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

Prepared for:

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May 2014

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SECTION 1.0 – INTRODUCTION

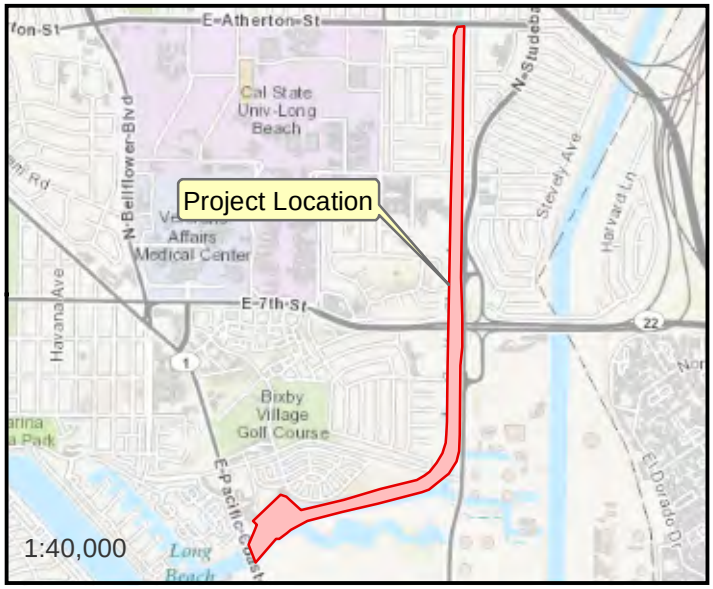
This Biological Technical Report has been prepared for the County of Los Angeles Department of Public Works (LACDPW) to support the Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements (WDR) for the proposed actions relating to the Los Cerritos Soft Bottom Channel Reach Maintenance Project (Project). Information contained in this document is in accordance with accepted scientific and technical standards that are 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 AND ENVIRONMENTAL SETTING

Los Cerritos Soft Bottom Channel (SBC) is located in the County of Los Angeles near the intersection of Atherton Street and Vuelta Grande Avenue in the City of Long Beach. Los Cerritos SBC flows southwest into the Long Beach Marina at Pacific Coast Highway (Figure 1). The Project site runs through the City of Long Beach parallel to Studebaker Road. Los Cerritos SBC is located in the United States Geological Survey (USGS) *Los Alamitos* 7.5-minute topographic quadrangle. Elevation in the Project area averages 7 feet above mean sea level (amsl).

The Project site is approximately 2.1 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 0.25 0.5 1 Miles

Figure 1

Los Cerritos Soft Bottom Channel Project
Project Location and Vicinity Map

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

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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 three quadrangles: *Los Alamitos, Long Beach,* and *Seal Beach*, 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 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 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. All plants and animals observed or detected on site were recorded. 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. 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), Gray and

Bramlet (1992), or Sawyer et al. (2009). Plant nomenclature follows that of Baldwin et al. (2012). A comprehensive 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

The reconnaissance-level survey was conducted on foot throughout the Project site between the hours of 10:00 a.m. and 4:00 p.m. on March 13, 2014. Weather conditions during the survey included temperatures ranging from 61 to 72 degrees Fahrenheit with 15 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 Southeastern Area (CA696). Based on the results of the database search, no soil data exists for this area.

3.2 JURISDICTIONAL WATERS

The Los Cerritos SBC is located in the Alamitos Bay Watershed, a blue-line stream containing riparian vegetation and flowing water. This section is subject to USACE, RWQCB, and CDFW jurisdiction. Although a formal jurisdictional delineation may be required, it 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

Three vegetation communities were observed within the Project site: Disturbed Coastal Salt Marsh, Ruderal, and Developed. A map showing the vegetation communities observed within the Project site is provided as Figure 2, and the communities are described in the following subsections. Representative site photographs were taken documenting the vegetation communities of the site (Appendix A). Biologists observed 41 plant species within the Project site (Appendix B).

3.3.1 Disturbed Coastal Salt Marsh

Coastal Salt Marsh is described as a highly productive, herbaceous, suffrutescent, salt-tolerant species 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 frankenia (*Frankenia* sp.), seepweed (*Suaeda* sp.), and pickleweed (*Salicornia* sp.) growing along the upper, landward edges of marshes, with saltgrass (*Disticlis spicata*) growing closest to open water. This community 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.

Disturbed Coastal Salt Marsh is present in narrow, water's-edge patches on both banks of the Project for its entire length. Plant species found on the Project site typical of this vegetation community include: alkali heath (*Frankenia salina*), pickleweed (*Salicornia pacifica*), saltwort (*Batis maritma*), salt grass and fleshy jaumea (*Jaumea carnosa*). The Project site includes approximately 0.87 acre of Southern 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 slopes of the channel. Species observed in this community on site include bristly prickly sow thistle (*Sonchus asper* subsp. *asper*), ripgut grass (*Bromus diandrus*), and flax-leaved horseweed (*Erigeron bonariensis*). The Project area includes approximately 1.05 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.

Developed areas found within the Project site include the riprap channel banks and paved or graded roads. The Project area includes approximately 18.66 acres total of Developed area.

Figure 2
Los Cerritos Soft Bottom Channel
Vegetation Communities Map

Legend

Los Cerritos Soft Bottom Channel

Vegetation Community

Open Water (OW)

Developed (DV)

N

0 100 200 400

Feet

Map 1

CHAMBERS GROUP

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

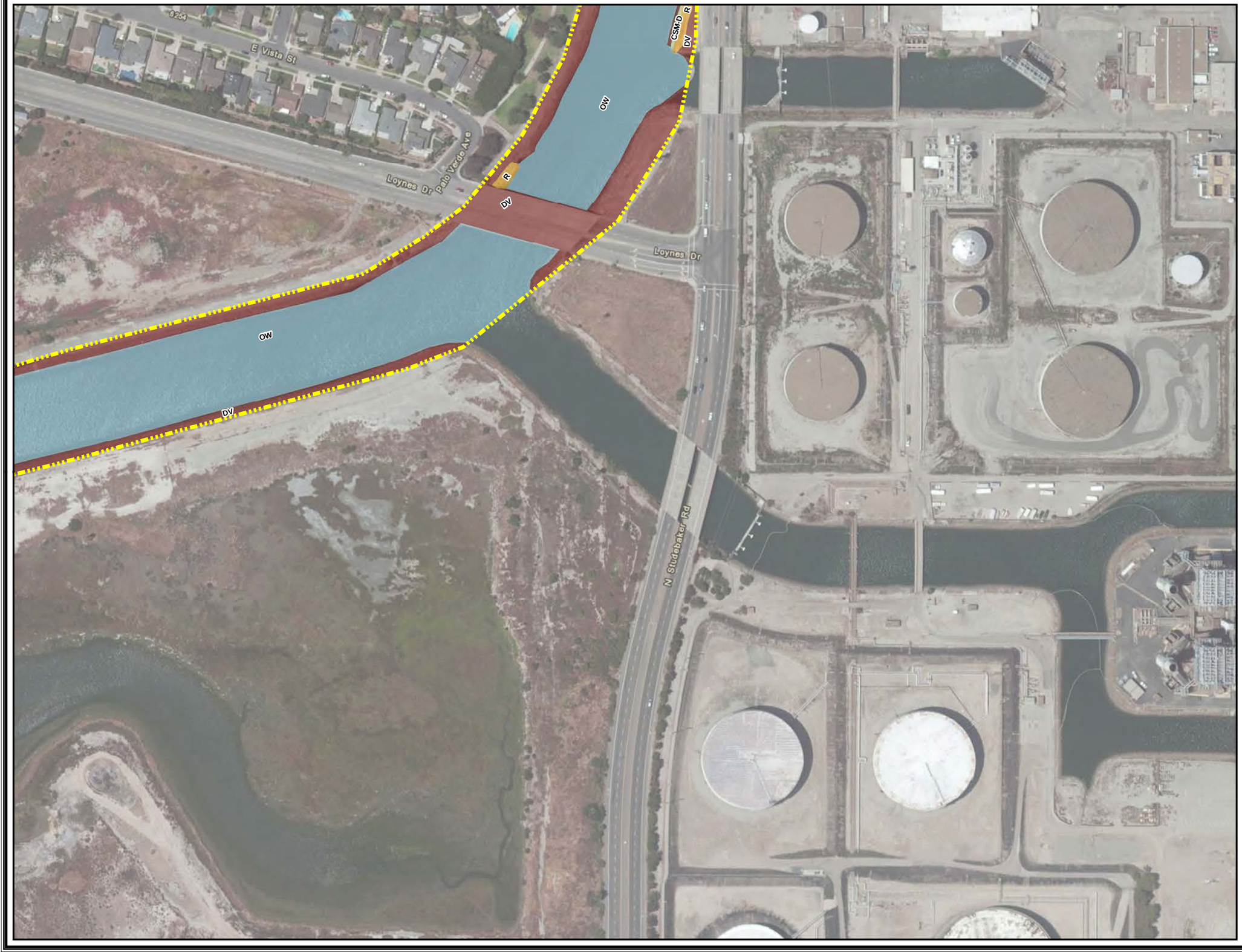

Figure 2
Los Cerritos Soft Bottom Channel
Vegetation Communities Map

Legend

Los Cerritos 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 2

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

Figure 2
Los Cerritos Soft Bottom Channel
Vegetation Communities Map

Legend

- Los Cerritos 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 3

CHAMBERS GROUP

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

Figure 2
Los Cerritos Soft Bottom Channel
Vegetation Communities Map

Legend

Los Cerritos Soft Bottom Channel

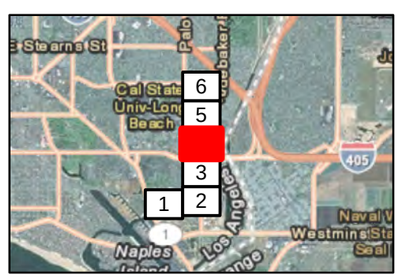
Vegetation Community

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

N

0 100 200 400

Feet



Map 4

CHAMBERS GROUP

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

Figure 2
Los Cerritos Soft Bottom Channel
Vegetation Communities Map

Legend

Los Cerritos Soft Bottom Channel

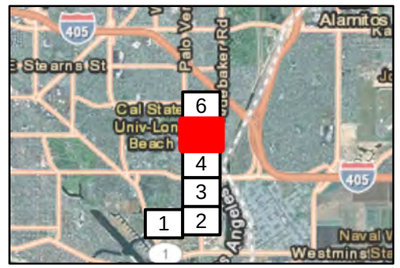
Vegetation Community

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

N

0 100 200 400

Feet



Map 5

CHAMBERS GROUP

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

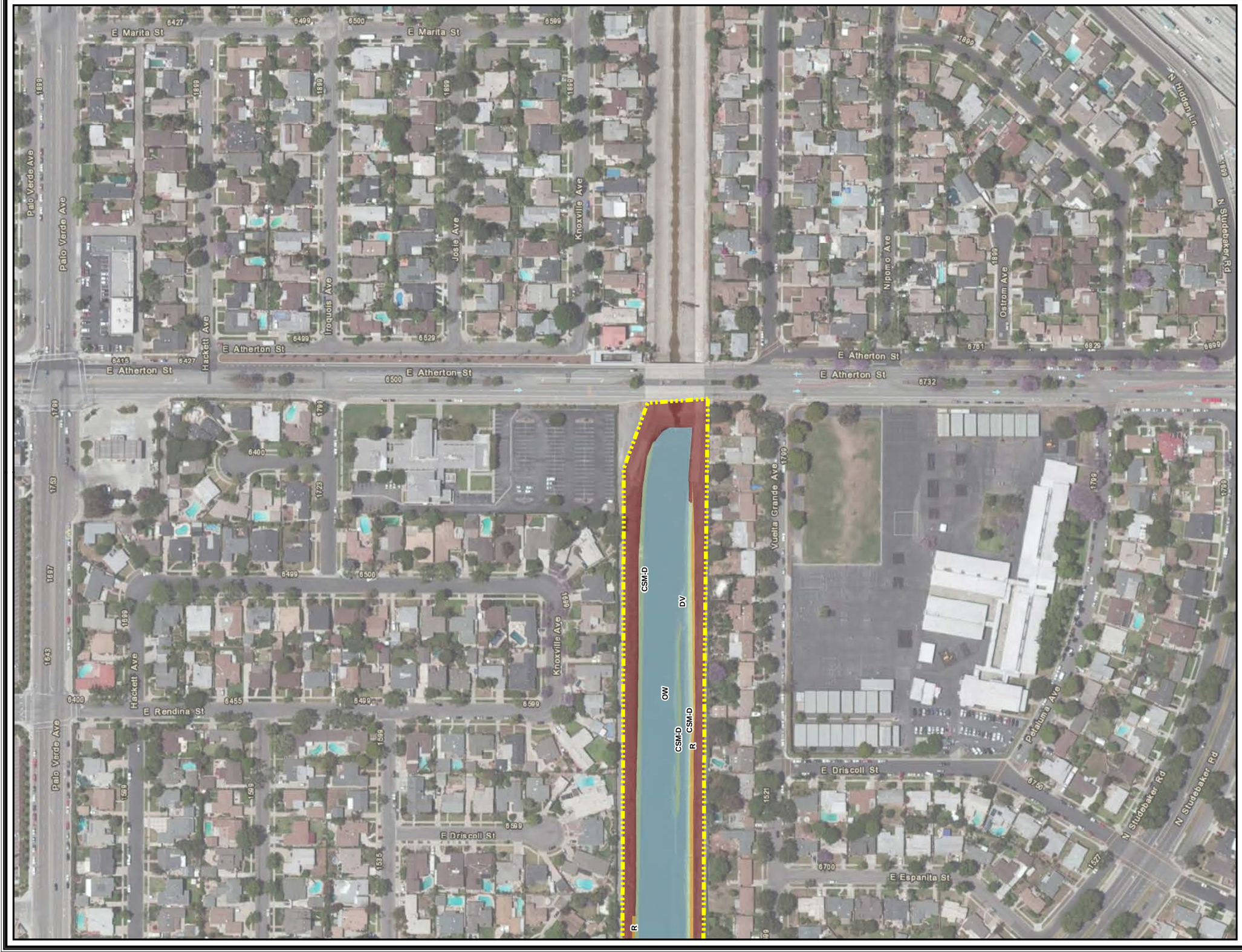


Figure 2
Los Cerritos Soft Bottom Channel Vegetation Communities Map

Legend

- Los Cerritos 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 LosCerritos 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 re-designated 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 and CNPSEI 2014) resulted in a list of 17 federally 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 13 species are absent from the Project site, and 4 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 location of prior CNDDB 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 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:

- Coulter's saltbush (*Atriplex coulteri*) – CRPR List 1B.2
- Parish's brittlescale (*Atriplex parishii*) – CRPR List 1B.1
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*) – CRPR List 1B.2
- southern tarplant (*Centromadia parryi* ssp. *australis*) – CRPR List 1B.1
- mud nama (*Nama stenocarpum*) – CRPR List 2B.2
- Gambel's water cress (*Nasturtium gambelii*) – **FE, ST,** 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
- Salt Spring checkerbloom (*Sidalcea neomexicana*) – CRPR List 2B.2
- San Bernardino aster (*Symphyotrichum defoliatum*) – CRPR List 1B.2

The analysis of the database searches and reconnaissance survey resulted in four 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 from the Project site. These four species are:

- **Ventura marsh milk-vetch (*Astragalus pycnostachyus* var. *lanosissimus*) – FC, SE, CRPR List 1B.1**

  Ventura marsh milk-vetch is a federally and state listed endangered CRPR 1B.1 species. This perennial herb flowers between June and October within reach of high tide or protected barrier beaches, near seeps on sandy bluffs of coastal salt marshes, or swamps at elevations upwards to 120 feet amsl. This species ranges include: Los Angeles, Orange Santa Barbara, and Ventura counties. This species was rediscovered near Oxnard in 1997 from one natural occurrence of approximately 50 plants. Threats to Ventura marsh milk-vetch include development, herbivory, cucumber mosaic virus, 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 entire Project site. The channel contains a high proportion of nonnative plant species and few areas of suitable soil, providing for low quality habitat for this species. Previous Ventura marsh milk-vetch occurrences have been recorded within 3 miles of the Project site; however, the exact location is not known. Therefore, Ventura marsh milk-vetch has a low potential to occur within 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 federally 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 entire Project site. The channel contains a high proportion of nonnative plant species and no established high tide zone, providing for low quality habitat for this species. Previous salt marsh bird's-beak occurrences have been recorded within 3 miles of the Project site in upper Anaheim Bay near Seal Beach; however, this population is presumed extant. Therefore, salt marsh bird's-beak has a low potential to occur within the Project site.

- **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 only exists as a narrow strip (1 to 3 feet wide) of vegetation along the water's edge along the entire Project site. The channel had 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 Seal Beach and Surfside. Therefore, estuary seablite has a low potential to occur within the Project site.

- **Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*) – CRPR List 1B.1**

  Coulter's goldfields is a CRPR 1B.1 species. This annual herb flowers between February and June and is found in saline areas and damp alkaline spots. Habitat includes coastal salt marshes and swamps, playas, and vernal pools at elevations up to 4,000 feet (amsl). The known range of this species exists in Colusa, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Tulare, and Ventura counties; Santa Rosa Island; and Baja California. This species is threatened by urbanization and agricultural development.

  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 entire Project site. The channel had a high proportion of nonnative plant species and trash, providing low quality habitat for this species. Previous Coulter's goldfields occurrences have been recorded within 3 miles of the Project near Los Alamitos; however, this population is thought to be possibly extirpated. Therefore, Coulter's goldfields has a low potential to occur within the Project site.

3.4.2 Sensitive Wildlife

A current database search (CDFW 2014) resulted in a list of 19 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 nine sensitive wildlife species were considered absent from the site, three species have low potential to occur, four species have moderate potential to occur, and three species have a high 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 location 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 nine wildlife species are considered **Absent** from the Project site due to lack of suitable habitat present or because no record shows the existence of these species within 5 miles of the Project site:

- black skimmer (*Rynchops niger*) – SSC
- big free-tailed bat (*Nyctinomops macrotis*) - SSC
- California gnatcatcher (*Polioptila californica californica*) - **FT**, SSC
- light-footed clapper rail (*Rallus longirostris levipes*) – **FE**, **SE**
- Pacific pocket mouse (*Perognathus longimembris pacificus*) – **FE**, SSC
- tricolored blackbird (*Agelaius tricolor*) – SSC
- western mastiff bat (*Eumops perotis californicus*) - SSC

- western yellow bat (*Lasiurus xanthinus*) - SSC
- western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) - **SE**

The analysis of the reconnaissance survey and database searches resulted in three species with **Low** potential to occur within the Project site due 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. In addition, bank swallow occurrences have been recorded within 3 miles of the Project site in Long Beach near Bixby Park; however, this population is thought to be extant from the area. Therefore, the bank swallow has a low potential to occur within the Project site.

- **south coast marsh vole (*Microtus californicus stephensi*) – SSC**

  The south coast marsh vole (also known as the Stephens' California vole) is a California Species of Special Concern. No species-specific information is available, although this species is located within Los Angeles, Orange, and Ventura counties (Hall 1981). The south coast marsh vole is a subspecies of the California vole. The California vole feeds on leafy parts of grasses, sedges, and herbs. It creates underground burrows in soft soil. Its habitat includes meadows and grasslands with friable soil. California voles can reproduce at any time during the year, but reproduction peaks when food and cover are abundant (Brylski 1990). Although California voles are widespread and abundant, specific subspecies, such as the south coast marsh vole, are considered state Species of Special Concern due to localized threats to habitat from urbanization and/or agricultural conversion of the habitat.

  El Cerrito Estuary is located along the southeast portion of the channel between Loynes Drive and Pacific Coast Highway. This area is composed of grasses and native coastal sage scrub, which could provide potential habitat for the south coast marsh vole. Occurrences for this species have been recorded within 3 miles of the Project site at Seal Beach Wildlife Refuge and Anaheim Bay;

however, the channel itself and the channel banks lack suitable habitat. Therefore, the south coast marsh vole has a low potential to occur within the Project site.

- **western snowy plover (*Charadrius alexandrinus nivosus*) – FE, SSC**

  The western snowy plover (nesting) is federally listed as threatened and is also a California Species of Special Concern. The Pacific coastal population breeds primarily on beaches from southern Washington to southern Baja California, Mexico. Interior populations can be found in the Central Valley of California, Oregon, Nevada, and other western states. This small plover has a pale tan back, rump, and tail; white underparts; and dark patches on the sides of its neck that reach around onto the top of its chest. The western snowy plover nests on barren to sparsely vegetated sand beaches, dry salt flats in lagoons, dredge spoils deposited on beach or dune habitats, levees and flats at salt-evaporation ponds, and in river bars. In California, most breeding occurs on dune-backed beaches, barrier beaches, and salt-evaporation ponds and, infrequently, on bluff-backed beaches (USFWS 2001). Habitat alteration and recreational beach use have led to a serious decline in nesting habitat and populations over the last 40 years (USFWS 2001; Page et al. 1995).

  Potential habitat exists in areas of the El Cerritos Estuary. Areas within the estuary are sparsely vegetated and could provide potential nesting habitat for the snowy plover. Areas within the channel could provide potential foraging habitat for this species. In addition, western snowy plover have been documented within 3 miles of the Project site near Sunset Beach and Anaheim Bay; however, the channel lacks sand beaches or flats large enough to provide quality nesting habitat. Therefore, the western snowy plover has a low potential to occur within the Project site.

The analysis of the reconnaissance survey and CNDDB search resulted in five 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:

- **Belding's savannah sparrow (*Passerculus sandwichensis beldingi*) – SE**

  The Belding's savannah sparrow is a state listed endangered species. This subspecies ranges from Goleta in Santa Barbara County south to Rosario in northern Baja California (Grinnel and Miller 1944). This species has a long, thick bill with a curved culmen and yellow lores. The subspecies is darker and more heavily streaked than the savannah sparrow (Sibley 2003). Belding's savannah sparrows live and nest in coastal salt marshes with dense pickleweed and feed upon seeds, snails, and spiders. The largest threat to the species is a loss and degradation of salt marsh and mudflat habitat mainly due to development. Over 75 percent of the former range of the coastal marsh habitat has been lost in southern California (Zembal and Hoffman 2010).

  Potential nesting habitat for the Belding's savannah sparrow occurs in areas of El Cerritos Estuary located along the southeast portion of the Project site. This area contains pickleweed that is utilized by this species for nesting and foraging. The Belding's savannah sparrow has been recorded within 1 mile of the Project site in Los Cerritos Marsh; however, the channel and banks lack quality nesting habitat for this species and provide only foraging habitat. Therefore, the Belding's savannah sparrow has a moderate potential to occur within the Project site.

- **coast horned lizard (*Phrynosoma blainvillii*) – SSC**

  The coast horned lizard is a California Species of Special Concern. It is found along the Pacific coast of California on the western side of the Sierra Nevada Mountains to the Baja Peninsula of Mexico. Adults are approximately 2 to 4 inches in snout to vent length and have numerous elongated and pointed scales or spines on the dorsal side. Two rows of enlarged scales are also present along the flank. This species is brown, yellowish, reddish, or gray with several dark bands that cross the back with highlighted white areas along the rear of the bands (Sherbrooke 2003). This species is found in many habitats, including oak woodlands, chaparral, coastal sage scrub, grasslands, valleys, foothills, riparian wetlands, conifer forests, and semiarid mountains up to 8,000 feet amsl. It inhabits sandy washes or areas with loose, fine, sandy soils for burying and low brush for cover and open areas for basking. It feeds primarily on harvester ants and other native ant species. Populations of this species have been reduced due to development, agriculture, and the introduction of Argentine ants that heavily compete with native ant species (Stebbins 2003).

  Potential habitat occurs throughout El Cerritos Estuary. This area consists of coastal sage scrub and open grassland which could provide quality habitat for the coast horned lizard. Occurrences of this species have been recorded within 1 mile of the Project site near California State University Long Beach and Seal Beach; however, the channel itself lacks suitable burrowing habitat and provides low foraging habitat for the lizard. Therefore, the coast horned lizard has a moderate potential to occur within the Project site.

- **southern California saltmarsh shrew (*Sorex ornatus salicornicus*) – SSC**

  The southern California saltmarsh shrew is a CDFW Species of Special Concern. Its range is confined to the coastal salt marshes of Los Angeles, Orange, and Ventura counties. The species is small (85 to 102mm) with a short, bicolored tail and is drab gray in color with a flattened skull (Collins 1998). The southern California saltmarsh shrew's habitat is dominated by pickleweed marsh vegetation that consist of dense stands of pickleweed (*Salicornia virginica*), salt grass (*Distichilis* sp.), dense willow (*Salix* spp.), and bulrush (*Scripus* sp.). Although the specific diet of the southern California saltmarsh shrew is not known, it is expected to be similar to other marsh-dwelling ornate shrews and consists of amphipods, isopods, insects, and other invertebrates. This species has been impacted by habitat loss and fragmentation as a result of dredging for harbors, channelizing and diking for flood control, and urban development. Predation by feral cats and introduced red foxes has also impacted this species.

  Long patches of pickleweed occur along the banks of the channel throughout the Project site. In addition, the El Cerritos Estuary could provide potential habitat for burrowing and tunneling. Occurrences of this species have been recorded within 3 miles of the Project site near Seal Beach; however, this population is now presumed extant. Therefore, the southern California saltmarsh shrew has a moderate potential to occur within the Project site.

- **western pond turtle (*Emys marmorata*) – SSC**

  The western pond turtle is a California Species of Special Concern. This species occurs along the west coast of North America from Baja California north to San Francisco Bay and occurs from sea level to 5,900 feet in elevation (Calherps 2011). It inhabits permanent or nearly permanent

bodies of water in many habitat types including ponds, marshes, rivers, and streams that typically have a rocky or muddy bottom and extensive aquatic vegetation along water body margins (Calherps 2011). The western pond turtle requires basking sites such as partially submerged logs, vegetation mats, or open mud banks for thermoregulation. This species occurs in a variety of habitat types including woodland, grassland, and open forest (Calherps 2011). Although this species is considered aquatic, it usually leaves the aquatic site to reproduce, estivate, and overwinter. Pond turtles hibernate under water in mud and will estivate during dry summers in soft mud, leaf litter, or wood rat nests (Calherps 2011). Pond turtles are diurnal and are most active from February to November; however, if water temperatures remain warm, this species may be active year-long (Bury and Germano 2008). Pond turtles feed on aquatic plants, invertebrates, worms, frog and salamander eggs and larvae, crayfish, carrion, and occasionally frogs and fish (Calherps 2011).

Several areas throughout the northern portion of the channel could provide potential habitat for the western pond turtle. The channel contains slow-flowing water throughout the year, and several areas of deep pools are located throughout the channel. Riprap located along the bank of the channel could also provide areas for basking for the turtle. The pond turtle has been recorded within 1 mile of the Project site near the San Gabriel River and Coyote Creek; however, the channel lacks connectivity to any major river systems, which would be required for dispersal of this species. Therefore, the western pond turtle has a moderate potential to occur within the Project site.

- **green sea turtle (*Chelonia mydas*) – FT**

  The green sea turtle is a federally listed threatened species. This species is globally distributed and generally found in tropical and subtropical waters along continental coasts and islands between latitudes of 30 degrees North and 30 degrees South. Nesting occurs in over 80 countries throughout the year (though not throughout the year at each specific location). Green turtles are thought to inhabit coastal areas of more than 140 countries. In the eastern north Pacific, green turtles have been sighted from Baja California to southern Alaska but most commonly occur from San Diego south. In the central Pacific, green turtles occur around most tropical islands, including the Hawaiian Islands. Adult green turtles that feed throughout the main Hawaiian Islands undergo a long migration to French Frigate Shoals in the Northwest Hawaiian Islands, where the majority of nesting and mating occurs. Green turtles primarily use three types of habitat: oceanic beaches (for nesting), convergence zones in the open ocean, and benthic feeding grounds in coastal areas. They are the largest of all the hard-shelled sea turtles but have a comparatively small head. While hatchlings are just 2 inches (50 mm) long, adults can grow to more than 3 feet (0.91 m) long and weigh 300 to 350 pounds (136 to 159 kg).

  Potential habitat for the green sea turtle occurs near the southern portion of the Los Cerritos SBC. The channel flows into the Long Beach Marina, which could provide potentially warmer waters then in the open ocean and possible refuge areas for the green sea turtle. In addition, the small channel flowing into the Los Cerritos SBC from the southeast could provide warm waters and contain algae which could provide potential foraging habitat for this species. Green sea turtles have been recorded within 1 mile of the Project site east of 7th Street, adjacent to the power generating plant. Therefore, the green sea turtle has a moderate potential to occur within the Project site.

The analysis of the reconnaissance survey and CNDDB search resulted in two 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:

- **burrowing owl (*Athene cunicularia*) – SSC**

  The burrowing owl is a California Species of Special Concern. It is broadly distributed across the western United States, with populations in Florida and Central and South America. The burrowing owl breeds in open plains from western Canada and the western United States, Mexico through Central America, and into South America to Argentina (Klute 2003). This species inhabits dry, open, native or nonnative grasslands, deserts, and other arid environments with low-growing and low-density vegetation (Ehrlich 1988). It may occupy golf courses, cemeteries, road rights-of way, airstrips, abandoned buildings, irrigation ditches, and vacant lots with holes or cracks suitable for use as burrows (TLMA 2006). Burrowing owls typically use burrows made by mammals such as California ground squirrels (*Spermophilus beecheyi*), foxes, or badgers (Trulio 1997). When burrows are scarce, the burrowing owl may use man-made structures such as openings beneath cement or asphalt pavement, pipes, culverts, and nest boxes (TLMA 2006). Burrowing owls often are found within, under, or in close proximity to man-made structures. Prey sources for this species include small rodents; arthropods such as spiders, crickets, centipedes, and grasshoppers; smaller birds; amphibians; reptiles; and carrion.

  Several areas throughout the Project site could provide potential habitats for burrowing owls. The banks along each side of the channel provide suitable areas for perching and foraging. In addition, riprap located along the banks could provide potential burrows, and several California ground squirrels were observed along the channel. Burrowing owl occurrences have also been recorded within 1 mile of the Project site near Seal Beach Blvd and Heron Pointe. Therefore, the burrowing owl has a high 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 and Sacramento River Delta and from San Louis 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 has 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 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.

  Potential nesting habitat can be found within the open space located along the southeast portion of the Project site. Areas of sparse vegetation were observed within the open space, and an additional channel running throughout the middle of the open space area provides shallow estuarine shores near the mouth of the channel, which flows directly into the Los Cerritos SBC. In addition, the Project site opens to a large marina, which could provide quality foraging habitat for the least tern. The California least tern has been recorded within 1 mile of the Project site;

therefore, this species has a high potential to occur for foraging within the site and a low potential to nest within the Project site.

3.5 GENERAL PLANTS

Biologists observed 41 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 is presented in Appendix B.

3.6 GENERAL WILDLIFE

Biologists observed 31 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 reconnaissance survey determined that 13 sensitive plants with a potential to occur in the area are considered to be absent from the site. Ventura marsh milk-vetch, a federal and state listed endangered CRPR 1B.1 species; salt marsh bird's-beak, a federal and state listed endangered CRPR 1B.2 species; estuary seablite, a CRPR 1B.2 species; and Coulter's goldfields, a CRPR 1B.1 species, have low potential to occur within the Project site. To minimize potential impacts to these species, preconstruction surveys should be conducted. If the above species are identified within the Project site during surveys or monitoring, an avoidance plan should be submitted to resource agencies for approval prior to construction.

4.2 SENSITIVE WILDLIFE

Of the 19 sensitive wildlife species identified in the literature review, it was determined that 9 sensitive wildlife species are considered absent from the survey site, 3 have a low potential to occur, 5 have a moderate potential to occur, and 2 have a high potential to occur. The bank swallow, a state listed threatened species; the south coast marsh vole, a SSC; and the western snowy plover, a federally listed threatened species and a SSC, have low potential to occur within the Project site. The Belding's savannah sparrow, a state listed endangered species; the coast horned lizard, a SSC; the southern California saltmarsh shrew, a SSC; the western pond turtle, a SSC; and the green sea turtle, a federally listed threatened species, are considered to have a moderate potential to occur within the Project site. The burrowing owl, a SSC; and the California least tern, a federally and state listed endangered species, are considered to have a high potential to occur within the Project site. To minimize potential impacts to these species, preconstruction surveys and biological monitoring should be conducted. If the above species are identified, a monitoring plan should be submitted to resource agencies for approval prior to construction.

4.3 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 rookeries, 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 minimum 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.

4.4 JURISDICTIONAL WATERS

The survey site is located within the Alamitos 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.

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APPENDIX A – SITE PHOTOGRAPHS

APPENDIX A: SITE PHOTOGRAPHS

Photo 1. Los Cerritos SBC at the northern portion of the channel. Banks are sparsely vegetated. The small island shown in the photo could provide potential nesting habitat for some aquatic birds. Photo facing south.

Photo 2. Photo showing Los Cerritos Channel between Anaheim Road and 7th Street. Banks are more heavily vegetated with ruderal vegetation. Photo facing south.

Photo 3. Photo showing the 7th Street bridge. The bridges located throughout the channel could provide nesting habitat for birds. Photo facing north.

Photo 4. Photo showing Channel View Park located on the west side of the Los Cerritos Channel. This area could provide habitat for nesting birds. Photo facing north.

Photo 5. Los Cerritos Channel between 7th Street and Loynes. Banks are bare of vegetation; however, several shore birds where observed foraging throughout this area. Photo facing north.

Photo 6. Photo showing an inlet flowing into the Los Cerritos Channel from the east, just south of Loynes. A large open space and marsh area is located just south of the inlet. Photo facing northeast.

Photo 7. Photo showing a large open space composed of native coastal sage scrub and grasses located along the southwest portion of the channel. This area could provide potential habitat for nesting birds and sensitive species. Photo facing south.

Photo 7. Photo showing the marina Los Cerritos Channel flows into. A large open space is located northeast of the marina. Photo facing northeast.

APPENDIX B – PLANT SPECIES OBSERVED

APPENDIX B:
PLANT SPECIES OBSERVED

Scientific Name	Common Name
ANGIOSPERMS (EUDICOTS)	
AIZOACEAE	**FIG-MARIGOLD FAMILY**
Carpobrotus sp.*	iceplant
*Mesembryanthemum crystallinum**	crystalline iceplant
ANACARDIACEAE	**SUMAC OR CASHEW FAMILY**
*Schinus molle**	Peruvian pepper tree
ARALIACEAE	**GINSENG FAMILY**
*Hedera helix**	English ivy
ASTERACEAE	**SUNFLOWER FAMILY**
Artemisia californica	California sagebrush
Encelia californica	California bush sunflower
*Erigeron bonariensis**	flax-leaved horseweed
Erigeron canadensis	horseweed
Jaumea carnosa	fleshy Jaumea
*Pseudognaphalium luteoalbum**	everlasting cudweed
*Senecio vulgaris**	common groundsel
Sonchus asper subsp. *asper**	prickly sow thistle
BATACEAE	**SALTWORT FAMILY**
Batis maritima	saltwort
BRASSICACEAE	**MUSTARD FAMILY**
*Brassica nigra**	black mustard
*Hirschfeldia incana**	shortpod mustard
*Sisymbrium altissimum**	tumble mustard
CARYOPHYLLACEAE	**PINK FAMILY**
Spergularia marina	saltmarsh sandspurrey
CHENOPODIACEAE	**GOOSEFOOT FAMILY**
Chenopodium sp.*	goosefoot
*Kochia scoparia**	kochia
Salicornia pacifica	common pickleweed
*Salsola tragus**	Russian thistle
CONVOLVULACEAE	**MORNING-GLORY FAMILY**
Cuscuta sp.	dodder
FABACEAE	**LEGUME FAMILY**
*Melilotus indica**	sourclover
Frankenia salina	alkali heath
GERANIACEAE	**GERANIUM FAMILY**

*Erodium cicutarium**	red-stemmed filaree
MALVACEAE	**MALLOW FAMILY**
*Malva parviflora**	cheeseweed
MORACEAE	**MULBERRY FAMILY**
Ficus sp.*	fig
MYRTACEAE	**MYRTLE FAMILY**
*Callistemon citrinus**	crimson bottlebrush
NYCTAGINACEAE	**FOUR O'CLOCK FAMILY**
Bougainvillea sp.*	bougainvillea
PASSIFLORACEAE	**PASSION FLOWER FAMILY**
*Passiflora caerulea**	blue passion flower
POLYGONACEAE	**BUCKWHEAT FAMILY**
Eriogonum fasciculatum	California buckwheat
ROSACEAE	**ROSE FAMILY**
Prunus ilicifolia	holly-leaf cherry
SALICACEAE	**WILLOW FAMILY**
Salix lasiolepis	arroyo willow
SOLANACEAE	**NIGHTSHADE FAMILY**
*Nicotiana glauca**	tree tobacco
ANGIOSPERMS (MONOCOTS)	
ARECACEAE	**PALM FAMILY**
Washingtonia sp*	fan palm
POACEAE	**GRASS FAMILY**
*Avena fatua**	wild oat
*Bromus diandrus**	ripgut grass
*Bromus hordeaceus**	soft chess
*Digitaria sanguinalis**	hairy crabgrass
Distichlis spicata	saltgrass
Stipa miliacea var. *miliacea**	smilo grass

*Non-Native Species

APPENDIX C – WILDLIFE SPECIES OBSERVED OR DETECTED

APPENDIX C:
WILDLIFE SPECIES OBSERVED

Scientific Name	Common Name
CLASS AMPHIBIA	**AMPHIBIANS**
HYLIDAE	**TREEFROGS**
Pseudacris cadaverina	California chorus frog
CLASS REPTILIA	**REPTILES**
PHRYNOSOMATIDAE	**ZEBRA-TAILED, EARLESS, FRINGE-TOED, SPINY, TREE, SIDE-BLOTCHED, AND HORNY LIZARDS**
Sceloporus occidentalis	western fence lizard
CLASS AVES	**BIRDS**
PODICIPEDIDAE	**grebes**
Aechmophorus occidentalis	western grebe
PELECANIDAE	**PELICANS**
Pelecanus occidentalis	brown pelican
PHALACROCORACIDAE	**CORMORANTS**
Phalacrocorax auritus	double-crested cormorant
ARDEIDAE	**HERONS, BITTERNS**
Ardea herodias	great blue heron
Ardea alba	great egret
Egretta thula	snowy egret
ANATIDAE	**DUCKS, GEESE, SWANS**
Anas platyrhynchos	mallard
Aythya affinis	lesser scaup
Bucephala albeola	bufflehead
Mergus serrator	red-breasted merganser
CATHARIDAE	**NEW WORLD VULTURES**
Cathartes aura	turkey vulture
ACCIPITRIDAE	**HAWKS, KITES, EAGLES**
Accipiter cooperii	Cooper's hawk
Buteo jamaicensis	red-tailed hawk
RALLIDAE	**RAILS, GALLINULES, COOTS**
Fulica americana	American coot
CHARADRIIDAE	**PLOVERS**
Charadrius vociferus	killdeer
SCOLOPACIDAE	**SANDPIPERS**
Calidris alba	sanderling
Tringa semipalmata	willet
LARIDAE	**SKUAS, GULLS, TERNS, SKIMMERS**
Larus californicus	California gull
COLUMBIDAE	**PIGEONS & DOVES**
Columba livia	rock pigeon
Zenaida macroura	mourning dove
TROCHILIDAE	**HUMMINGBIRDS**
Calypte anna	Anna's hummingbird
PICIDAE	**WOODPECKERS**
Melanerpes formicivorus	acorn woodpecker
TYRANNIDAE	**TYRANT FLYCATCHERS**
Sayornis nigricans	black phoebe
HIRUNDINIDAE	**SWALLOWS**
Stelgidopteryx serripennis	northern rough-winged swallow
CORVIDAE	**JAYS & CROWS**

APPENDIX C:
WILDLIFE SPECIES OBSERVED

Scientific Name	Common Name
Corvus brachyrhynchos	American crow
AEGITHALIDAE	**BUSHTIT**
Psaltriparus minimus	bushtit
MIMIDAE	**MOCKINGBIRDS, THRASHERS**
Mimus polyglottos	northern mockingbird
EMBERIZIDAE	**EMBERIZIDS**
Pipilo crissalis	California towhee
FRINGILLIDAE	**FINCHES**
Carduelis psaltria	lesser goldfinch
Carpodacus mexicanus	house finch
CLASS MAMMALIA	**MAMMALS**
SCIURIDAE	**SQUIRRELS**
Spermophilus beecheyi	California ground squirrel