BIOLOGICAL TECHNICAL REPORT FOR THE DOMINGUEZ SOFT BOTTOM CHANNEL REACH MAINTENANCE PROJECT LOS ANGELES COUNTY, CALIFORNIA

Prepared for:

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
Flood Maintenance Division
900 South Fremont Avenue
Alhambra, California 91803

Prepared by:

CHAMBERS GROUP, INC.
5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707
(949) 261-5414

May 2014

TABLE OF CONTENTS

Page

LIST OF TABLES

Page

LIST OF FIGURES

Page

SECTION 1.0 – INTRODUCTION

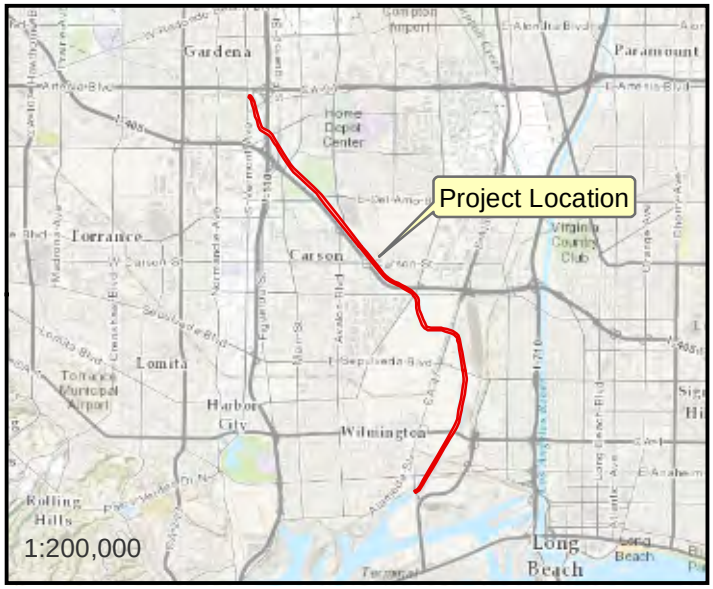
This Biological Technical Report has been prepared for the County of Los Angeles, Department of Public Works (LACDPW) Flood Maintenance Division (FMD) to support the Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements (WDR) for the proposed actions relating to the Dominguez Soft Bottom Channel Reach Maintenance Project (Project). Information contained in this document is in accordance with accepted scientific and technical standards consistent with the requirements of United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW).

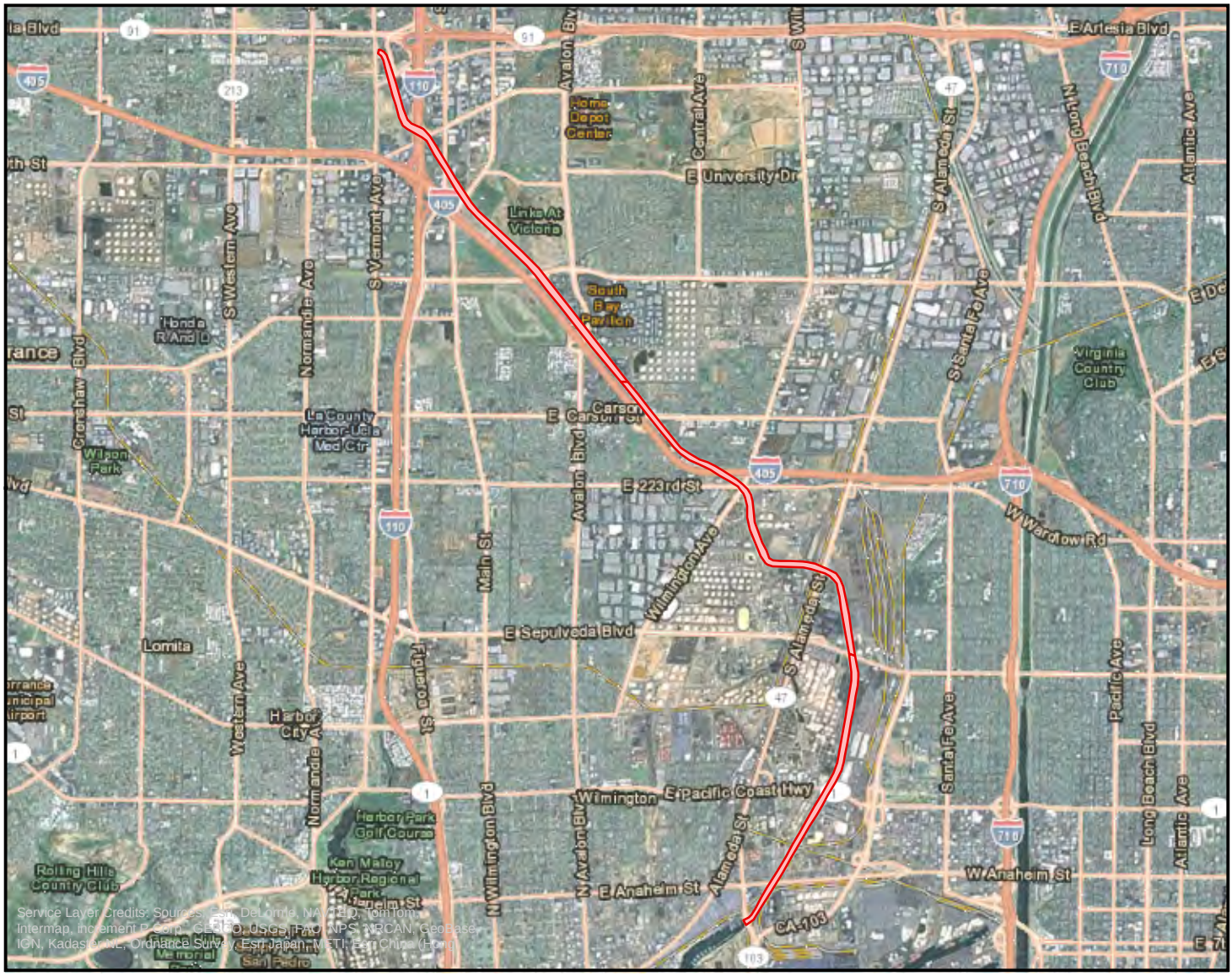
Chambers Group, Inc. (Chambers Group) was retained by LACDPW to conduct a literature review and reconnaissance-level survey for the proposed Project. During the survey, biologists identified vegetation communities, determined the potential for the occurrence of sensitive species and habitats that could support sensitive wildlife species on site, and recorded all plants and animals observed or detected within the Project boundary.

1.1 PROJECT LOCATION

Dominguez Soft Bottom Channel (SBC) is located in the County of Los Angeles near the intersection of West Artesia Boulevard (Blvd.) and South Vermont Avenue (Ave.) in the City of Gardena. Dominguez SBC flows southeast into the Los Angeles Harbor, which is located just south of the intersection of Anaheim Street (St.) and North Henry Ford Ave. in the City of Wilmington (Figure 1). The Project site runs through several cities located throughout central Los Angeles County, beginning north of Interstate 405 (I-405), flowing parallel to I-405, and opening into the Los Angeles Harbor south of I-405. Dominguez SBC is located in the United States Geological Survey (USGS) *Torrance* and *Long Beach* 7.5-minute topographic quadrangles. Elevation in the survey area averages 7 feet above mean sea level (amsl).

The Project site is approximately 8.21 river miles total in length (Figure 1). The survey area is located in a highly developed area surrounded by private residences, local businesses, industrial buildings, and other open spaces. Habitat in the survey area is composed primarily of developed, ruderal, and disturbed coastal salt marsh vegetation communities (Figure 2).





Legend

Project Location

N

0 0.5 1 2 Miles

Figure 1

Dominguez Soft Bottom Channel Project
Project Location and Vicinity Map

Name: 20705 BTR Dominguez Fig 1 Project Location.Mxd
Print Date: 3/31/2014, Author: msimmons

CHAMBERS GROUP

SECTION 2.0 – METHODS

2.1 LITERATURE REVIEW

Chambers Group biologists conducted a literature review of the survey area prior to performing the reconnaissance survey. The most recent records of the California Natural Diversity Database (CNDDB; managed by CDFW 2014) and the California Native Plant Society's Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPSEI 2014) were reviewed for the following four quadrangles: *Torrance, Long Beach, Inglewood,* and *San Pedro*, California, USGS 7.5-minute quadrangles. These databases contain records of reported occurrences of federally or state listed as endangered or threatened species, proposed endangered or threatened species, California Species of Special Concern (SSC), or otherwise sensitive species or habitats that may occur within or in the immediate vicinity of the Project site.

2.2 SOILS

Before the survey was conducted, soil maps for Los Angeles County were reviewed online (USDA 2014) to determine the types of soil found within the Project site. Soils were determined in accordance with categories set forth by the United States Department of Agriculture (USDA) Soil Conservation Service and by referencing the USDA Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2014).

2.3 JURISDICTIONAL WATERS

The limits of jurisdictional waters regulated by the United States Army Corps of Engineers (USACE), RWQCB, and CDFW were delineated for the proposed Project study area. Pursuant to Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the United States. The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the Clean Water Act and the California Porter-Cologne Water Quality Control Act (California Water Code, Division 7, §13000 et seq.). Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake which supports fish or wildlife. The jurisdictional limits of waters were identified by a desktop-only survey through the United States Geological Survey (USGS) National Hydrography Dataset.

2.4 BIOLOGICAL RECONNAISSANCE-LEVEL FIELD SURVEY

Chambers Group biologists Heather Franklin and Jeremy Smith conducted the general reconnaissance survey on March 14, 2014 to map vegetation communities and identify the potential for occurrence of sensitive plant and wildlife species and habitats that could support sensitive wildlife species on site. Photographs of the Project site were taken to document existing site conditions and are provided in Appendix A.

2.4.1 Vegetation

All plant species observed within the Project site were recorded; however, it is important to note that a full focused plant survey was not conducted and species recorded do not constitute a full floral compendium of the area. Vegetation communities within the Project site were identified, qualitatively

described, and mapped onto an aerial photograph. Plant communities were determined in accordance with the categories set forth in Holland (1986) or Gray and Bramlet (1992). Plant nomenclature follows that of Baldwin et al. (2012). A list of the plant species observed during the survey is provided in Appendix B.

2.4.2 Wildlife

All wildlife and wildlife sign observed and detected, including tracks, scat, carcasses, burrows, excavations, and vocalizations, were recorded. Additional survey time was spent in those habitats most likely to be utilized by wildlife (undisturbed native habitat, wildlife trails, etc.), and in habitats with the potential to support state and/or federally listed or otherwise sensitive species. Notes were made on the general habitat types, species observed, and the conditions of the Project site. A comprehensive list of the wildlife species observed or detected during the survey is provided in Appendix C.

SECTION 3.0 – RESULTS

Chambers Group biologists conducted the reconnaissance-level field survey on foot throughout the Project site between the hours of 8:00 a.m. and 4:30 p.m. on March 14, 2014. Weather conditions during the survey included temperatures ranging from 57 to 70 degrees Fahrenheit with 30 percent cloud cover and no precipitation.

3.1 SOILS

Review of USDA Soil Conservation Service and referencing the USDA Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2014) determined that the Project site is located within the Los Angeles County Southeastern Area (CA696). Based on the results of the database search, no soil data exists for this area.

3.2 JURISDICTIONAL WATERS

The Dominguez SBC is located in the Lower Dominquez Channel Watershed, a blue-line stream containing riparian vegetation and flowing water. This section is subject to USACE, RWQCB, and CDFW jurisdiction. Although it may be required, a formal jurisdictional delineation was not prepared for this Project; however, potential impacts to waters of the United States and waters of the State may be calculated if the channel is the only potential water and by assuming the complete channel width as jurisdictional to USACE, RWQCB, and CDFW for waters.

3.3 VEGETATION COMMUNITIES AND HABITAT TYPES

Three vegetation communities or habitat types and a single patch of big saltbush (*Atriplex lentiformis*) were observed within the Project site. A Big Saltbush Patch is an area that is covered with a monoculture of the same species of big saltbush shrubs. The vegetation communities and habitat types observed within the Project site include Disturbed Coastal Salt Marsh, Ruderal, and Developed. These areas were mapped onto an aerial photograph (Figure 2). Representative site photographs were taken documenting the vegetation communities of the site (Appendix A). Biologists observed 40 plant species within the Project site during the time of the survey (Appendix B). A brief description of the three vegetation communities and habitat types is provided in the following subsections.

3.3.1 Disturbed Coastal Salt Marsh

Coastal Salt Marsh is described as a highly productive, herbaceous, salt-tolerant community forming moderate to dense cover, growing up to 3 feet in height. Most species in this plant community are active in the summer and dormant in winter. Species common within this community may be alkali heath (*Frankenia salina*), woolly sea-blite (*Suaeda taxifolia*), and pickleweed (*Salicornia* sp. and *Arthrocnemum* sp.), growing along the upper, landward edges of marshes, with saltgrass (*Distichlis spicata*) growing closer to open water. This community typically occurs along sheltered inland margins of bays, lagoons, and estuaries (Holland 1986). Disturbed Coastal Salt Marsh patches typically have nonnative species cover greater than 25 percent or are littered with debris.

Disturbed Coastal Salt Marsh is largely present in narrow, water's-edge patches throughout the length of the channel on both banks of the Project site throughout the reach. Few patches of Disturbed Coastal Salt Marsh within the reach consisted of mats of saltgrass that included non-native seashore paspalum

(*Paspalum vaginatum*). Seashore paspalum is a notorious invader of wetlands and was likely introduced to the channel from the golf course further upstream. Plant species found within the Project site typical of this vegetation community include: native alkali heath, pickleweed, saltwort (*Batis maritma*), saltgrass, and fleshy jaumea (*Jaumea carnosa*). The Project site includes approximately 4.62 acres total of Disturbed Coastal Salt Marsh.

3.3.2 Ruderal

Ruderal vegetation communities are dominated by nonnative, weedy species that are adapted to frequent disturbances.

Ruderal vegetation was found within the Project site growing in and along the top of the riprap that covers the banks of the channel. Species observed in this community within the Project site include nonnative bristly ox-tongue (*Helminthotheca echioides*), ripgut grass (*Bromus diandrus*), and flax-leaved horseweed (*Erigeron bonariensis*). The Project site includes approximately 2.89 acres total of Ruderal vegetation.

3.3.3 Developed

Developed areas are those that have been altered by humans and display man-made structures such as houses, paved roads, buildings, or parks (Gray and Bramlet 1992).

Developed areas found within the Project site include the riprap channel banks and paved or graded roads. Portions of the riprap channel banks at the southernmost end of the channel contain isolated individuals of big saltbush that were likely introduced from the big saltbush patch further upstream. Due to the size of these isolated patches, individual shrubs were not mapped as separate communities. The Project site includes approximately 107.75 acres total of Developed area.

Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

Legend

Dominguez Soft Bottom Channel

Vegetation Community

Open Water (OW)

Developed (DV)

N

0 100 200 400

Feet

Map 1

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

Legend

Dominguez Soft Bottom Channel

Vegetation Community

- Open Water (OW)
- Ruderal (R)
- Developed (DV)

N

0 100 200 400

Feet

Map 2

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

Legend

Dominguez Soft Bottom Channel

Vegetation Community

- Open Water (OW)
- Ruderal (R)
- Developed (DV)

N

0 100 200 400

Feet

Map 3

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

Legend

Dominguez Soft Bottom Channel

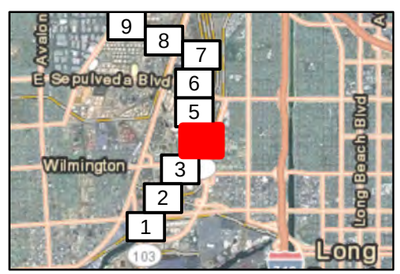
Vegetation Community

- Open Water (OW)
- Ruderal (R)
- Developed (DV)

N

0 100 200 400

Feet



Map 4

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

DV
OW
DV
OW
Middle Rd

Legend

Dominguez Soft Bottom Channel

Vegetation Community

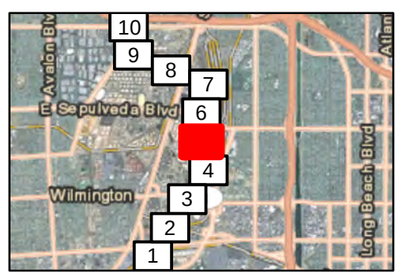
Open Water (OW)

Developed (DV)

N

0 100 200 400

Feet

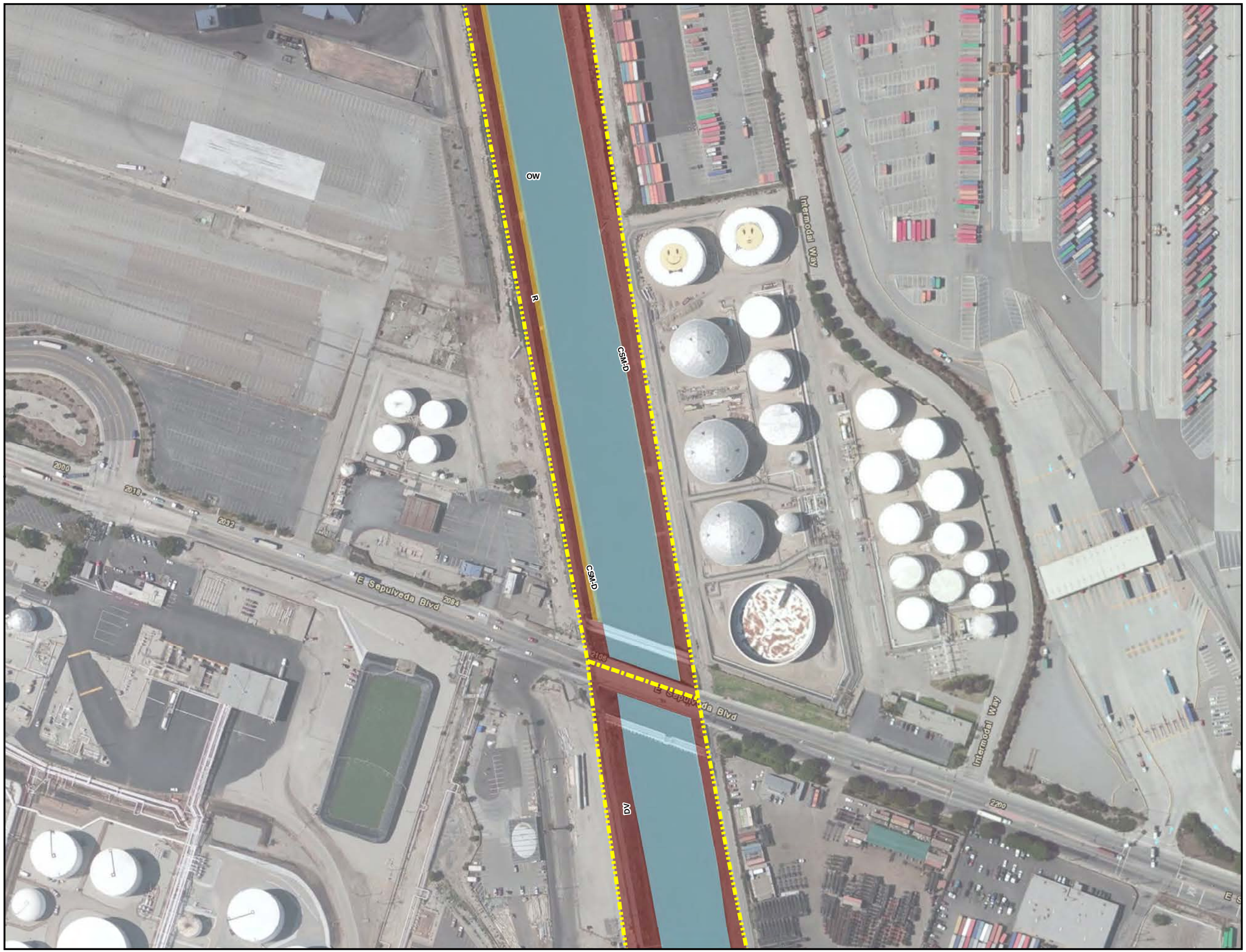


Map 5

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map



Legend

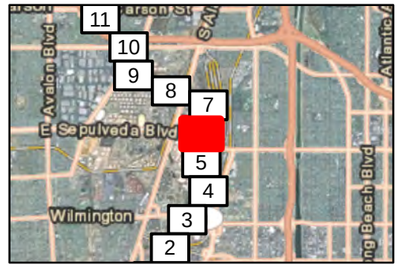
- Dominguez Soft Bottom Channel

Vegetation Community

- Open Water (OW)
- Disturbed Coastal Salt Marsh (CSM-D)
- Ruderal (R)
- Developed (DV)

N

0 100 200 400
Feet



Map 6

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

Legend

Dominguez Soft Bottom Channel

Vegetation Community

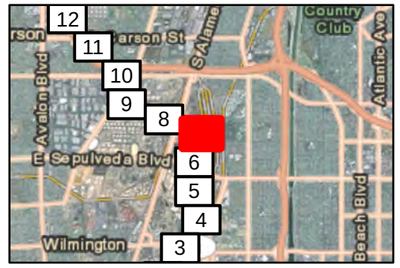
- Open Water (OW)
- Disturbed Coastal Salt Marsh (CSM-D)
- Ruderal (R)
- Developed (DV)

DV
CSM-D
R
OW
CSM-D
DV
Intermodal Way

N

0 100 200 400

Feet



Map 7

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

Legend

Dominguez Soft Bottom Channel

Vegetation Community

- Open Water (OW)
- Disturbed Coastal Salt Marsh (CSM-D)
- Ruderal (R)
- Developed (DV)

N

0 100 200 400

Feet

Map 8

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

Legend

Dominguez Soft Bottom Channel

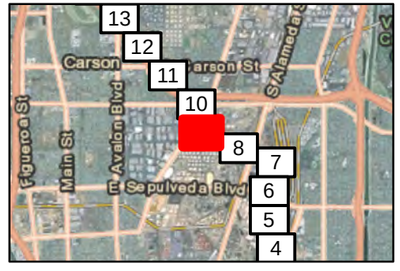
Vegetation Community

- Open Water (OW)
- Disturbed Coastal Salt Marsh (CSM-D)
- Developed (DV)

N

0 100 200 400

Feet



Map 9

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

Legend

Dominguez Soft Bottom Channel

Vegetation Community

- Open Water (OW)
- Disturbed Coastal Salt Marsh (CSM-D)
- Developed (DV)

N

0 100 200 400

Feet

Map 10

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

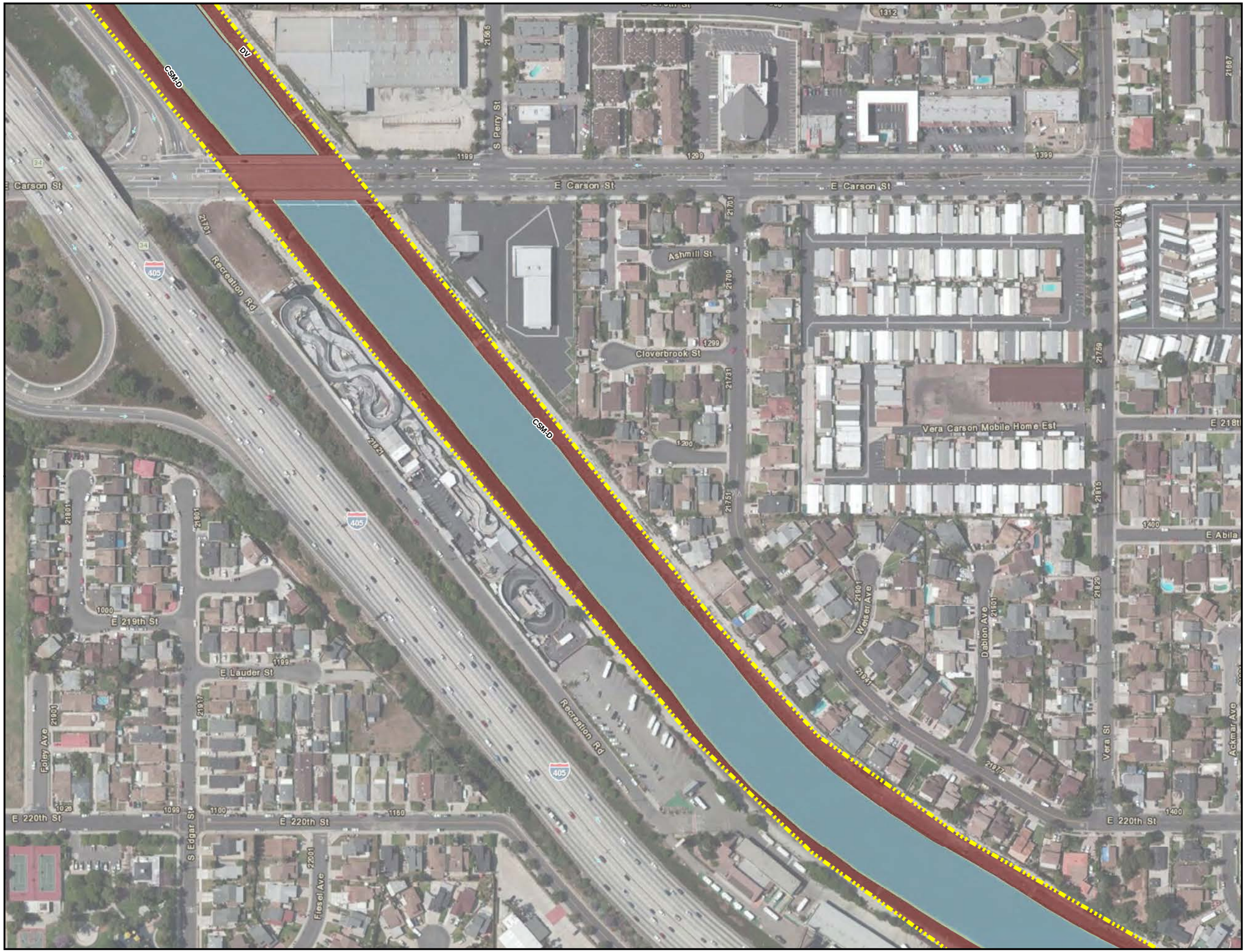


Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

Legend

Dominguez Soft Bottom Channel

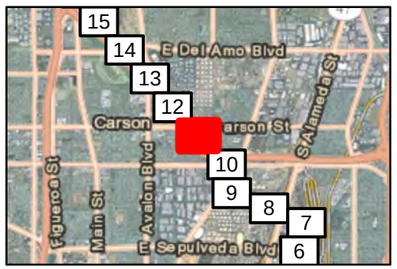
Vegetation Community

- Open Water (OW)
- Disturbed Coastal Salt Marsh (CSM-D)
- Developed (DV)

N

0 100 200 400

Feet



Map 11

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

Legend

Dominguez Soft Bottom Channel

Vegetation Community

Open Water (OW)

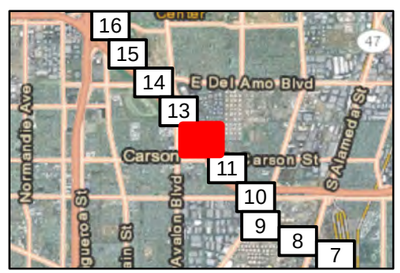
Disturbed Coastal Salt Marsh (CSM-D)

Developed (DV)

N

0 100 200 400

Feet



Map 12

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

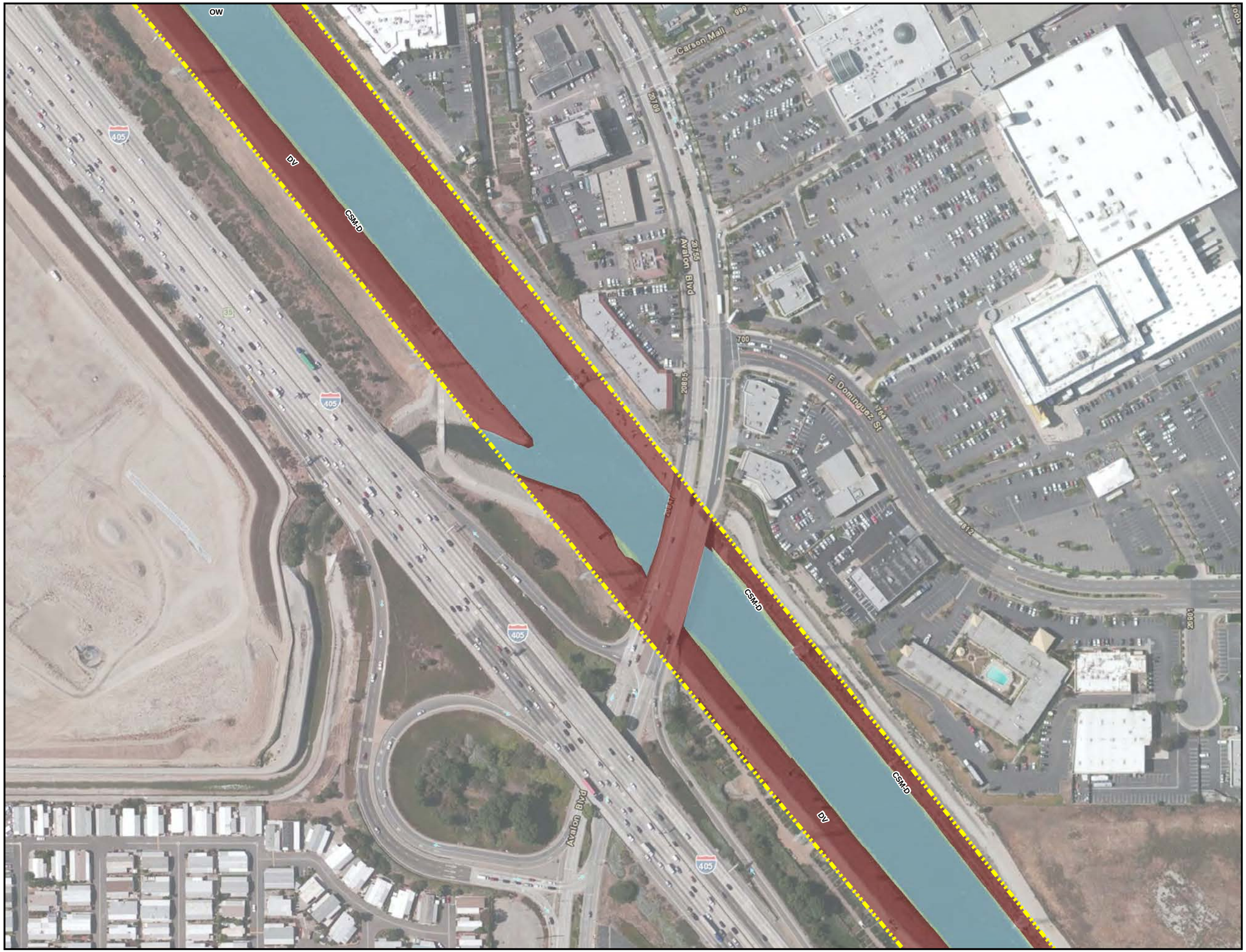


Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

Legend

Dominguez Soft Bottom Channel

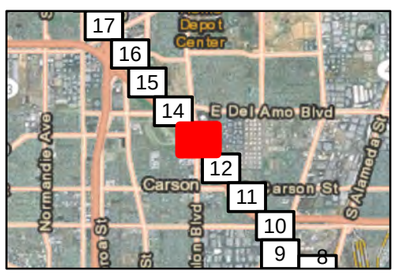
Vegetation Community

- Open Water (OW)
- Disturbed Coastal Salt Marsh (CSM-D)
- Developed (DV)

N

0 100 200 400

Feet



Map 13

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

Legend

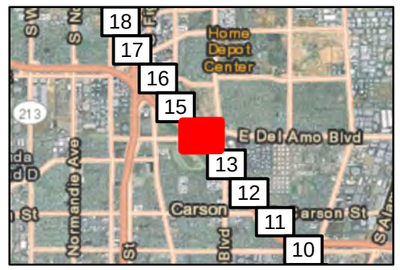
Dominguez Soft Bottom Channel

Vegetation Community

- Open Water (OW)
- Disturbed Coastal Salt Marsh (CSM-D)
- Big Saltbush Patch (BSP)
- Developed (DV)

N

0 100 200 400
Feet



Map 14

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

Figure 2
Dominguez Soft Bottom Channel Vegetation Communities Map

Legend

- Dominguez Soft Bottom Channel

Vegetation Community

- Open Water (OW)
- Disturbed Coastal Salt Marsh (CSM-D)
- Ruderal (R)
- Developed (DV)

N

0 100 200 400

Feet

Map 15

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

Legend

- Dominguez Soft Bottom Channel

Vegetation Community

- Open Water (OW)
- Disturbed Coastal Salt Marsh (CSM-D)
- Ruderal (R)
- Developed (DV)

N

0 100 200 400

Feet

Map 16

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

Legend

Dominguez Soft Bottom Channel

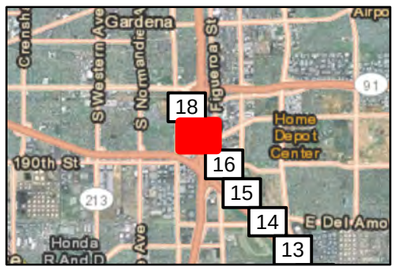
Vegetation Community

- Open Water (OW)
- Disturbed Coastal Salt Marsh (CSM-D)
- Ruderal (R)
- Developed (DV)

N

0 100 200 400

Feet



Map 17

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

Figure 2
Dominguez Soft Bottom Channel
Vegetation Communities Map

Legend

Dominguez Soft Bottom Channel

Vegetation Community

- Open Water (OW)
- Disturbed Coastal Salt Marsh (CSM-D)
- Ruderal (R)
- Developed (DV)

N

0 100 200 400

Feet

Map 18

CHAMBERS GROUP

Name: 20705 BTR Dominguez Fig 2 Vegetation Communities.Mxd
Print Date: 4/25/2014, Author: stondre

3.4 SENSITIVE SPECIES

The following information is a list of abbreviations used to help determine the significance of biologically sensitive resources potentially occurring within the Project site.

California Rare Plant Rank (CRPR)

List 1A = Plants presumed extinct in California.
List 1B = Plants rare and endangered in California and throughout their range.
List 2 = Plants rare, threatened, or endangered in California but more common elsewhere in their range.
List 3 = Plants about which we need more information; a review list.
List 4 = Plants of limited distribution; a watch list.

CRPR Extensions

0.1 = Seriously endangered in California (greater than 80 percent of occurrences threatened/high degree and immediacy of threat).
0.2 = Fairly endangered in California (20 to 80 percent occurrences threatened).
0.3 = Not very endangered in California (less than 20 percent of occurrences threatened).

Federal

FE = Federally listed; Endangered
FT = Federally listed; Threatened
FC = Federal Candidate for listing

State

ST = State listed; Threatened
SE = State listed; Endangered
RARE = State-listed; Rare (Listed "Rare" animals have been redesignated as Threatened, but Rare plants have retained the Rare designation.)
SSC = State Species of Special Concern
WL = CDFW Watch List

The criteria used to evaluate the potential for sensitive species to occur within the Project site are outlined in Table 1, below.

Table 1: Criteria for Evaluating Sensitive Species Potential for Occurrence

PFO*	CRITERIA
Absent:	Species is restricted to habitats or environmental conditions that do not occur within the Project site.
Low:	Habitats or environmental conditions needed to support the species are of poor quality within the Project site.
Moderate:	Either habitat requirements or environmental conditions associated with the species occur within the Project site; or marginal habitat exists within the site and a historical record exists of the species within the Project site or immediate vicinity of the Project site.
High:	Both the habitat requirements and environmental conditions associated with the species occur within the site and a historical record exists of the species within the Project site or its immediate vicinity.
Present:	Species was detected within the site at the time of the survey.

* PFO: Potential for Occurrence

3.4.1 Sensitive Plants

Current database searches (CDFW 2014; CNPSEI 2014) resulted in a list of 19 federal and/or state listed threatened and endangered or rare sensitive plant species documented to occur within the vicinity of the Project site. After the literature review, it was determined that 17 species are absent from the Project site, and 2 species have a low potential to occur on the Project site based on the assessment of the various habitat types in the area of the site and the results of the reconnaissance survey. Factors used to determine the potential for occurrence included the quality of habitat, elevation, and the results of the reconnaissance survey. In addition, the locations of prior database records of occurrence were used as additional data; but since the CNDDB is a positive-sighting database, this data was used only in support of the analysis from the previously identified factors.

The following 16 plant species are considered **Absent** from the Project site due to lack of suitable habitat and/or the species is found outside the elevation range of the Project site:

- aphanisma (*Aphanisma blitoides*) – CRPR List 1B.2
- coastal dunes milk-vetch (*Astragalus tener* var. *titi*) – **FE, SE,** CRPR List 1B.1
- Coulter's saltbush (*Atriplex coulteri*) – CRPR List 1B.2
- south coast saltscale (*Atriplex pacifica*) – CRPR List 1B.2
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*) – CRPR List 1B.2
- Catalina crossosoma (*Crossosoma californicum*) – CRPR List 1B.2
- island green dudleya (*Dudleya virens* ssp. *insularis*) – CRPR List 1B.2
- Santa Catalina Island desert-thorn (*Lycium brevipes* var. *hassei*) – CRPR List 1B.1
- mud nama (*Nama stenocarpum*) – CRPR List 2B.2
- spreading navarretia (*Navarretia fossalis*) – **FT**, CRPR List 1B.1
- prostrate vernal pool navarretia (*Navarretia prostrata*) – CRPR List 1B.1
- coast woolly-heads (*Nemacaulis denudata* var. *denudata*) – CRPR List 1B.2
- California Orcutt grass (*Orcuttia californica*) – **FE, SE,** CRPR List 1B.1
- Lyon's pentachaeta (*Pentachaeta lyonii*) – **FE, SE,** CRPR List 1B.1
- Brand's star phacelia (*Phacelis stellaris*) – CRPR List 1B.1

- San Bernardino aster (*Symphyotrichum defoliatum*) – CRPR List 1B.2

The analysis of the database searches and reconnaissance survey resulted in one species with **Low** potential to occur within the Project site due to low quality habitat present. In addition, known occurrences in habitats or conditions similar to those present at the Project site are recorded within 5 miles from the Project site. These two species are:

- **estuary seablite (*Suaeda esteroa*) – CRPR List 1B.2**

  Estuary seablite is a CRPR 1B.2 species. This perennial herb flowers between May and January and is found in coastal areas. Habitat includes marshes and swamps at elevations up to 20 feet amsl. The known range of this species exists in Los Angeles, Orange, Santa Barbara, San Diego, and Ventura counties and Baja California. This species is threatened by development and recreation.

  Of the potentially suitable habitat present within the channel, most is fairly disturbed, with nonnative species. Potential habitat exists only as a narrow strip (1 to 3 feet wide) of vegetation along the water's edge along the majority of the Project site. The channel contains a high proportion of nonnative plant species and trash, providing low quality habitat for this species. Previous estuary seablite occurrences have been recorded within 3 miles of the Project site near San Pedro; however, this population is now presumed extant. Therefore, estuary seablite has a low potential to occur within the Project site.

The analysis of the CNDDB search and reconnaissance survey resulted in one species with **Moderate** potential to occur within the Project site due to the presence of suitable habitat and known occurrences within 3 miles of the Project site in habitat similar to conditions at the Project site:

- **salt marsh bird's-beak (*Chloropyron maritimum* ssp*. maritimum*) – FE, SE, CRPR List 1B.2**

  Salt marsh bird's-beak is a federal and state listed endangered CRPR 1B.2 species. This hemiparasitic annual herb flowers between May and October in coastal dunes and the higher zones of marshes and swamps at elevations up to 100 feet amsl. Known ranges include: Los Angeles, Orange, Santa Barbara, San Bernardino, San Diego, San Luis Obispo, and Ventura counties and Baja California. Salt marsh bird's-beak is threatened by vehicles, road construction, foot traffic, loss of salt marsh habitat, and competition with nonnative plants.

  Of the coastal salt marsh habitat present within the channel, the majority of the habitat is disturbed, with nonnative species and trash present. Salt marsh habitat exists only as a narrow strip (1 to 3 feet wide) of vegetation along the water's edge along the majority of the Project site. The channel contains a high proportion of nonnative plant species, providing low quality habitat for this species. Previous salt marsh bird's-beak occurrences have been recorded within 3 miles of the Project site on Terminal Island; however, this population is now thought to be extirpated from this area. Therefore, salt marsh bird's-beak has a moderate potential to occur within the Project site.

The analysis of the CNDDB search and reconnaissance survey resulted in one species with **High** potential to occur within the Project site due to the presence of suitable habitat and known occurrences within 1 mile of the Project site in habitat similar to conditions at the Project site:

- **southern tarplant (*Centromadia parryi* ssp. *australis*) – CRPR List 1B.1**

  Southern tarplant is a CRPR 1B.1 species. This annual herb flowers between May and November in seasonally moist saline soils of marshes and swamps, vernal pools, and valley and foothill grasslands at elevations upwards to 1,400 feet amsl. Known ranges include: Los Angeles, Orange, Santa Barbara, San Diego, Ventura counties, Santa Catalina Island, and Baja California. This species has been known to grow intertwined with slender tarweed (*Deinandra fasiculata*). Threats to southern tarplant include: urbanization, vehicles, development, and foot traffic.

  Of the habitat present within the channel, the majority is disturbed, with nonnative species and trash present. Soil requirements exist only as a narrow strip (1 to 3 feet wide) along the water's edge along the majority of the Project site. The channel contains a high proportion of nonnative plant species, providing moderate quality habitat for this species because southern tarplant has been known to occur in disturbed areas. Previous southern tarplant occurrences have been recorded within 1 mile of the Project site and within the channel. Therefore, southern tarplant has a high potential to occur within the Project site.

3.4.2 Sensitive Wildlife

A current database search (CDFW 2014) resulted in a list of 17 federally and/or state listed endangered or threatened, SSC, or otherwise sensitive wildlife species that may potentially occur within the Project site. A literature review and the assessment of the various habitat types within the Project site determined that 13 sensitive wildlife species were considered absent from the site, 3 species have a low potential to occur, and 1 species has a moderate potential to occur. Factors used to determine potential for occurrence included the quality of habitat, and results of the reconnaissance-level survey. In addition, the locations of prior database records of occurrence were used as additional data, but since the CNDDB is a positive-sighting database, this data was used only in support of the analysis from the previously identified factors.

The following 13 wildlife species are considered **Absent** from the Project site due to lack of suitable habitat present. In addition, no record shows the existence of these species within 5 miles of the Project site:

- American badger (*Taxidea taxus*) – SSC
- burrowing owl (*Athene cunicularia*) – SSC
- big free-tailed bat (*Nyctinomops macrotis*) – SSC
- California gnatcatcher (*Polioptila californica californica*) - **FT**, SSC
- coast horned lizard (*Phrynosoma blainvillii*) – SSC
- Mohave tui chub (*Siphateles bicolor mohavensis*) – **FE**, **SE**,
- Pacific pocket mouse (*Perognathus longimembris pacificus*) – **FE**, SSC
- Palos Verdes blue butterfly (*Glaucopsyche lygdamus palosverdesensis*) – **FE**
- San Diego desert woodrat (*Neotoma lepida intermedia*) - SSC
- silvery legless lizard (*Anniella pulchra pulchra*) - SSC
- southwestern willow flycatcher (*Empidonax traillii extimus*) - **FE**, **SE**
- south coast marsh vole (*Microtus californicus stephensi*) - SSC
- tricolored blackbird (*Agelaius tricolor*) - SSC

The analysis of the reconnaissance survey and database searches resulted in three species with **Low** potential to occur within the Project site due to low quality or unsuitable habitat present. In addition, known occurrences are recorded within 5 miles of the Project site:

- **bank swallow (*Riparia riparia*) - ST**

  The bank swallow (nesting) is a state listed threatened species. This passerine nests in colonies across much of North America; however, unlike many other swallows that nest on or inside man-made structures, the bank swallow mostly nests inside tunnels that it builds in steep sand or gravel banks or cliffs of river banks or quarries near water. Bank swallows will nest in colonies, including from 5 to over 3,000 individuals, with an average of 350 burrows per colony. This species inhabits open and partly open areas and is frequently found near flowing water. The bank swallow is the smallest swallow, with a wingspan of 4.75 inches. It has brown upperparts, white underparts, and a distinct brown band across its chest that distinguishes it from other swallow species. It flies erratically over water in search of insects, and occasionally takes insects from the surface of the water or the ground. Flood and erosion control projects in California have eliminated much of the historic habitat of this species (Garrison 1999; Garrison et al. 1987).

  The channel lacks steep banks consisting of sandy substrate and therefore provides low quality habitat for this species. Several areas throughout the Project site could provide potential habitat for bank swallows within spaces between riprap and areas along the banks of the channel for nesting. Several areas of open space are located along the channel. Bank swallow occurrences have been recorded within 3 miles of the Project site; however, these were near Reservation Point in San Pedro, and this area has since been developed. Therefore, the bank swallow has a low potential to occur within the Project site.

- **California least tern (*Sternula antillarum browni*) – FE, SE**

  The California least tern (nesting colony) is a federally and state listed endangered species and a CDFW Fully Protected species. The least tern lives and breeds in the San Francisco Bay, Sacramento River Delta, and from San Luis Obispo County south into San Diego County. This small tern has long, tapered wings and a forked tail; white forehead with a black cap and black tipped wings; and yellow legs and bill. The species lives and breeds in shallow marine and estuarine shores. Nesting usually occurs in colonies on bare ground (sand or gravel) with sparse vegetation and near the water in relatively undisturbed areas (Rigney and Granholm 2005). Least terns feed upon small fish, including herrings, anchovies, silversides, and shiner surfperch. Nesting habitat has been lost to urban development and predation. Nonnative foxes, coyote, raccoon, American kestrels, burrowing owls, feral cats, and American crows all predate on nesting tern colonies.

  The downstream end of the Dominguez SBC opens up to a large marine area that could provide potential foraging habitat for the California least tern. This species has been known to occur within 3 miles of the Project site in habitat similar to conditions at the Project site near the landfill on Terminal Island and near Harbor Lake; however, the channel lacks any type of shore and is lined with large boulders and riprap. Therefore, this species has a low potential to nest within the Project site.

- **western mastiff bat (*Eumops perotis*) -SSC**

  The western mastiff bat is a California Species of Special Concern. It is a permanent resident throughout its range in southern California, southern Arizona, Texas, and south to South America. With a wingspan approaching 2 feet, the western mastiff bat is the largest bat species in North America. It roosts in small colonies or singly in primarily natural substrates such as cliff faces, large boulders, and exfoliating rock surfaces. It is less commonly found in artificial structures such as buildings and roof tiles. It is found in a wide variety of habitats, including desert scrub, chaparral, woodlands, floodplains, and grasslands. Reasons for observed population declines are unknown (TPWD 2008). The western mastiff bat is also unique in that its call can be readily identified with the unaided ear.

  The Project site lacks cliff faces and large, exfoliating rock surfaces, resulting in low quality habitat; however, riprap located along the banks throughout the length of the channel could provide potential habitat for the western mastiff bat. Western mastiff bat occurrences have been recorded within 3 miles of the Project site; however, the exact location is unknown. Therefore, the western mastiff bat has a low potential to occur within the Project site.

The analysis of the CNDDB search and reconnaissance survey resulted in one species with **Moderate** potential to occur within the Project site due to the presence of suitable habitat and known occurrences within 3 miles of the Project site in habitat similar to conditions at the Project site:

- **pocketed free-tailed bat (*Nyctinomops femorosaccus*) – SSC**

  The pocketed free-tailed bat is a California Species of Special Concern. This primarily Mexican bat species is found in Mexico south to the state of Michoacan and occurs in the southwestern United States from southern California, southern Arizona, southeastern New Mexico, and western Texas. Although rare in California, it is found in Riverside, San Diego, and Imperial counties. It roosts in small colonies of up to 60 individuals in rock crevices, caverns, roof tiles, and buildings. Although possible migration patterns are not well understood, pocketed free-tailed bat is most likely a yearlong resident. Little wintering information exists for this species within its range in the United States. The pocketed free-tailed bat feeds on insects flying over desert habitat, streams, or ponds. This species feeds primarily on moths but also eats crickets, flying ants, stinkbugs, froghoppers, leafhoppers, lacewings, and other insects.

  Several crevices occur throughout the channel within the riprap and under several of the bridges located along the channel. In addition, this species has been recorded within 3 miles of the Project site near Harbor City. Therefore, the pocketed free-tailed bat has a moderate potential to occur within the Project site.

3.5 GENERAL PLANTS

Biologists observed 40 plant species during the reconnaissance-level survey. Plant species observed during the survey were characteristic of the existing site conditions. No sensitive plant species were observed during the survey. A complete list of plants observed was recorded and appears in Appendix B.

3.6 GENERAL WILDLIFE

Biologists observed 30 wildlife species during the survey. Wildlife species observed or detected during the survey were characteristic of the existing site conditions. No sensitive wildlife species were observed during the survey effort. A complete list of wildlife observed or detected was recorded and is presented in Appendix C.

SECTION 4.0 – CONCLUSIONS AND RECOMMENDATIONS

4.1 SENSITIVE PLANTS

Results of the literature review, the assessment of the various habitat types within the survey site, and the results of the reconnaissance survey determined that 16 sensitive plants with a potential to occur in the area are considered to be absent from the site. Estuary seablite, a CRPR 1B.2 species, has a low potential to occur within the Project site. Salt marsh bird's-beak, a federally and state listed endangered CRPR 1B.2 species, has a moderate potential to occur within the Project site. Southern tarplant, a CRPR 1B.1 species, has a high potential to occur within the Project site. To minimize potential impacts to these species, preconstruction/focused surveys during the blooming period should be conducted. If the above species are identified within the Project site during surveys, an avoidance plan should be submitted to the resource agencies for approval prior to construction.

4.2 INVASIVE PLANTS

Results of the reconnaissance survey determined that nonnative and invasive seashore paspalum is located at some locations within the site. Specific locations should be identified, mapped and flagged for removal prior to ground disturbance. It is recommended that removal should be performed by hand and herbicide application. Hand removal should take place at locations where seashore paspalum is mixed with native species. Herbicide application should take place with an herbicide approved for use near waterways (i.e., AquaMaster® , or approved equal) at locations where seashore paspalum is the primary species.

4.3 SENSITIVE WILDLIFE

Of the 17 sensitive wildlife species identified in the literature review, it was determined that 13 sensitive wildlife species were considered absent from the survey site, 3 had a low potential to occur, and 1 had a moderate potential to occur. The bank swallow, a state listed threatened species; the California least tern, a federally and state listed endangered species; and the western mastiff bat, a California Species of Special Concern, have low potential to occur within the Project site. The pocketed free-tailed bat is a SSC and is considered to have a moderate potential to occur within the site. To minimize potential impacts to these species, preconstruction surveys and biological monitoring should be conducted. If the above species are identified within the Project site during surveys or monitoring, a monitoring plan should be submitted to the resource agencies for approval prior to construction.

4.4 MIGRATORY BIRD TREATY ACT, AS AMENDED (16 USC 703-711)

In order to comply with the Migratory Bird Treaty Act (MBTA), any vegetation clearing should take place outside the general bird breeding season (February 14 to September 1), to the maximum extent practical. If this is not possible, prior to ground-disturbing activities, a qualified biologist should conduct and submit a migratory nesting bird and raptor survey report. The survey should occur no more than three days prior to initiation of Project activities, and any occupied passerine and/or raptor nests occurring within or adjacent to the study area should be delineated. Additional follow-up surveys may be required by the resource agencies. To the maximum extent practicable, a biologist approved buffer zone around occupied nests should be maintained during physical ground-disturbing activities. The buffer zone should be sufficient in size to prevent impacts to the nest. Once nesting has ceased, the buffer may be removed.

4.5 JURISDICTIONAL WATERS

The Project site is located within the Lower Dominguez Channel watershed, a blue-line stream, which contains riparian vegetation and flowing water. This Project site is subject to USACE, RWQCB, and CDFW jurisdiction. A formal jurisdictional delineation to determine potential impacts to waters of the United States and waters of the State may be required for this Project.

SECTION 5.0 – REFERENCES

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

California Department of Fish and Wildlife (CDFW)
2014 California Natural Diversity Database (CNDDB). RareFind Version 5.1.0. Database Query for the *Torrance*, *Long Beach, San Pedro,* and *Inglewood,* California, USGS 7.5-minute quadrangles. Wildlife and Habitat Data Analysis Branch.

California Native Plant Society Electronic Inventory (CNPSEI)
2014 Inventory of Rare and Endangered Plants (online edition, v7-09a). Rare Plant Scientific Advisory Committee, California Native Plant Society, Sacramento, California. Accessed March 2014 from http://www.cnps.org/inventory for the *Torrance*, *Long Beach, San Pedro,* and *Inglewood,* California, USGS 7.5-minute quadrangles.

Garrison, B.A.
1999 Bank Swallow (*Riparia riparia*). In *The Birds of North America*, No. 414 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, Pennsylvania.

Garrison, B.A., J.M. Humphrey, and S.A. Laymon
1987 Bank Swallow distribution and nesting ecology on the Sacramento River, California. *Western Birds* 18: 71–76.

Gray, J. and D. Bramlet
1992 *Habitat Classification System, Natural Resources, Geographic Information System (GIS) Project*. County of Orange Environmental Management Agency, Santa Ana, California.

Holland, R.F.
1986 *Preliminary Descriptions of the Terrestrial Natural Communities of California*. Unpublished report available from the California Department of Fish and Wildlife, Sacramento, California.

Rigney, M. and S. Granholm
2005 B234 California Least Tern (*Sterna antillarum browni*). California Wildlife Habitat Relationships System maintained by the California Department of Fish and Wildlife and supported by the California Interagency Wildlife Task Group. Accessed at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentVersionID=17813 on January 21, 2013.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens
2009 *A Manual of* California *Vegetation, Second Edition*. California Native Plant Society, Sacramento, California.

Texas Parks and Wildlife Department (TPWD)
2008 Western Mastiff Bat (*Eumops perotis*). Accessed on December 10, 2012, from: http://www.tpwd.state.tx.us/huntwild/wild/species/westmastiff.

United States Department of Agriculture (USDA)
2014 Web Soil Survey. Accessed on April 2, 2014. http://soils.usda.gov/technical/classification/osd/index.htm.

APPENDIX A – SITE PHOTOGRAPHS

APPENDIX A: SITE PHOTOGRAPHS

Photo 1. Dominguez Channel between Artesia Blvd and 182nd Street. A few small islands are located in the channel. Banks of channel are sparsely vegetated. Photo facing southeast.

Photo 2. Dominguez SBC between 182nd Street and Victoria Street. Banks are sparsely vegetated. Photo facing southeast.

Photo 3. Photo showing the channel between Victoria Street and Figueroa Street. Pickleweed covers the lower portion of the banks. Photo facing southeast.

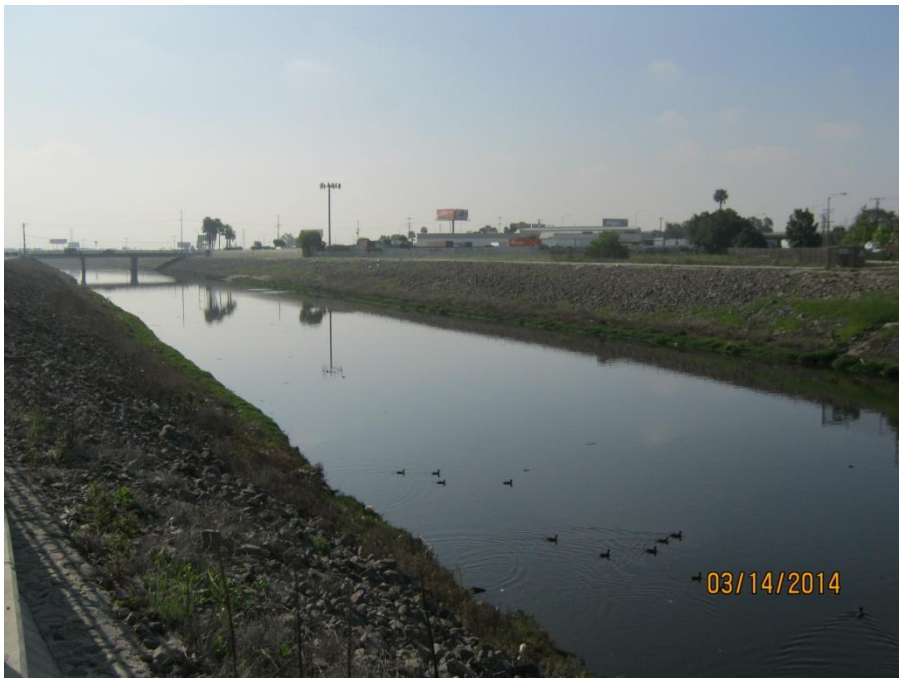


Photo 4. Dominguez SBC between S. Main Street and Del Amo Blvd. Banks are moderately vegetated. This portion of the channel is bordered by open space. Photo facing southeast.

Photo 5. Photo showing a small area containing native vegetation between Del Amo Blvd and Carson Street. This area could provide potential habitat for nesting birds. Photo facing east.

Photo 6. Photo showing the channel between Carson Street and 223rd Street. Banks along the west side of the channel are more evenly vegetated. The bridges located throughout the channel could provide potential nesting habitat for birds. Photo facing northwest.

Photo 7. Dominguez SBC between 223rd Street and Alameda Street. The channel flows through a power plant and is sparsely vegetated along the banks. Photo facing southeast.

Photo 7. Photo showing Dominguez SBC between Alameda Street and Sepulveda Blvd. This portion of the channel is sparsely vegetated and is bordered by an oil refinery. Photo facing northwest.

Photo 8. Photo showing the southern end of the channel where it opens to the Los Angeles Harbor. Banks are void of vegetation; however, several mollusks where observed attached to the rocks. Photo facing northwest.

APPENDIX B – PLANT SPECIES OBSERVED

APPENDIX B:
PLANT SPECIES OBSERVED

Scientific Name	Common Name
ANGIOSPERMS (EUDICOTS)	
AMARANTHACEAE	**AMARANTH FAMILY**
Amaranthus sp.	pigweed
ANACARDIACEAE	**SUMAC OR CASHEW FAMILY**
*Schinus molle**	Peruvian pepper tree
APIACEAE	**CARROT FAMILY**
*Apium graveolens**	celery
ASTERACEAE	**SUNFLOWER FAMILY**
Baccharis salicifolia subsp. *salicifolia*	mule fat
*Erigeron bonariensis**	flax-leaved horseweed
Erigeron canadensis	horseweed
*Glebionis coronaria**	garland daisy
*Helminthotheca echioides**	bristly ox-tongue
*Lactuca serriola**	prickly lettuce
*Pseudognaphalium luteoalbum**	everlasting cudweed
*Senecio vulgaris**	common groundsel
Sonchus asper subsp. *asper**	prickly sow thistle
*Sonchus oleraceus**	common sow thistle
BRASSICACEAE	**MUSTARD FAMILY**
*Hirschfeldia incana**	shortpod mustard
Lepidium campestre	field peppergrass
*Raphanus sativus**	radish
CHENOPODIACEAE	**GOOSEFOOT FAMILY**
Atriplex sp.	saltbush
*Kochia scoparia**	kochia
Salicornia pacifica	common pickleweed
*Salsola tragus**	Russian thistle
CONVOLVULACEAE	**MORNING-GLORY FAMILY**
Cressa truxillensis	alkali weed
EUPHORBIACEAE	**SPURGE FAMILY**
*Ricinus communis**	castor-bean
FABACEAE	**LEGUME FAMILY**
*Acacia longifolia**	Sydney golden wattle
Frankenia salina	alkali heath
GERANIACEAE	**GERANIUM FAMILY**
*Erodium cicutarium**	red-stemmed filaree

MYRTACEAE	**MYRTLE FAMILY**
*Callistemon citrinus**	crimson bottlebrush
Eucalyptus sp.*	gum tree
PLANTAGINACEAE	**PLANTAIN FAMILY**
*Plantago lanceolata**	English plantain
PLUMBAGINACEAE	**LEADWORT FAMILY**
*Limonium perezii**	Perez's marsh-rosemary
*Limonium sinuatum**	sea lavender
SOLANACEAE	**NIGHTSHADE FAMILY**
*Nicotiana glauca**	tree tobacco
ANGIOSPERMS (MONOCOTS)	
ARECACEAE	**PALM FAMILY**
*Washingtonia robusta**	Mexican fan palm
POACEAE	**GRASS FAMILY**
*Avena barbata**	slender wild oat
*Bromus diandrus**	ripgut grass
*Bromus hordeaceus**	soft chess
*Cynodon dactylon**	Bermuda grass
Distichlis spicata	saltgrass
*Festuca perennis**	Italian ryegrass
*Paspalum vaginatum**	seashore paspalum
*Pennisetum setaceum**	fountain grass

*Non-Native Species

APPENDIX C – WILDLIFE SPECIES OBSERVED OR DETECTED

APPENDIX C:
WILDLIFE SPECIES OBSERVED

Scientific Name	Common Name
CLASS AVES	**BIRDS**
PODICIPEDIDAE	**grebes**
Aechmophorus occidentalis	western grebe
Podilymbus podiceps	pied-billed grebe
PHALACROCORACIDAE	**CORMORANTS**
Phalacrocorax auritus	double-crested cormorant
ARDEIDAE	**HERONS, BITTERNS**
Butorides virescens	green heron
Ardea alba	great egret
ANATIDAE	**DUCKS, GEESE, SWANS**
Anas americana	American wigeon
Anas discors	blue-winged teal
Anas platyrhynchos	mallard
Aythya affinis	lesser scaup
Oxyura jamaicensis	ruddy duck
ACCIPITRIDAE	**HAWKS, KITES, EAGLES**
Buteo jamaicensis	red-tailed hawk
RALLIDAE	**RAILS, GALLINULES, COOTS**
Fulica americana	American coot
CHARADRIIDAE	**PLOVERS**
Charadrius vociferus	killdeer
SCOLOPACIDAE	**SANDPIPERS**
Calidris minutilla	least sandpiper
Tringa flavipes	lesser yellowlegs
LARIDAE	**SKUAS, GULLS, TERNS, SKIMMERS**
Larus californicus	California gull
Larus occidentalis	western gull
COLUMBIDAE	**PIGEONS & DOVES**
Columba livia	rock pigeon
APODIDAE	**SWIFTS**
Aeronautes saxatalis	white-throated swift
TYRANNIDAE	**TYRANT FLYCATCHERS**
Sayornis nigricans	black phoebe
HIRUNDINIDAE	**SWALLOWS**
Petrochelidon pyrrhonota	cliff swallow
Stelgidopteryx serripennis	northern rough-winged swallow
CORVIDAE	**JAYS & CROWS**
Corvus brachyrhynchos	American crow
Corvus corax	common raven
MIMIDAE	**MOCKINGBIRDS, THRASHERS**
Mimus polyglottos	northern mockingbird
STURNIDAE	**STARLINGS**
Sturnus vulgaris	European starling
FRINGILLIDAE	**FINCHES**
Carpodacus mexicanus	house finch
CLASS MAMMALIA	**MAMMALS**
SCIURIDAE	**SQUIRRELS**
Spermophilus beecheyi	California ground squirrel