LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT (MUST) FACILITY PROJECT

City of Long Beach, California

BIOLOGICAL RESOURCES REPORT

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April 2017
JN 158703

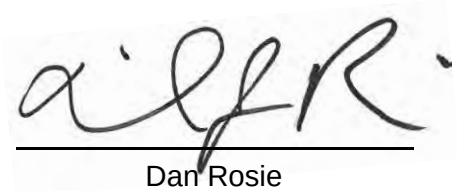
Michael Baker
INTERNATIONAL

LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT (MUST) FACILITY PROJECT

CITY OF LONG BEACH, CALIFORNIA

Biological Resources Report

The undersigned certify that this report is a complete and accurate account of the findings and conclusions of a biological resources assessment for the above-referenced project.



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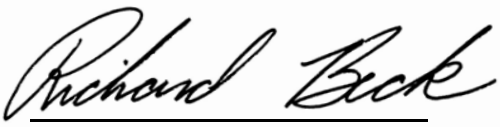

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Vice President
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April 2017

Executive Summary

On behalf of the City of Long Beach (City), Michael Baker International (Michael Baker) has prepared this Biological Resources Report for the Long Beach Municipal Urban Stormwater Treatment (MUST) Facility Project (project) located in the City of Long Beach, Los Angeles County, California. The proposed project consists of improving the water quality of existing urban runoff by capturing and conveying urban flows through an approximately 8-mile conveyance system (a combination of 11 new conveyance segments and existing pipelines) to the proposed MUST Facility for treatment prior to discharge into the Los Angeles River.

This report was prepared to document all biological resources identified within the survey area (comprised of the 11 new segments and the MUST Facility) during a general biological resources survey, which includes a floral and faunal inventory, vegetation/land use mapping, habitat suitability assessment to determine the potential for special-status plant and wildlife species and vegetation communities to occur within the survey area, and an evaluation of jurisdictional aquatic resources (if present within the survey area).

The survey area, located on the coastal portion of the Los Angeles Basin, consists almost entirely of urban areas, primarily residential developments and their associated ornamental trees, shrubs, and ground cover, in addition to various commercial and industrial development areas. Mature, dense coastal sage scrub, which was installed for a restoration project, is present along Segment 5, including volunteer coastal sage scrub components in adjacent disturbed areas. All other vegetated areas are limited to ornamental vegetation and disturbed areas dominated by nonnative, opportunistic species.

Based on a 5-mile radius search of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB), a 1-quadrangle search of the California Native Plant Society Online Inventory of Rare and Endangered Plants, and the U.S. Fish and Wildlife Service (USFWS) Species List, Michael Baker determined that the fifteen (15) special-status plant species and twenty (20) special-status wildlife species known to occur within the vicinity of the survey area are either not expected or have a low potential to occur within the survey area. No special-status plant or wildlife species were observed within the study area.

According to the Federal Emergency Management Agency, the 100-year flood zone within the survey area is primarily confined to the Los Angeles River and Compton Creek channels (Zone A, flooding), with the exception of the area surrounding the conveyance segment located between East Pacific Coast Highway and East Anaheim Street (Zone AH, shallow flooding). Jurisdictional hydrological features within the survey area are limited to a concrete-lined channel at the northern end of Segment 5 and existing basins throughout the survey area that convey urban storm flows to the Los Angeles River and the Pacific Ocean.

Because the proposed project is located within a primarily urban setting and would not obstruct wildlife movement, impacts to wildlife corridors are not expected as a result of project implementation. However, project activities conducted within the bird breeding season (typically January through July for raptors and February through August for other avian species) will require pre-construction nesting bird surveys, and the appropriate setbacks if active nests are found.

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LIST OF ACRONYMS

°F	degrees Fahrenheit
amsl	above mean sea level
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
City	City of Long Beach
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	U.S. Army Corps of Engineers
CRPR	California Rare Plant Rank
CWA	Clean Water Act
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
HA	Hydrologic Area
HU	Hydrologic Unit
IPaC	Information for Planning and Conservation
Michael Baker	Michael Baker International
MBTA	Migratory Bird Treaty Act
MUST	Municipal Urban Stormwater Treatment
NRCS	Natural Resources Conservation Service
Project	Long Beach MUST Facility Project
Regional Board	Regional Water Quality Control Board
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

Section 1 Introduction

On behalf of the City of Long Beach (City), Michael Baker International (Michael Baker) has prepared this Biological Resources Report for the Long Beach Municipal Urban Stormwater Treatment (MUST) Facility Project (project). This report describes the biological resources record searches and literature review, survey methodologies, and results of the general biological resources survey conducted within the survey area to determine the presence or potential occurrence of State-listed and/or Federally-listed as rare, threatened, or endangered, and other special-status plants, animals, and natural communities.

1.1 PROJECT LOCATION

The survey area (comprised of the MUST facility and 11 segments of new conveyance facilities) is generally located between just north of State Route 91 and just south of Ocean Boulevard, primarily east of the Los Angeles River for a distance of approximately 8 miles, entirely within the City of Long Beach, Los Angeles County, California (Figure 1, *Regional Vicinity*). Specifically, the survey area is located within an unsectioned portion of Township 3 South, Range 13 West; of the U.S. Geological Survey (USGS) *South Gate, California* 7.5-minute topographic quadrangle map and unsectioned portions of Townships 3, 4, and 5 South, Range 13 West of the USGS *Long Beach, California* 7.5-minute topographic quadrangle map (Figure 2, *Site Vicinity*).

The survey area (Figure 3, *Survey Area*) is generally bounded by developed land primarily consisting of residential neighborhoods, various commercial and industrial complexes, and the Virginia Country Club (golf course). The Los Angeles River conveys flows south between the northernmost survey area and to the west of the remainder of the survey area, with the Port of Long Beach, San Pedro Bay, and Pacific Ocean to the south.

1.2 PROJECT DESCRIPTION

The proposed project is intended to improve the water quality of existing urban runoff to the Los Angeles River, and ultimately to the Long Beach Harbor. Currently, pollutants (metals, bacteria, hydrocarbons, pesticides, and trash, for example) enter the Los Angeles River via urban runoff; the proposed project would divert flows from tributary areas immediately east and west of the river to the MUST facility for treatment prior to discharge, resulting in water quality benefits in the project area.

The proposed project would include two primary project components: 1) the MUST facility; and 2) conveyance facilities. A brief summary of these facilities is provided below:

4/14/2017 JN M:\Mdata\158703\GIS\MXD\Figure 01 Regional Vicinity.mxd

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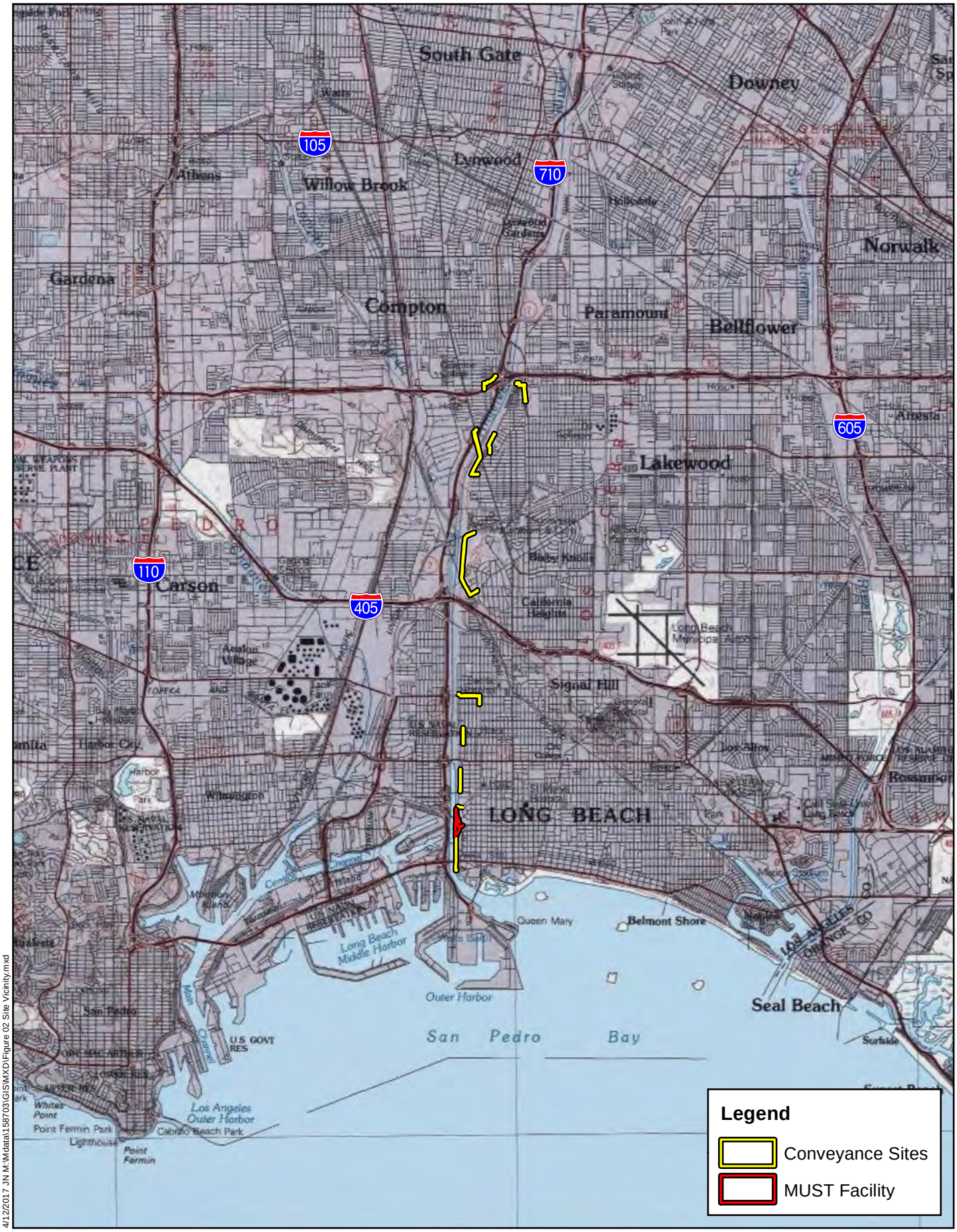
0 2.5 5 Miles

Source: ArcGIS Online

LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT (MUST) FACILITY

Regional Vicinity

Figure 1



4/12/2017 JN M:\Mdata\158703\GIS\MXD\Figure 02 Site Vicinity.mxd

Michael Baker INTERNATIONAL

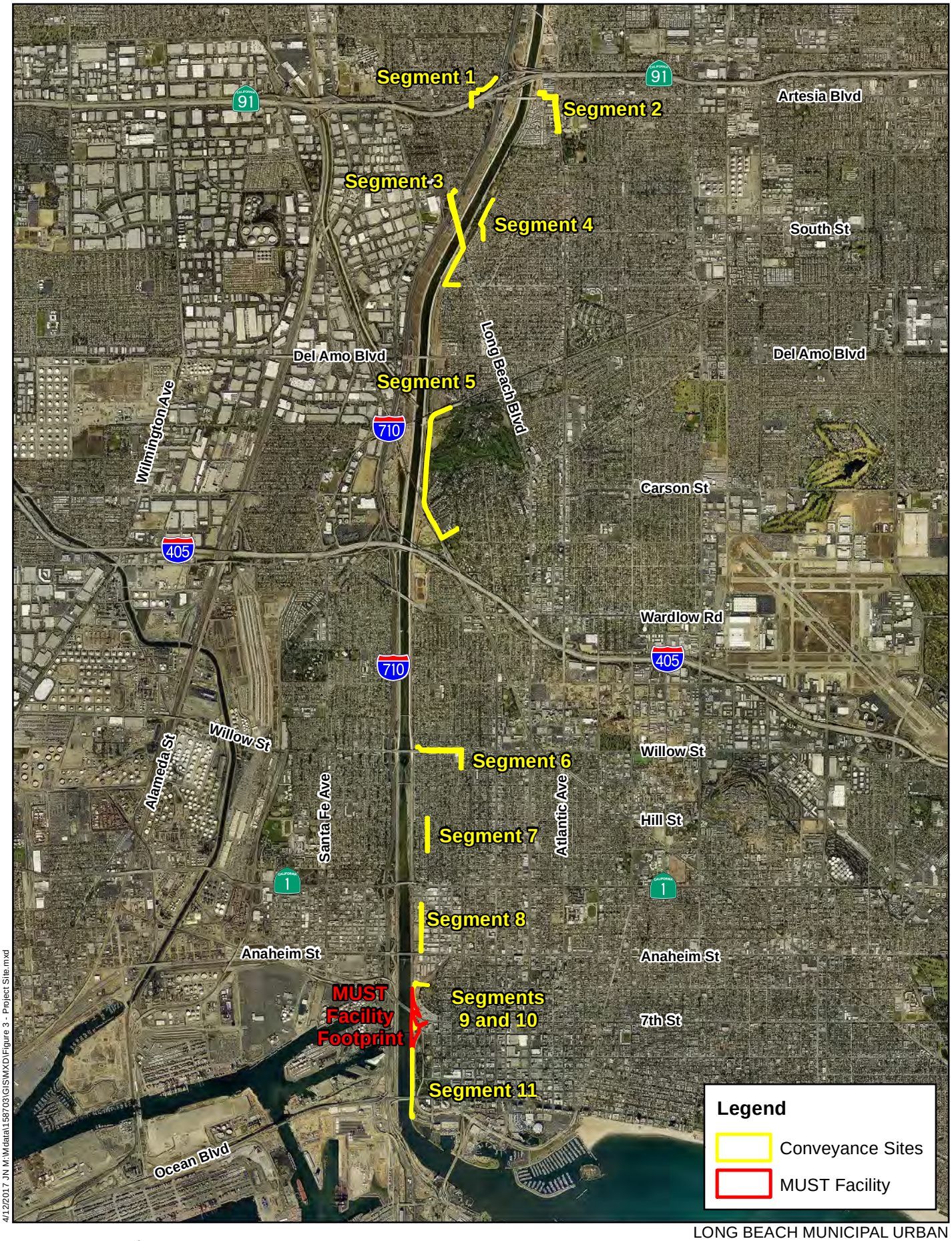
0 1 2 Miles

Source: ArcGIS Online

LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT (MUST) FACILITY

Site Vicinity

Figure 2



4/12/2017 JN M:\Mdata\158703\GIS\MXD\Figure 3 - Project Site.mxd

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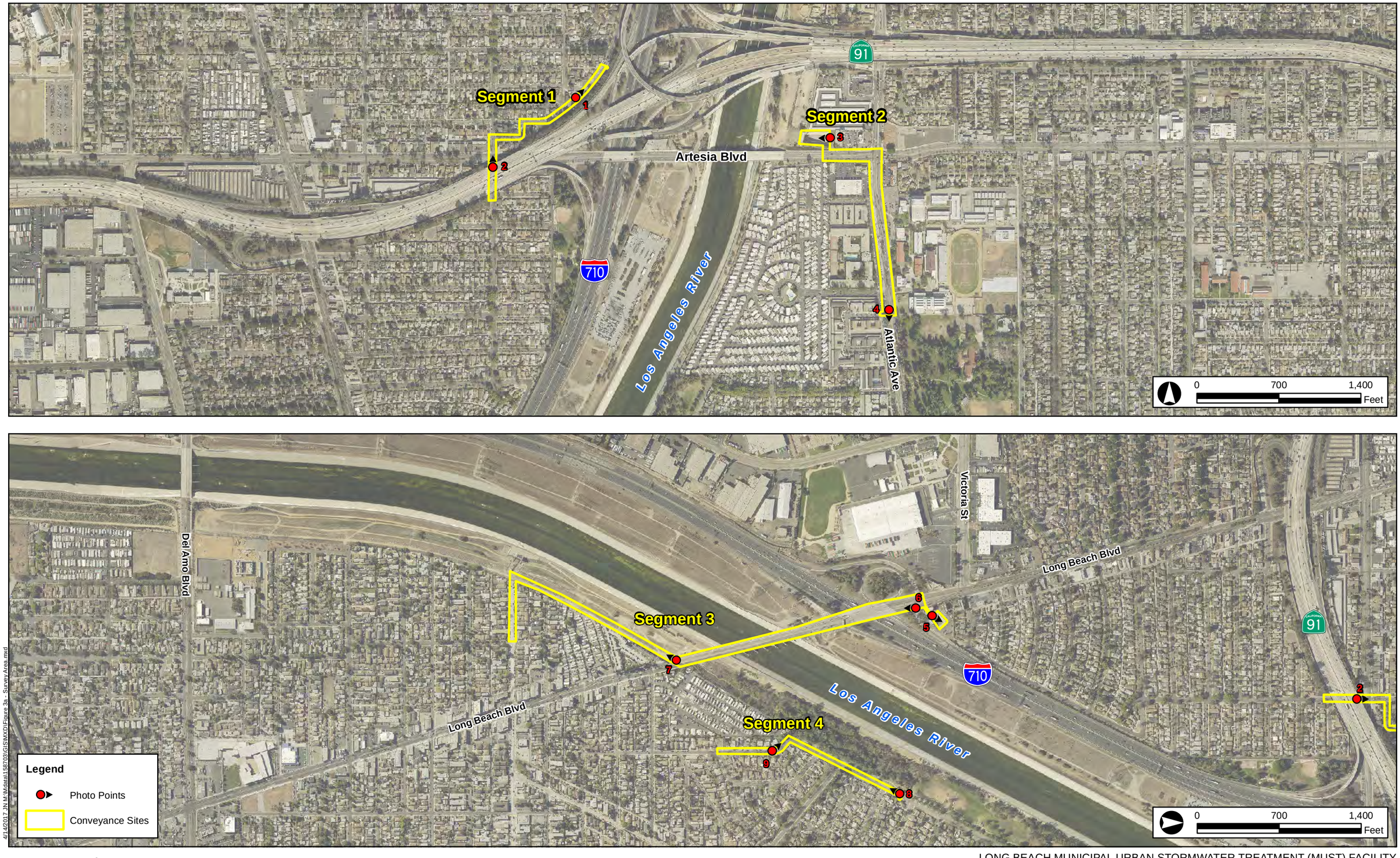
0 2,500 5,000 Feet

Source: Eagle Aerial -- 2014

LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT (MUST) FACILITY

Survey Area

Figure 3



4/1/4/2017 JN M:\data\158709\GIS\MXD\Figure 3a - Survey Area.mxd

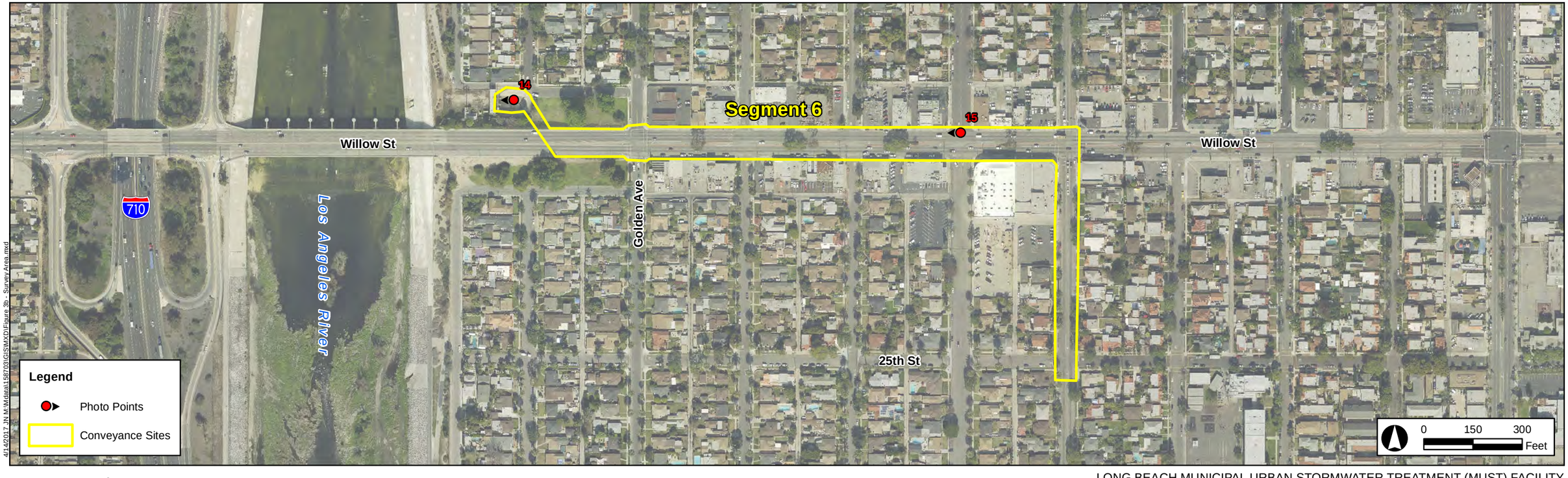
Michael Baker INTERNATIONAL

Source:

LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT (MUST) FACILITY

Survey Area

Figure 3a



LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT (MUST) FACILITY

Survey Area

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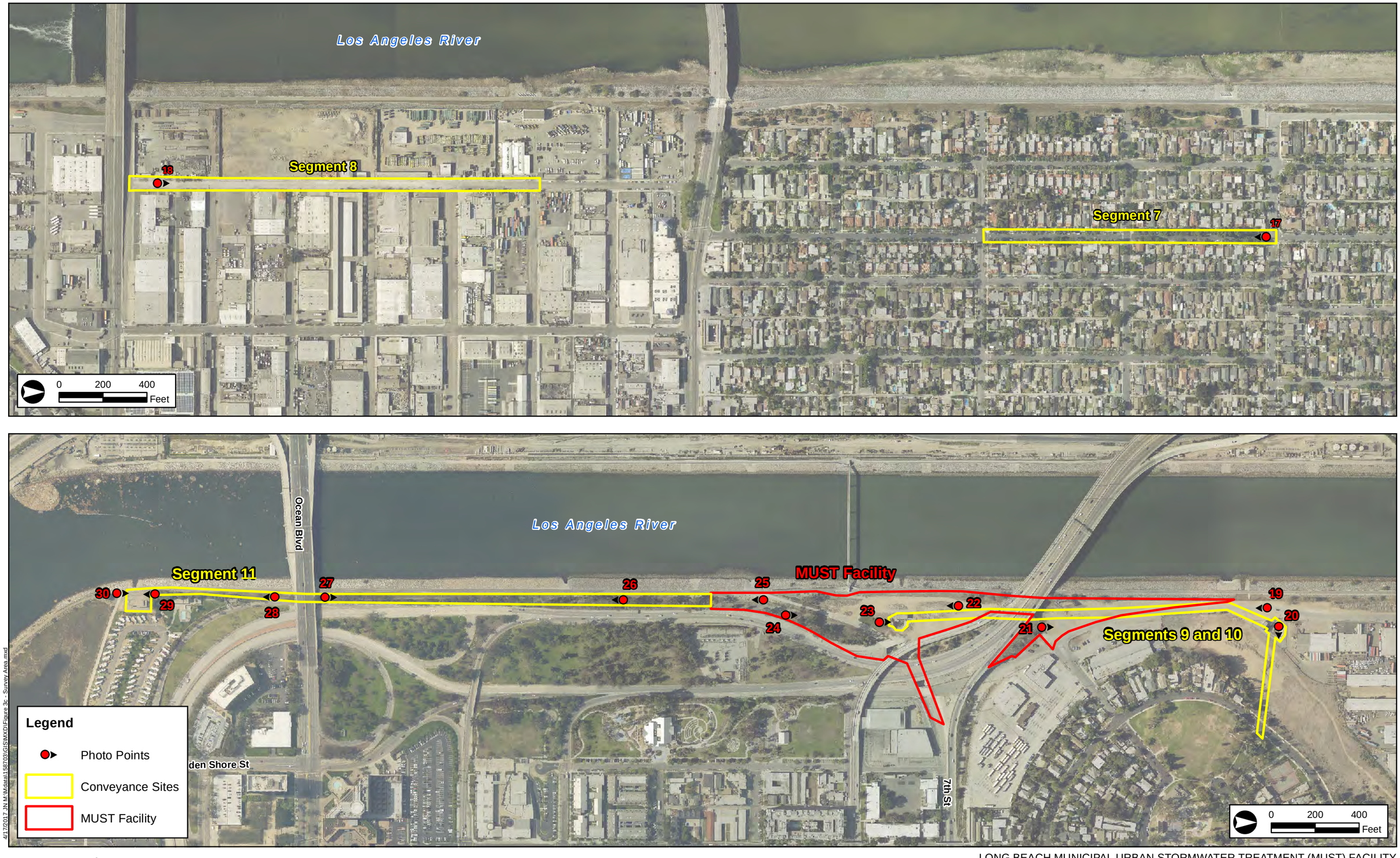
Source: USDA Soils

Figure 3b



#1/17/2017 JN M:\data\158703\GIS\MXD\Figure 3c - Survey Area.mxd

LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT (MUST) FACILITY

Survey Area

Figure 3c

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- **MUST Facility:** The MUST facility would be sited in close proximity to the City's existing Pump Station No. SD-01, on the east side of the Los Angeles River near the existing Shoemaker Bridge. The MUST facility would include facilities related to solids removal, oxidation, filtration, and disinfection, followed by a treated water terminal storage pond.
- **Conveyance Facilities:** The project would include conveyance facilities to carry stormwater from tributary areas to the MUST facility. Stormwater would be conveyed to the MUST facility via a combination of existing and proposed conveyance facilities. The project would include a total of 11 segments of new conveyance facilities that would provide the connections that would complete the approximately 8-mile conveyance system. Nine (9) of these segments are located east of the Los Angeles River, one west of the river, and one within the Long Beach Boulevard Bridge. Two options exist for conveyance – as underground pipelines, or as open channel facilities that provide for biofiltration pre-treatment and open space/aesthetic opportunities. A combination of the two options would be implemented.

It is anticipated that the project would occur entirely within existing public rights-of-way, and no right-of-way acquisition would be required for project implementation.

1.3 PURPOSE OF DOCUMENT

This report documents all biological resources identified within the survey area during a general biological resources survey and vegetation/land use mapping. Further, this report includes an analysis of the potential for the various on-site biological resources to support other special-status plant and animal species and special-status vegetation communities that are subject to provisions of the Federal Endangered Species Act of 1973 (FESA), Migratory Bird Treaty Act (MBTA), California Endangered Species Act (CESA), California Environmental Quality Act (CEQA), California Fish and Game Code (CFGC), California Native Plant Protection Act, Bald and Golden Eagle Protection Act, and other local policies and ordinances protecting biological resources.

Section 2 Methodology

2.1 LITERATURE REVIEW AND DATABASE SEARCHES

Prior to conducting the field work, Michael Baker researched the environmental setting of the survey area, such as regional and local geography, land use, climate, and watershed. Further, Michael Baker conducted a 5-mile radius search of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) RareFind 5 (CDFW, Biogeographic Data Branch 2017) and a South Gate quadrangle search of the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS 2017), and generated a Species and Resources List queried from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) online system (USFWS 2017a). These sources helped to identify special-status plant and wildlife species, vegetation communities, and other biological resources that have been previously documented within, near, and/or have the potential to occur within the survey area. The *Special Animals List* (CDFW 2017a) and the *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2017b) were reviewed for the current status of rare and endangered plant and wildlife species. Other resources reviewed include the CNPS California Rare Plant Ranking System (CRPR); recent aerial photography (Google Earth Pro 2017); the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) *Soil Survey of the Los Angeles County, California, Southeastern Part* (USDA, NRCS 2017); the National Hydric Soils List (USDA, NRCS 2015); and the National Wetland Inventory (USFWS 2017b).

2.2 GENERAL BIOLOGICAL RESOURCES SURVEYS

Following the database searches, on April 4, 2017, Michael Baker biologists Dan Rosie and Linda Nguyen conducted a general biological resources survey of the entire survey area to document existing site conditions and biological resources, and to evaluate habitat with the potential to support various special-status plant and wildlife resources, including jurisdictional aquatic features if present. Representative photographs of the survey area are provided at the end of this report in Appendix A, *Site Photographs*. Figure 3 provides the location and direction from which each photo was taken.

2.2.1 Vegetation/Land Use Mapping and Plant Species Inventory

Classification of the on-site vegetation communities and other land uses is based on the descriptions provided in the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), with modifications to better represent existing conditions in the field using the *Draft Vegetation Communities of San Diego County* (Oberbauer et al. 2008), an expanded vegetation classification system based on Holland (1986). Plant species nomenclature and taxonomy follow *The Jepson Manual: Vascular Plants of California, second edition* (Baldwin et al. 2012). All plant species encountered were noted and identified at minimum to the lowest

possible taxonomic level necessary to determine rarity. For a complete list of plant species observed on-site, refer to Appendix B, *Plant and Wildlife Species Observed List*.

2.2.2 General Wildlife Observations

Wildlife identification and nomenclature followed standard references, including The American Ornithologists' Union *Checklist of North and Middle American Birds* (The American Ornithologists' Union 2016), the *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, With Comments Regarding Confidence In Our Understanding* (Crother 2012), and *Mammals of North America, Second Edition* (Kays and Wilson 2009). All wildlife observed and/or otherwise detected through sign (e.g., tracks, scat) were recorded. Other wildlife may occupy the site, but are not easily detectable during the day (i.e., nocturnal) and without extraordinary survey efforts during the appropriate season, in addition to several species being transient and potentially occupying the site other times of the year. For a complete list of wildlife species observed or otherwise detected on-site, refer to Appendix B.

2.3 SURVEY LIMITATIONS

This Biological Resources Report has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. Biological surveys for the presence or absence of certain taxa have been conducted as part of this assessment, but were not necessarily performed during a particular blooming period, nesting period, or particular portion of the season when positive identification would be expected if present, and therefore, cannot be considered definitive. The biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis, or re-establish populations in the future. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided.

The findings and opinions conveyed in this report are based on findings derived from site reconnaissance and review of the CNDDB RareFind5 and CNPS Online Inventory. Standard data sources relied upon during the completion of this report, such as the CNDDB, may vary with regard to accuracy and completeness. In particular, the CNDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Michael Baker believes the data sources are reasonably reliable, Michael Baker cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

Section 3 Existing Conditions

The following is a summarization of the results of the database searches and biological resources survey. Discussions regarding the general environmental setting, vegetation communities and other land uses present, and plant and animal species observed are presented below. Representative photographs of the survey area are provided in Appendix A, and a complete list of all the plant and animal species observed on-site during the field surveys is provided in Appendix B.

3.1 ENVIRONMENTAL SETTING

The survey area is located within the Southwestern California region of the California Floristic Province, primarily surrounded by relatively flat, urbanized areas. Specifically, the survey area consists of developed/ornamental landscaped lands, disturbed habitat, coastal sage scrub (dense restoration), and disturbed coastal sage scrub. The survey area consists of the Conveyance Sites (Segments 1 through 11) and the MUST Facility (refer to Figure 3).

3.1.1 Climate

The survey area, located on the coastal portion of the Los Angeles Basin, has a climate characterized as Mediterranean, with cool, mild winter rains and hot, dry summers. Average annual temperatures typically range from approximately 55 to 74 degrees Fahrenheit (°F), with highs in the summer reaching 84 °F and lows in the winter reaching 46 °F. Average annual precipitation for the Long Beach, California, area is approximately 12 inches (U.S. Climate Data 2017). Table 1 provides a monthly and annual precipitation and temperature averages summary.

Table 1: Climate Summary[1]

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Maximum Temperature (°F)	67	67	69	72	74	77	82	84	82	77	72	67	**74.2**
Average Minimum Temperature (°F)	46	48	51	53	58	61	65	65	63	58	51	46	**55.4**
Average Total Precipitation (inches)	2.60	3.07	1.85	0.59	0.20	0.08	0.04	0.04	0.20	0.63	0.98	1.97	**12.25**

3.1.2 Watershed

The survey area is located within the Los Angeles River Watershed (Hydrologic Unit Code 18070105, Los Angeles River Hydrologic Unit (HU 12.00) and Los Angeles Hydrologic Area (HA 12.10) of the Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. The

[1] U.S. Climate Data, Long Beach, California (Accessed on March 8, 2017)

Los Angeles River Watershed covers a land area of 834 square miles, with eastern portions spanning from the Santa Monica Mountains to the Simi Hills and in the west from the Santa Susana Mountains to the San Gabriel Mountains. Major tributaries to the river in the coastal plain are Rio Hondo and Compton Creek. Within the project area, the Los Angeles River conveys flows south across the coastal plain into San Pedro Bay and the Pacific Ocean near Long Beach. The river is a trapezoidal channel entirely concrete-lined throughout the survey area, and tidally influenced at the southern end.

Michael Baker searched the Federal Emergency Management Agency (FEMA) – 100 Year Flood Zones for flood data within the survey area (FEMA 2017). Based on the FEMA – 100 Year Flood Zones map, the 100-year flood zone within the survey area is primarily confined to the Los Angeles River and Compton Creek channels (Zone A, flooding), with the exception of the area surrounding the conveyance segment located between East Pacific Coast Highway and East Anaheim Street (Zone AH, shallow flooding). The majority of the remainder of the survey area is located within the 50-year flood zone (Zone X, moderate flood hazard).

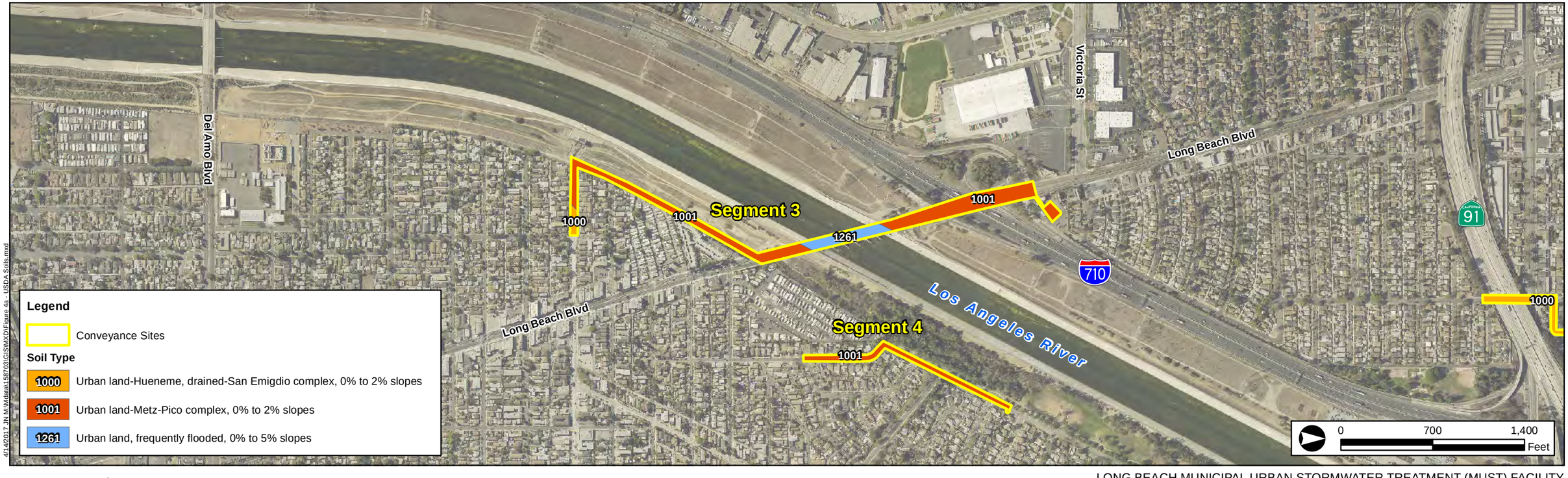
3.2 TOPOGRAPHY AND SOILS

The general area that the survey area is situated in is characterized by relatively flat coastal plains, with minimal elevation changes throughout. Elevations range from approximately 0 feet above mean sea level (amsl) within some of the existing basins to approximately 85 feet amsl at the southeastern end of Segment 5.

On-site and adjoining soils were reviewed prior to the field visit using the USDA, NRCS *Soil Survey of the San Diego Area, California* (USDA, NRCS 1973). The entire survey area has been mapped as Urban land (see Figure 4, *USDA Soils*), but more specifically as follows:

- Urban land-Hueneme, drained-San Emigdio complex, 0 to 2 percent slopes (1000)
- Urban land-Metz-Pico complex, 0 to 2 percent slopes (1001)
- Urban land, frequently flooded, 0 to 5 percent slopes (1261)
- Urban land-Thums-Windfetch complex, 0 to 5 percent slopes (1132)
- Urban land, 0 to 2 percent slopes, dredged fill substratum (1100)
- Urban land-Windfetch-Typic Haploxerolls complex, 0 to 2 percent slopes (1130)
- Urban land, 0 to 2 percent slopes (1202)

Michael Baker then reviewed the National Hydric Soils List (USDA, NRCS 2015) to identify soils mapped within the survey area that are considered to be hydric. According to the soils list, there are no hydric soils mapped within the survey area. Soil textures identified on-site were generally consistent with those mapped by the Soil Survey.



4/14/2017 J:\N:\Mdata\158703\GIS\MXD\Figure 4a - USDA Soils.mxd

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Source:

LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT (MUST) FACILITY

USDA Soils

Figure 4a

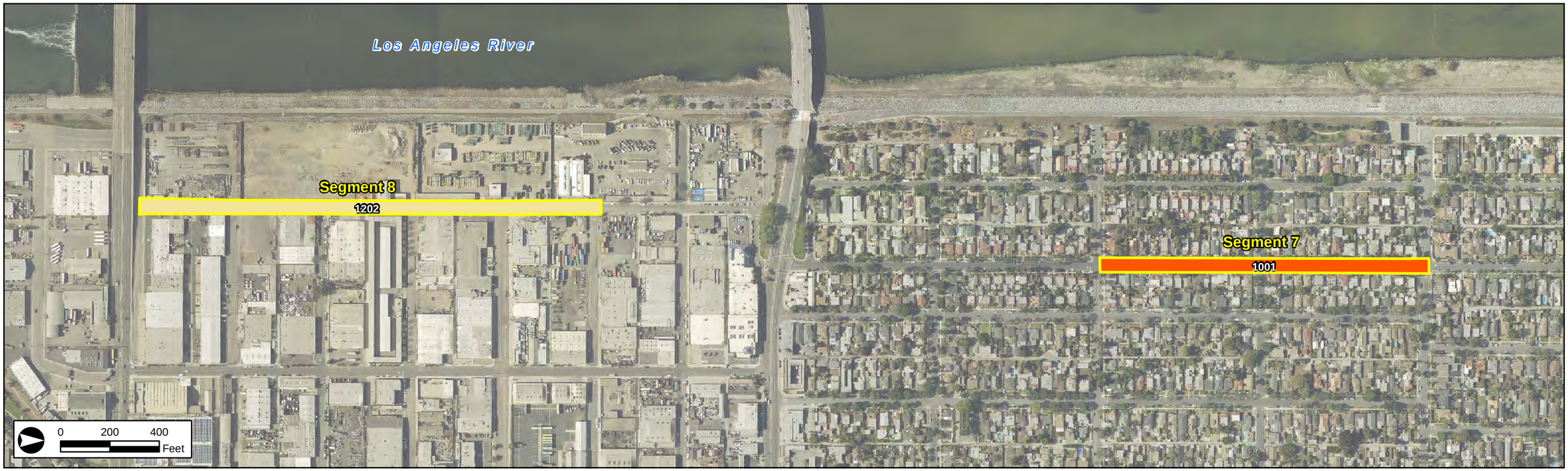
Michael Baker INTERNATIONAL

Source: USDA Soils

LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT (MUST) FACILITY

USDA Soils

Figure 4b



4/14/2017 JN M:\data\158703\GIS\MXD\Figure 4c - USDA Soils.mxd

Michael Baker INTERNATIONAL

Source: USDA Soils

LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT (MUST) FACILITY

USDA Soils

Figure 4c

3.3 VEGETATION COMMUNITIES AND OTHER LAND USES

Three terrestrial vegetation communities and other land uses were identified on-site during the field survey. Vegetation classification was based on Holland (1986), and modifications were made based on Oberbauer (2008). A complete list of plant species observed during the survey is provided in Appendix B. A map that illustrates the extent of each vegetation community/land use is presented as Figure 5, *Vegetation Communities, Land Uses, and Special-Status Species*. Table 2 provides the acreages of the terrestrial vegetation communities and land uses observed within the survey area, each discussed in detail below.

Table 2. Vegetation Communities/Land Uses within the Survey Area

Vegetation Community/Land Use (Holland/Oberbauer Code)	Total*
Restored Coastal Sage Scrub (32500)	1.44
Disturbed Coastal Sage Scrub (32500)	1.00
Disturbed Habitat (11300)	10.04
Developed (12000)	34.80
TOTAL*	**47.29**

* Totals may not equal to sum due to rounding.

Restored Coastal Sage Scrub

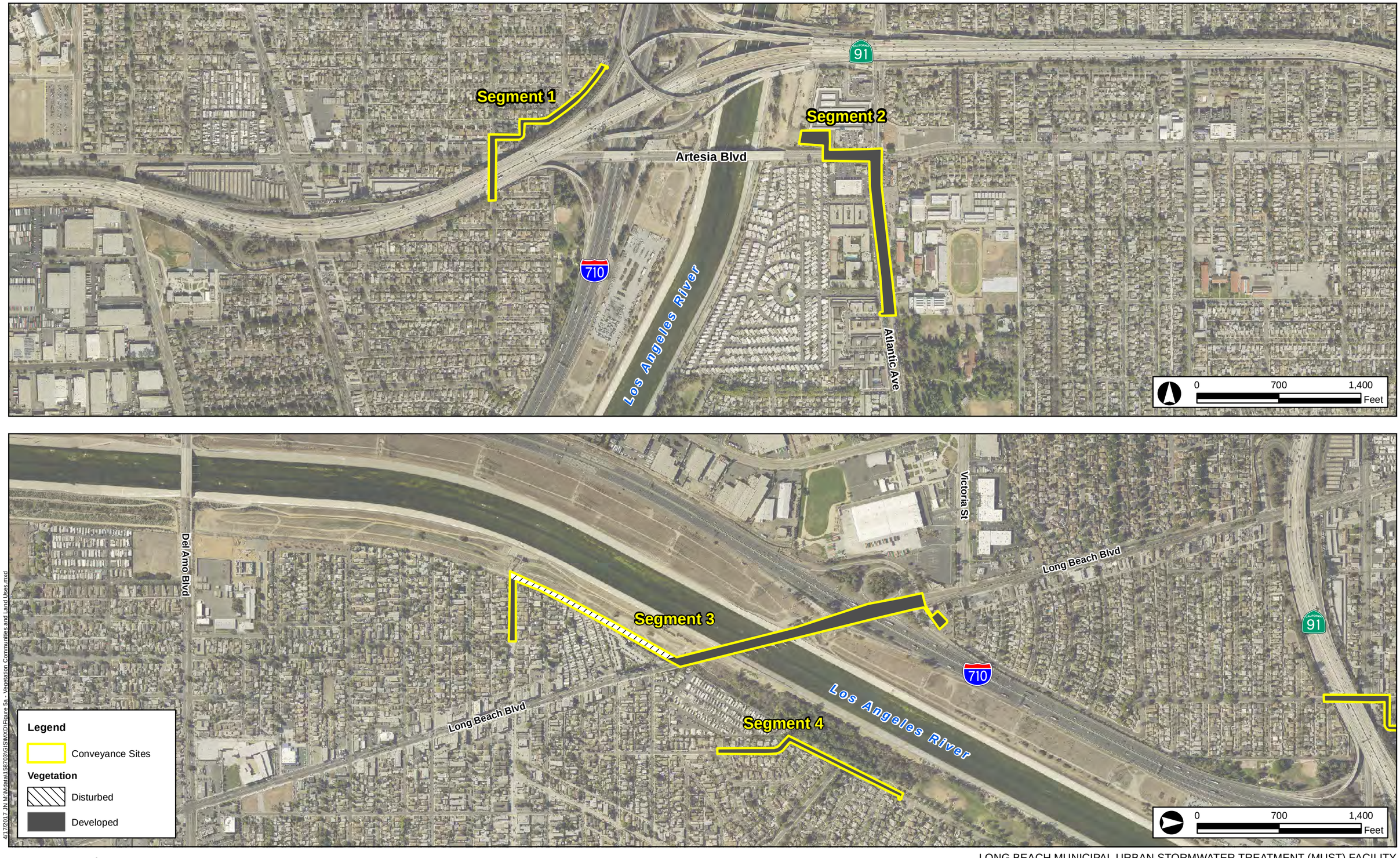
Within the survey for Segment 5, upland slopes surrounding existing ponds (Dominguez Gap Wetlands) adjacent to the Los Angeles River have been restored with coastal sage scrub vegetation, evident by an above-ground irrigation system and extreme density/maturation. Dominants include California encelia (*Encelia californica*), California sagebrush (*Artemisia californica*), bladderpod (*Peritoma arborea*), California buckwheat (*Eriogonum fasciculatum*), big saltbush (*Atriplex lentiformis*), white sage (*Salvia apiana*), purple sage (*S. leucophylla*), and black sage (*S. mellifera*).

Disturbed Coastal Sage Scrub

Across the trail to the east, adjacent to an existing golf course (Virginia Country Club), volunteers from the restoration described above, particularly California encelia and bladderpod, have established within areas otherwise dominated by black mustard (*Brassica nigra*) and nonnative grasses bordered by ornamental trees that line the golf course.

Disturbed Habitat

Disturbed habitat are areas that are frequently and repeatedly disturbed, and thereby dominated by opportunistic, nonnative species (or compacted, unpaved roadways) that often limit the reestablishment of native vegetation. Vegetation within disturbed areas primarily consists of nonnative, annual species including common ripgut grass (*Bromus diandrus*), cheeseweed



#1/7/2017 JN M:\Data\156709\GIS\MXD\Figure 5a - Vegetation Communities and Land Uses.mxd

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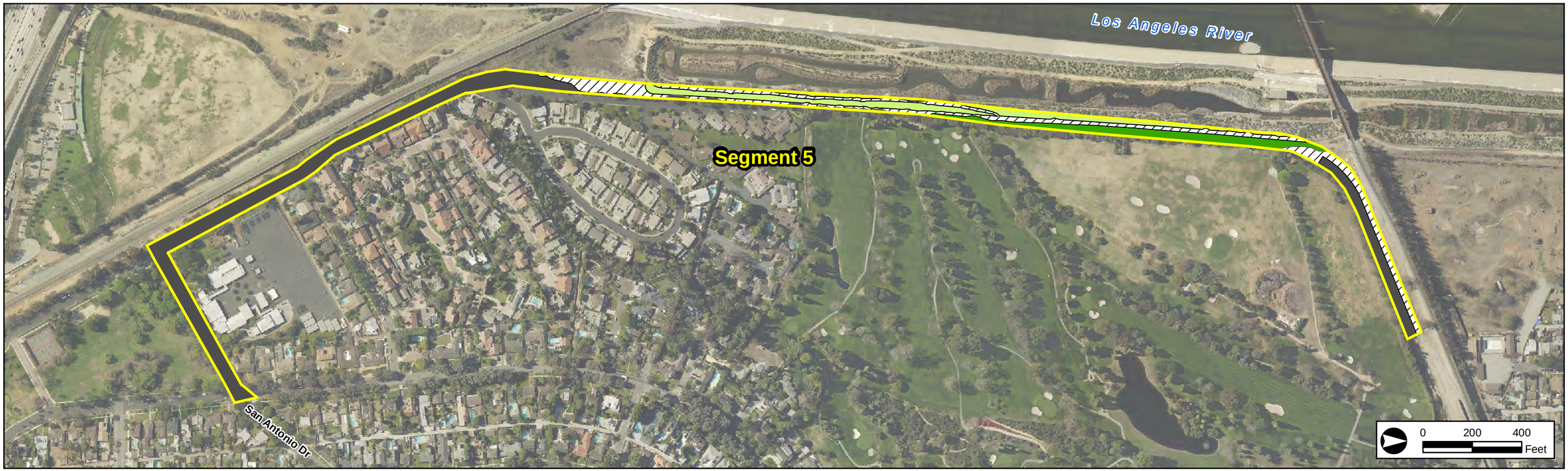
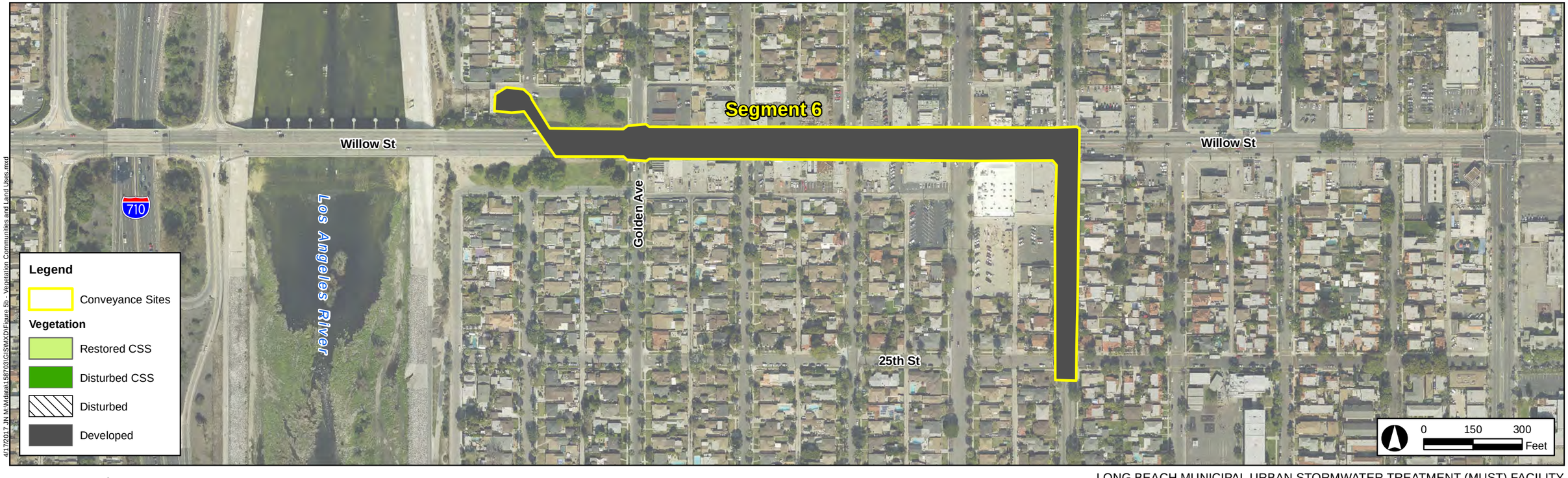
Source:

LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT (MUST) FACILITY

Vegetation Communities and Land Uses

Figure 5a





4/17/2017 J:\N M:\data\158703\GIS\MXD\Figure 5b - Vegetation Communities and Land Uses.mxd

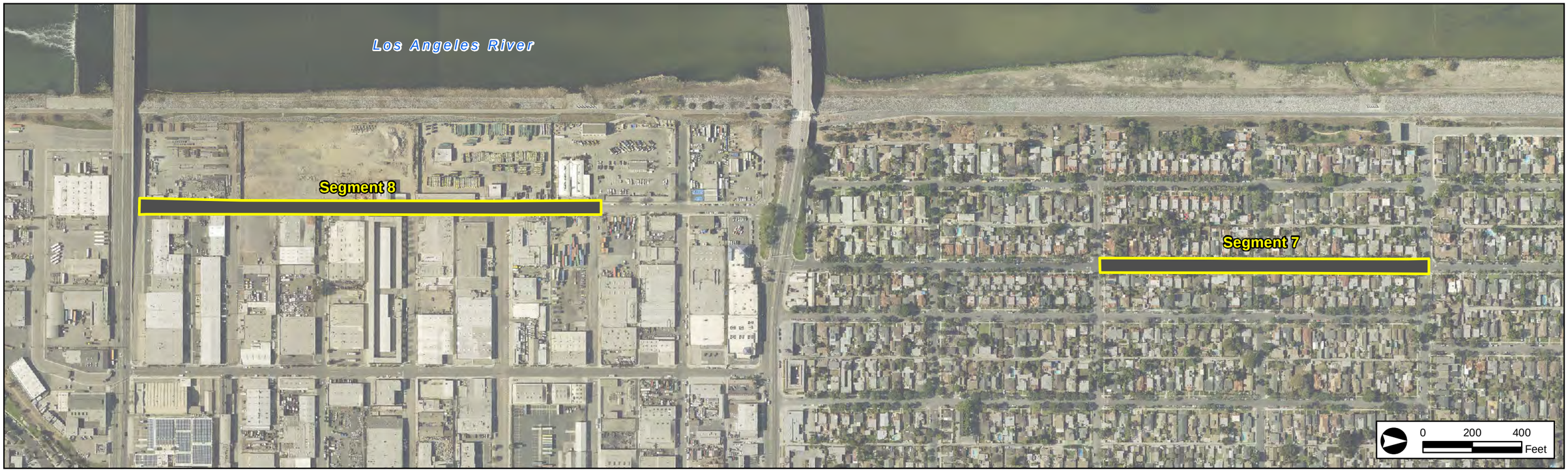
Michael Baker INTERNATIONAL

Source: USDA Soils

LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT (MUST) FACILITY

Vegetation Communities and Land Uses

Figure 5b



4/17/2017 J:\N:\Mdata\158703\GIS\MXD\Figure 5c - Vegetation Communities and Land Uses.mxd

Michael Baker INTERNATIONAL

Source: Eagle Aerial -- 2014

LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT (MUST) FACILITY

Vegetation Communities and Land Uses

Figure 5c

(*Malva parviflora*), foxtail barley (*Hordeum murinum*), crown daisy (*Glebionis coronaria*), filaree (Erodium spp.), yellow sweetclover (*Melilotus indicus*), black mustard, wild radish (*Raphanus sativus*), wild oat (*Avena fatua*), and bur clover (*Medicago polymorpha*).

Developed

Developed portions of the survey area include buildings and paved roadways, including all associated landscaping that includes various ornamental trees, shrubs, ground cover, and lawns.

3.4 GENERAL WILDLIFE OBSERVATIONS

The survey area contains limited vegetation communities (described above) that are suitable to support native wildlife species. The survey area primarily consists of residential and commercial developments with ornamental landscaping that provide habitat for various urban dwelling species, including rock dove (*Columba livia*), house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), and California ground squirrel (*Otospermophilus beecheyi*). Wildlife species associated with more natural areas, particularly along Segment 5, include Anna's hummingbird (*Calypte anna*), song sparrow (*Melospiza melodia*), hooded oriole (*Icterus cucullatus*), and desert cottontail (*Sylvilagus audubonii*). For a complete list of wildlife species observed during the surveys are provided in Appendix B.

Section 4 Special-Status Biological Resources

The following discusses the potential for special-status plant and wildlife species and special-status vegetation communities to occur within the survey area. 'Potential to occur' is based on the presence or absence of suitable habitat for each special-status species evaluated, as well as the general ecological requirements for each species and known occurrences within, and/or within the vicinity of, the survey area. All CNDDB occurrences documentation of special-status species within a 5-mile radius of the survey area are shown in Figure 6, *Special-Status Biological Resources Documented Within a 5-mile Radius*. No special-status vegetation communities or USFWS-designated critical habitats are located within 5 miles of the survey area. An evaluation of the potential for each species identified in the database records search to occur on-site is presented in Appendix C.

4.1 SPECIAL-STATUS SPECIES

The results of the database record searches (5-mile radius of the CNDDB, 1-quad search of the CNPS Online Inventory; and USFWS Species List) revealed documented occurrences for a total of fifteen (15) special-status plant species and a total of twenty (20) special-status wildlife species. Special-status species were determined to have a "Moderate" or "High" potential for occurring warrant further discussion.

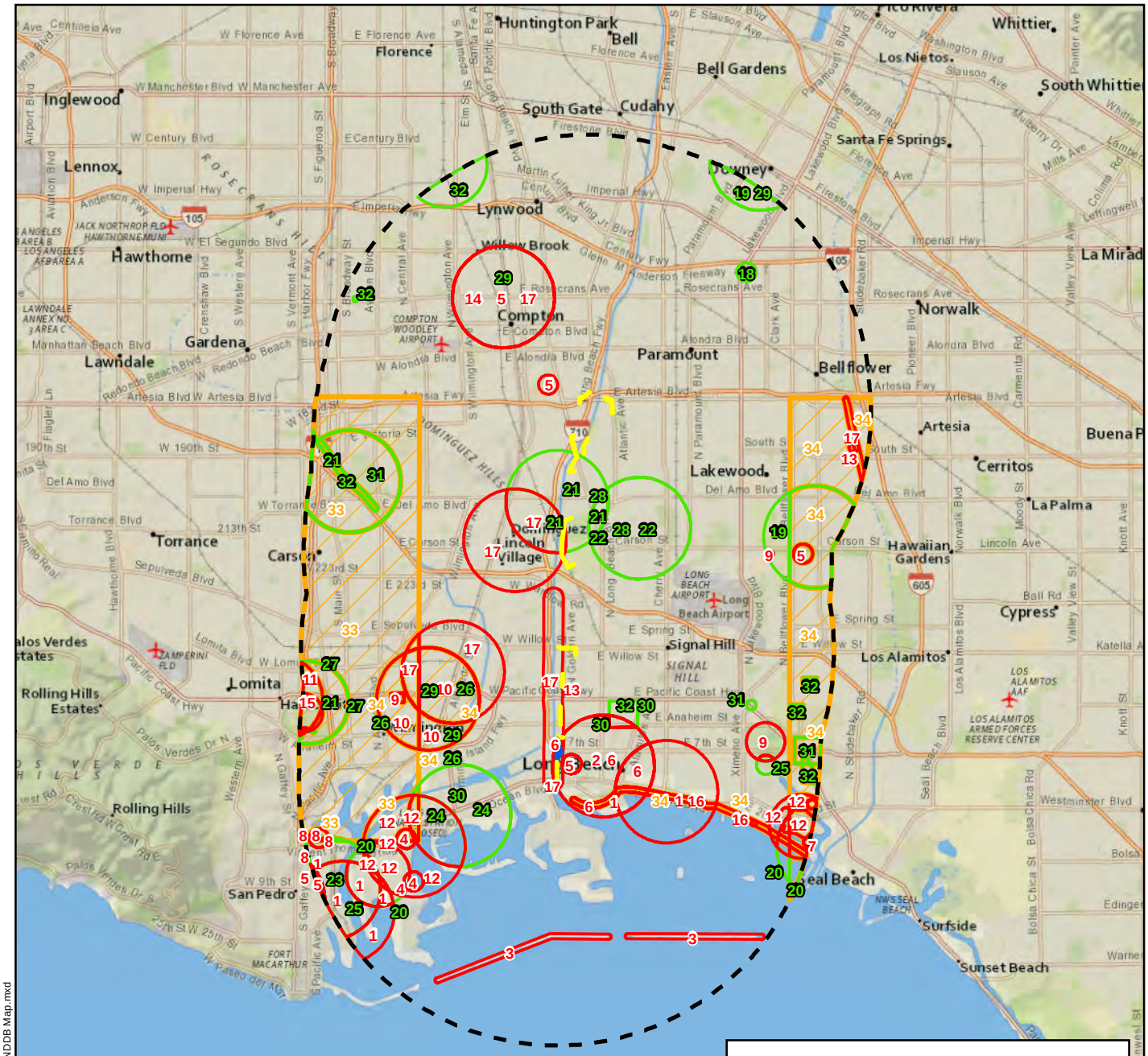
No special-status plant or wildlife species were observed during the April 2017 survey. Based on the database searches and on-site habitat suitability assessment, Michael Baker determined that all of the special-status species with documented occurrences have a "Low" or "Not Expected" potential for occurrence and are therefore not discussed further.

4.1.1 Special-Status Plant Species

No special-status plant species were observed during the survey. Of the fifteen (15) special-status plant species documented within 5 miles of the survey area, only southern tarplant (*Centromadia parryi* ssp. *australis*; CRPR 1B.1) was determined to a have a low potential to occur within the survey area. All other special-status plant species are not expected to occur within the survey area.

4.1.2 Special-Status Wildlife Species

No special-status wildlife species were observed during the survey. Of the twenty (20) special-status wildlife species documented within 5 miles of the survey area, only Crotch bumble bee (*Bombus crotchii*), monarch butterfly (*Danaus plexippus*), coast horned lizard (*Phrynosoma blainvillii*), coastal California gnatcatcher (*Polioptila californica californica*; Federally-listed as threatened [FT] and California Species of Special Concern [SSC]), and silver-haired bat



ID	Animals	ID	Plants
1	bank swallow	18	Brand's star phacelia
2	big free-tailed bat	19	California Orcutt grass
3	California brown pelican	20	coast woolly-heads
4	California least tern	21	Coulter's goldfields
5	coast horned lizard	22	Coulter's saltbush
6	Crotch bumble bee	23	Davidson's saltscale
7	green sea turtle	24	decumbent goldenbush
8	mimic tryonia (=California brackishwater snail)	25	estuary seablite
9	monarch - California overwintering population	26	Lyon's pentachaeta
10	Pacific pocket mouse	27	mud nama
11	pocketed free-tailed bat	28	Parish's brittlescale
12	sandy beach tiger beetle	29	prostrate vernal pool navarretia
13	silver-haired bat	30	salt marsh bird's-beak
14	southwestern willow flycatcher	31	San Bernardino aster
15	tricolored blackbird	32	southern tarplant
16	western beach tiger beetle	ID	EO's
17	western yellow-billed cuckoo	33	Palos Verdes blue butterfly
		34	western tidal-flat tiger beetle

4/12/2017 JN M:\Mdata\158703\GIS\MXD\Fig 06 Biological Resources Report CNDDB Map.mxd

Michael Baker INTERNATIONAL

0 1.5 3 Miles

Source: CNDDB, ArcGIS Online

LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT (MUST) FACILITY

Special-Status Biological Resources Documented with a 5-Mile Radius

Figure 6

(*Lasionycteris noctivagans*) were determined to a have a low potential to occur within the survey area. All other special-status wildlife species are not expected to occur within the survey area.

4.2 SPECIAL-STATUS VEGETATION COMMUNITIES

No special-status vegetation communities occurrences have been mapped by CNDDB within a 5-mile radius of the survey area.

4.3 JURISDICTIONAL AQUATIC FEATURES

Jurisdictional features within the survey area are limited to a concrete-lined flood channel located in the northeastern most portion of Segment 5 and existing basins associated with the storm system facilities at the termini of many segments throughout the survey area. These features are likely subject to jurisdiction of the U.S Army Corps of Engineers (Corps) pursuant to Section 404 of the Federal Clean Water Act (CWA), CDFW pursuant to Sections 1600 *et seq.* of the CFGC, and Regional Water Quality Control Board (Regional Board) pursuant to CWA Section 401.

4.4 NESTING BIRDS AND WILDIFE MOVEMENT

The survey area provides a limited number of habitats suitable to support nesting opportunities for various bird species. Avian species are capable of using the survey area for nesting, and limited migration and dispersal amongst urban areas. Ground-moving wildlife are limited to an urban setting. Large mammals are not expected to use the survey area for foraging and migration. Urban areas pose a threat to ground-moving species, having a potential to cause mortalities from passing motorists.

4.5 CRITICAL HABITAT

No USFWS-designated critical habitats (proposed or final) are located within or surrounding the survey area. The nearest Critical Habitat is located over 6 miles to the west and 12 miles to the east designated for coastal California gnatcatcher, with Critical Habitat for western snowy plover (*Charadrius alexandrinus nivosus*; FT/SSC) approximately 9 miles to the southeast.

4.6 LOCAL POLICIES AND ORDINANCES

Long Beach Municipal Code Chapter 14.28 - Trees and Shrubs (Tree Maintenance Policy), provides guidelines for planting, maintenance, and removal of street trees located in the public rights-of-way (parkways and median islands).

Section 5 Conclusions and Recommendations

The following discusses the possible adverse impacts to biological resources that may occur from implementation of the proposed project, and suggests appropriate mitigation measures that would be necessary to achieve compliance with CEQA, and thereby reduce impacts to less than significant levels.

Permanent/direct impacts include the installation of new facilities associated with the conveyance sites (Segments 1 through 11) and the Long Beach MUST Facility as described in Section 1.2 above. Temporary impacts include construction access and staging of equipment and materials as necessary to complete the project. Indirect effects as a result of constructing the proposed project include, but are not limited to, noise, lighting, dust, and off-site sedimentation. Due to the overall low-impact of the proposed development and proper installation and maintenance of Best Management Practices (BMP) implements, the potential for indirect effects is considered low.

5.1 SPECIAL-STATUS SPECIES

No special-status plant or wildlife species were observed within the survey area. No special-status species known to occur within the vicinity of the survey area have a moderate or high potential to occur on-site. Therefore, impacts to special-status species as a result of the proposed project are considered less than significant.

5.2 SPECIAL-STATUS VEGETATION COMMUNITIES

No special-status vegetation communities have been mapped by CNDDB nor were observed within the survey area. Therefore, no impacts to special-status species are expected as a result of the proposed project.

Note: The restored coastal sage scrub located within the survey area for Segment 5 is not expected to be affected by the proposed project.

5.3 JURISDICTIONAL AQUATIC FEATURES

Proposed impacts (i.e., alteration and/or the discharge of dredge/fill material) to jurisdictional resources require notification to and subsequent permits/authorization from CDFW for lake or streambed alteration, Regional Board for water quality certification, and Corps for dredge and/or fill activities in wetland and non-wetland waters of the U.S. A formal jurisdictional delineation would be required to determine the limits (and total areas) of jurisdictional features within the survey area. Mitigation ratios, and thereby total mitigation required, will be negotiated with the regulatory agencies during the permitting process. With implementation of compensatory mitigation for jurisdictional hydrological features, impacts would be less than significant.

5.4 NESTING BIRDS AND WILDIFE MOVEMENT

Proposed project activities should avoid the general bird breeding season (typically January through July for raptors and February through August for other avian species), if feasible. If breeding season avoidance is not feasible, a qualified biologist should conduct a pre-construction nesting bird survey to determine the presence/absence, location, and status of any active nests on or adjacent to the survey area. The extent of the survey buffer area surrounding the site should be established by the qualified biologist to ensure that direct and indirect effects to nesting birds are avoided. To avoid the destruction of active nests and to protect the reproductive success of birds protected by MBTA and the CFGC, nesting bird surveys should be performed twice per week during the three weeks prior to the scheduled vegetation clearance. In the event that active nests are discovered, a suitable buffer (distance to be determined by the biologist or overriding agencies) should be established around such active nests and no construction within the buffer allowed until the biologist has determined that the nest is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest). No ground disturbing or vegetation clearing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Nesting bird surveys are typically not required for construction activities occurring September through December; however, hummingbirds (Family Trochilidae), for example, are known to nest year-round. With pre-construction surveys and nest monitoring implemented as applicable, impacts would be less than significant.

Because the project is in an urban setting with limited natural areas, impacts to wildlife corridors are not expected as a result of implementing the proposed project.

5.5 CRITICAL HABITAT

No USFWS-designated critical habitats (proposed or final) are located within or surrounding the survey area. No impacts to critical habitat are expected as a result of implementing the proposed project.

5.6 LOCAL POLICIES AND ORDINANCES

With adherence to the guidelines set forth in the Long Beach Tree Maintenance Policy (Municipal Code Chapter 14.28 - Trees and Shrubs), conflicts with local policies and ordinances are not expected as a result of implementing the proposed project.

Section 6 References

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Appendix A: Site Photographs

Photo 1 – View of northern end of Segment 1, facing northeast.

Photo 2 – View of southern portion of Segment 1, facing north.

Photo 3 – View of the existing basin at the northern end of Segment 2, facing west.

Photo 4 – View of the southern portion of Segment 2, facing north.

Photo 5 – View of the existing basin at the northern end of Segment 3, facing northeast.

Photo 6 – View of the northern portion of Segment 3, facing south.

Photo 7 – View of the southern portion of Segment 3, facing southwest.

Photo 8 – View of the north end of Segment 4, facing southwest.

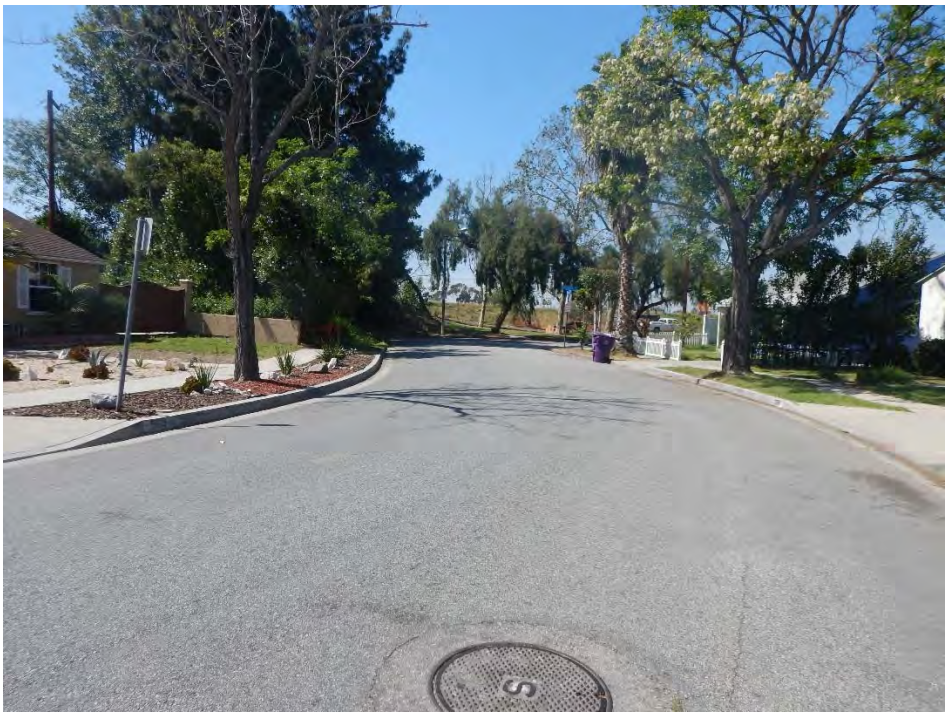

Photo 9 – View of the southern portion of Segment 4, facing northwest.

Photo 10 – View of the north end of Segment 5, facing northeast.

Photo 11 – View of the middle portion of Segment 5, facing north.

Photo 12 – View of the southern portion of Segment 5, facing north.

Photo 13 – View of the southern end of Segment 5, facing northwest.

Photo 14 – View of the existing basin at the western end of Segment 6, facing northeast.

Photo 15 – View of the middle portion of Segment 6, facing west.

Photo 16 – View of the southern portion of Segment 6, facing north.

Photo 17 – View of the Segment 7, facing south.

Photo 18 – View of Segment 8, facing north.

Photo 19 – View of the existing basin and Segment 9, facing east.

Photo 20 – View of the existing basin and the northern portion of Segment 10 (right), facing southwest.

Photo 21 – View of the middle portion of Segment 10 and the northern end of the MUST Facility Footprint, facing north.

Photo 22 – View of the southern end of Segment 10 and the MUST Facility Footprint, facing south.

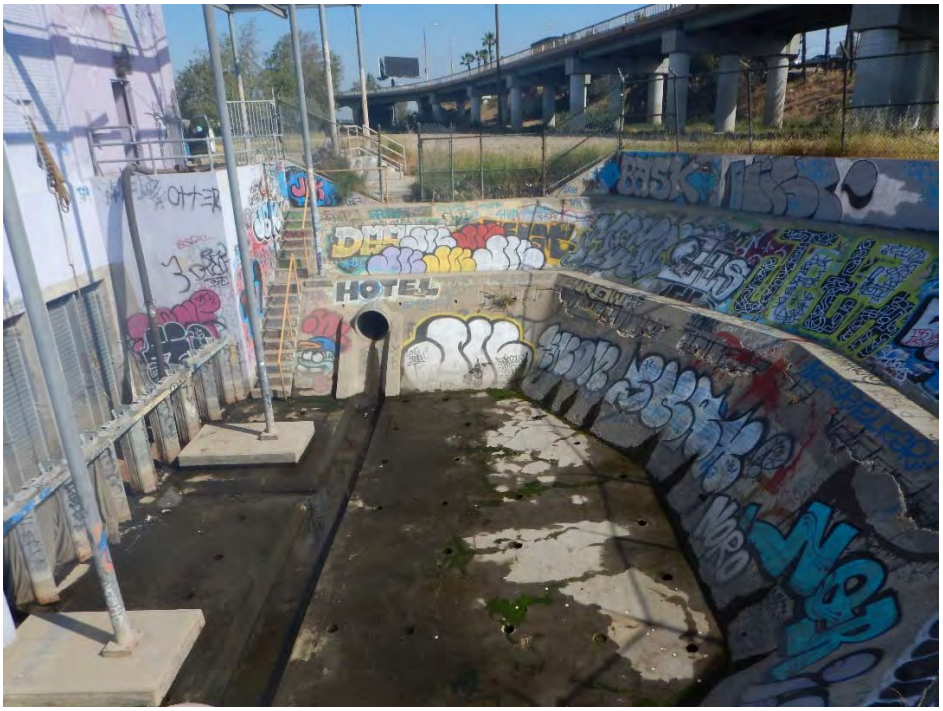

Photo 23 – View of the existing basin at the southern end of Segment 10, facing north.

Photo 24 – View of the southern portion of the MUST Facility Footprint, facing north.

Photo 25 – View of the southern end of the MUST Facility Footprint, facing south.

Photo 26 – View of the northern portion of Segment 11, facing south.

Photo 27 – View of the middle portion of Segment 11, facing north.

Photo 28 – View of the southern portion of Segment 11, facing south.

Photo 29 – View of the southern portion of Segment 11, facing south.

Photo 30 – View of the southern end of Segment 11, facing north.

Appendix B: Plant and Wildlife Species Observed List

Appendix B: Plants and Wildlife Species Observed List

Scientific Name *	Common Name	Cal-IPC Rating**
Plants		
Acacia sp.*	acacia	
Ambrosia psilostachya	western ragweed	
Artemisia californica	California sagebrush	
Atriplex lentiformis	big saltbush	
*Avena fatua**	wild oat	Moderate
Baccharis salicifolia	mule fat	
*Bassia hyssopifolia**	fivehook bassia	Limited
*Bougainvillea spectabilis**	bougainvillea	
*Brassica nigra**	black mustard	Moderate
*Bromus catharticus**	rescue grass	
*Bromus diandrus**	common ripgut grass	Moderate
*Bromus rubens**	foxtail chess	High
Camissoniopsis micrantha	Spencer primrose	
*Carpobrotus edulis**	Hottentot fig	High
*Chenopodium album**	lamb's quarters	
*Chenopodium murale**	nettle leaf goosefoot	
Encelia californica	California encelia	
Eriogonum fasciculatum	California buckwheat	
*Erodium cicutarium**	redstem filaree	
*Erodium moschatum**	whitestem filaree	
Eschscholzia californica	California poppy	
*Eucalyptus sideroxylon**	red iron bark	
*Festuca perennis**	Italian rye grass	Moderate
*Glebionis coronaria**	crown daisy	Moderate
*Hedera helix**	English ivy	High
*Hedypnois cretica**	Crete weed	
Helianthus annuus	common sunflower	
*Helminthotheca echioides**	bristly ox-tongue	Limited
*Hordeum murinum**	foxtail barley	Moderate
Isocoma menziesii var. *vernonioides*	coastal goldenbush	
*Lactuca serriola**	prickly lettuce	
*Malva parviflora**	cheeseweed	
*Medicago polymorpha**	bur clover	Limited
*Melilotus indicus**	yellow sweetclover	
*Mesembryanthemum nodiflorum**	slender leaved ice plant	
*Nicotiana glauca**	tree tobacco	Moderate

Scientific Name *	**Common Name**	**Cal-IPC Rating****
*Pennisetum setaceum**	fountaingrass	Moderate
Peritoma arborea	bladderpod	
Pinus sp.*	pine	
*Phoenix canariensis**	Canary Island date palm	Limited
Platanus racemosa	western sycamore	
*Poa pratensis**	Kentucky blue grass	Limited
*Polygonum aviculare**	prostrate knotweed	
*Raphanus sativus**	wild radish	Limited
*Ricinus communis**	castor bean	Limited
Salvia apiana	white sage	
Salvia leucophylla	purple sage	
Salvia mellifera	black sage	
*Schinus molle**	Peruvian pepper tree	Limited
*Sisymbrium irio**	London rocket	Moderate
*Sonchus oleraceus**	common sow thistle	
*Spergularia bocconi**	Boccone's sand spurry	
*Stipa miliacea**	smilo grass	
*Taraxacum officinale**	dandelion	
*Washingtonia robusta**	Mexican fan palm	Moderate - ALERT
Invertebrates		
Pieris rapae	common white	
Vanessa cardui	painted lady	
Reptiles		
Sceloporus occidentalis	western fence lizard	
Birds		
Calypte anna	Anna's hummingbird	
Columba livia	rock dove	
Corvus corax	common raven	
Haemorhous mexicanus	house finch	
Icterus cucullatus	hooded oriole	
Larus occidentalis	western gull	
Melospiza melodia	song sparrow	
Mimus polyglottos	northern mockingbird	
Passer domesticus	house sparrow	
Petrochelidon pyrrhonota	cliff swallow	
Psaltriparus minimus	bushtit	
Sayornis nigricans	black phoebe	
Zenaida macroura	mourning dove	

Scientific Name *	Common Name	Cal-IPC Rating**
Mammals		
Otospermophilus beecheyi	California ground squirrel	
Sylvilagus audubonii	desert cottontail	

* Non-native species

** **California Invasive Plant Council (Cal-IPC) Ratings**

High — These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate — These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited — These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

Appendix C: Special-Status Species Table

Appendix C: Special-Status Species Table

Scientific Name **Common Name**	**Status*** Federal / State CRPR *or* G-Rank / S-Rank	**Habitat Preferences and Distribution Affinities**	**Potential for Occurrence**
PLANTS			
Atriplex coulteri **Coulter's saltbush**	-- / -- 1B.2	Perennial herb. Blooms March through October. Generally associated with alkaline or clay soils that occur in grasslands and coastal bluff habitats. Known elevations range from 30 to 1,440 feet above mean sea level (amsl).	**Not Expected.** Suitable habitat is not present within the survey area. Further, this species was not observed during the survey.
Atriplex parishii **Parish's brittlescale**	-- / -- 1B.1	Annual herb. Blooms June through October. Usually found on drying alkali flats with fine soils in vernal pools, chenopod scrub, wet meadows, and playas. Known elevations range from 15 to 4,660 feet amsl.	**Not Expected.** Suitable habitat is not present within the survey area. Further, this species was not observed during the survey.
Atriplex serenana var. *davidsonii* **Davidson's saltscale**	-- / -- 1B.2	Annual herb. Blooms April through October. Occurs on alkaline soils in coastal bluff scrub and coastal scrub. Known elevations range from 30 to 660 feet amsl.	**Not Expected.** Suitable habitat is not present within the survey area. Further, this species was not observed during the survey.
Centromadia parryi ssp. *australis* **southern tarplant**	-- / -- 1B.1	Annual herb. Blooms March through October. Often found in disturbed sites near the coast at marsh edges; also in alkaline soils sometimes with saltgrass. Sometimes in grasslands and on vernal pool margins. Known elevations range from 0 to 3,200 feet amsl.	**Low.** Suitable habitat (disturbed sites) is marginally present within the survey area. However, this species was not observed during the survey.
Chloropyron maritimum ssp. *maritimum* **salt marsh bird's-beak**	FE / SE 1B.2	Annual herb. Blooms May through October. Limited to the higher zones of salt marsh habitat. Known elevations range from 0 to 35 feet amsl.	**Not Expected.** Suitable habitat is not present within the survey area. Further, this species was not observed during the survey.
Isocoma menziesii var. *decumbens* **decumbent goldenbush**	-- / -- 1B.2	Shrub. Blooms April through November. Found on sandy soils in coastal scrub and chaparral; often in disturbed sites. Known elevations range from 0 to 1,475 feet amsl.	**Not Expected.** Suitable habitat is not present within the survey area. Further, this species was not observed during the survey.

Scientific Name **Common Name**	**Status*** Federal / State CRPR *or* G-Rank / S-Rank	**Habitat Preferences and Distribution Affinities**	**Potential for Occurrence**
Lasthenia glabrata ssp. *coulteri* **Coulter's goldfields**	-- / -- 1B.1	Annual herb. Blooms February through June. Usually found in alkaline soils in marshes, playas, vernal pools, and valley and foothill grasslands. Known elevations range from 3 to 4,595 feet amsl.	**Not Expected.** Suitable habitat is not present within the survey area. Further, this species was not observed during the survey.
Nama stenocarpa **mud nama**	-- / -- 2B.2	Annual herb. Blooms March through May. Grows on the muddy embankments of ponds and lakes. Also reported to utilize river embankments. Known elevations range from 15 to 1,640 feet amsl.	**Not Expected.** Suitable habitat is not present within the survey area. Further, this species was not observed during the survey.
Navarretia prostrata **prostrate vernal pool navarretia**	-- / -- 1B.1	Annual herb. Blooms April through July. Occurs in mesic sites and on alkaline soils in coastal scrub, valley and foothill grassland, vernal pool, meadows, and seeps. Known elevations range from 5 to 4,055 feet amsl.	**Not Expected.** Suitable habitat is not present within the survey area. Further, this species was not observed during the survey.
Nemacaulis denudata var. *denudata* **coast woolly-heads**	-- / -- 1B.2	Annual herb. Blooms April through September. Found on coastal dunes. Known elevations range from 0 to 330 feet amsl.	**Not Expected.** Suitable habitat is not present within the survey area. Further, this species was not observed during the survey.
Orcuttia californica **California Orcutt grass**	FE / SE 1B.1	Annual grass. Blooms April through August. Occurs in vernal pools. Known elevations range from 30 to 2,165 feet amsl.	**Not Expected.** Suitable habitat is not present within the survey area. Further, this species was not observed during the survey.
Pentachaeta lyonii **Lyon's pentachaeta**	FE / SE 1B.1	Annual herb. Blooms March through August. Found along the edges of clearings in chaparral, valley and foothill grassland, and coastal scrub; usually at the ecotone between grassland and chaparral or edges of firebreaks. Known elevations range from 95 to 2,070 feet amsl.	**Not Expected.** Suitable habitat is not present within the survey area. Further, this species was not observed during the survey.
Phacelia stellaris **Brand's star phacelia**	-- / -- 1B.1	Annual herb. Blooms March through June. Occurs in open areas within coastal scrub and coastal dunes. Known elevations range from 0 to 1,315 feet amsl.	**Not Expected.** Suitable habitat is not present within the survey area. Further, this species was not observed during the survey.

Scientific Name **Common Name**	**Status*** Federal / State CRPR *or* G-Rank / S-Rank	**Habitat Preferences and Distribution Affinities**	**Potential for Occurrence**
Suaeda esteroa **estuary seablite**	-- / -- 1B.2	Perennial herb. Blooms May through October. Fund on clay, silt, and sand substrates in coastal salt marshes and swamps. Known elevations range from 0 to 395 feet amsl.	**Not Expected.** Suitable habitat is not present within the survey area. Further, this species was not observed during the survey.
Symphyotrichum defoliatum **San Bernardino aster**	-- / -- 1B.2	Perennial herb (rhizomatous). Blooms July through November. Grows in grasslands and disturbed areas in the San Gabriel and San Bernardino Mountains and Peninsular Range. Occurs in vernally wet sites including ditches, streams, and springs in many plant communities. Known elevations range from 5 to 6,695 feet in elevation amsl.	**Not Expected.** Suitable habitat is not present within the survey area. Further, this species was not observed during the survey.
INVERTEBRATES			
Bombus crotchii **Crotch bumble bee**	-- / -- G3G4 / S1S2	Found from coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.	**Low.** Suitable habitat (food plant: *Eschscholzia*) is marginally present within the survey area.
Cicindela gabbii **western tidal-flat tiger beetle**	-- / -- G2G4 / S1	Inhabits estuaries and mudflats along the coast of Southern California. Generally found on dark-colored mud in the lower zone; occasionally found on dry saline flats of estuaries.	**Not Expected.** Suitable habitat is not present within the survey area.
Cicindela hirticollis gravida **sandy beach tiger beetle**	-- / -- G5T2 / S2	Inhabits coastal dunes and other areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico. Found in clean, dry, light-colored sand in the upper zone. Subterranean larvae prefer moist sand not affected by wave action.	**Not Expected.** Suitable habitat is not present within the survey area.
Cicindela latesignata latesignata **western beach tiger beetle**	-- / -- G2G4T1T2 / S1	Occurs on mudflats and beaches in coastal Southern California.	**Not Expected.** Suitable habitat is not present within the survey area.

Scientific Name **Common Name**	**Status*** Federal / State CRPR *or* G-Rank / S-Rank	**Habitat Preferences and Distribution Affinities**	**Potential for Occurrence**
Danaus plexippus pop. 1 **monarch - California overwintering population**	-- / -- G4T2T3 / S2S3	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts are located in wind-protected tree (e.g., eucalyptus, Monterey pine, and cypress) groves and closed-cone coniferous forests, with nectar and water sources nearby.	**Low.** Suitable habitat (wind-protected tree (groves) is marginally present within the survey area.
Glaucopsyche lygdamus palosverdesensis **Palos Verdes blue butterfly**	FE / -- G5T1 / S1	Restricted to the cool, fog-shrouded, seaward side of Palos Verdes Hills, Los Angeles County. Host plant is *Astragalus trichopodus* var. *lonchus* (locoweed).	**Not Expected.** Suitable habitat is not present within the survey area.
Tryonia imitator **mimic tryonia (=California brackishwater snail)**	-- / -- G2 / S2	Inhabits coastal lagoons, estuaries, salt marshes, and where creek mouths that join tidal marshes from Sonoma County south to San Diego County. Found only in permanently submerged areas in a variety of sediment types; able to withstand a wide range of salinities.	**Not Expected.** Suitable habitat is not present within the survey area.
REPTILES			
Chelonia mydas **green sea turtle**	FT / -- G3 / S1	Inhabits marine bays and nests on beaches. Completely herbivorous; needs adequate supply of seagrasses and algae.	**Not Expected.** Suitable habitat is not present within the survey area.
Phrynosoma blainvillii **coast horned lizard**	-- / SSC G3G4 / S3S4	Frequents a wide variety of habitats, including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest, along sandy washes with scattered low bushes. Prefers open areas for sunning, bushes for cover, patches of loose soil for burial, and an abundant supply of ants and other insects.	**Low.** Suitable habitat (coastal sage scrub) is marginally present within the survey area. However, its primary food source (ants) was not observed.
BIRDS			
Agelaius tricolor (Nesting colony) **tricolored blackbird**	-- / SCE, SSC G2G3 / S1S2	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers (km) of the colony.	**Not Expected.** Suitable habitat is not present within the survey area.

Scientific Name **Common Name**	**Status*** Federal / State CRPR *or* G-Rank / S-Rank	**Habitat Preferences and Distribution Affinities**	**Potential for Occurrence**
Coccyzus americanus occidentalis (Nesting) **western yellow-billed cuckoo**	FT / SE G5T2T3 / S1	Obligate willow-cottonwood riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods (*Populus* spp.), with the lower story dominated by blackberry, nettles (*Urtica* spp.), and/or wild grape (Vitis sp.).	**Not Expected.** Suitable habitat is not present within the survey area.
Empidonax traillii extimus (Nesting) **southwestern willow flycatcher**	FE / SE G5T2 / S1	Occurs in broad riparian woodlands in southern California. Typically requires large areas of willow thickets in broad valleys and canyon bottoms, or around ponds and lakes. These areas typically have standing or running water, or are at least moist.	**Not Expected.** Suitable habitat is not present within the survey area.
Pelecanus occidentalis californicus (Nesting colony & communal roosts) **California brown pelican**	FD / SD, FP G4T3 / S3	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size that afford immunity from attack by ground-dwelling predators. Roosts communally.	**Not Expected.** Suitable habitat is not present within the survey area.
Polioptila californica californica **coastal California gnatcatcher**	FT / SSC G4G5T2Q / S2	Obligate, permanent resident of coastal sage scrub below 2,500 feet amsl in Southern California. Occurs in low, coastal sage scrub in arid washes, and on mesas, bowls, and slopes lacking tall perching vegetation. Not all areas classified as coastal sage scrub are occupied.	**Low.** Suitable habitat (low coastal sage scrub) is marginally present within the survey area.
Riparia riparia (Nesting) **bank swallow**	-- / ST G5 / S2	Colonial nester in riparian scrub and woodlands; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, or the ocean to dig nesting hole.	**Not Expected.** Suitable habitat is not present within the survey area.
Sternula antillarum browni (Nesting colony) **California least tern**	FE / SE, FP G4T2T3Q / S2	Colonial breeder on bare or sparsely vegetated, flat substrates, including sand beaches, alkali flats, landfills, or paved areas. Prefers broad, level expanses of open sandy or gravelly beach, dredge spoil, and other open shoreline areas, and broad river valley sandbars. Nests along the coast from San Francisco Bay south to northern Baja California.	**Not Expected.** Suitable habitat is not present within the survey area.

Scientific Name **Common Name**	**Status*** Federal / State CRPR *or* G-Rank / S-Rank	**Habitat Preferences and Distribution Affinities**	**Potential for Occurrence**
MAMMALS			
Lasionycteris noctivagans **silver-haired bat**	-- / -- G5 / S3S4	Primarily a coastal and montane forest dweller that feeds over streams, ponds, and open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks. Needs drinking water.	**Low.** Suitable foraging habitat (ponds) is present adjacent to the survey area.
Nyctinomops femorosaccus **pocketed free-tailed bat**	-- / SSC G4 / S3	Inhabits rocky areas with high cliffs in a variety of arid areas in Southern California, including pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian habitats; roosts in caves, tunnels, mines, rock crevices, under the roof tiles of buildings; usually found in large colonies.	**Not Expected.** Suitable habitat is not present within the survey area.
Nyctinomops macrotis **big free-tailed bat**	-- / SSC G5 / S3	Found in low-lying, arid areas of southern California. Needs high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	**Not Expected.** Suitable habitat is not present within the survey area.
Perognathus longimembris pacificus **Pacific pocket mouse**	FE / SSC G5T1 / S1	Inhabits the narrow coastal mesas from the Mexican border north to El Segundo, Los Angeles County. Seems to prefer soils of fine alluvial sands and sandy slopes of coastal scrub near the ocean, but much remains to be learned.	**Not Expected.** Suitable habitat is not present within the survey area.

* **California Rare Plant Rank (CRPR)**

1A Plants presumed extirpated in California and either rare or extinct elsewhere
1B Plants rare, threatened, or endangered in California and elsewhere
2A Plants presumed extirpated in California, but common elsewhere
2B Plants rare, threatened, or endangered in California, but more common elsewhere
3 Plants about which more information is needed - a Review List
4 Plants of limited distribution - a Watch List

Threat Ranks

.1 Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
.2 Moderately threatened in California (20 to 80 percent occurrences threatened/moderate degree and immediacy of threat)
.3 Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

Federal Classifications

FE Federally Endangered
FT Federally Threatened
FD Federally Delisted

State Classifications

SE State Endangered
ST State Threatened
SCE State Candidate for Endangered
SD State Delisted

SSC	California Species of Special Concern
FP	Fully Protected

G-Rank / S-Rank

Global Rank and State Rank as per NatureServe and CDFW's CNDDB RareFind5, ranging from critically imperiled (G1/S1) to demonstrably secure (G5/S5)