with the Work Area for DR-4. No WOUS jurisdiction overlaps with the Work Area of DR-9 (**Table 3**). No Section 10 waters (areas below the Mean High Water) are located within the Work Areas of DR-4 or DR-9.

### *4.2.2 Water Board WOS*

Less than 0.01-acre potential wetland WOS jurisdiction overlaps with the Work Area for DR-4. No WOS jurisdiction overlaps with the Work Area of DR-9 (**Table 3**).

### *4.2.3 CCC WOS*

Less than 0.01-acre potential wetland CCC WOS jurisdiction overlaps with the Work Area for DR-4. No CCC WOS jurisdiction overlaps with the Work Area of DR-9 (**Table 3**).

**Table 3. Aquatic Resources within Work Areas and Impacts**

| Well Site | USACE / Water Board Wetland WOUS / WOS | | CCC Coastal Wetland WOS* | |
|---|---|---|---|---|
| | Acres | Linear Feet | Acres | Linear Feet |
| DR-4 | 0.01 | 23 | 0.01 | 23 |
| DR-9 | 0.00 | | 0.00 | 0 |
| Total | 0.01 | 23 | 0.01 | 23 |

*USACE/Water Board and CCC Coastal Wetland WOS are synonymous in area.


**Figure 4a. DR-4 potential jurisdiction within Review Area, and wetland sampling plots. The Review Area shows a 50-foot buffer around the Work Area and temporary impacts to wetlands within the Work Area.**

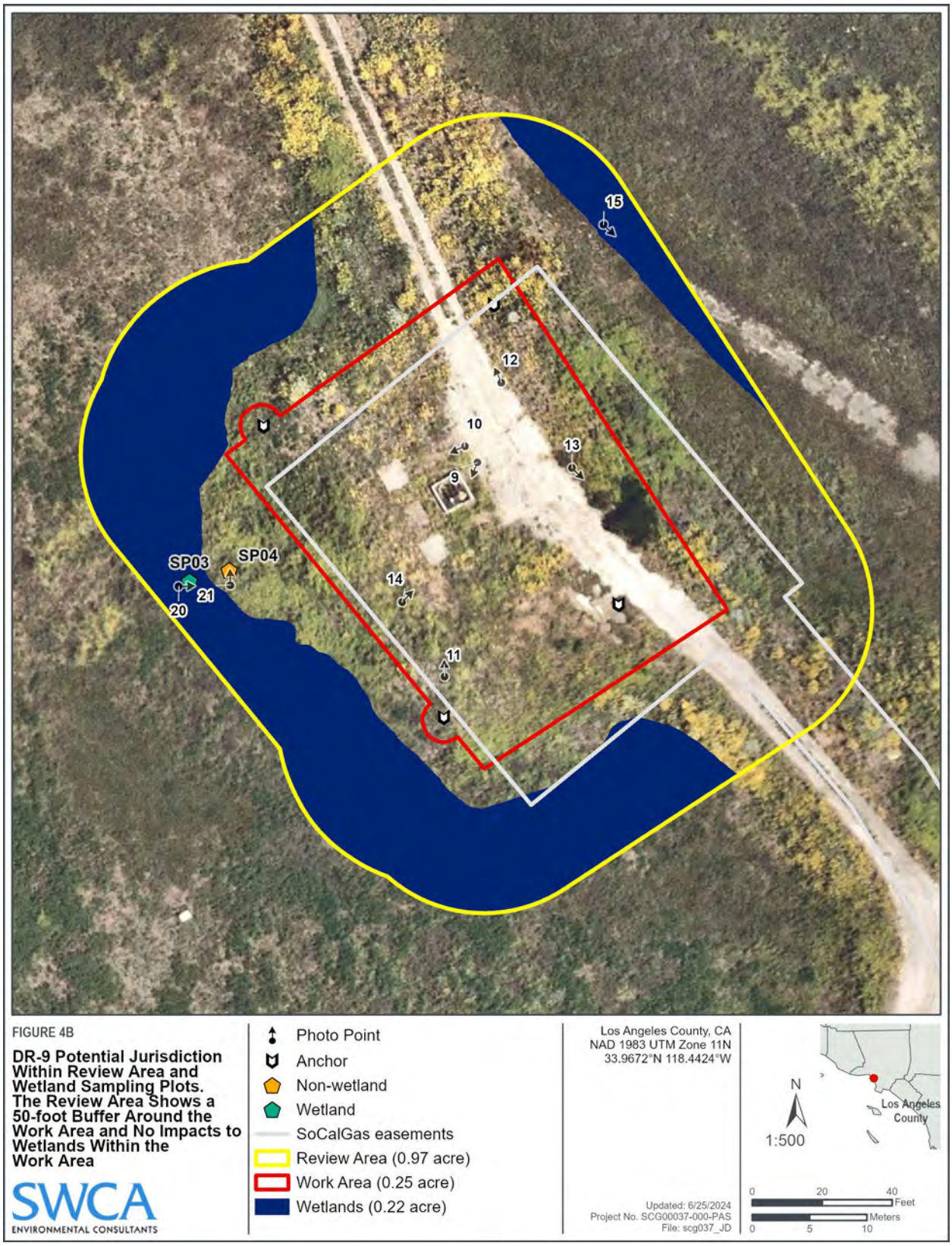


**Figure 4b. DR-9 potential jurisdiction within Review Area, and wetland sampling plots. The Review Area shows a 50-foot buffer around the Work Area and no impacts to wetlands within the Work Area.**

# 5 SUMMARY AND RECOMMENDATIONS

## 5.1 Summary and Recommendations

Proposed well removal activities within the DR-4 and DR-9 Work Areas will impact approximately 0.01 acre (23 linear feet) of potentially jurisdictional wetland WOUS/WOS. Neither DR-4 or DR-9 Work Areas overlap with Section 10 navigable waters. Both DR-4 and DR-9 are within 50 feet of pickleweed mat vegetation communities (a CDFW sensitive vegetation community).

Because CDFW Section 1600 streambed is absent, no Lake and Streambed Alteration Agreement notification would be required. However, SWCA recommends continued coordination with the CDFW Ballona Wetlands Reserve Manager.

Authorization for impacts would require coordination with the Water Board's Los Angeles Regional Water Quality Control Board (RWQCB), the USACE Los Angeles District, and the CCC. Impacts to regulated resources may require notification to the RWQCB through their Water Quality Certification program, notification to the USACE Los Angeles District through submission of a Nationwide Permit Pre-construction notification, and submission of a coastal development permit to the CCC.

In summary, proposed well removal activities would result in less than 0.01-acre (23 linear feet) impacts to CCC, USACE, and RWQCB wetland resources.

# 6 REFERENCES

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# APPENDIX A

## Supporting Maps
## (Section 10 waters, National Wetlands Inventory, Web Survey Soils)

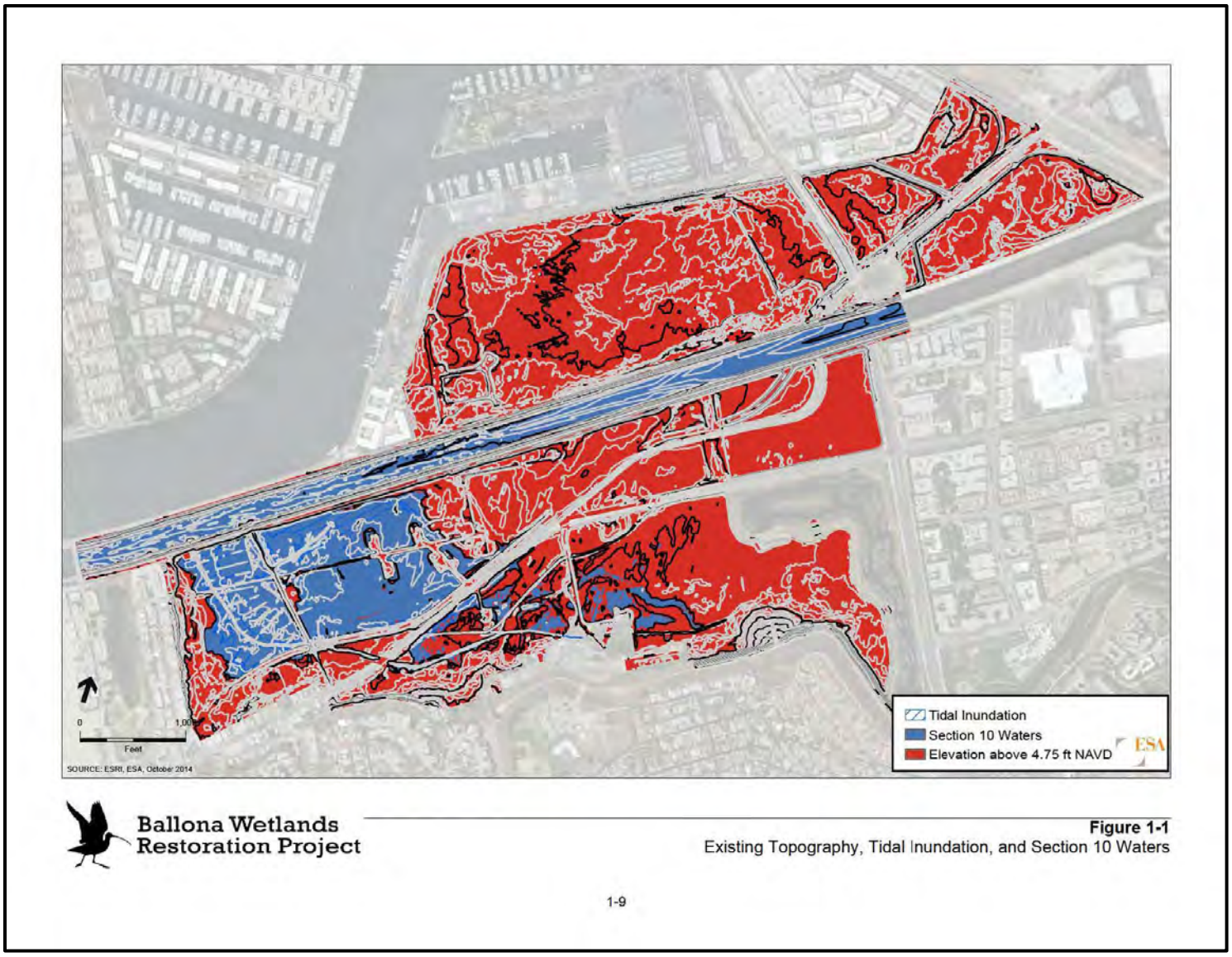


**Figure A-1. Section 10 Mean High Water elevation produced for the Ballona Wetlands Restoration Project (USACE and CDFW 2017).**


**Figure A-2. NRCS soils map.**

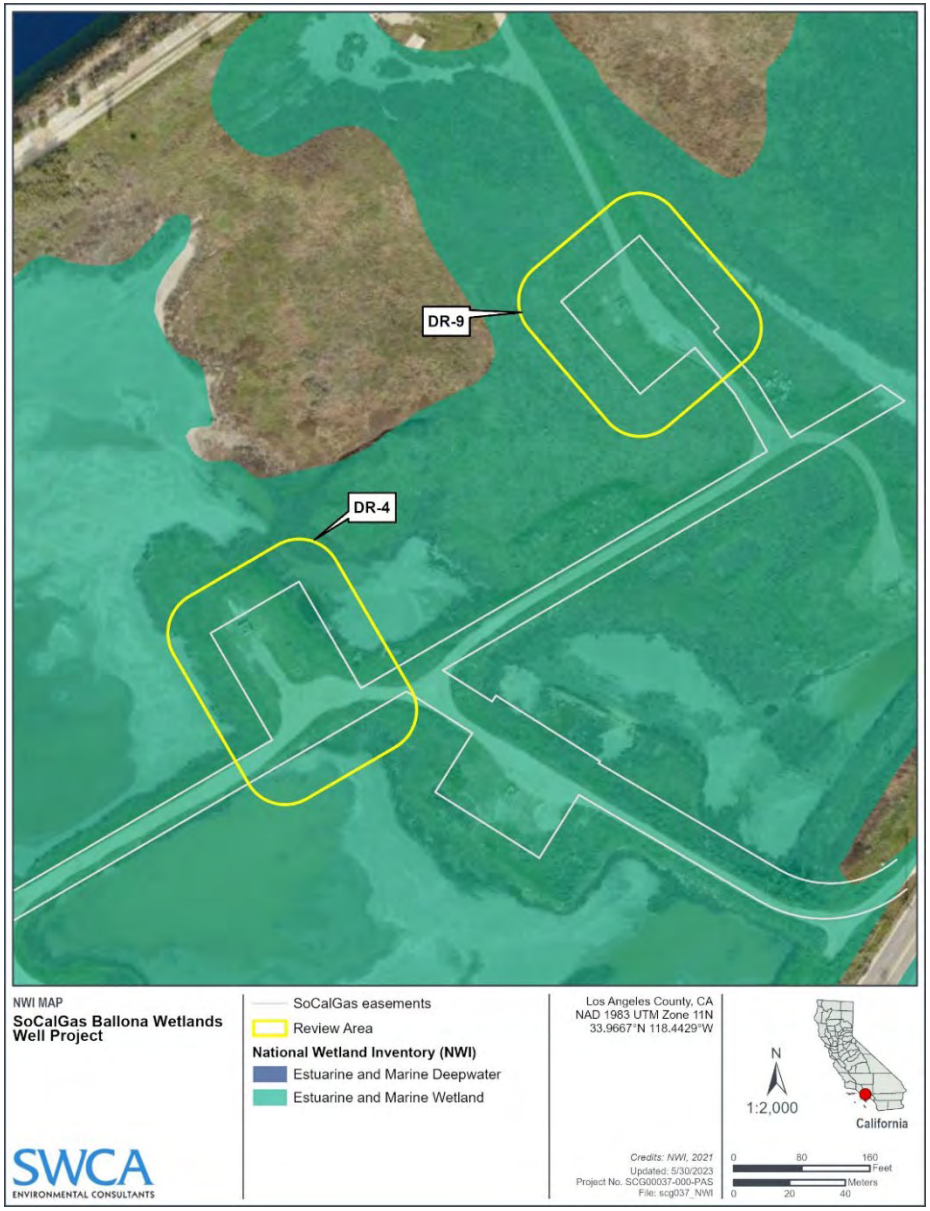


**Figure A-3. NWI.**

# APPENDIX B

# Photographs


**Photo B-1: DR-4. Photo facing northwest.**

**Photo B-2: DR-4 overview. Photo facing east.**

**Photo B-3: DR-4 overview. Photo facing south-southeast.**

**Photo B-4: DR-4 overview. Photo facing south-southeast.**

**Photo B-5: DR-4 overview. Photo facing north.**

**Photo B-6: DR-4 overview. Photo facing north.**

**Photo B-7: DR-4 overview. Photo facing southeast.**

**Photo B-8: DR-4. Photo facing south-southeast.**


**Photo B-9: DR-9. Photo facing south-southwest.**


**Photo B-10: DR-9 overview. Photo facing west-southwest.**

**Photo B-11: DR-9 overview. Photo facing north.**

**Photo B-12: DR-9 overview. Photo facing north-northwest.**

**Photo B-13: DR-9 overview. Photo facing southeast.**

**Photo B-14: DR-9 overview. Photo facing northeast.**

**Photo B-15: DR-9 overview. Photo facing southeast.**

**Photo B-16: Wetland Determination Sampling Plot (SP-01) (positive) outside DR-4 Work Area. Photo facing down.**

**Photo B-17: Wetland Determination Sampling Plot (SP-01) (positive) outside DR-4 Work Area. Overview. Photo facing northwest.**

**Photo B-18: Wetland Determination Sampling Plot (SP-02) (negative) outside DR-4 Work Area. Photo facing down.**

**Photo B-18: Wetland Determination Sampling Plot (SP-02) (negative) outside DR-4 Work Area. Photo facing down.**

**Photo B-19: Wetland Determination Sampling Plot (SP-01 and SP-02) overview. SP-01 in blue circle. SP-02 at shovel in red circle. Photo facing east-northeast.**

**Photo B-20: Wetland Determination Sampling Plot (SP-03) (negative) outside DR-9 Work Area. Photo facing east-northeast.**

**Photo B-21: Wetland Determination Sampling Plot (SP-04) (positive) outside DR-9 Work Area. Photo facing east.**

# APPENDIX C

# Datasheets

## WETLAND DETERMINATION DATA FORM — Arid West Region

Project/Site: DR4 City/County: Playa Del Rey/Los Angeles County Sampling Date: 05/11/2023

Applicant/Owner: SoCalGas State: CA Sampling Point: SP01

Investigator(s): Luis Aguilar, Ryan Myers Section, Township, Range: Sec. 27 T2S R15W

Landform (hillslope, terrace, etc.): Salt Marsh Local relief (concave, convex, none): None Slope (%): 0-1

Subregion (LRR): LRR C Lat: 33.9664606 Long: -118.4437564 Datum: WGS1984

Soil Map Unit Name: 1233 - Typic Fluvaquents-Typic Xerorthents, dredged spoil complex, 0 to 1 percent slopes NWI classification: E2EM1P

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? 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: Site in Ballona Wetlands Ecological Reserve. Site consists largely of non-native, invasive species.

### VEGETATION — Use scientific names of plants.

| Tree Stratum: (Plot size: 30 feet) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 0 =Total Cover | | |
| **Sapling/Shrub Stratum:** (Plot size: 15 feet) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0 =Total Cover | | |
| **Herb Stratum:** (Plot size: 5 feet) | | | |
| 1. *Bromus rubens* | 75 | Y | UPL |
| 2. *Frankenia salina* | 15 | N | FACW |
| 3. *Mesembryanthemum nodiflorum* | 5 | N | FACU |
| 4. *Sonchus oleraceus* | 4 | N | UPL |
| 5. *Bromus diandrus* | 1 | N | UPL |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 100 =Total Cover | | |
| **Woody Vine Stratum:** (Plot size: 15 feet) | | | |
| 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: 0 (A)

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

Percent of Domant 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 | 15 | x 2 = | 30 |
| FAC species | 0 | x 3 = | 0 |
| FACU species | 5 | x 4 = | 20 |
| UPL species | 80 | x 5 = | 400 |
| Column Totals: | 100 (A) | | 450 (B) |
| Prevalence Index = B/A = | | | 4.50 |

**Hydrophytic Vegetation Indicators:**

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Profice 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: Problematic vegetation present; dominance of non-native species.

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**SOIL** Sampling Point: SP01

**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 |
| 0-9 | 2.5YR 3/2 | 98 | 7.5YR 4/4 | 2 | C | M | Clay Loam | moist |
| 9-18 | 5Y 4/2 | 89 | 7.5YR 3/4 | 2 | C | PL | Silty Clay Loam | |
| | | 0 | 5YR 3/4 | 1 | C | PL | | |
| | 10YR 5/6 | 8 | | 0 | | | 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)
- 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: None

Depth (inches): ___

**Hydric Soil Present?** Yes X No ___

Remarks: Soil moist. Fill material (10YR 5/6) present at depth 9-18 inches below surface

**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)
- ___ 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 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:

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## WETLAND DETERMINATION DATA FORM — Arid West Region

Project/Site: DR4 City/County: Playa Del Rey/Los Angeles County Sampling Date: 05/11/2023

Applicant/Owner: SoCalGas State: CA Sampling Point: SP02

Investigator(s): Luis Aguilar, Ryan Myers Section, Township, Range: Sec. 27 T2S R15W

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 4

Subregion (LRR): LRR C Lat: 33.9664731 Long: -118.4437403 Datum: WGS1984

Soil Map Unit Name: 1233 - Typic Fluvaquents-Typic Xerorthents, dredged spoil complex, 0 to 1 percent slopes NWI classification: E2EM1P

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

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

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

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

Remarks: Examined in Ballona Wetland Ecological Reserve. Vegetation largely consists of non-native invasives. SP02 located on artificially raised terrace; soil largely consists of fill material.

### VEGETATION — Use scientific names of plants.

| Tree Stratum: (Plot size: 30 feet) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 0 | =Total Cover | |

| Sapling/Shrub Stratum: (Plot size: 15 feet) | | | |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0 | =Total Cover | |

| Herb Stratum: (Plot size: 5 feet) | | | |
|---|---|---|---|
| 1. *Glebionis coronarium* | 80 | Y | UPL |
| 2. *Bromus rubens* | 10 | N | UPL |
| 3. *Atriplex semibaccata* | 5 | N | FAC |
| 4. *Ambrosia psilostachya* | 1 | N | FACU |
| 5. *Brassica nigra* | 1 | N | UPL |
| 6. *Raphanus sativus* | 1 | N | UPL |
| 7. *Salsola tragus* | 1 | N | FACU |
| 8. *Bromus diandrus* | 1 | N | UPL |
| | 100 | =Total Cover | |

| Woody Vine Stratum: (Plot size: 15 feet) | | | |
|---|---|---|---|
| 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: 0 (A)

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

Percent of Domant 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 | 5 | x 3 = | 15 |
| FACU species | 2 | x 4 = | 8 |
| UPL species | 93 | x 5 = | 465 |
| Column Totals: | 100 (A) | | 488 (B) |
| Prevalence Index = B/A = | | | 4.88 |

**Hydrophytic Vegetation Indicators:**

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Profice 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: Vegetation consists entirely of nonnative invasive species.

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SOIL

Sampling Point: SP02

**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 |
| 0-2 | 10YR 3/2 | 90 | | 0 | | | Silty Clay Loam | |
| 0-2 | 7.5YR 5/6 | 10 | | 0 | | | Clay Loam | |
| 2-18 | 10YR 3/2 | 60 | | 0 | | | Silty Clay Loam | |
| 2-18 | 7.5YR 5/6 | 40 | | 0 | | | 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: None

Depth (inches): ____

**Hydric Soil Present?** Yes ___ No X

Remarks: Soil sample consists of fill material

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 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:

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## WETLAND DETERMINATION DATA FORM — Arid West Region

Project/Site: DR9 City/County: Playa Del Rey/Los Angeles County Sampling Date: 05/11/2023

Applicant/Owner: SoCalGas State: CA Sampling Point: SP03

Investigator(s): Luis Aguilar, Ryan Myers Section, Township, Range: Sec. 27 T2S R15W

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

Subregion (LRR): LRR C Lat: 33.9672011 Long: -118.4425572 Datum: WGS1984

Soil Map Unit Name: 1233 - Typic Fluvaquents-Typic Xerorthents, dredged spoil complex, 0 to 1 percent slopes NWI classification: E2USP

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? Are "Normal Circumstances" present? Yes X No

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

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

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

Remarks: Examined in Ballona Wetlands Ecological Reserve

### VEGETATION — Use scientific names of plants.

| Tree Stratum: (Plot size: 30 feet) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 0 =Total Cover | | |
| **Sapling/Shrub Stratum:** (Plot size: 15 feet) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0 =Total Cover | | |
| **Herb Stratum:** (Plot size: 5 feet) | | | |
| 1. *Bromus rubens* | 60 | Y | UPL |
| 2. *Euphorbia terracina* | 15 | N | UPL |
| 3. *Sonchus oleraceus* | 10 | N | UPL |
| 4. *Frankenia salina* | 10 | N | FACW |
| 5. *Sarcocornia pacifica* | 4 | N | OBL |
| 6. *Raphanus sativus* | 1 | N | UPL |
| 7. | | | |
| 8. | | | |
| | 100 =Total Cover | | |
| **Woody Vine Stratum:** (Plot size: 15 feet) | | | |
| 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: 0 (A)

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

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

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 4 | x 1 = | 4 |
| FACW species | 10 | x 2 = | 20 |
| FAC species | 0 | x 3 = | 0 |
| FACU species | 0 | x 4 = | 0 |
| UPL species | 86 | x 5 = | 430 |
| Column Totals: | 100 (A) | | 454 (B) |
| Prevalence Index = B/A = | | | 4.54 |

**Hydrophytic Vegetation Indicators:**

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Profice 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: Site consists primarily of non-native invasive species.

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**SOIL** Sampling Point: SP03

**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 |
| 0-11 | 2.5Y 3/3 | 96 | 7.5YR 4/6 | 4 | C | M | Clay | soil moist |
| 11-18 | 2.5Y 3/2 | 93 | 10YR 3/4 | 7 | C | M | Silty Clay | soil moist |

[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 X

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 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:

US Army Corps of Engineers Arid West – Version 2.0

## WETLAND DETERMINATION DATA FORM — Arid West Region

Project/Site: DR9 City/County: Playa Del Rey/Los Angeles County Sampling Date: 05/11/2023

Applicant/Owner: SoCalGas State: CA Sampling Point: SP04

Investigator(s): Luis Aguilar, Ryan Myers Section, Township, Range: Sec. 27 T2S R15W

Landform (hillslope, terrace, etc.): Salt Marsh Local relief (concave, convex, none): None Slope (%): 0-1

Subregion (LRR): LRR C Lat: 33.9671722 Long: -118.4425961 Datum: WGS1984

Soil Map Unit Name: 1233 - Typic Fluvaquents-Typic Xerorthents, dredged spoil complex, 0 to 1 percent slopes NWI classification: E2EM1P

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? 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: Site within Ballona Wetlands Ecological Reserve. High percentage of non-native invasive species

### VEGETATION — Use scientific names of plants.

| Tree Stratum: (Plot size: 30 feet) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 0 =Total Cover | | |
| **Sapling/Shrub Stratum:** (Plot size: 15 feet) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0 =Total Cover | | |
| **Herb Stratum:** (Plot size: 5 feet) | | | |
| 1. *Bromus rubens* | 45 | Y | UPL |
| 2. *Sarcocornia pacifica* | 22 | Y | OBL |
| 3. *Frankenia salina* | 21 | Y | FACW |
| 4. *Sonchus oleraceus* | 5 | N | UPL |
| 5. *Euphorbia terracina* | 4 | N | UPL |
| 6. *Cressa truxillensis* | 2 | N | FACW |
| 7. *Bromus diandrus* | 1 | N | UPL |
| 8. | | | |
| | 100 =Total Cover | | |
| **Woody Vine Stratum:** (Plot size: 15 feet) | | | |
| 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: 2 (A)

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

Percent of Domant Species That Are OBL, FACW, or FAC: 67 (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 22 | x 1 = | 22 |
| FACW species | 23 | x 2 = | 46 |
| FAC species | 0 | x 3 = | 0 |
| FACU species | 0 | x 4 = | 0 |
| UPL species | 55 | x 5 = | 275 |
| Column Totals: | 100 (A) | | 343 (B) |
| Prevalence Index = B/A = | | | 3.43 |

**Hydrophytic Vegetation Indicators:**

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Profice 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: Relatively high percentage of non-native invasive species present on-site

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SOIL

Sampling Point: SP04

**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 |
| 0-5 | 2.5Y 3/1 | 62 | 7.5YR 3/4 | 3 | C | PL | Silty Clay | |
| 0-5 | | 0 | 5Y 3/2 | 35 | C | M | | |
| 5-9 | 5Y 3/2 | 57 | 7.5YR 4/6 | 8 | C | PL | Silt Loam | |
| 5-9 | | 0 | 2.5Y 4/2 | 35 | C | M | | |
| 9-18 | 5Y 4/2 | 98 | 2.5Y 6/2 | 2 | D | M | Silt 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)
- X 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 X No ___

Remarks: Soil sample moist - no saturation present

HYDROLOGY

**Wetland Hydrology Indicators:**

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- 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)**
- ___ 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 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:

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# TECHNICAL MEMORANDUM



**To:** Anthony Klecha
Southern California Gas Company
555 West 5th Street
Los Angeles, California 90013

**From:** Bonnie Rogers, PWS, Principal Wetland Scientist

**Date:** January 25, 2024 (Revised June 2024)

**Re:** **Ballona Wetlands Well Assessment Natural Resources Technical Memorandum: DR-4 & DR-9 / SWCA Project No. SCG00037-000-PAS**

## INTRODUCTION

Southern California Gas Company (SoCalGas) intends to perform mechanical integrity testing and/or plug and abandon natural gas monitoring wells within the Ballona Wetlands Ecological Reserve (Reserve). The memo involves review of existing biological resources at well site Review Areas Del Rey (DR) DR-4 and DR-9.

### Purpose and Scope

This natural resources technical memorandum describes the results of a biological assessment survey completed by SWCA Environmental Consultants (SWCA) on May 11, 2023 to document resources at well sites DR-4 and DR-9. The area surveyed encompassed a 150-foot buffer area around each well site (Review Area). The Work Area at DR-4 is approximately 0.23 acre and the Work Area at DR-9 is approximately 0.25 acre.

Vegetation community boundaries and landcover types and special status species were recorded and evaluated. Potential jurisdictional aquatic resources are provided in a separate Aquatic Resources Delineation Report.

### Location

The Reserve is located partially within the city of Los Angeles and partially within unincorporated Los Angeles County, centered at approximately 33.966959°N, 118.4422936°W, in Section 27, Township 2 South, Range 15 West, as depicted on the 2018 U.S. Geological Survey (USGS) Venice, California, 7.5- minute quadrangle (**Appendix A, Figure A-1**). The project is accessed from State Route 1 travelling southwest on Culver Boulevard, which continues through the center of the Reserve. A series of dirt access roads are present throughout the Reserve, providing SoCalGas access. Well DR-4 is located at approximately 33.966380, -118.443628 and Well DR-9 is at approximately 33.967221, -118.442391 (**Appendix A, Figure A-2**).

# METHODS

## Literature Review

SWCA biologists conducted a desktop review of existing data and records prior to the field survey. A 5- mile radius around the Review Area (**Appendix A, Figure A-2**) was included in the desktop evaluation of the search area to discover previously reported special-status biological resources in the Review Area. The following publicly available databases were queried:

- Calflora: Information on California plants for education, research and conservation[1]
- California Natural Diversity Database (CNDDB) RAREFIND 5[2]
- California Native Plant Society (CNPS) Rare Plant Inventory[3]
- eBird: An online database of bird distribution and abundance [web application][4]
- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC)[5]
- Natural Resource Conservation Services (NRCS) Web Soil Survey[6]
- U.S. Fish and Wildlife Service (USFWS) Critical Habitat Mapper[7]
- USFWS National Wetland Inventory (NWI)[8]
- Google Earth historic and current aerial imagery[9]

For the purposes of this report, sensitive plants and wildlife included species, subspecies, varieties, and populations recognized by CDFW and USFWS and were classified using the following two listing categories:

- Species, subspecies, and populations listed or proposed for listing as threatened or endangered pursuant to the federal Endangered Species Act (ESA); and
- Species and subspecies listed or proposed for listing as threatened or endangered pursuant to the California ESA (CESA).

[1] Calflora: Information on California plants for education, research and conservation. Available at: https://www.calflora.org/ Accessed: May 2023.

[2] California Department of Fish and Wildlife. (CDFW). 2023. RAREFIND database managed by the Natural Diversity Data Base, Wildlife Data and Habitat Analysis Branch, California Department of Fish and Wildlife. Sacramento, California. Available at: https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. May 2023.

[3] California Native Plant Society (CNPS), Rare Plant Program. 2023a. Inventory of Rare and Endangered Plants. California Native Plant Society, Sacramento, CA. Available at: http://www.rareplants.cnps.org. May 2023.

[4] eBird. 2023. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: http://www.ebird.org. Accessed May 2023.

[5] Information for Planning and Consultation (IPaC). Available at: http://ecos.fws.gov/ipac/. Accessed September 2023.

[6] Soil Survey Geographic Database. Available at: http://SoilDataMart.nrcs.usda.gov. Accessed May 2023.

[7] USFWS. 2023. Critical Habitat Mapper. Available at: https://ecos.fws.gov/ecp/report/table/critical-habitat.html. Accessed May 2023.

[8] USFWS. 2023. National Wetlands Inventory. U.S. Fish and Wildlife Service Ecological Services. Available at: http://www.fws.gov/wetlands/Data/State-Downloads.html. Accessed May 2023.

[9] Google Earth. Available at: https://www.google.com/earth/. Accessed May 2023.

## Field Survey

SWCA lead biologist Ryan Myers surveyed the Review Area for both well sites on foot, documenting plants, wildlife, and vegetation communities. Ryan Myers who has experience throughout Southern California including coastal communities and biologically sensitive areas. Specifically, Mr. Myers has prior experience conducting botanical surveys at Morro Bay State Park, Pt. Mugu wetlands, Bola Chica State Beach, Crystal Cove State Park, and San Onofre State Beach and other coastal areas with comparable habitat to Ballona Wetlands. The survey included recording plant and wildlife inventories, vegetation mapping, and photographs. Resources were mapped utilizing a Geode® GPS unit with sub-meter accuracy (1- to 3-foot resolution).

Wildlife species observed or detected were recorded, using direct observation as well as wildlife sign (scat, remains, or tracks) and vocalizations. Binoculars were used to facilitate wildlife identification.

Vegetation community mapping was conducted in a manner consistent with the recommendations for standardized data collection and analysis by the California Department of Fish & Wildlife (CDFW) Vegetation Classification and Mapping Program[10] and the methods in the California Native Plant Society (CNPS) A Manual of California Vegetation, 2nd edition[11], and its online updates ('MCV2')[12]. Scientific and common species names for plants were recorded using the dichotomous key provided in The Jepson Manual[13] and online updates presented in The Jepson eFlora, for both nomenclature and identification of species[14].

Mr. Myers reviewed aerial imagery (Google Earth) to estimate potential vegetation community boundaries, then mapped communities in the field to actual extent utilizing a Geode® GPS unit with sub-meter accuracy. Mr. Myers walked each survey area to the extent possible, documenting each plant species observed to the lowest taxonomic level necessary to confirm special status listing. Because of the small survey area size and obstructions from development and fence lines, parallel transects were not practicable. In general, vegetation was composed of non-native species including iceplant (*Carpobrotus edulis*), maltese star thistle (*Centaurea melitensis*), (*Euphorbia terracina*), and crown daisy (*Glebionis coronaria*). Because of the small survey size, the minimum mapping unit for each defined vegetation community was set to one quarter (1/4) acre instead of the more common one (1) acre. Absolute coverage of each dominant vegetation species was estimated in each community identified in the survey area. These percentages were then used to assign specific alliances using the rules and guidelines provided in the MCV2. Sensitive associations were then reviewed to confirm absence or presence of sensitive natural communities as defined by CDFW.

Based on a review in CNDDB of special-status plant species (federally listed, state listed, and plant species with a California Rare Plant Ranks [CRPR] of 1 and 2) the survey in Ballona wetlands coincided with the appropriate blooming period for most species. The SoCalGas well sites are disturbed, consisting

[10] California Department of Fish and Wildlife (CDFW). 2022. Survey of California Vegetation Classification and Mapping Standards. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=102342&inline.

[11] Sawyer, J.O., T. Keeler-Wolf and J.M. Evens. 2009. Manual of California Vegetation.2nd ed. California Native Plant Society. Sacramento, California.

[12] California Native Plant Society (CNPS). 2023. A Manual of California Vegetation, Online Edition. California Native Plant Society, Sacramento, CA. Available at: http://www.cnps.org/cnps/vegetation/ [cnps.org]. Accessed June 2023.

[13] Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (eds). 2012. The Jepson Manual: Vascular Plants of California, 2nd ed. University of California Press, Berkeley.

[14] Jepson Flora Project (eds.) 2022. Jepson eFlora. Available at: https://ucjeps.berkeley.edu/eflora/ [ucjeps.berkeley.edu]. Accessed April 2022.

of compacted elevated sediment and a prevalence of non-native plant species, therefore special-status species are not expected to occur.

## RESULTS

Representative photos from the survey are included in **Appendix B**. **Appendix C** provides lists of flora and fauna identified in the Review Areas during the May 11, 2023, field survey.

## Vegetation Communities and Land Cover

The extent of the vegetation community and land cover types were determined along with their rating (Table 1).

**Table 1. Land Cover and Vegetation Communities in Review Area**

| Vegetation Communities/Land Cover Type | Acres | Global (G)/State (S) Sensitivity* |
|---|---|---|
| Pickleweed mats *Sarcocornia pacifica* (*Salicornia depressa*) Herbaceous Alliance | 1.91 | G4/S3 |
| Upland mustards or star-thistle fields *Brassica nigra* - *Centaurea* (*solstitialis*, *melitensis*) Herbaceous Semi-Natural Alliance | 1.69 | GNA/SNA |
| Unvegetated mudflats | 1.16 | Not classified as a vegetation community in CNPS 2023. |
| Developed/disturbed | 0.37 | Not classified as a vegetation community in CNPS 2023. |
| **Total** | **5.14** | |

**Global/State Rarity Rankings:**

G5/ = Secure — At very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.

GNA/SNA = Not Applicable — A conservation status rank is not applicable because the species or ecosystem is not a suitable target for conservation activities. A global conservation status rank may be not applicable for several reasons, related to its relevance as a

conservation target. Regarding species, typically a species without a rank is a hybrid without conservation value, of domestic origin, or introduced. For ecosystems, the type is typically non-native (e.g. many ruderal vegetation types), agricultural (e.g. pasture, orchard) or developed (e.g. lawn, garden, golf course).

Note: *NatureServe. 2022. Conservation Status Assessment. Available at: https://www.natureserve.org/conservation-tools/conservation-status-assessment. May 2022.

### *DR-4*

The Review Area for DR-4 includes two plant communities: pickleweed mats (*Sarcocornia pacifica* (*Salicornia depressa*) Herbaceous Alliance) and upland mustards or star-thistle fields (*Brassica nigra* - *Centaurea* (*solstitialis*, *melitensis*) Herbaceous Semi-Natural Alliance), as shown in **Figure A-3a** in **Appendix A**. Unvegetated mudflats and developed/disturbed areas land cover types are also present.

The pickleweed mats were observed at the lower terraces between the unvegetated mud flats and the elevated compacted fill surface. The pickleweed mats are dominated by common pickleweed (*Salicornia pacifica*) and alkali heath (*Frankenia salina*) but disturbed due to presence of non-native ripgut brome (*Bromus diandrus*) and other ruderal species. Pickleweed mats, a sensitive community alliance, are found within the Review Area of DR-4 but outside its Work Area.

Vegetation within the elevated compacted fill surface and the immediate adjacent terraces consists of upland mustards and star-thistle fields. Dominant species include crown daisy (*Glebionis coronaria*) and

red brome (*Bromus madritensis* ssp. *rubens*). Scattered natives occur, including gum-plant (*Grindelia camporum*) and western ragweed (*Ambrosia psilostachya*).

### *DR-9*

The Review Area for DR-9 includes two plant communities: pickleweed mats and upland mustards or star-thistle fields. Unvegetated mudflats and developed/disturbed areas are also present. **Figure A-3b** in **Appendix A** illustrates the distribution of these land cover types (**Table 1**).

The pickleweed mats were observed at the lower terraces adjacent to the elevated compacted fill surface. The pickleweed mats are relatively disturbed and dominated by common pickleweed, alkali heath, red brome, and Geraldton carnation weed (*Euphorbia terracina*). Pickleweed mats, a sensitive community alliance, are found within the Review Area of DR-9 but outside its Work Area.

Vegetation within the elevated compacted fill surface and the immediate adjacent terraces consists of upland mustards and star-thistle fields dominated by crown daisy, Geraldton carnation weed, wild radish (*Raphanus sativa*), red brome and black mustard (*Brassica nigra*). Scattered native Western ragweed occurs within the upland mustard and star-thistle fields.

## Wildlife

The most numerous species of wildlife detected in the project vicinity were birds typically associated with coastal salt marshes. Most individuals were recorded based on observation of flyovers and/or by vocalizations. Common species included killdeer (*Charadrius vociferus*), western gull (*Larus occidentalis*), mourning dove (*Zenaida macroura*) and American crow (*Corvus brachyrhynchos*). Side-blotched lizard (*Uta stansburiana*) was the only reptile observed and striped skunk (*Mephitis mephitis*) was the only mammal observed.

## Critical Habitat

There is no designated USFWS critical habitat for federally listed species within or immediately adjacent to the Review Area. The nearest critical habitat designated for western snowy plover (*Charadrius nivosus ssp. nivosus*) is approximately one mile southwest of the site.

## Sensitive Natural Communities

Sensitive natural communities are defined by CDFW as plant communities "…that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects." [15] Natural communities with a State Rank of 1, 2, and 3 are considered sensitive by CDFW. One sensitive vegetation community, pickleweed mats (State Rank [S]3) was identified in the Review Areas of both well sites.

## Special Status Species

No sensitive species of plants or wildlife were observed in the Review Areas; however, focused surveys were not conducted. Both SoCalGas well sites are disturbed, consisting of compacted elevated sediment, sparse vegetation cover, and a prevalence of non-native plant species. These conditions reduce the potential for special status species to occur. As described in the Ballona EIS/EIR, the quality of site

[15] California Department of Fish and Wildlife (CDFW). 2018. Protocols for Surveying and Evaluating Impacts of Special Status Native Plant Populations and Sensitive Natural Communities. Sacramento, CA.

conditions are continuing to degrade over time making the area unlikely to support of special-status species until active, ongoing restoration is implemented.[16]

**Appendix D** summarizes the findings of the CNDDB and CNPS queries, along with a discussion of the potential for each species to occur in the Review Area.

### *Plants*

Eighteen special-status plant species are known to occur in the vicinity of the study areas. Each is described in **Appendix D** along with typical suitable habitat, blooming period, and listing status. The majority of the species are considered extirpated or possibly extirpated or require specific habitat not present in the survey area (e.g. sandy dunes). CNDDB shows that only two plant species, Orcutt's pincushion (*Chaenactis glabriuscula* var. *orcuttiana*) and southern tarplant (*Centromadia parryi* ssp. *australi*s) have recent occurrences within the vicinity of Ballona wetlands. Orcutt's pincushion occur in sandy coastal dunes and bluffs which are not present in the study areas. Marginally suitable habitat is present for Southern tarplant is present within the DR-4 & DR-9 study areas along the margins of the salt marsh, however the distinct species was not observed. Additionally, the surveys coincided with the appropriate blooming period for the species (May – November), therefore the species would have been detected. None were encountered during the May 2023 field survey, and none are expected to occur due to the lack of suitable habitat conditions, as detailed in **Appendix D**. Focused plant surveys were not conducted but are not warranted due to the lack of suitable habitat and the disturbed condition of the Review Area.

### *Wildlife*

Thirty special status wildlife are recorded within the surrounding quadrangle search area. All wildlife species are either absent or have a low potential for occurrence in the Review Area, primarily due to lack of suitable habitat, as discussed in **Appendix D**. Eight species are mapped as overlapping with the Review Area:

- Crotch bumble bee (*Bombus crotchii*; State Candidate Endangered)
- Globose dune beetle (*Coelus globosus* [no status; tracked in CNDDB])
- Wandering (saltmarsh) skipper (*Panoquina errans dorothea* [no status; tracked in CNDDB])
- Dorothy's El Segundo dune weevil (*Trigonoscuta dorothea* ssp. *dorothea* [no status; tracked in CNDDB])
- Burrowing owl (*Athene cunicularia*; Species of Special Concern [SSC])
- California black rail (*Laterallus jamaicensis coturniculus*; State Endangered [SE])
- Belding's savannah sparrow (*Passerculus sandwichensis beldingi*; SE)
- South coast marsh vole (*Microtus californicus stephensi*; SSC)

[16] U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW). 2017. Final Ballona Wetlands Restoration Environmental Impact Statement (EIS)/Environmental Impact Report (EIR). U.S. Army Corps of Engineers and California Department of Fish and Wildlife.

## Summary

Vegetation composition within the Work Areas of DR-4 and DR-9 each include one plant community type: upland mustards or star-thistle fields.

No sensitive wildlife species were observed within the Review Areas during the one-day survey, and focused surveys using species survey protocols were not conducted. Because of the disturbed nature of the compacted fill surfaces for many decades, the likelihood of sensitive species identified in the record search occurring within the elevated Work Areas is low.

# APPENDIX A

## Figures

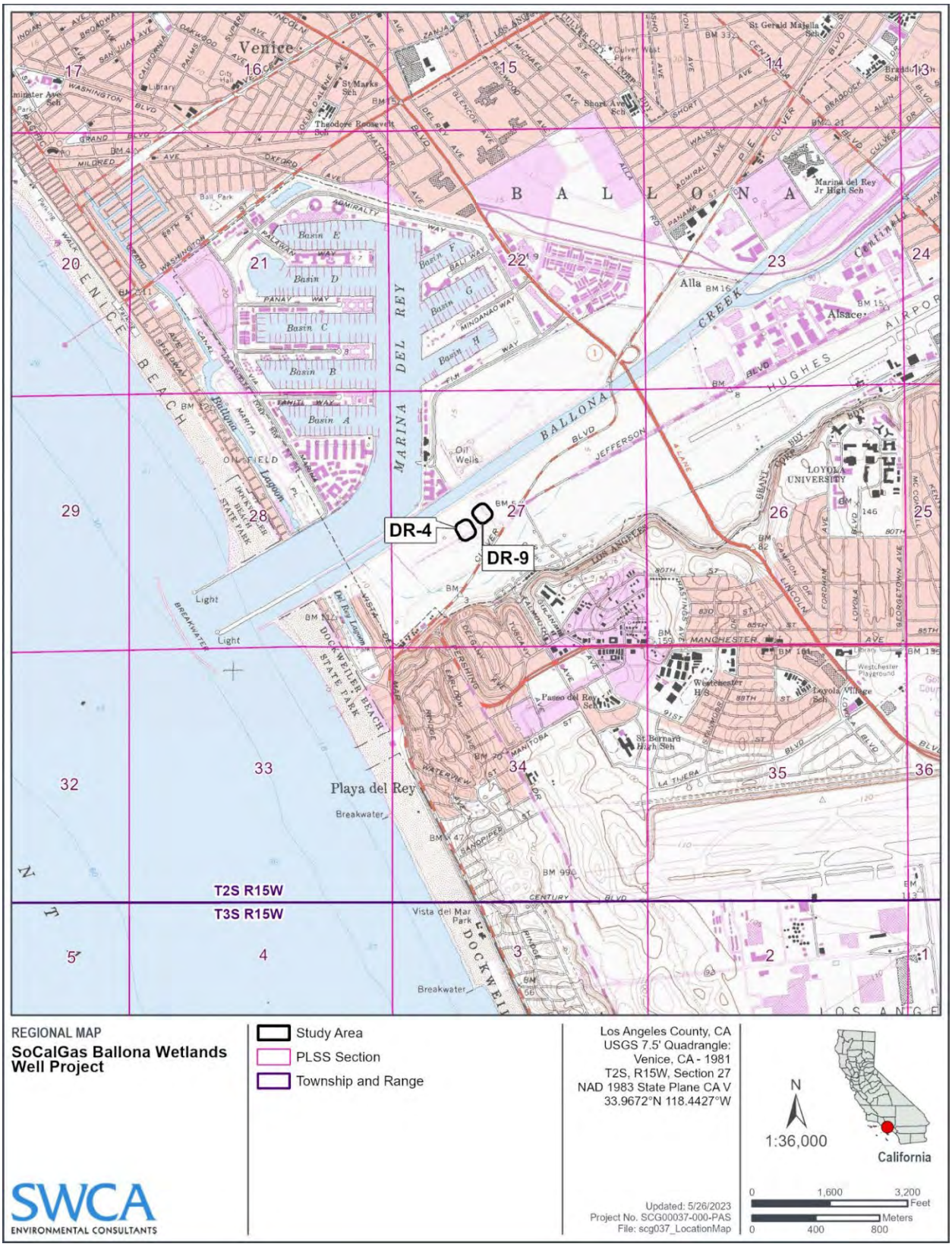


**Figure A-1. Topographic regional map.**


**Figure A-2. Vicinity map on aerial imagery.**

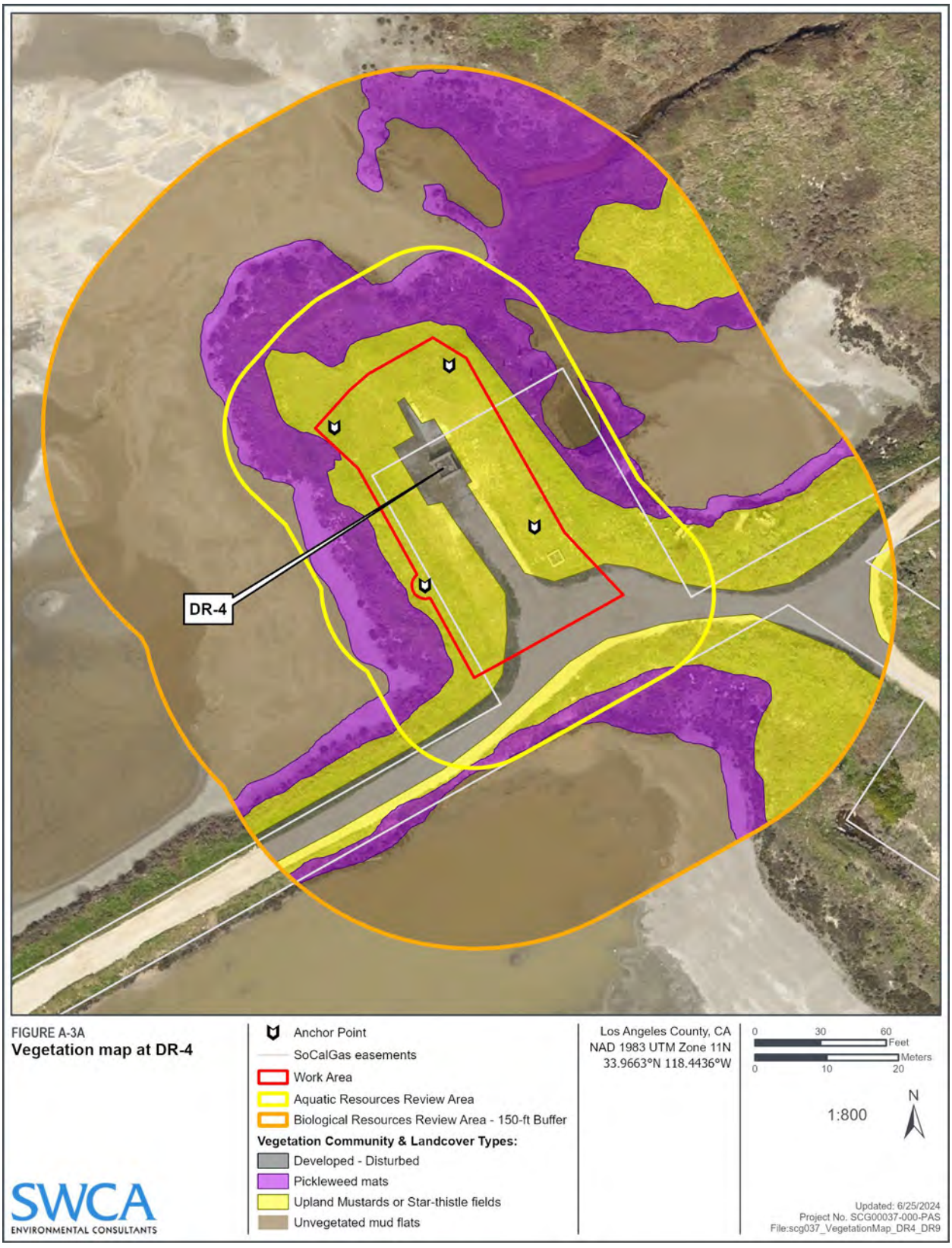


**Figure A-3a. Vegetation map at DR-4.**

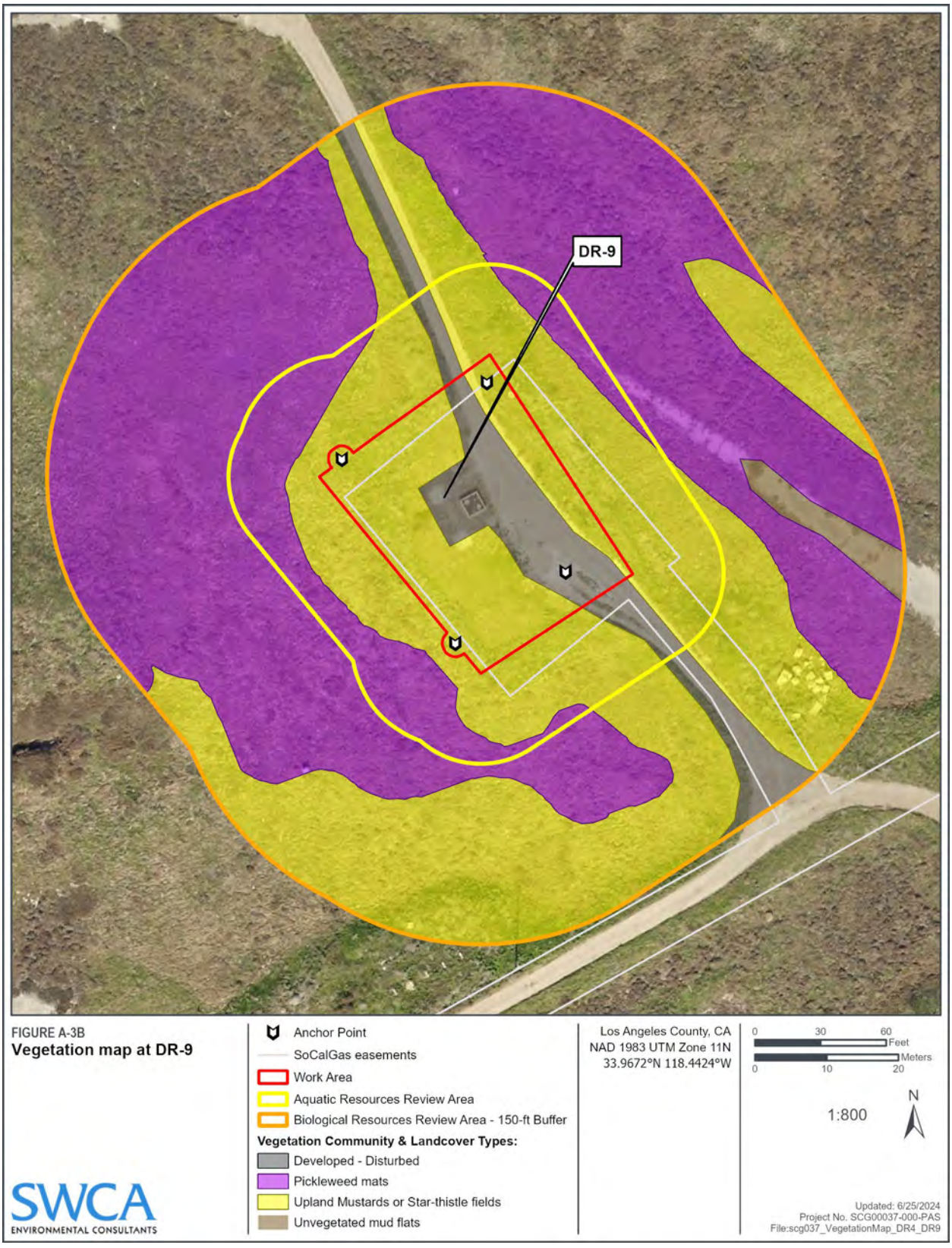


**Figure A-3b. Vegetation map at DR-9.**


**Figure A-4. Soils map.**

# APPENDIX B

## Site Photos


**Photo B-1: DR-4. Photo facing northwest.**

**Photo B-2: DR-4 overview. Photo facing east.**

**Photo B-3: DR-4 overview. Photo facing south-southeast.**

**Photo B-4: DR-4 overview. Photo facing south-southeast.**

**Photo B-5: DR-4 overview. Photo facing north.**

**Photo B-6: DR-4 overview. Photo facing north.**

**Photo B-7: DR-4 overview. Photo facing southeast.**

**Photo B-8: DR-4. Photo facing south-southeast.**


**Photo B-9: DR-9. Photo facing south-southwest.**


**Photo B-10: DR-9 overview. Photo facing west-southwest.**

**Photo B-11: DR-9 overview. Photo facing north.**

**Photo B-12: DR-9 overview. Photo facing north-northwest.**

**Photo B-13: DR-9 overview. Photo facing southeast.**

**Photo B-14: DR-9 overview. Photo facing northeast.**

**Photo B-15: DR-9 overview. Photo facing southeast.**

# APPENDIX C

## Flora and Fauna Compendia

**Table C-1. Flora Identified in Review Areas of DR-4 & DR-9 May 11, 2023**

| SCIENTIFIC NAME | COMMON NAME |
|---|---|
| **ANGIOSPERMS (EUDICOTS)** | |
| **AIZOACEAE** | **FIG-MARIGOLD FAMILY** |
| *Carpobrotus edulis** | Hottentot-fig |
| *Mesembryanthemum nodiflorum** | slender-leaved iceplant |
| **APIACEAE** | **CARROT FAMILY** |
| *Foeniculum vulgare** | fennel |
| **ASTERACEAE** | **SUNFLOWER FAMILY** |
| *Ambrosia psilostachya* | western ragweed |
| *Artemisia californica* | California sagebrush |
| *Artemisia douglasiana* | mugwort |
| *Baccharis pilularis* | coyote brush |
| *Centaurea melitensis** | tocalote |
| *Glebionis coronaria** | crown daisy |
| *Grindelia camporum* | gum-plant |
| *Hedypnois rhagadioloides* [*cretica*]* | Crete weed |
| *Heterotheca grandiflora* | telegraph weed |
| *Sonchus asper* subsp. *asper** | prickly sow thistle |
| *Sonchus oleraceus** | common sow thistle |
| **BRASSICACEAE** | **MUSTARD FAMILY** |
| *Brassica nigra** | black mustard |
| *Hirschfeldia incana** | shortpod mustard |
| *Raphanus raphanistrum** | jointed charlock; wild radish |
| *Raphanus sativus** | radish |
| **CARYOPHYLLACEAE** | **PINK FAMILY** |
| *Spergularia bocconi** | Boccone's sand spurrey |
| *Spergularia marina* | saltmarsh sand spurrey |
| **CHENOPODIACEAE** | **GOOSEFOOT FAMILY** |
| *Arthrocnemum subterminale* [*Salicornia subterminalis*] | Parish's pickleweed |
| *Atriplex semibaccata** | Australian saltbush |
| *Salicornia pacifica* | common pickleweed |
| *Salsola tragus** | Russian thistle |
| **CONVOLVULACEAE** | **MORNING-GLORY FAMILY** |
| *Cressa truxillensis* | alkali weed |
| **CRASSULACEAE** | **STONECROP FAMILY** |
| *Crassula connata* | pygmy-weed |
| **EUPHORBIACEAE** | **SPURGE FAMILY** |

| SCIENTIFIC NAME | COMMON NAME |
|---|---|
| *Euphorbia terracina** | Geraldton carnation weed |
| **FABACEAE** | **LEGUME FAMILY** |
| *Acmispon glaber* var. *glaber* | coastal deerweed |
| *Medicago polymorpha** | bur clover |
| *Melilotus indica** | sour clover |
| **FRANKENIACEAE** | **FRANKENIA FAMILY** |
| *Frankenia salina* | alkali heath |
| **GERANIACEAE** | **GERANIUM FAMILY** |
| *Erodium cicutarium** | red-stemmed filaree |
| *Erodium moschatum** | white-stemmed filaree |
| **MALVACEAE** | **MALLOW FAMILY** |
| *Malva nicaeensis** | bull mallow |
| *Malva parviflora** | cheeseweed |
| **MYRSINACEAE** | **MYRSINE FAMILY** |
| *Lysimachia arvensis** | scarlet pimpernel |
| **ONAGRACEAE** | **EVENING PRIMROSE FAMILY** |
| *Camissoniopsis sp.* | suncup |
| **POLYGONACEAE** | **BUCKWHEAT FAMILY** |
| *Polygonum aviculare* | common knotweed |
| ***Rumex crispus**** | **curly dock** |
| **ANGIOSPERMS (MONOCOTS)** | |
| **POACEAE** | **GRASS FAMILY** |
| *Avena barbata** | slender wild oat |
| *Avena fatua** | wild oat |
| *Bromus diandrus** | ripgut grass |
| *Bromus hordeaceus** | soft chess |
| *Bromus madritensis* subsp. *rubens** | red brome |
| *Cynodon dactylon** | Bermuda grass |
| *Festuca myuros** | rat-tail fescue |
| *Hordeum murinum** | glaucous foxtail barley |
| *Lamarckia aurea** | goldentop |
| *Parapholis incurva** | sicklegrass |
| *Polypogon monspeliensis** | annual beard grass |

*Non-Native Species

**Table C-2. Fauna Identified for DR-4 & DR-9 during the May 11, 2023 survey.**

| | Scientific Name | Common Name |
|---|---|---|
| **REPTILES** | | |
| | **PHRYNOSOMATIDAE** | **ZEBRA-TAILED, EARLESS, FRINGE-TOED, SPINY, TREE, SIDE-BLOTCHED, AND HORNED LIZARDS** |
| | *Uta stansburiana* | side-blotched lizard |
| **BIRDS** | | |
| | **PELECANIDAE** | **PELICANS** |
| | *Pelecanus occidentalis* | brown pelican |
| | **PHALACROCORACIDAE** | **CORMORANTS** |
| | *Phalacrocorax auritus* | double-crested cormorant |
| | **ARDEIDAE** | **HERONS, BITTERNS** |
| | *Ardea herodias* | great blue heron |
| | **ANATIDAE** | **DUCKS, GEESE, SWANS** |
| | *Anas strepera* | gadwall |
| | *Branta canadensis* | Canada goose |
| | **CHARADRIIDAE** | **PLOVERS** |
| | *Charadrius vociferus* | killdeer |
| | **RECURVIROSTRIDAE** | **STILTS & AVOCETS** |
| | *Himantopus mexicanus* | black-necked stilt |
| | **SCOLOPACIDAE** | **SANDPIPERS** |
| | *Actitis macularius* | spotted sandpiper |
| | **LARIDAE** | **SKUAS, GULLS, TERNS, SKIMMERS** |
| | *Larus occidentalis* | Western gull |
| | Hydroprogne caspia | Caspian tern |
| | **COLUMBIDAE** | **PIGEONS & DOVES** |
| | *Zenaida macroura* | mourning dove |
| | **HIRUNDINIDAE** | **SWALLOWS** |
| | *Petrochelidon pyrrhonota* | cliff swallow |
| | *Hirundo rustica* | barn swallow |
| | *Stelgidopteryx serripennis* | northern rough-winged swallow |
| | *Tachycineta bicolor* | tree swallow |
| | **CORVIDAE** | **JAYS & CROWS** |
| | *Corvus brachyrhynchos* | American crow |
| | **EMBERIZIDAE** | **EMBERIZIDS** |
| | *Melospiza melodia* | song sparrow |
| | **FRINGILLIDAE** | **FINCHES** |

| | Scientific Name | Common Name |
|---|---|---|
| | *Carpodacus haemorhous* | house finch |
| **MAMMALS** | | |
| | **MEPHITIDAE** | **SKUNKS** |
| | *Mephitis mephitis* | striped skunk |

# APPENDIX D

## Special Status Species Reported in Project Vicinity

**Table D-1. Special Status Plants – Potential to Occur Within Review Area**[i]

| Scientific Name | Common Name | Lifeform | Status | Blooming Period | Habitat | Elevation (ft.) | Potential to Occur at Project Site |
|---|---|---|---|---|---|---|---|
| Astragalus pycnostachyus var. lanosissimus | Ventura marsh milk-vetch | perennial herb | 1B.1, SE, FE | Jun -Oct | Coastal salt marsh, coastal dune, coastal scrub. Typically located within reach of high tide protected by barrier beaches and near seeps on sandy bluffs | 0-115 | **Absent.** Suitable habitat is present but this distinctive plant was not found. Listed as extirpated in CNDDB. |
| Astragalus tener var. titi | coastal dunes milk-vetch | annual herb | 1B.1, SE, FE | Mar-May | Coastal prairie (mesic); Coastal bluff scrub (sandy), Coastal dunes, often vernally mesic areas | 0-165 | **Absent.** Noted in CNDDB as "Site is based on an 1891 Hasse collection and a 1930 Fraiser collection. R. Barneby (1964) believes this site is probably extirpated." Potentially suitable habitat is present but this plant was not found, nor were any species of *Astragalus.* |
| Atriplex coulteri | Coulter's saltbush | perennial herb | 1B.2 | Mar-Oct | Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; alkaline or clay | 5-1510 | **Absent.** Noted in CNDDB as: Only source of information for this site is an 1881 Nevin collection. Presumed extirpated." Suitable habitat is not present and no *Atriplex* species were found on-site. |
| Atriplex pacifica | South Coast saltscale | annual herb | 1B.2 | Mar-Oct | Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas | 0-460 | **Absent.** Noted in CNDDB as: Only source of information for this site is an 1881 Parish collection. Presumed extirpated." Suitable habitat is not present and no *Atriplex* species were found on-site. |
| Atriplex parishii | Parish's brittlescale | annual herb | 1B.1 | Jun-Oct | Chenopod scrub, Playas, Vernal pools; alkaline | 80-6235 | **Absent.** Within Jepson distribution range but closest CNDDB occurrence is dated 1881 ~20mi to the southeast. Suitable habitat is present but this plant was not found. Potentially suitable habitat is present but no *Atriplex* species were found on-site. |
| Centromadia parryi ssp. australis | southern tarplant | annual herb | 1B.1 | May-Nov | Marshes and swamps (margins), Valley and foothill grassland (vernally mesic), Vernal pools | 0-1575 | **Absent.** CNDDB notes 30 plants seen in the 1990's but none in 1997 (Venice quad in project vicinity). Potentially suitable habitat is present but this distinctive plant was not found. |
| Chaenactis glabriuscula var. orcuttiana | Orcutt's pincushion | annual herb | 1B.1 | Jan-Aug | Coastal bluff scrub (sandy), Coastal dunes | 0-330 | **Absent.** Sandy coastal dunes/bluffs are not present on-site. The 2017 DEIR states this plant was found in the Ballona Wetlands during 2011 focused rare plant surveys.[ii] |
| Chloropyron maritimum ssp. maritimum | salt marsh bird's-beak | annual herb (hemiparasitic) | 1B.2, SE, FE | May-Oct (Nov) | Coastal dunes, Marshes and swamps (coastal salt) | 0-100 | **Absent.** Potentially suitable habitat is present. CNDDB states "based on an 1888 Hasse collection from "near Santa Monica". |
| Chorizanthe parryi var. fernandina | San Fernando Valley spineflower | annual herb | 1B.1, SE, FC | Apr-Jul | Coastal scrub (sandy), Valley and foothill grassland | 490-4005 | **Absent.** Elevation range of species is much higher than project site; not found on haline soils. No suitable habitat present. |
| Dithyrea maritima | Beach spectaclepod | perennial herb | 1B.1; ST | Mar-May | Coastal dunes, costal scrub, sandy places near shore. | 10-165 | **Absent.** Suitable habitat is not present at site. Known historically in project vicinity. Noted in CNDDB as extirpated. |

| Scientific Name | Common Name | Lifeform | Status | Blooming Period | Habitat | Elevation (ft.) | Potential to Occur at Project Site |
|---|---|---|---|---|---|---|---|
| Eryngium aristulatum var. parishii | San Diego button-celery | annual / perennial herb | 1B.1, SE, FE | Apr-Jun | Coastal scrub, Valley and foothill grassland, Vernal pools; mesic | 65-2035 | **Absent.** Suitable is not present on site. Nearest CNDDB record from 1901. |
| *Horkelia cuneata* var. *puberula* | mesa horkelia | perennial herb | 1B.1 | Feb-Jul (Sep) | Chaparral (maritime), Cismontane woodland, Coastal scrub; sandy or gravelly | 225-2655 | **Absent.** Suitable is not present on site. Nearest CNDDB record from 1932 on sand dunes. |
| *Lasthenia glabrata* ssp. *coulteri* | Coulter's goldfields | annual herb | 1B.1 | Feb-Jun | Marshes and swamps (coastal salt), Playas, Vernal pools | 0-4005 | **Absent.** No saline places or vernal pools present on site. CNDDB occurrence located to the northwest of site is from 1934. |
| *Navarretia prostrata* | prostrate vernal pool navarretia | annual herb | 1B.1 | Apr-Jul | Coastal scrub, Meadows and seeps, Valley and foothill grassland (alkaline), Vernal pools; Mesic | May-70 | **Absent.** Nearest record (1906 extirpated) located ~two miles southeast of project site. |
| *Phacelia stellaris* | Brand's star phacelia | annual herb | 1B.1 | Mar-Jun | Coastal dunes, Coastal scrub | 0-1310 | **Absent.** No suitable habitat is present. Nearest occurrence (1932) ~4mi to the southwest. Recent records are in San Diego County. |
| *Potentilla multijuga* | Ballona cinquefoil | perennial herb | 1A | Jun-Aug | Meadows and seeps (brackish) | 0-5 | **Absent.** No suitable habitat present on-site; listed as extirpated by CNDDB. |
| *Quercus dumosa* | Nuttall's scrub oak | perennial evergreen shrub | 1B.1 | Feb-Apr (May-Aug) | Closed-cone coniferous forest, Chaparral, Coastal scrub; sandy, clay loam | 45-1310 | **Absent.** Suitable habitat is absent and this distinctive oak was not found. |
| *Sidalcea neomexicana* | salt spring checkerbloom | perennial herb | 2B.2 | Mar-Jun | Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas; alkaline, mesic | 45-5020 | **Absent.** Site is below elevation range. CNDDB occurrence located 0.15mi north last seen in 1922. |

FE = Federally listed as Endangered
FT = Federally listed as Threatened
SE = State of California listed as Endangered
ST = State of California listed as Threatened
CR = State of California listed as Rare

CRPR 1A = Plants presumed extirpated in California and either rare or extinct elsewhere
CRPR 1B = Plants rare, threatened, or endangered in California and elsewhere
CRPR 2A = Plants presumed extirpated in California but common elsewhere
CRPR 2B = Plants rare, threatened, or endangered in California but more common elsewhere
0.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 = Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
0.3 = Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

**Table D-2. Special Status Fauna – Potential to Occur Within Review Area[iii]**

| Taxon | Scientific Name | Common Name | Status | Habitat | Potential to Occur |
|---|---|---|---|---|---|
| Invertebrates | *Bombus crotchii* | Crotch bumble bee | SE | Found in coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia*, and *Eriogonum*. | **Absent.** Food plant genera are not present on the project site. Most recent CNDDB record is approximately 18 miles south of the project site observed in 2001. |
| | *Brennania belkini* | Belkin's dune tabanid fly | SA | Inhabits sand dunes of Southern California | **Absent.** Sand dunes are not present in project site. |
| | *Cicindela hirticollis gravida* | sandy beach tiger beetle | SA | Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico | **Absent.** No suitable habitat present due to lack of beaches. |
| | *Cicindela senilis frosti* | senile tiger beetle | SA | Inhabits marine shoreline, from Central California coast south to salt marshes of San Diego. | **Low.** Potentially suitable habitat is present at project site; however, the area is highly disturbed with compacted soils. |
| | *Coelus globosus* | globose dune beetle | SA | Inhabitant of coastal sand dune habitat; erratically distributed from Ten Mile Creek in Mendocino County south to Ensenada, Mexico. | **Absent.** No coastal sand dunes present at project site. |
| | *Danaus plexippus* pop. 1 | monarch butterfly California overwintering population | FC | Winter roost sites occur within ~1.5 mile of the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. | **Absent.** Suitable overwintering habitat is absent at the project site. A known overwintering site is present in gum trees (Eucalyptus sp.) within Ballona Reserve (Xerces site #2872). |
| | *Eucosma hennei* | Henne's eucosman moth | SA | Endemic to the El Segundo Dunes (type locality), Los Angeles County. Larval foodplant is *Phacelia ramosissima* var. *austrolitoralis*; larvae can be found on woody stems and upper root parts. | **Absent.** No suitable habitat present due to lack of sand dunes and lack of larval food plants. |
| | *Eugnosta busckana* | Busck's gallmoth | SA | Inhabitant of coastal dunes (El Segundo Dunes = type locality). | **Absent.** No coastal sand dunes present at project site. Historical records from 1939; possibly extirpated. |
| | *Euphilotes battoides allyni* | El Segundo blue butterfly | FE | Restricted to remnant coastal dune habitat in Southern California. Host plant is *Eriogonum parvifolium*; larvae feed only on the flowers and seeds; used by adults as major nectar source. | **Absent.** No coastal sand dunes or host plants present at project site. |
| | *Gonidea angulata* | western ridged mussel | SA | Aquatic species found primarily in creeks and rivers. Originally in most of state, now extirpated from Central and Southern California. | **Absent.** No suitable freshwater habitat is present to support mussel growth at the project site. Historic records are from before 1948 with vague locations. Notes as extirpated in CNDDB. |
| | *Onychobaris langei* | Lange's El Segundo Dune weevil | SA | Occurs in coastal foredunes and dune scrub habitats. Food plant possibly evening primrose (*Oenothera* sp.); collections have been taken near roots. | **Absent.** No dunes or dune scrub vegetation is present at the project site. |
| | *Panoquina errans* | wandering (=saltmarsh) skipper | SA | Inhabits Southern California coastal salt marshes. Host plant is saltgrass (*Distichlis spicata*). | **Low.** Salt marsh habitat is present at the project site but this species host plant is absent. Known to occur within Ballona Reserve. |
| | *Streptocephalus woottoni* | Riverside fairy shrimp | FE | Occurs in vernal pools in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub. | **Absent.** No vernal pools are present at the project site. Suitable habitat is absent due to the high salinity and the short duration and shallow depth of ponding. |
| | *Trigonoscuta dorothea ssp. dorothea* | Dorothy's El Segundo Dune weevil | SA | Found in coastal sand dunes in dune scrub habitat. | **Absent.** No coastal sand dunes or dune scrub vegetation are present at the project site. |
| | *Tryonia imitator* | mimic tryonia (=California brackishwater snail) | SA | Inhabits coastal lagoons, estuaries and salt marshes, from Sonoma County south to San Diego County. | **Absent.** No coastal lagoons, estuaries, or salt marshes present on-site. Original 1974 report based on empty shells; not confirmed since. |
| Amphibians | *Spea hammondii* | western spadefoot | SSC | Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying. | **Absent.** No vernal pools are present at the project site. Suitable habitat is absent due to the high salinity and the short duration and shallow depth of ponding. |

| Taxon | Scientific Name | Common Name | Status | Habitat | Potential to Occur |
|---|---|---|---|---|---|
| Reptiles | *Anniella stebbinsi* | Southern California legless lizard | SSC | Known to occur in broadleaved upland forests, chaparral, coastal dunes, and coastal scrub. Occurs in sandy or loose loamy soils under sparse vegetation; prefer soils with a high moisture content. | **Low.** Marginally suitable habitat is present but the soils are highly compacted and haline and the site may be too frequently saturated/inundated by high tides. |
| | *Thamnophis hammondii* | Two-striped garter snake | SSC | Aquatic snake found in fresh-water pools, creeks, etc. often in rocky areas; also in riparian areas adjacent to such aquatic areas. | **Absent:** Fresh water resources area absent from the site. |
| Birds | *Agelaius tricolor* | tricolored blackbird<br>nesting colonies | ST, SSC, BCC | Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony. | **Absent.** Suitable nesting habitat is absent. |
| | *Aimophila ruficeps canescens* | southern California rufous-crowned sparrow | WL | Resident in Southern California; confined to moderate to steep rocky slopes with a mix of low shrubs, grasses, forbs and open ground. Highly correlated with coastal sage scrub and dry chaparral. | **Absent.** No suitable habitat |
| | *Athene cunicularia* | burrowing owl<br>-burrowing sites & some wintering sites | SSC, BCC | Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. | **Low.** No suitable burrowing habitat is present at project site. Known to occur elsewhere in the Ballona Reserve. |
| | *Buteo swainsoni* | Swainson's hawk<br>-nesting | ST, BCC | Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. | **Absent.** Hawks may forage at the project site during migration. Does not nest in project vicinity. |
| | *Charadrius nivosus ssp. nivosus* | western snowy plover<br>-nesting | FT, SSC, BCC | Requires sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting. | **Absent.** May forage at site but sandy beach nesting habitat is not present. |
| | *Coturnicops noveboracensis* | yellow rail | SSC, BCC | Requires freshwater marshlands for nesting and foraging. | **Absent.** No freshwater marshlands are present at the project site. One record in search area from 1998. |
| | *Empidonax traillii extimus* | southwestern willow flycatcher<br>-nesting | FE, SE | Restricted to riparian woodlands and nests in thickets of willow and mulefat. | **Absent.** No willow or mulefat thickets are present at the project site to provide suitable nesting habitat. |
| | *Laterallus jamaicensis coturniculus* | California black rail | ST, FP, BCC | Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. | **Absent.** There are no marshes or wet meadows at the project site to provide suitable nesting or foraging habitat. One record in search area from 1895. |
| | *Passerculus sandwichensis beldingi* | Belding's savannah sparrow | SE, BCC | Inhabits coastal salt marshes, from Santa Barbara south through San Diego County. Nests in *Salicornia* on and about margins of mid-elevation (non-tidally influenced) tidal flats. | **Low.** Potentially suitable pickleweed marsh habitat is present at the project site; however the site is tidally influenced reducing its suitability for nesting. May forage at the site. Known to occur in the Ballona Reserve. |
| | *Pelecanus occidentalis californicus* | California brown pelican<br>-nesting colony & communal roosts | FP | Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators. Roosts communally. | **Absent.** The project site is not located on a coastal island and pelicans do not roost at the site. |
| | *Polioptila californica ssp. californica* | coastal California gnatcatcher | FT, SSC | Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied. | **Absent.** Suitable nesting habitat is absent. |
| | *Sternula antillarum browni* | California least tern<br>-nesting colony | FE, SE, FP | Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, or landfills. | **Absent.** There are no beaches, alkali flats, or landfills to support suitable nesting or foraging habitat at the project site. |
| | *Vireo bellii pusillus* | least Bell's vireo<br>-nesting | FE, SE | Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, mulefat, mesquite. | **Absent.** No suitable nesting or foraging habitat is present. |
| Mammals | *Antrozous pallidus* | pallid bat | SSC | Most common in open, dry habitats with rocky areas for roosting. Roosts in rocky crevices, caves, trees, human structures. Very sensitive to disturbance of roosting sites. | **Low.** Suitable roosting habitat is not present on-site but may forage over the site and roost in nearby buildings. |

| Taxon | Scientific Name | Common Name | Status | Habitat | Potential to Occur |
|---|---|---|---|---|---|
| | *Eumops perotis californicus* | western mastiff bat | SSC | Roosts in crevices in cliff faces, high buildings, trees and tunnels. Occupies many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. | **Low.** Suitable roosting habitat is not present on-site but may forage over the site and roost in nearby buildings. |
| | *Lasionycteris noctivagans* | silver-haired bat | SA | Primarily a coastal and montane forest dweller, feeding over streams, ponds & open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks. Requires freshwater. | **Low.** The project site does not provide suitable roosting or foraging habitat due to lack of freshwater aquatic habitats. |
| | *Lasiurus cinereus* | hoary bat | SA | Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires freshwater. | **Low.** The project site does not provide suitable roosting or foraging habitat due to lack of freshwater aquatic habitats. |
| | *Microtus californicus stephensi* | south coast (Stephen's) marsh vole | SSC | Restricted to tidal marshes in Los Angeles, Orange and southern Ventura counties. | **Low.** Potentially suitable tidal marsh habitat is present at the project site; however, records are noted as "high marsh" and project site is low marsh. Known to occur in the Ballona Reserve in areas with dense saltgrass (*Distichlis spicata*), which is absent from the project site. Last recorded as present 2009- 2011 in the Reserve in high marsh. |
| | *Nyctinomops femorosaccus* | pocketed free-tailed bat | SSC | Inhabits a variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Roosts in rocky areas with high cliffs. | **Low.** There is no suitable roosting habitat due to lack of rocky areas with high cliffs at project site. May forage over site. |
| | *Perognathus longimembris pacificus* | Pacific pocket mouse | FE, SSC | Obligate resident of narrow coastal plains from the Mexican border north to El Segundo, Los Angeles County. Seems to prefer soils of fine, loose, or friable alluvial sands near the ocean. | **Absent.** The project site does not contain alluvial sands and is too far inland to provide suitable habitat. Last record from 1938. |
| | *Sorex ornatus salicornicus* | southern California saltmarsh shrew | SSC | Requires dense vegetation and woody debris for cover in coastal marshes. | **Low.** No suitable habitat is present at or near the project site. Last reported in 1941. |

FE = Federally listed as Endangered
FT = Federally listed as Threatened
FC = Federal Candidate

SE = State of California listed as Endangered
ST = State of California listed as Threatened
CE = Candidate for State listing as Endangered

SA = Special Animal
FP = Fully Protected Species
SSC = Species of Special Concern
BCC = Bird of Conservation Concern
WL = Watch List

[i] Results from a five-mile radius search of the CNDDB and CNPS rare plant inventory, centered on the project site including Venice (project location), Topanga, Beverly Hills, Hollywood, and Inglewood USGS 7½ quadrangles.

[ii] U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW). 2017. *Final Ballona Wetlands Restoration Environmental Impact Statement (EIS)/Environmental Impact Report (EIR).* U.S. Army Corps of Engineers and California Department of Fish and Wildlife.

# Applicant Proposed Avoidance and Minimization Measures

SoCalGas proposes to implement the following Avoidance and Minimization Measures to ensure potential impacts to the environment are avoided or minimized to the extent feasible:

**Restoration (Del Rey 4 Wetland Area).** Upon completion of the proposed abandonment work at Del Rey 4, SoCalGas will restore 0.01 acre of temporary impacts to wetlands in accordance with the attached Restoration Plan.

**Seed Dispersal (Upland Areas).** Upon completion of the proposed abandonment work, SoCalGas will disperse a native seed mix comprised of species expected to complement the restoration work planned by CDFW under their Ballona Wetlands Restoration Project (please refer to attached Upland Reseeding Memorandum).

**Qualified Biological Monitor.** A qualified biological monitor will be onsite for all setup and teardown activities and during initial grading work. At Del Rey 4 and Del Rey 9, the monitor will return weekly to reassess conditions for the duration of work. The monitor shall be responsible for:

- Increasing the frequency of monitoring at any of the four well sites, as necessary
- Construction crew training regarding environmentally sensitive areas
- Checking for nesting or roosting behavior
- Ensuring work limits are appropriately marked and maintained
- Authority to stop work

**Nesting Birds.** In the event work is scheduled during the bird nesting season, generally February 1 - August 31, a qualified biologist will conduct a survey for nesting birds. If nesting birds are detected, the biologist will establish an appropriate buffer around nests to ensure that breeding is not adversely impacted by construction. Buffer size will be determined by a qualified biologist in consultation with the California Department of Fish and Wildlife (CDFW). Buffers may range from 50 to 500 feet and will be established based on relevant site-specific conditions, the species tolerance for disturbance, work activity type, and noise levels. Buffers will be maintained until the biologist and CDFW have determined that the young have fledged and are no longer reliant upon the nest for survival.

**Spill Prevention and Response.** If vehicle or equipment maintenance is necessary, appropriate secondary containment shall be used. Any accidental spills shall be cleaned-up immediately. All associated waste shall be collected and disposed of pursuant to appropriate methods and procedures.

- Spill control measures on-site shall consist of project and vehicle spill kits, absorbent materials, and other Best Management Practices (BMPs) to contain a release if one does occur. Fueling vehicle will be monitored and staged on secondary containment when not in use.
- If an accidental spill of fuel, oil, or other hazardous substances from construction equipment or vehicles occurs, the project team shall contact the Field Environmental Specialist for Playa Del Rey Storage Field (“Facility”) immediately for proper external agency notification evaluation.

- If there is an accidental spill of fuel, oil, or other hazardous substances from construction equipment or vehicles, the Facilities SPCC plan should be referenced for any additional requirements associated with clean-up, documentation, and/or external notifications.

**Storm Water Runoff.** Appropriate best management practices shall be installed to prevent storm water runoff from flowing off work areas (e.g., silt fence, fiber rolls, jute matting, sandbags, stockpile management, etc.).

**Dust Control.** Disturbed areas shall be watered to minimize dust.

**Cultural Resources.** If a cultural resource (e.g., shell midden, flaked stone tools, arrowheads, bones, ceramics, or historic bottles) is encountered, halt work in the immediate vicinity and contact SoCalGas Archeologist Tricia Dodds at (213) 231-5363. Work shall remain halted until the archaeologist provides approval to proceed. Do not relocate cultural resources. If human remains are found during any phase of the project, halt work for at least 200-feet around the discovery and contact the Los Angeles County Medical Examiner during normal business hours at (323) 343-0512 and afterhours at (323) 343-0714, and contact SoCalGas Archaeologist Tricia Dodds at (213) 231-5363. Do not take photos of human bone or associated burial items unless instructed to do so by the Coroner or a SoCalGas archaeologist.

**Vehicle and Equipment Cleaning.** To minimize the spread of invasive weeds, project related vehicles and construction equipment will be cleaned prior to entering the Reserve.

**Speed Limits.** Project-related vehicles shall observe a 5-mile-per-hour speed limit within the Reserve.

**Sound Walls.** SoCalGas will install sound walls at each work location to reduce noise and dust. Upon project completion, the sound walls will be removed.

**Work Areas.** The access road and work area will be flagged, fenced, or otherwise marked prior to construction to alert crew members of the project boundaries. The contractor will prohibit any construction-related traffic outside of these boundaries. Upon completion of the work, the flags/barriers will be removed.

**Trash Clean-up.** All food-related trash items such as wrappers, cans, bottles, and food scraps generated during project construction will be disposed in closed containers and removed at least once a week.

**Pets & Wildlife Feeding.** Pets will be prohibited onsite, and no deliberate feeding of wildlife will be allowed.

# Restoration Plan for Southern California Gas Company's Del Rey 4 Plug and Abandonment Project

FEBRUARY 2024 (RVSD JUNE 2024)

**Exhibit 5**
9-23-0817
Page 1 of 15

PREPARED FOR

**Southern California Gas Company**

PREPARED BY

**SWCA Environmental Consultants**

# RESTORATION PLAN
# FOR SOUTHERN CALIFORNIA GAS COMPANY'S
# DEL REY 4 PLUG AND ABANDONMENT PROJECT

Prepared for

**Southern California Gas Company**
555 West 5th Street
Los Angeles, California 90013

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SWCA Project No. SCG00037

February 2024 (RVSD June 2024)

# CONTENTS



## Figures



## Tables

# 1 INTRODUCTION

This Restoration Plan was developed for Southern California Gas Company (SoCalGas) to utilize and implement for the restoration of approximately 0.01 acre of wetlands that will be temporarily impacted as a result of the proposed Del Rey 4 (DR-4) Plug and Abandonment Project. The project site is located within the Ballona Wetlands Ecological Reserve in the Playa del Rey area of Los Angeles County, California (**Figure 1**).

A copy of this Restoration Plan has been provided to the California Department of Fish and Wildlife (CDFW), which serves as the Reserve Manager for the Ballona Wetlands Ecological Reserve.

# 2 PROJECT DESCRIPTION

SoCalGas proposes to perform a complete plug and abandonment of its existing DR-4 monitoring well at its Playa del Rey Natural Gas Storage Facility. The process of abandoning this well will include bringing in a workover rig to remove the downhole piping; setting cement plugs from total depth to surface; isolating the hydrocarbon and freshwater-bearing zones; removing the wellhead; cutting the well casing 5 to 10 feet below grade; then welding on a steel plate inscribed with the well name, American Petroleum Institute (API) number, and date. All well cellar material, concrete pads, exposed piping, and rig anchors will be removed, including the northwest rig anchor that lies within wetlands. It is anticipated that approximately 385 square feet (0.01 acre) of temporary impacts will occur as a result of the removal of this rig anchor.

Following the abandonment of DR-4 and the removal of the surface facilities, the area will be recontoured to as near pre-project conditions as possible. Restoration work would follow as described below.

## 2.1 Impacts and Restoration Summary

Approximately 385 square feet (0.01 acre) of temporary impacts to jurisdictional aquatic resources (wetlands) are anticipated to occur as a result of the removal of the northwest rig anchor (**Figure 2**) (SWCA, 2024). **Figure 3** shows the location of the buried rig anchor, while **Figure 4** shows what the anchor is expected to look like following its removal. This entire impact area within wetlands will be restored through planting and removal of invasive and nonnative vegetation (**Table 1**).

**Table 1. Temporary Impacts and Restoration at DR-4**

| Agency Jurisdiction | WOTUS/WOS Wetland Impacts and Restoration(acres) |
|---|---|
| U.S. Army Corps of Engineers WOTUS | 0.01 |
| Regional Water Quality Control Board WOS | 0.01 |
| California Coastal Commission WOS | 0.01 |
| CDFW 1600 Streambed | 0.00 |
| **TOTAL AREA RESTORED** | **0.01*** |

Note: WOTUS = waters of the United States; WOS = waters of the State.
* Acreage total is 0.01 because all Agency Jurisdictions are overlapping (the same area).


**Figure 1. Project vicinity.**


**Figure 2. Project work area and impacts.**

**Figure 3. Northwest rig anchor at Del Rey 4.**


**Figure 4. Rig Anchors pulled from SoCalGas' Harper 1 well site.**

## 2.2 Responsible Parties

CDFW is the designated Ballona Wetlands Ecological Reserve (Reserve) Manager, and SoCalGas has a right-of-way easement to operate within the Reserve. SoCalGas is responsible for implementing the DR-4 well removal and fulfilling all associated permit requirements including:

- Clean Water Act § 404 Permit, U.S. Army Corps of Engineers
- Clean Water Act § 401 Water Quality Certification, Regional Water Quality Control Board
- Coastal Development Permit, California Coastal Commission

The project's Restoration Contractor will be responsible for restoration planting installation, watering, removal of invasive and nonnative vegetation, and monitoring and reporting.

## 2.3 Goals of Restoration

The restoration goal for the project is to restore temporarily disturbed wetlands (0.01 acre) at the DR-4 well site Work Area.

# 3 BASELINE INFORMATION

## 3.1 Topography

The DR-4 well is located within the Ballona Wetlands Ecological Reserve. The well is situated underground with supporting facilities on the surface. The DR-4 well pad is elevated higher than the surrounding wetlands and is generally devoid of vegetation and/or is seasonally invaded by nonnative mustards (**Figure 5**). All concrete and surface facilities would be removed as part of the well removal.

## 3.2 Vegetation Communities

Mapped wetlands within the DR-4 Work Area occur along the outer edges where the pad slopes down to lower elevations and wetlands. As described in *Ballona Wetlands Well Assessment Natural Resources Technical Memorandum: DR-4 & DR-9*, dated June 7, 2023 and revised February 2024 (SWCA Environmental Consultants 2024), vegetation communities are composed of two dominant plant communities: pickleweed mats (*Sarcocornia pacifica* [*Salicornia depressa*], Herbaceous Alliance) and upland mustards or star-thistle fields (*Brassica nigra – Centaurea* [*solstitialis, melitensis*], Herbaceous Semi-Natural Alliance) (**Figure 6**).


**Figure 5: View of the DR-4 well facilities, facing northwest.**

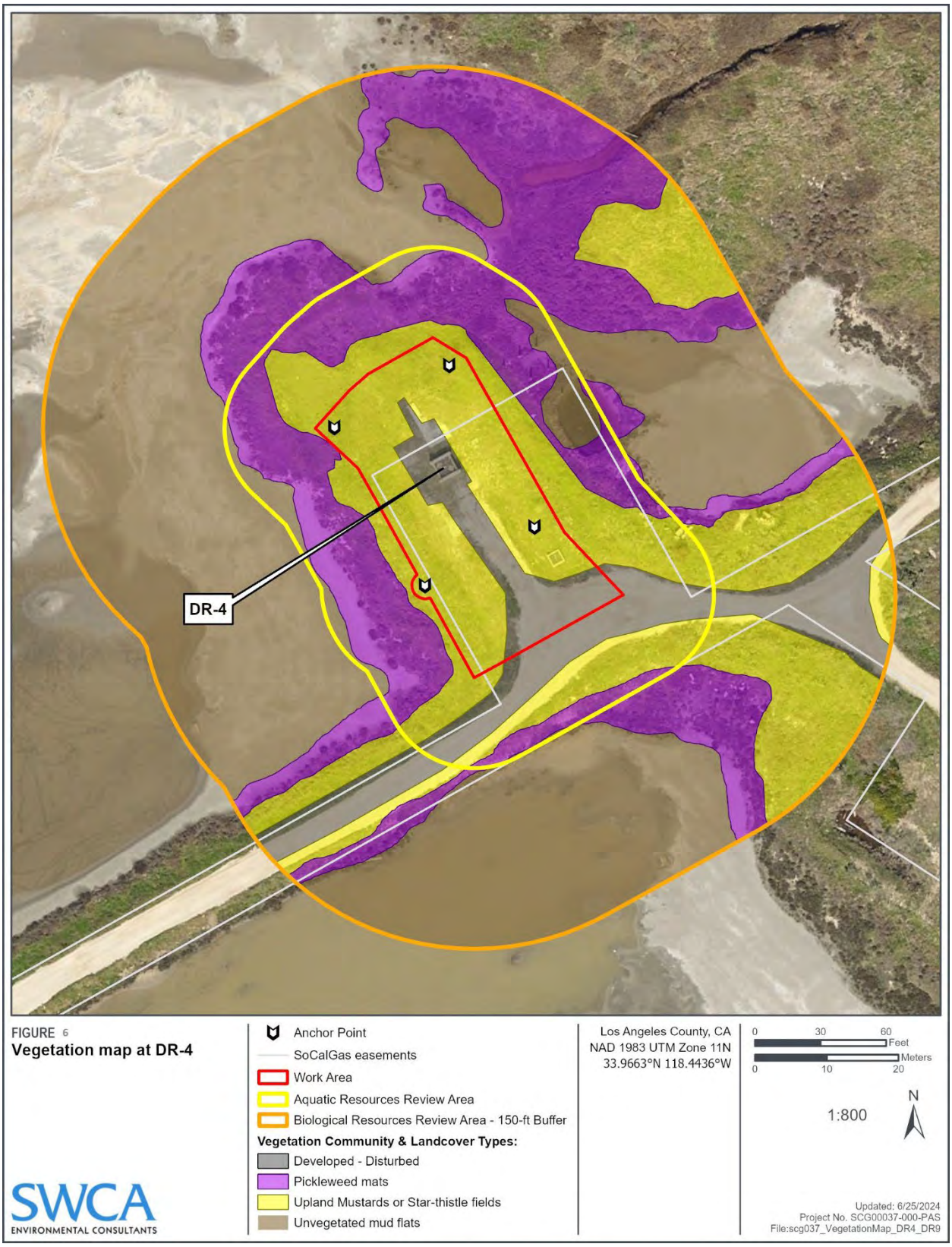


**Figure 6. Vegetation communities within and adjacent to the DR-4 Work Area**

# 4 IMPLEMENTATION PLAN

## 4.1 Schedule

Temporary restoration activities associated with DR-4 will be implemented according to the schedule in Table 2.

**Table 2. Restoration Schedule**

| Task | Schedule |
|---|---|
| Remove and dispose of invasive and nonnative vegetation | Prior to abandonment work |
| Remove and salvage native vegetation | Prior to abandonment work |
| Remove and salvage wetland topsoil | Prior to abandonment work |
| Replenish topsoil of restoration area | Following abandonment work |
| Remove and dispose of invasive and nonnative vegetation | Prior to planting |
| Planting | November – February, if feasible |

## 4.2 Invasive/Nonnative Plant Species Removal

Prior to grading and planting, all nonnative plant species will be removed from the restoration area, bagged, and disposed of off-site.

## 4.3 Salvaging and Planting

Prior to the abandonment work, restoration biologists would carefully remove and salvage existing native wetland plants such as pickleweed mats, alkali heath (*Frankenia salina*), and saltgrass (*Distichlis spicata*) and place them into flat trays. To ensure full coverage of the restoration area, additional pickleweed cuttings from the salvaged plants and surrounding area would be removed and grown in separate trays to provide additional cuttings for replanting. All salvaged plants would be cared for on-site or at a native plant nursery until restoration planting.

In addition, prior to abandonment work, restoration biologists would salvage topsoil within the wetlands by removing the top 4 inches of topsoil and placing it onto a gardening blanket outside regulated jurisdictional waters. The stockpile location may include the nearby dirt roads or an area within another nearby well site.

Following completion of the abandonment work, all nonnative plant species will be removed from the restoration area; the salvaged topsoil would be replenished; and the salvaged plants would be replanted to mimic natural plant distribution. Container plantings may also be used as an option for restoration (**Table 3**). Plantings should be installed in holes twice the size of their root balls. The hole should be wet and backfilled with native soil, then compacted by hand to avoid air pockets. Planting should be installed during the rainy season, to the extent feasible.

**Table 3. Native Wetland Plant Palette**

| Scientific Name | Common Name | Wetland Indicator Status* | Transplant From Salvaged Plants | Transplant From Cuttings | Container Plantings** | Seed Mix |
|---|---|---|---|---|---|---|
| Wetland (0.01 acre) | | | | | | |
| *Distichlis littoralis* | Shoregrass | OBL | Yes | - | Yes | Yes |
| *Frankenia salina* | Alkali heath | FACW | Yes | - | Yes | Yes |
| *Salicornia pacifica* | Pickleweed | OBL | Yes | Yes | Yes | Yes |

* OBL = obligate; FACW = facultative wet
**Optional

A native seed mix will come from local sources suitable for coastal wetlands. The seed mix will be broadcast by hand to moist soil while walking along and will be applied across the restoration area from multiple angles to improve seed distribution. Moist sand mixed in can help prevent seeds from blowing away. Seeding should be avoided during windy conditions.

The ideal window for planting native plants in Southern California is winter, generally between November and February. Seeding can occur earlier to allow seed maximum exposure to winter and spring rains, generally September through December.

The Restoration Contractor would assess the need for supplementing the wetlands with container plants based on the conditions, time of year, availability, and success of salvaged plants. Seeds would be cast regardless of plantings.

# 5 SITE MAINTENANCE AND PERFORMANCE

## 5.1 Watering

The goal of the restoration is for the plants and seeds to function on their own as soon as possible and be capable of maintaining and supporting themselves in perpetuity.

Due to the small restoration area size, watering will be conducted by bringing water to the site in containers and gently watering plants by hand, as needed. Watering will take place once per week for the first 2 months, followed by twice per month for 4 additional months (**Table 4**).

**Table 4. Watering Schedule**

| Month | Frequency |
|---|---|
| Month 1 | Once per week |
| Month 2 | Once per week |
| Month 3 | Twice per month |
| Month 4 | Twice per month |
| Month 5 | Twice per month |
| Month 6 | Twice per month |

## 5.2 Nonnative Vegetation Removal

During the watering visits, the Restoration Contractor will also remove any invasive and nonnative vegetation from the restoration area and dispose of it outside regulated aquatic resources and offsite.

## 5.3 Performance Standards

Performance standards, including qualitative and quantitative monitoring, are included to track success of the restoration (**Table 5**). The Restoration Contractor will conduct a site visit at 6 months, 1 year, and 2 years following restoration and will evaluate the site according to the performance standards in Table 5 to verify the site is trending toward success. The success or failure of a performance standard will be used to drive adaptive management measures for the maintenance of the site. If the site at any time does not appear to be on a trajectory to meet target performance standards, the Restoration Contractor will recommend remedial actions (adaptive management).

**Table 5. Performance Standards for DR-4**

| Performance Standard | 6 months | Year 1 | Year 2 |
|---|---|---|---|
| Stabilized soils | Yes | Not applicable | Not applicable |
| Percent cover of native species | Yes | >50% | >80% |
| Percent cover of nonnative species | ≤10% | ≤10% | ≤10% |

## 5.4 Reporting

Following each site visit (at 6 months, 1 year, and 2 years), a report will be prepared summarizing the status of the restoration, inclusive of implementation activities, monitoring memoranda, performance standards, and any adaptive management taken during monitoring. After 2 years, or after performance standards have been met, whichever comes first, SoCalGas will request agency sign-off of the restoration site.

# 6 LITERATURE CITED

SWCA Environmental Consultants. 2024. *Aquatic Resources Delineation Report for SoCalGas Ballona Wetlands Well Removal Project (Del Rey 4, and Del Rey 9)*. Pasadena, California: SWCA Environmental Consultants.

———. 2024. *Ballona Wetlands Well Assessment Natural Resources Technical Memorandum: DR-4 & DR-9*. Revised. Pasadena, California: SWCA Environmental Consultants.

**Exhibit 6**
9-23-0817


# Spill Prevention & Response Plan

# Del Rey 4 and Del Rey 9

SoCalGas
A Sempra Energy utility

**Compiled by**
**Erica Jacalone, Environmental Field Services Manager**
**June 2024**

# Project Description

Southern California Gas Company (SoCalGas) proposes to perform a complete plug and abandonment of two (2) of its existing wells: Del Rey 4 and Del Rey 9 at its Playa del Rey Natural Gas Storage Facility. Each well lies within the Ballona Wetlands Ecological Reserve (Reserve). The process of abandoning these wells will include bringing in a workover rig to remove the downhole piping; setting cement plugs from total depth to surface; isolating the hydrocarbon and fresh-water bearing zones; removing the wellhead; cutting the well casing 5 to 10 feet below grade; then welding on a steel plate inscribed with the well name, API number, and date. All concrete cellar material, exposed piping, and rig anchors will be removed.

Depending on timing and guidance received from the California Geologic Energy Management Division (CalGEM), initial well work may include integrity testing to ensure compliance with requirements for underground storage projects. SoCalGas anticipates the abandonment of each well will take approximately 12-16 weeks to complete. The integrity testing is expected to take approximately 3-4 weeks to complete per well.

# Project Location

The proposed project is located on SoCalGas property within the Reserve in the Playa del Rey area of Los Angeles County. The approximate center points of each well are as follows: Del Rey 4: Long: -118.443629 and Lat: 33.966376 and Del Rey 9: Long: -118.442394 and Lat: 33.967221. Access to the worksites would be from Culver Boulevard, just southwest from the intersection of Culver Boulevard and Jefferson Boulevard. Refer to **Figure 1. Vicinity Map**.

# Construction Equipment

The equipment required to complete the abandonment and integrity testing work includes, but is not limited to, a workover rig, an accumulator, a diesel generator, a rig pump, a portable storage tank, and at varying times, pump trucks (cement pump trucks for the abandonment work), a wireline truck, a stinger/crane truck, and a flatbed trailer. Following the completion of the abandonment work, a backhoe w/breaker, torch, dump truck, hydro vacuum, and water truck will be used to remove the concrete cellar material, exposed piping, and rig anchors.

**Table 1. Construction Equipment List** displays each piece of construction equipment proposed to complete the project, the possible hazardous substance and release amount, and the containment equipment that would be utilized. The clean-up process for all equipment is included on pages 5-7 below.

# Figure 1. Vicinity Map


N

0 130 260 520 ft

Map Number : 1.0

Map Type : Gas Asset Map

Printed By : CORP\AKlecha

Printed Date : 6/14/2024



Southern California Gas Company

**Table 1. Construction Equipment List**

| Construction Equipment | Possible Hazardous Substance Release Amount | Containment Equipment | Clean-up Process |
|---|---|---|---|
| **Well Abandonment** | | | |
| Accumulator | Hydraulic oil 80 gals | 10' x 50' Steel Seal secondary containment, 500-gals capacity | Refer to Clean-up Process |
| Diesel Generator (construction trailer) | Diesel 150 gals | 10' x 20' Poly Containment, 300-gals capacity | Refer to Clean-up Process |
| Light Tower | Diesel 35 gals | 10' x 10' Poly Containment, 200-gals capacity | Refer to Clean-up Process |
| Pipe Wrangler | Diesel 50 gal<br>Hydraulic oil 60 gals | 10 x 50' Steel Seal secondary containment, 500-gals capacity | Refer to Clean-up Process |
| Rig Pump | Diesel 145 gals<br>Hydraulic oil 150 gals | 10' x 50' Steel Seal secondary containment, 500-gals capacity | Refer to Clean-up Process |
| Storage Tank 1 | Salt Water 400 bbls | 20' x 20' Poly Containment, 400-gals capacity | Refer to Clean-up Process |
| Storage Tank 2 | Well Waste Fluids (water, oil and KCL) 250-300 bbls | 20' x 20' Poly Containment, 400-gals, Leakage Capacity | Refer to Clean-up Process |
| Storage Tank 4 & 5 | Cement return bins<br>80 bbls each | 20' x 20' Poly Containment, 400-gals, capacity | Refer to Clean-up Process |
| Weatherford Generator (accumulator) | Diesel 150 gals | 10' x 10' Poly Containment, 200-gals capacity | Refer to Clean-up Process |
| Workover Rig | Diesel 150 gals<br>Hydraulic oil 180 gals<br>Transmission oil 10 gals | 10 x 50' Steel Seal secondary containment, 500-gals capacity | Refer to Clean-up Process |

| Demolition | | | |
|---|---|---|---|
| 10 Wheeler | Diesel 100 gals<br>Motor oil 15 gals<br>Transmission oil 12.3 L<br>Hydraulic oil 35 gals | Containment berms | Refer to Clean-up Process |
| Back Hoe | Diesel 58.2 gals<br>Motor oil 39 L<br>Hydraulic oil 63.5 gals<br>Transmission oil 6 gals | Containment berms | Refer to Clean-up Process |
| Compressor | Diesel 34 gals<br>Motor oil 13 qt<br>Transmission oil 12.3 L<br>Hydraulic oil 35 gals | Containment berms | Refer to Clean-up Process |
| Excavator | Diesel 58.2 gals<br>Motor oil 39 L<br>Hydraulic oil 63.5 gals<br>Transmission oil 17.3 L<br>Hydraulic oil 35 gals | Containment berms | Refer to Clean-up Process |
| Reach Lift | Diesel 58.2 gals<br>Motor oil 39 L<br>Hydraulic oil 63.5 gals<br>Transmission oil 6 gals | Containment berms | Refer to Clean-up Process |

# Clean-up Process

**General Clean-Up Process**

The Contractor must provide its employees with Personal Protective Equipment (PPE), spill response materials, and other equipment and supplies that may be required to handle hazardous materials and respond to a spill, leak, or exposure onsite. Contractor personnel responding to a spill, leak, or exposure onsite are properly trained to respond to spills or releases.

General spill response and clean-up can range depending on the size of the release. For smaller spills, spill equipment located at the project site will be utilized, including but not limited to, absorbent material, buckets, drums, rags, and/or berms, etc. All oil-containing equipment stored at the site will have secondary containment. Most spills can be quickly

mitigated with local spill response equipment and site personnel. If the release or clean-up required exceeds the capabilities of on-site spill equipment and site personnel, third-party emergency contractors will be dispatched to continue the response efforts. All waste generated from a clean-up will be properly drummed or contained, labeled, and disposed of in a manner that will minimize damage to the environment and in accordance with all state and federal laws and regulations.

**Minor Spill Response**

A "Minor Spill Response" is defined as one that poses no significant harm to human health or the environment. Such spills generally involve small volumes of oil and/or fuel that do not reach the storm drain and can usually be cleaned up by site personnel. Other characteristics of a minor spill include the following:

- the spilled material is easily stopped or controlled at the time of the spill;
- the spill is localized;
- the spilled material is not likely to reach surface water or groundwater;
- the spill is solely in secondary containment;
- there is no immediate threat to human health or the environment; and
- there is no danger of fire or explosion.

**Major Spill Response (Spill Emergency)**

A "Spill Emergency" is defined as a spill involving hazardous waste, including oil and/or fuel, of any quantity and generally that cannot be safely controlled or cleaned up. Major spills are typically reportable.

Characteristics include the following:

- the spill is large enough to spread beyond the immediate spill area;
- the spilled material enters surface water or groundwater (regardless of spill size);
- the spill requires special training and equipment to clean-up;
- the spilled material is dangerous to human health; and/or
- there is a danger of fire or explosion.

# Notification Process

General Immediate Response Steps

1. Retreat to safety/tend to the injured, and call for emergency assistance, call 911.
2. Make appropriate and immediate notifications to Storage Operations Supervisor, Field Environmental Representatives, and all other applicable departments.
3. Evaluate magnitude of release and make proper external agency notifications, if applicable.
4. Limit access/secure and cordon off the area, if applicable.
5. Cleanup spill and/or contact 3rd-party emergency contractor, if necessary.
6. Conduct headcount and determine the need to evacuate, as necessary.
7. Implement Incident Command Center, as needed.

Threshold for Notification

Release or potential release of a hazardous material that are reasonably believed to pose a significant present or potential hazard to human health and safety, property or the environment must be reported. If any reportable thresholds to external environmental agencies are triggered, the Coastal Commission will be notified. Emergency contacts and phone numbers are provided in **Table 2. Emergency Call down List.**

Who to Notify

- Emergency Responders – 911 (if the incident is an emergency where fire department responses or emergency medical support is needed;
- Office of Emergency Services (OES);
- Local Certified Unified Program Agency (CUPA);
- National Reporting Center (NRC) (if the release meets a federal threshold, creates an oil sheen in a waterway, or ≥ 42 gals of petroleum to land);
- Chemical Safety and Hazard Investigation Board (BCSB) (if release results in a fatality, serious injury, or substantial property damage ≥ $1MM); and
- Other agencies, as appropriate (e.g., California Department of Fish and Wildlife, California Coastal Commission, Regional Water Quality Control Board).

**Table 2. Emergency Call Down List**

| Contact | Phone Number |
|---|---|
| **Internal Notification** | |
| Storage Operations Manager (Julio Robles) | (213) 392-9959 |
| Environmental Services Team Lead (Wiliam Lukins) | (805) 450-7904 |
| **Reportable Spill Notification** | |
| Local Police Fire Department Medical Emergency | 911 (Emergencies Only) |
| Los Angeles Fire Department Station 67 | (310) 862-2844 |
| Los Angeles County Fire Department: Health Hazardous Materials Division (CUPA) | (213) 978-3680 |
| National Response Center (if spills reach navigable waters) | (800) 424-8802 |
| EPA - Region IX (Regional Administrator) | (415) 972-3052<br>(800) 300-2193 (24 hours) |
| California Department of Fish and Wildlife, Office of Spill Prevention and Response | (800) 852-7550<br>(800) OILS-911 |
| California Office of Emergency Services Southern Region Branch | (916) 845-8510 (24 hours)<br>(562) 795-2900<br>(562) 795-2973 |
| California Geologic Energy Management Division (CalGEM) – Southern District | (562) 637-4400<br>(562) 424-0166 (fax) |
| State Water Resources Control Board – Water Quality | (916) 341-5455 |
| Los Angeles Regional Water Quality Control Board | (213) 576-6600 |
| **Reportable Spill Notification** | |
| United States Coast Guard | (510) 437-3701 |
| California Coastal Commission – Oil Spill Program Coordinator | (831) 427-4863<br>Jonathan.Bishop@coastal.ca.gov |