

WEST BASIN OCEAN WATER DESALINATION PROJECT

CITY OF EL SEGUNDO, LOS ANGELES COUNTY, CALIFORNIA

TERRESTRIAL HABITAT ASSESSMENT

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September 2016

JN: 134935

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The undersigned certify that the statements furnished in this report and exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented is a complete and accurate account of the findings and conclusions to the best of our knowledge and beliefs.



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September 2016

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Executive Summary

This report contains the findings of Michael Baker International's (Michael Baker) Terrestrial Habitat Assessment for the West Basin Ocean Water Desalination Project (Project) located in the City of El Segundo, Los Angeles County, California.

On-site and surrounding land uses have heavily disturbed, if not completely eliminated, naturally occurring habitats from the proposed project site, reducing the suitability of the habitat to support most special-status¹ plant and wildlife species. The project site is limited to an area that has been converted into a steam generating power plant, with the surrounding 250-foot radius survey area similarly urbanized to the north, east, and south. Proposed conveyance pipelines to carry desalinated water to adjacent municipalities go outside of the directly-surveyed project site and survey area, but all pipelines follow existing roads. The western side of the survey area is composed of a narrow shoreline and the open Pacific Ocean. The survey area is mostly developed with only two (2) plant communities, restored coastal scrub and ornamental, as well as two important but primarily non-vegetative habitat types, open water and sandy beach. In addition, there was one (1) land cover type on-site that would be classified as developed.

A record search was conducted of special-status species identified by the California Natural Diversity Database and other electronic databases as potentially occurring within the vicinity of the project site. No special-status plant species were observed on-site during the habitat assessment. All vegetated areas within the survey area are manmade ornamental areas or areas that have been revegetated with a specific seed mix. Based on habitat requirements for specific species, the availability and quality of habitats needed by each special-status plant species, and the manmade nature of the on-site vegetation, it was determined that the project site does not provide natural habitats that would support any of the special-status plant species known to occur in the general vicinity of the project site.

One (1) special-status wildlife species was identified within the survey area during the November 2, 2015 habitat assessment: California brown pelican (*Pelecanus occidentalis californicus*), a State and federal delisted species that is currently designated as fully protected in California. Based on the survey results, it was determined that the survey area has a high potential to support western snowy plover (*Charadrius alexandrinus nivosus*), California gull (*Larus californicus*), double-crested cormorant (*Phalacrocorax auritus*), and Allen's hummingbird (*Selasphorus sasin*), and a moderate potential to support redhead (*Aythya americana*), Vaux's swift (*Chaetura vauxi*), El Segundo blue butterfly (*Euphilotes battoides allyni*), black oystercatcher (*Haematopus bachmani*), Caspian tern (*Hydroprogne caspia*), long-billed curlew (*Numenius americanus*), and elegant tern (*Thalasseus elegans*). All remaining special-status wildlife species have a low potential to occur or are presumed absent from the survey area based on habitat requirements, availability and quality of habitat needed by each species, and known distributions. Implementation of the proposed project is not expected to result in any temporary or permanent impacts to these species.

¹ As used in this report, "special-status" refers to plant and wildlife species that are listed within the California Department of Fish and Wildlife's California Natural Diversity Database or within the California Native Plant Society's Electronic Inventory of Rare and Endangered Vascular Plants of California.

Special attention was given to the suitability of the sandy beach habitat to support western snowy plover and El Segundo blue butterfly. As noted above, western snowy plover has a high potential to occur within the survey area. This species is known to occur at Dockweiler State Beach to the immediate north and to a lesser extent at Manhattan Beach to the immediate south and has a high potential to be present along the shoreline west of the power plant. However, due to a high level of human activities along these sections of the beach, western snowy plover is not expected to nest within the survey area. El Segundo blue butterfly is known to occur in the vicinity of the project site at the Airport Preserve (west of Los Angeles International Airport) approximately 1.4 miles to the north, as well as at the Chevron Preserve approximately 0.4 mile northeast of the project site and separated by Chevron refinery facilities. The southern and southwestern slopes of the project site were planted in 2008-2009 with a sage scrub seed mix that included coast buckwheat (*Eriogonum parvifolium*), the host plant of the El Segundo blue butterfly. Based on an analysis of the quality and extent of on-site habitat, the presence of this species in nearby areas, and the degree of urbanization in the area, El Segundo blue butterfly has a moderate potential to be found on-site.

No jurisdictional drainage features were observed within the project site and no regulatory permitting will be required within the site boundaries. However, any project-related structures or discharges into the Pacific Ocean may require permitting under the U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Wildlife, California Coastal Commission, State Lands Commission, U.S. Fish and Wildlife Service, and National Marine Fisheries Service.

Pursuant to the Migratory Bird Treaty Act and California Fish and Game Code, construction activities and/or the removal of any trees, shrubs, or any other potential nesting habitat should be conducted outside the avian nesting season. The nesting season generally extends from February 1 through August 31, but can vary slightly from year to year based upon seasonal weather conditions. If construction or vegetation clearing activities occur during the avian nesting season a pre-construction nesting bird clearance survey will be required.

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APPENDIX

Appendix A Site Photographs
Appendix B Potentially Occurring Special-Status Biological Resources

LIST OF ACRONYMS

Basin Plan	Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	United States Army Corps of Engineers
CWA	Clean Water Act
°F	Degrees Fahrenheit
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
ESGS	El Segundo Generating Station
ESHA	Environmentally Sensitive Habitat Areas
FESA	Federal Endangered Species Act
FMP	Fishery Management Plan
GIS	Geographic Information System
IS	Initial Study
LCP	Local Coastal Program
MBTA	Migratory Bird Treaty Act
MGD	Million Gallons Per Day
Michael Baker	Michael Baker International
MSA	Magnuson-Stevens Fishery and Conservation Act (Magnuson-Stevens Act)
MWD	Metropolitan Water District
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
Ocean Plan	Water Quality Control Plan for the Ocean Waters of California
PRC	Public Resources Code
Regional Board	Regional Water Quality Control Board
RO	Reverse Osmosis
Thermal Plan	Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California
USC	U.S. Government Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WB	West Basin
WC	West Coast
West Basin	West Basin Municipal Water District

Section 1 Introduction

This report contains the findings of Michael Baker International’s (Michael Baker) Terrestrial Habitat Assessment for the West Basin Ocean Water Desalination Project (project) located in the City of El Segundo, Los Angeles County, California. A habitat assessment/field investigation was conducted by Michael Baker biologist Travis J. McGill on November 2, 2015 to characterize existing site conditions and assess the probability of occurrence for special-status² flora and fauna that could pose a constraint to development. Special attention was given to the suitability of the on-site habitat to support western snowy plover (*Charadrius alexandrinus nivosus*), El Segundo blue butterfly (*Euphilotes battoides allyni*), and other special-status species identified by the California Natural Diversity Database (CNDDB) and other electronic databases as potentially occurring within the vicinity of the project site. Additionally, Michael Baker Biologist Thomas McGill conducted a focused assessment of on-site El Segundo blue butterfly habitat in the survey area on July 12, 2016.

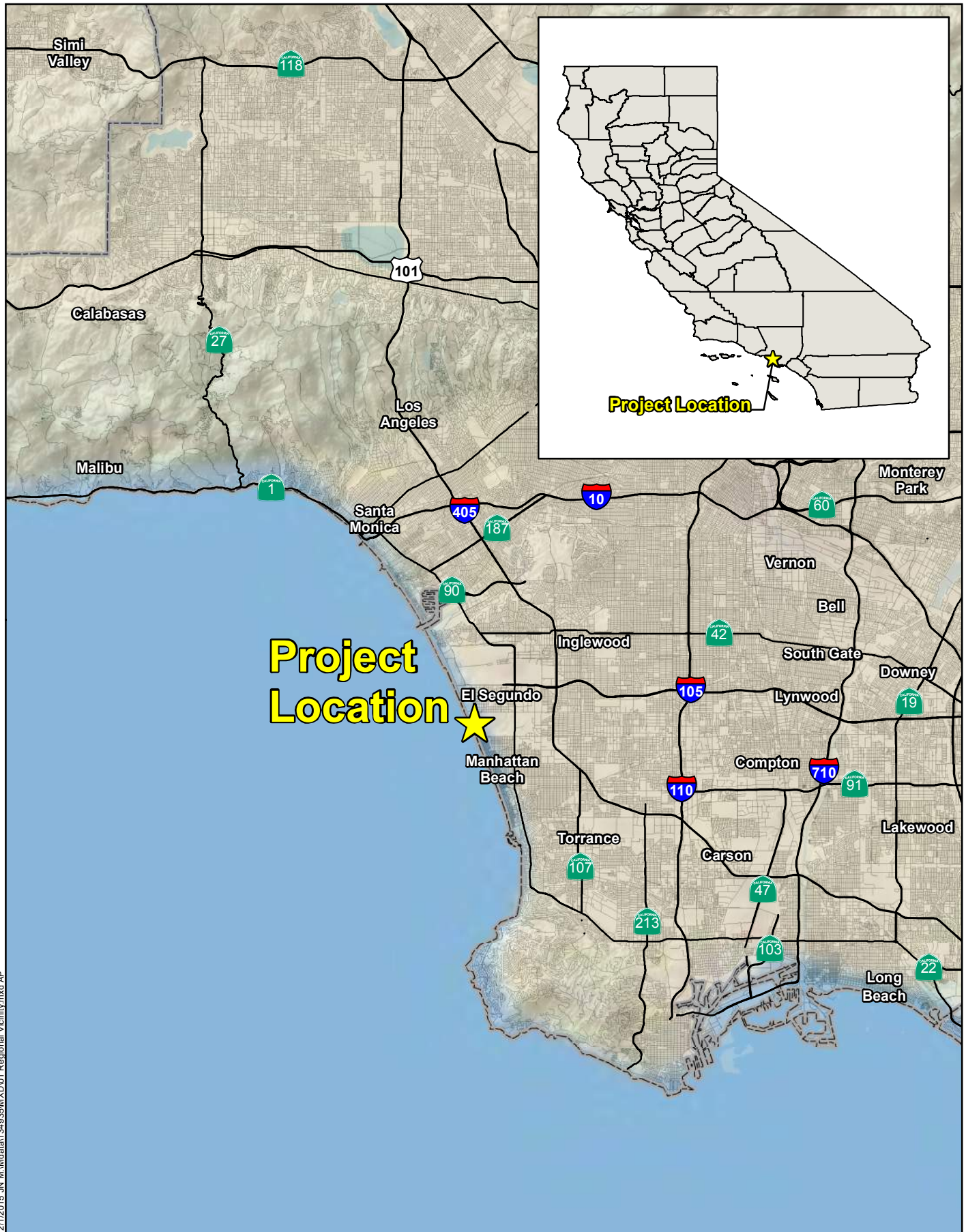
1.1 PROJECT LOCATION

The project site is generally located at the El Segundo Generating Station (ESGS) in the City of El Segundo, Los Angeles County, California (Exhibit 1, *Regional Vicinity*). The project site is depicted on the Venice quadrangle of the United States Geological Survey’s (USGS) 7.5-minute topographic map series in an un-sectioned area of Township 3 south, Range 15 west (Exhibit 2, *Site Vicinity*). Specifically, the project site is located west of Vista del Mar Boulevard, north of 45th Street and Manhattan Beach, east of the Pacific Ocean, and south of Dockweiler State Beach (Exhibit 3, *Project Site*).

1.2 PROJECT DESCRIPTION

The Ocean Water Desalination Project (“Project”) proposed by the West Basin Municipal Water District (West Basin) includes a desalination facility of between 20 and 60 million gallons per day (MGD) of potable drinking water. As a regional manager of the coastal Los Angeles County area’s water resources, West Basin has significantly reduced its dependency on imported water through recycled water, public education, and customer water conservation programs. The Project is proposed to further West Basin’s reduced dependency on imported water by integrating desalinated ocean water with the local water supply portfolio. The 20 MGD version of the Project would meet the service area’s water demands at a local scale (herein designated as the Local Project), whereas the larger project capacity (up to 60 MGD) would meet the water demands at a regional scale (herein designated as the Regional Project) further reducing the need for imported water in the Metropolitan Water District of Southern California (MWD) service area and improving overall regional supply reliability (Exhibits 4a – 4e). The Regional Project could be implemented with an initial phase of 20 MGD that would serve local needs followed by subsequent phases to meet water demands at a regional scale.

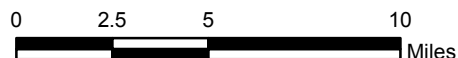
² As used in this report, “special-status” refers to plant and wildlife species that are listed within the California Department of Fish and Wildlife’s California Natural Diversity Database or within the California Native Plant Society’s Electronic Inventory of Rare and Endangered Vascular Plants of California.



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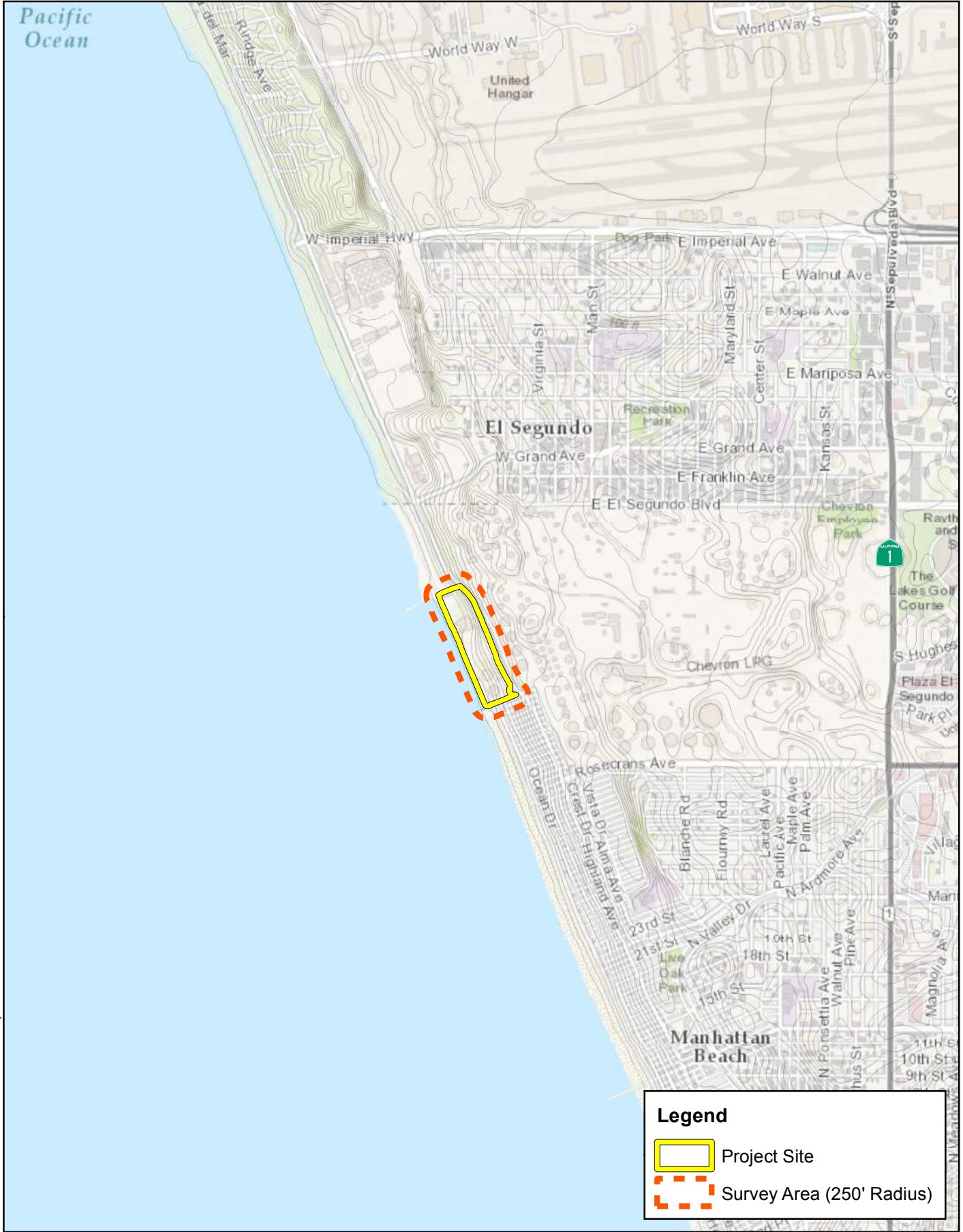
Regional Vicinity





Source: ESRI Relief Map, National Highway Planning Network

Pacific Ocean

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Legend

-  Project Site
-  Survey Area (250' Radius)

WEST BASIN OCEAN WATER DESALINATION PROJECT
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Site Vicinity



Source: Los Angeles County, ESRI Topographic Imagery Basemap

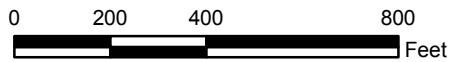
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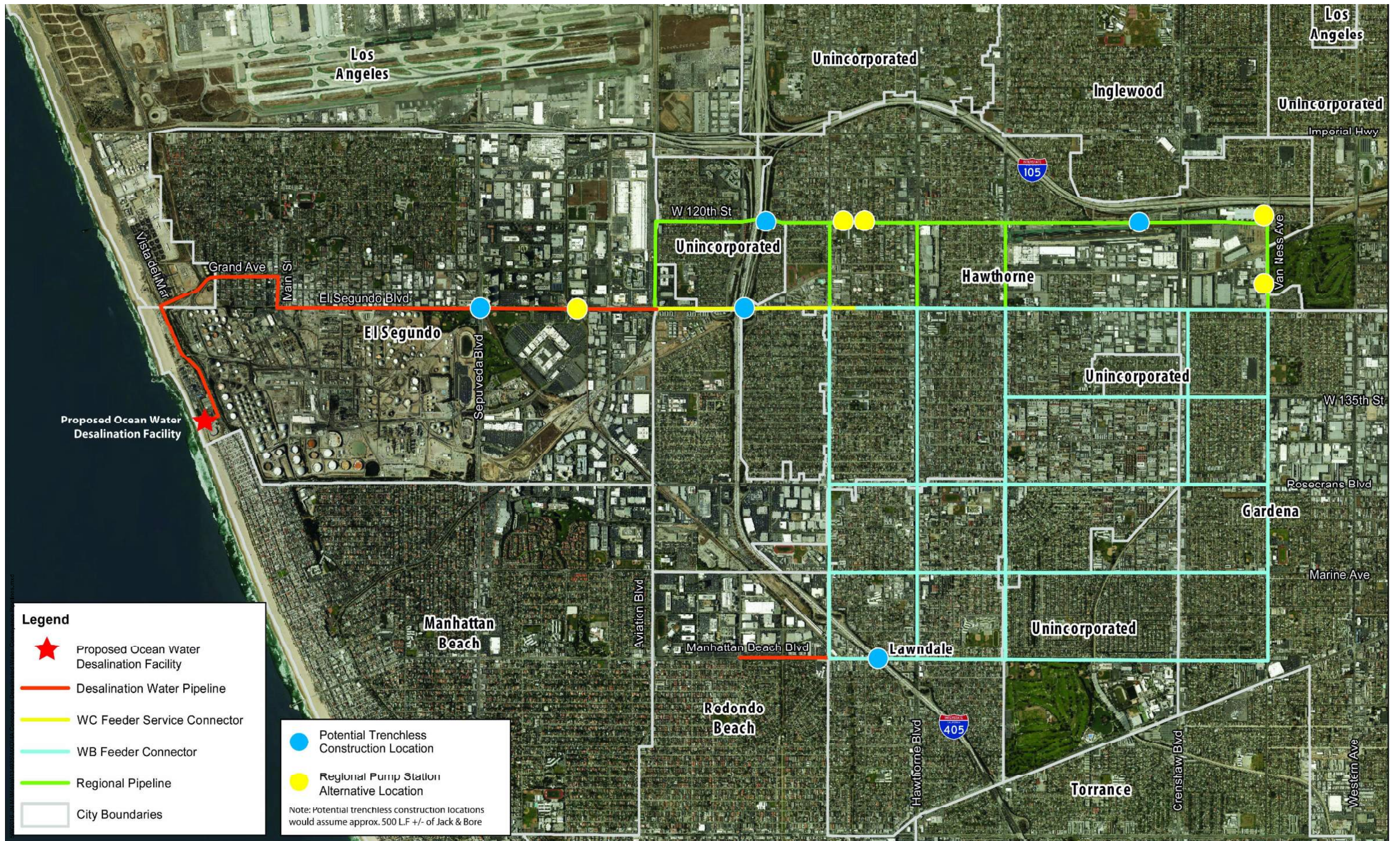


Legend

- Project Site
- Survey Area (250' Radius)

WEST BASIN OCEAN WATER DESALINATION PROJECT
 HABITAT ASSESSMENT
Project Site



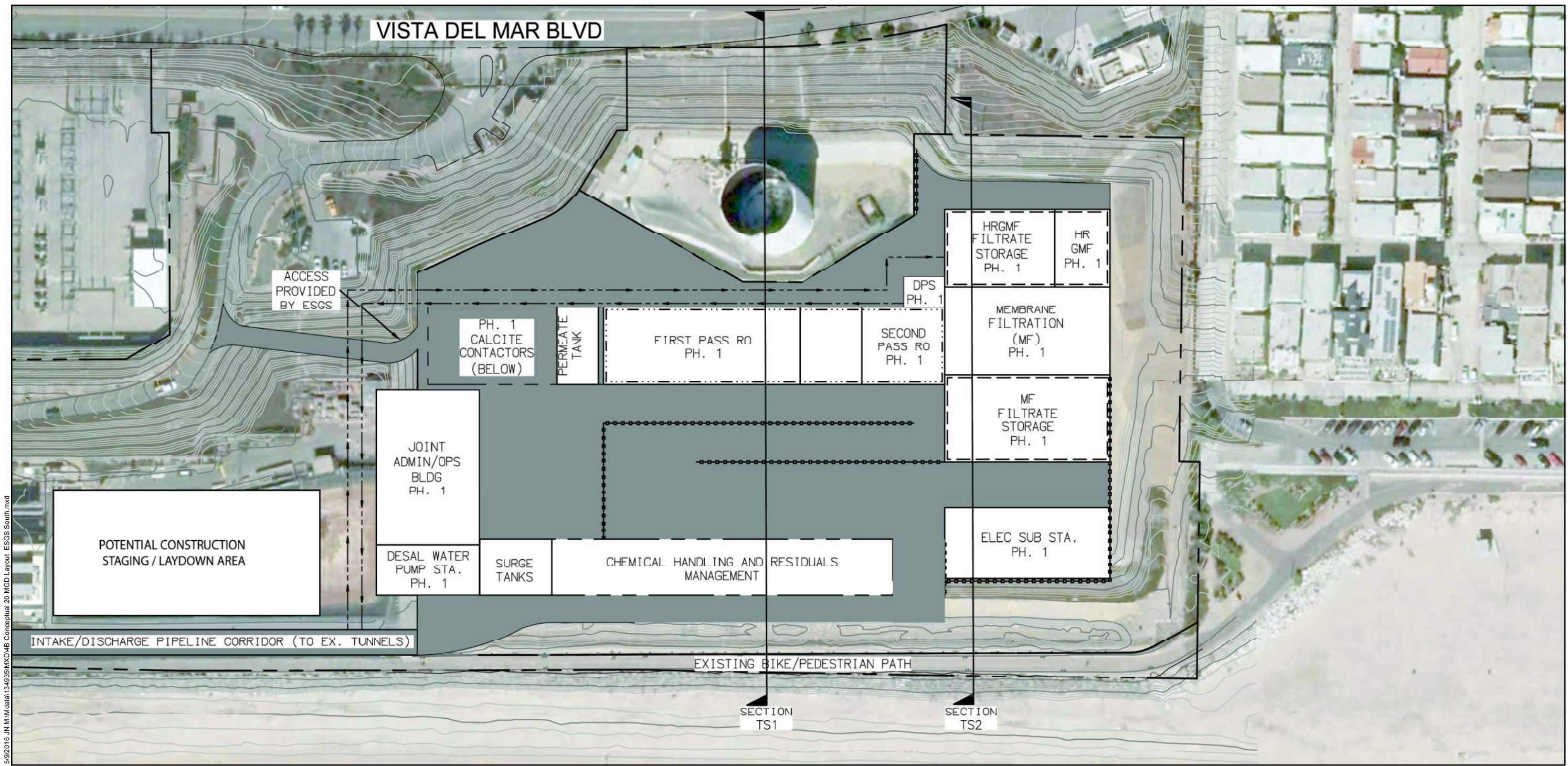


Legend

- ★ Proposed Ocean Water Desalination Facility
- Desalination Water Pipeline
- WC Feeder Service Connector
- WB Feeder Connector
- Regional Pipeline
- City Boundaries

- Potential Trenchless Construction Location
- Regional Pump Station Alternative Location

Note: Potential trenchless construction locations would assume approx. 500 L.F +/- of Jack & Bore



5/9/2016 JN M:\MData\134835\MXD\4B Conceptual 20 MGD Layout ESGS South.mxd

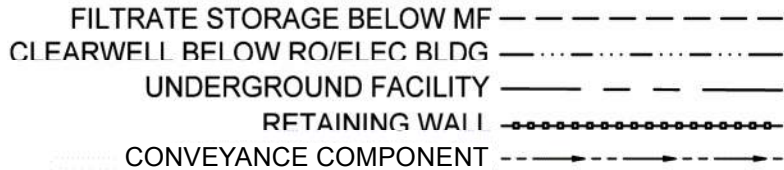
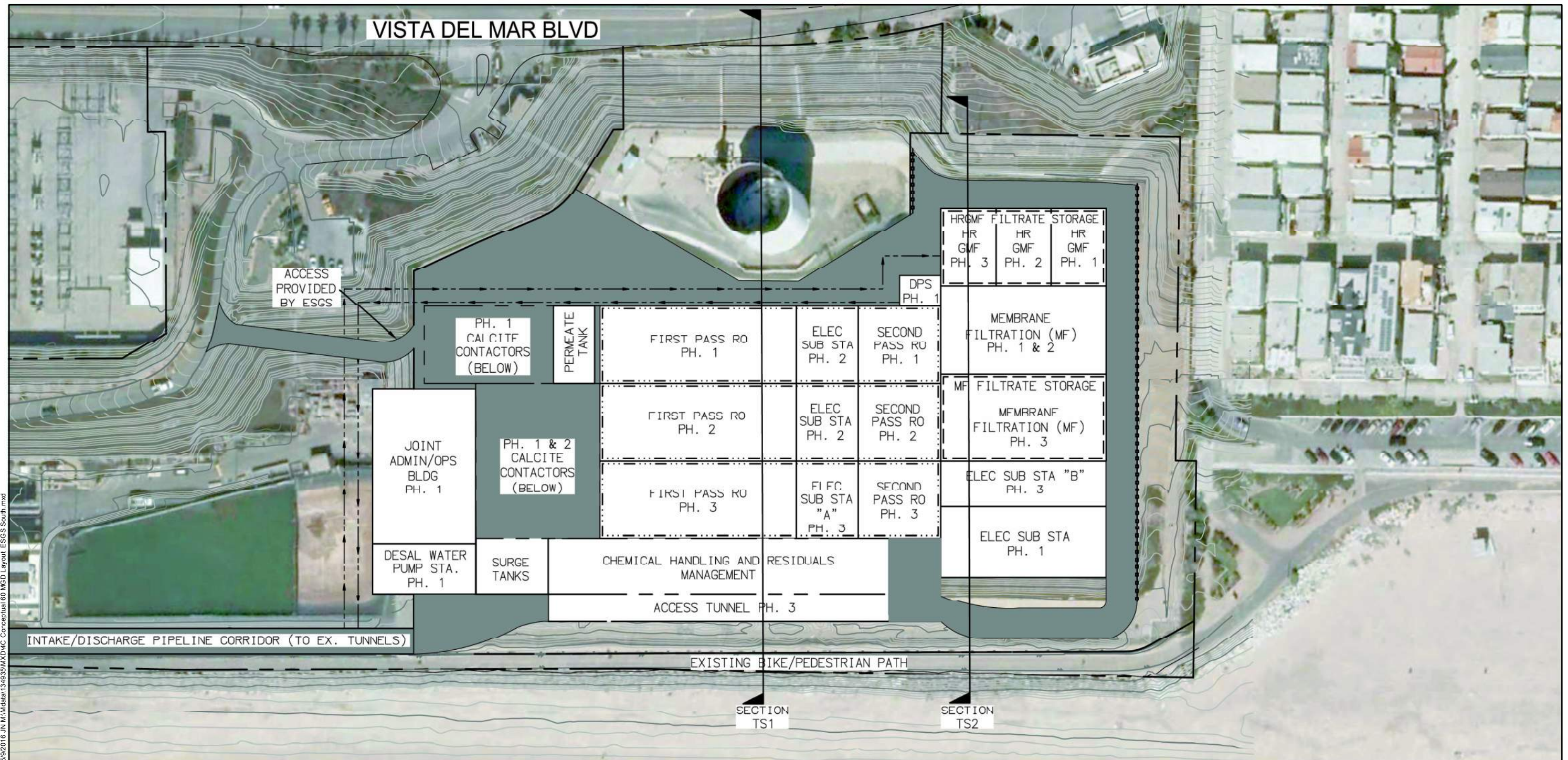
- FILTRATE STORAGE (BURIED) ————
- CLEARWELL BELOW RO BLDG —·····
- UNDERGROUND FACILITY ————
- RETAINING WALL —●●●●●●●●●●
- CONVEYANCE COMPONENT —————→

Note: Facility locations and sizing are conceptual, subject to revision during final design and construction

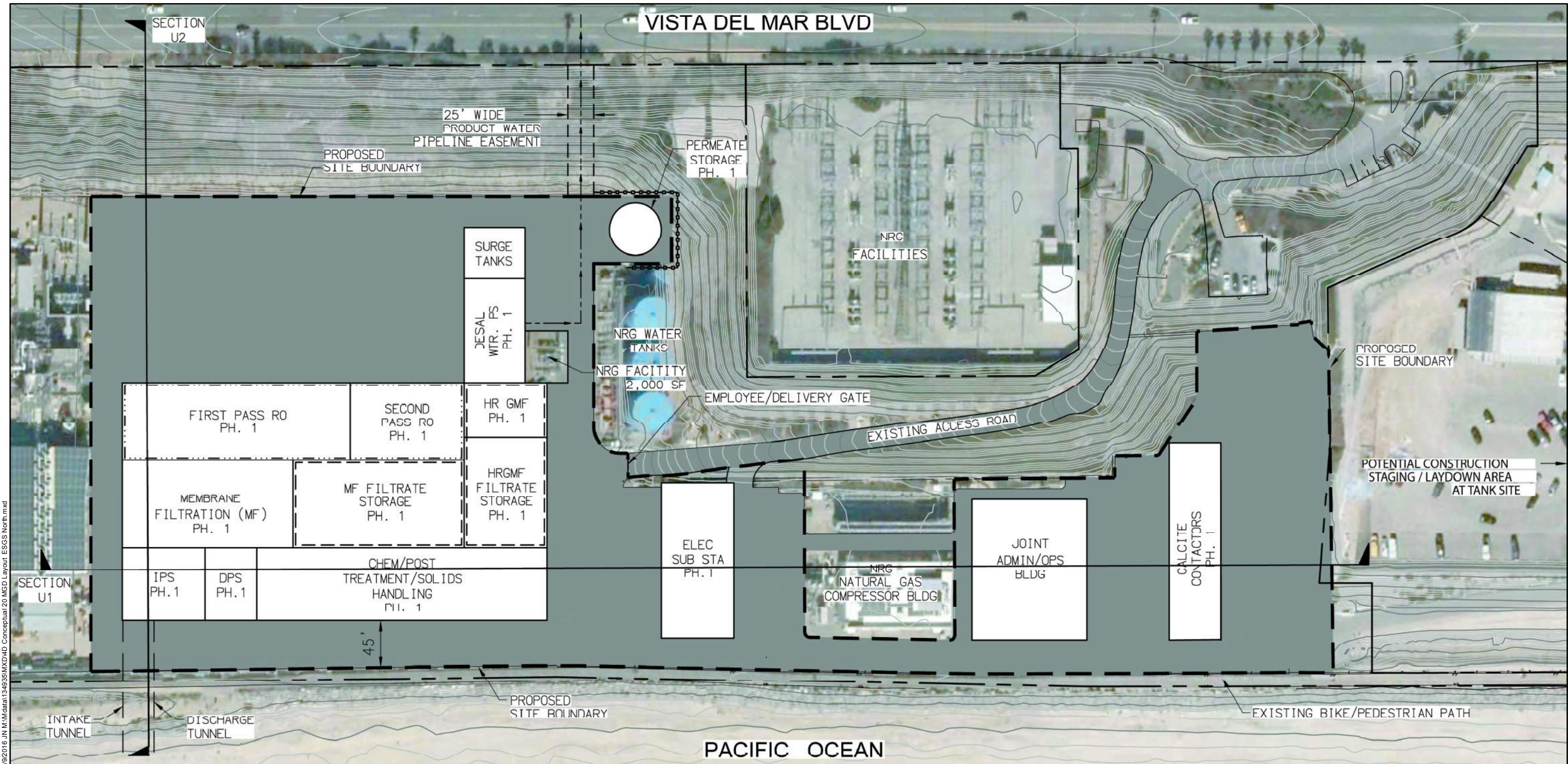




Source: 20MG Tank Site_reduced



Note: Facility locations and sizing are conceptual, subject to revision during final design and construction

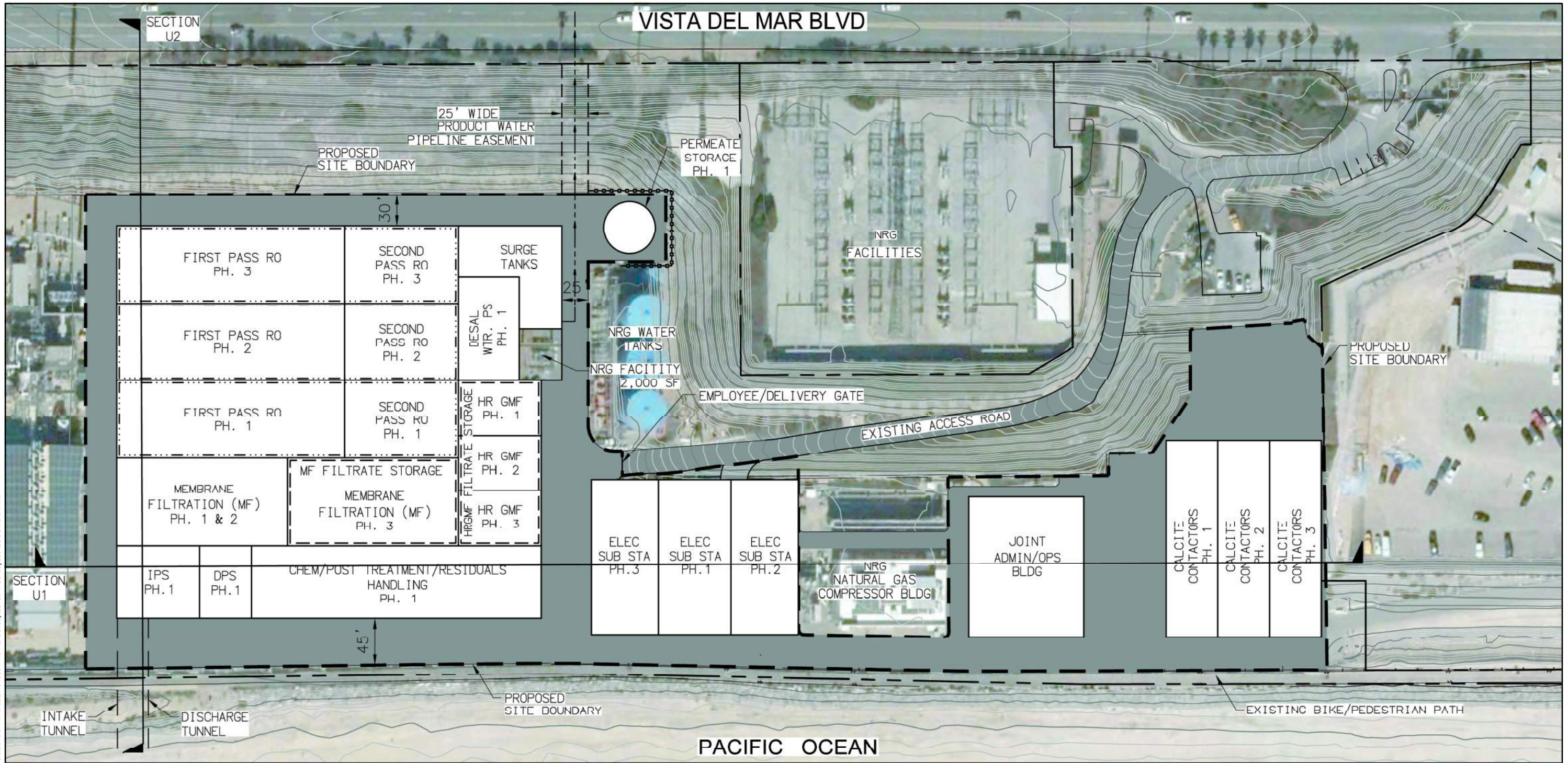


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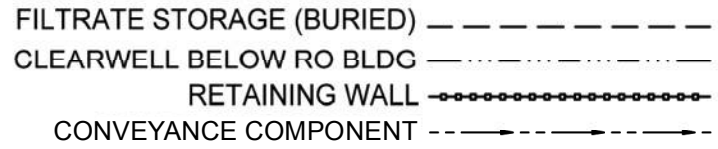
- FILTRATE STORAGE (BURIED) — — — — —
- CLEARWELL BELOW RO BLDG — ·····
- RETAINING WALL — ○○○○○○○○○○○
- CONVEYANCE COMPONENT — — — — —

Note: Facility locations and sizing are conceptual, subject to revision during final design and construction

Source: Units3 and 4 20MG_reduced



5/9/2016 J:\M\Main\134935\MXD\4E Conceptual 60 MGD Layout ESGS North.mxd



Note: Facility locations and sizing are conceptual, subject to revision during final design and construction

Source: Units3 and 4 60MG_reduced

The Ocean Water Desalination Project consists of:

1. An **ocean water intake system** consisting of offshore and onshore facilities that would deliver raw ocean water to the desalination facility using existing El Segundo Generating Station (ESGS) intake facilities that have been modified to facilitate the installation of passive intake screens;³
2. A **desalination facility** at the ESGS site that would produce 20 to 60 MGD of potable drinking water;
3. A **concentrate (brine) discharge system** that would return concentrated seawater from the reverse osmosis (RO) process and (optionally) treated backwash water from pretreatment processes to the ocean;
4. A **desalinated water conveyance system** for the delivery of water to the local (West Basin) water supply system for the Local Project and to both the local and regional water supply systems for the Regional Project.
5. All **appurtenant facilities** (such as pump stations, valves and metering) as well as all **construction, operation, and maintenance activities** associated with all Project facilities.

The desalination plant is proposed at the existing ESGS located at 301 Vista Del Mar in El Segundo California.⁴ The proposed desalination facility process includes pretreatment, reverse osmosis (RO), energy recovery, post-treatment, and residuals handling and disposal.

For the screened ocean intake, passive wedge-wire screens would be located near the existing terminal structure on the ocean end of the existing ESGS intake tunnel that was previously used to withdraw cooling water for ESGS Units 3 and 4. This screened flow would then be conveyed onshore through the existing intake tunnel to an intake pump station which would be located near the land end of the existing intake tunnel. The intake pump station would deliver the flow to the desalination facility via onshore pipelines.

RO concentrate (brine) discharge would be accomplished using the existing ESGS discharge tunnel previously used for Units 3 and 4. A new pipeline would be inserted inside the tunnel to convey the brine under pressure to a multiport diffuser system constructed in or near the terminal structure at the ocean end of the tunnel. Two options are being considered, one being to discharge only the RO brine from the Ocean Water Desalination Facility, the other being to comingle the Ocean Water Desalination Facility brine with lower salinity brine generated by West Basin's Edward C. Little Water Recycling Facility.

The proposed conveyance system for the Local Project involves an alignment that focuses on local service connections along MWD's West Coast (WC) and West Basin (WB) Feeders. New pipelines would be required from the desalination facility to the feeders. For the Regional Project, all or a portion of the desalinated product water would be conveyed from the desalination facility to MWD's Sepulveda

³ On May 6, 2015, the State Water Resources Control Board approved an amendment to California Ocean Plan to address desalination facilities using seawater. When subsurface intakes are determined infeasible, as is the case here, the California Ocean Plan requires the use of screened intakes with screen slot openings equal to or less than 1.0 millimeter.

⁴ The ESGS is the preferred location for the desalination plant. However, as discussed further in [Section 7.0, Alternatives to the Proposed Project](#), West Basin may also consider the AES Redondo Beach Generating Station (RBGS) should it become available and be found more preferable than the ESGS site.

Feeder located east of the WB and WC feeders while retaining the possibility of delivering a portion of the desalinated water directly to the West Basin and West Coast Feeders.

The Project is described in detail in Environmental Impact Report (EIR) Section 3.2, Project Components. In accordance with the California Environmental Quality Act (CEQA) guidelines, environmental analysis of the proposed Project is provided in EIR Section 5 (refer to Section 5.0, Detailed Environmental Analysis, for a general description of the impact analysis).

Section 2 Regulatory Background

There are several overlying federal, state, and local biological resources regulations and policies that pertain to this project.

2.1 FEDERAL REGULATIONS

Endangered Species Act of 1973

Federally listed threatened and endangered species and their habitats are protected under provisions of the Federal Endangered Species Act of 1973 (FESA). Section 9 of the FESA prohibits “take” of threatened or endangered species. “Take” under the FESA is defined as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct.” The presence of any federally threatened or endangered species that are in a Project area generally imposes severe constraints on development, particularly if development would result in “take” of the species or its habitat. Under the regulations of the FESA, the U.S. Fish and Wildlife Service (USFWS) may authorize “take” when it is incidental to, but not the purpose of, an otherwise lawful act.

“Harm” has been defined by the regulations of the USFWS to include types of “significant habitat modification or degradation.” The U.S. Supreme Court, in *Babbitt v. Sweet Home*, 515 U.S. 687, ruled that “harm” may include habitat modification “...where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.” Activities that may result in “take” of individuals are regulated by USFWS.

Under the FESA, “Critical Habitat” is also designated at the time of listing or within one year of listing. “Critical Habitat” refers to habitat or a specific geographic area that contains the elements and features that are essential for the survival and recovery of the species. In the event that a project may result in take or in adverse effects to a species’ designated Critical Habitat, the project proponent may be required to engage in suitable mitigation. If the project has a federal nexus (i.e. occurs on federal land, is issued federal permits, or receives any other federal oversight or funding), the proponent will be required to enter into Section 7 informal and/or formal consultations with the USFWS to obtain, if possible, a biological opinion allowing for incidental take of the species in question. If the project is on private land or will not require any federal permits, the proponent will be required to write a habitat management plan to address the impacts.

The FESA defines as “endangered” any plant or animal species that is in danger of extinction throughout all or a significant portion of its range. A “threatened” species is a species that is likely to become endangered in the foreseeable future. A “proposed” species is one that has been officially proposed by USFWS for addition to the federal threatened and endangered species list.

USFWS produced an updated list of candidate species for listing in June 2002 (Federal Register: Volume 67, Number 114, 50 Code of Federal Regulations [CFR] Part 17). Candidate species are regarded by USFWS as candidates for addition to the “List of Endangered and Threatened Wildlife and

Plants.” Although candidate species are not afforded legal protection under the FESA, they typically receive special attention from federal and state agencies during the environmental review process.

USFWS also uses the label “species of concern,” an informal term that refers to species which might be in need of concentrated conservation actions. As the species of concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species will be proposed for listing as a threatened or endangered species.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act, otherwise known as the Magnuson-Stevens Act (MSA) was enacted to help protect, conserve, and manage the fishery resources of the United States in the face of overfishing, habitat losses, and ineffective international agreements. The MSA provides the United States with exclusive fishery management rights to all fish within and beyond the U.S.’s “exclusive economic zone” and all Continental Shelf fishery resources, except when the fish are within the waters of a foreign nation, and allows the United States to regulate international fishing within waters managed by the U.S.

The MSA created eight regional Fishery Management Councils throughout the coastal United States, including North Pacific, Western Pacific, Pacific, Gulf of Mexico, Caribbean, South Atlantic, Mid-Atlantic, and New England. These councils are responsible for recognizing and protecting the fisheries in their regions that require conservation and management. Through Section 303 of the MSA, the National Oceanic and Atmospheric Administration (NOAA) is required to work with regional Fishery Management Councils to develop fishery management plans (FMPs) for the protection of fisheries under their jurisdiction. These FMPs are implemented by NOAA’s National Marine Fisheries Service (NMFS). One of the required provisions in FMPs is to establish “Essential Fish Habitat” (EFH), defined as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity.” Through Section 305(b) of the MSA, federal agencies are required to consult with the NMFS on activities that may affect EFH for species that are managed under fishery management plans.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) makes it unlawful to pursue, capture, kill, or possess or attempt to do the same to any migratory bird or part, nest, or egg of any such bird listed in wildlife protection treaties between the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union, and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703; 50 CFR 10, 21).

Section 401 of the Clean Water Act

Applicants for a federal license or permit for activities which may discharge to waters of the U.S. must seek Water Quality Certification from the state or Indian tribe with jurisdiction.⁵ Such Certification is based on a finding that the discharge will meet water quality standards and other applicable requirements. In California, Regional Water Quality Control Boards (Regional Boards) issue or deny

⁵ Title 33, United States Code, Section 1341; Clean Water Act Section.

Certification for discharges within their geographical jurisdiction. Water Quality Certification must be based on a finding that the proposed discharge will comply with water quality standards, which are defined as numeric and narrative objectives in each Regional Board's Basin Plan. Where applicable, the State Water Resources Control Board has this responsibility for projects affecting waters within the jurisdiction of multiple Regional Boards. The Regional Board's jurisdiction extends to all waters of the state and to all waters of the U.S., including wetlands.

Section 401 of the Clean Water Act requires that "any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal Clean Water Act." Therefore, before the U.S. Army Corps of Engineers (Corps) will issue a Section 404 permit, applicants must apply for and receive a Section 401 water quality certification from the Regional Board.

Section 404 of the Clean Water Act

Section 404 of the Clean Water Act (CWA) requires that a permit be obtained from the Corps prior to the discharge of dredged or fill materials into any "waters of the United States or wetlands." Waters of the United States are broadly defined in the Corps regulations (33 CFR 328) to include navigable waterways, their tributaries, lakes, ponds, and wetlands. Wetlands are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that normally do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (Federal Register 1982). Wetlands that are not specifically exempt from Section 404 regulations (such as drainage channels excavated on dry land) are considered to be "jurisdictional wetlands." In a recent Supreme Court Case, the Court acted to limit the regulatory jurisdiction of the Corps under Section 404 of the CWA as it applies to adjacent waters (USSC 2001). Specifically, the Court ruled that waters that are non-navigable, isolated, and intrastate are not subject to the Corps jurisdiction (Guzy and Anderson 2001). The Corps is required to consult with the USFWS, Environmental Protection Agency, and State Regional Board, among other agencies, in carrying out its discretionary authority under Section 404.

The Corps grants two types of permits, individual and nationwide. Project-specific individual permits are required for certain activities that may have a potential for more than a minimal impact and necessitate a detailed application. The most common type of permit is a nationwide permit. Nationwide permits authorize activities on a nationwide basis unless specifically limited, and are designed to regulate with little delay or paperwork certain activities having minimal impacts. Nationwide permits typically take two to three months to obtain whereas individual permits can take a year or more. To qualify for a nationwide permit, specific criteria must be met. If the criteria restrictions are met, permittees may proceed with certain activities without notifying the Corps. Some nationwide permits require a pre-construction notification before activities can begin.

2.2 STATE REGULATIONS

California Coastal Act §30000 et seq.

Chapter 3 of the California Coastal Act contains policies to protect water quality and the biological productivity of coastal waters (Public Resources Code [PRC] Section 30231); avoid and minimize dredging, diking, and filling sediments (PRC Section 30233); and mitigate wetland impacts (PRC Section 30607.1).

In addition, under the California Coastal Act “environmentally sensitive area means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments” (PRC Section 30107.5).

The California Coastal Act requires that jurisdictions protect Environmentally Sensitive Habitat Areas (ESHA). Specifically, PRC Section 30240 states that:

- a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.
- b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.

The Coastal Act generally protects ESHAs where they exist and also protects “against any significant disruption of habitat values.” Section 30007.5 of the Coastal Act states that where there is a conflict between policies that it:

...be resolved in a manner, which on balance is the most protective of significant coastal resources. In this context, the Legislature declares that broader policies which, for example, serve to concentrate development in close proximity to urban and employment centers may be more protective, overall, than specific wildlife habitat and other similar resource policies.

California Endangered Species Act

State-listed threatened and endangered species are protected under provisions of the California Endangered Species Act (CESA). Activities that may result in “take” of individuals (defined in CESA as to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”) are regulated by the California Department of Fish and Wildlife (CDFW). Habitat degradation or modification is not included in the definition of “take” under CESA. Nonetheless, CDFW has interpreted “take” to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. A rare species is one that is considered present in such

small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

The CDFW has also produced a Species of Special Concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection.

California Environmental Quality Act

The California Environmental Quality Act provides for the protection of the environment within the State of California by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS); if the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an EIR. A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the California Environmental Quality Act Guidelines independently defines “endangered” and “rare” species separately from the definitions in the CESA. Under CEQA, “endangered” species of plants or animals are defined as those whose survival and reproduction in the wild are in immediate jeopardy, while “rare” species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Native Plant Society Rare or Endangered Plant Species

Vascular plants listed as rare or endangered by the California Native Plant Society (CNPS), but which have no designated status under state and federal endangered species legislation are defined as follows:

California Rare Plant Rank

- 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 More 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% of occurrences threatened / high degree and immediacy of threat)
- .2- Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
- .3- Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known).

Fish and Game Code Sections 3503, 3503.5, 3511, and 3513

The CDFW administers the California Fish and Game Code. There are particular sections of the Code that are applicable to natural resource management. For example, Section 3503 of the Code makes it unlawful to destroy the nests or eggs of any birds that are protected under the MBTA. Furthermore, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks, eagles, and owls) are protected under Section 3503.5 of the Code which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW will be required prior to the removal of any bird of prey nest that may occur on a survey area. Section 3511 of the Code lists fully protected bird species, where the CDFW is unable to authorize the issuance of permits or licenses to take these species. Examples of species that are State fully protected include golden eagle (*Aquila chrysaetos*), and white-tailed kite (*Elanus leucurus*). Section 3513 of the Code makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Section 1602 of the Fish and Game Code

Section 1600 *et seq.* of the Fish and Game Code applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. Section 1602 of the Fish and Game Code establishes a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided. Pursuant to Section 1602 of the Fish and Game Code, a notification must be submitted to the CDFW for any activity that will divert or obstruct the natural flow or alter the bed, channel, or bank (which may include associated biological resources) of a river or stream or use material from a streambed. This includes activities taking place within rivers or streams that flow perennially or episodically and that are defined by the area in which surface water currently flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical and biological indicators.

Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan)

California's Thermal Plan was adopted by the State Water Resources Control Board in 1971. It regulates the discharge of wastes of elevated temperatures into California's coastal waters, as well as interstate waters, enclosed bays, and estuaries. New discharges into coastal waters are required to be discharged into the ocean away from shorelines and at a sufficient distance from areas of special biological significance. In addition, the maximum temperature of thermal waste discharges cannot exceed the natural temperature of the receiving waters by more than 20 degrees Fahrenheit (°F), and the discharges cannot result in the increase of the natural water temperature of more than 4°F at the shoreline, the surface of any ocean substrate, or the ocean surface beyond 1,000 from the discharge location. Projects that result in thermal discharges must comply with this regulation.

Water Quality Control Plan for the Ocean Waters of California (Ocean Plan)

California's Ocean Plan was first adopted by the State Water Resources Control Board in 1972 and, due to its requirement to be reviewed for current standards every three years, has been revised ten times

since then as of 2015. It is implemented by the State Water Resources Control Board and the six coastal Regional Boards. The purpose of the Ocean Plan was to protect the continued high quality of California's oceans and shorelines for beneficial uses (e.g., industrial water supply, aesthetic enjoyment, commercial and sport fishing, marine habitat, fish spawning and shellfish harvesting) by regulating waste discharges. Under an amendment approved in May 2015 (the "Desalination Amendment"), new or expanded seawater desalination plants must use the best available site, design, technology, and mitigation measures feasible in order to minimize the intake and mortality of marine life. While the amendment identifies preferred technologies for protection, alternative technologies can be used as long as they can be demonstrated to be as protective of marine life as the preferred technologies.

2.3 LOCAL PLANS AND POLICIES

City of El Segundo Local Coastal Program

The project site is located within the City of El Segundo's Coastal Zone. Under Section 30500 of the California Coastal Act, each local government within the California Coastal Zone must prepare or have the California Coastal Commission (CCC) prepare for it a Local Coastal Program (LCP). The City of El Segundo LCP was certified in 1982. It covers an approximately 50-acre area spanning approximately 0.8 mile in length and 200 yards in width at its widest point; this area is almost completely developed, with the exception of the narrow shoreline. Construction and implementation of the project must remain in compliance with the LCP, and by extension, with the California Coastal Act. There are no ESHAs in the El Segundo Coastal Zone, and thus Section 30240 does not apply. Section 30231, the protection of water quality and the biological productivity of coastal waters, will still apply.

Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan)

The Los Angeles Region Basin Plan was adopted by the California Regional Water Quality Control Board in 1994. The purpose of the Basin Plan is to preserve and enhance water quality and also protect the beneficial uses of all regional waters. As such, it designates the beneficial uses for surface and ground waters, sets objectives to protect those uses, and describes implementation procedures to protect all waters within the Los Angeles Region. The Thermal Plan and Ocean Plan are incorporated into the Basin Plan by reference.

Section 3 Methodology

Michael Baker conducted a thorough literature review and records search to determine which special-status biological resources have the potential to occur on or within the general vicinity of the survey area, defined as the proposed development area (the project site) and a 250-foot buffer. In addition, a general habitat assessment/field investigation of the survey area was conducted to document existing conditions and determine the potential for special-status biological resources to occur.

3.1 LITERATURE REVIEW

Prior to conducting the field visit, a literature review and records search was conducted for special-status biological resources potentially occurring on or within the vicinity of the survey area. Previously recorded occurrences of special-status plant and wildlife species and their proximity to the survey area were determined through a query of the CDFW's QuickView Tool in BIOS, CNDDDB Rarefind 5, the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-status species published by CDFW, and the USFWS species listings.

Literature detailing biological resources previously observed in the vicinity of the survey area and historical land uses were reviewed to understand the extent of disturbances to the habitats on-site. Standard field guides and texts on special-status and non-special-status biological resources were reviewed for habitat requirements, as well as the following resources:

- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey;
- City of El Segundo Local Coastal Program;
- USFWS Critical Habitat designations for Threatened and Endangered Species; and
- Habitat requirements for western snowy plover and El Segundo blue butterfly.

The literature review provided a baseline from which to inventory the biological resources potentially occurring within the survey area. Additional recorded occurrences of those species found on or near the survey area were derived from database queries. The CNDDDB ArcGIS database was used, in conjunction with ArcGIS software, to locate the nearest occurrence and determine the distance from the survey area.

3.2 HABITAT ASSESSMENT AND FIELD INVESTIGATION

Michael Baker biologist Travis J. McGill evaluated the extent and conditions of the plant communities found within the boundaries of the survey area on November 2, 2015, and biologist Thomas McGill evaluated the site for El Segundo blue butterfly habitat on July 12, 2016. During the initial habitat assessment, plant communities identified on aerial photographs during the literature review were verified by walking meandering transects through the plant communities and along boundaries between plant communities. The plant communities occurring within the survey area were evaluated for their potential to support special-status plant and wildlife species. In addition, field staff identified any

jurisdictional features, and any natural corridors and linkages that may support the movement of wildlife through the area.

Special attention was given to special-status habitats and/or undeveloped areas, which have higher potentials to support special-status flora and fauna species. Areas providing suitable habitat for special-status species were closely surveyed during the habitat assessment. Methods to detect the presence of these species included direct observation, aural detection, and signs of presence including tracks, scat, burrows, or other sign.

All plant and wildlife species observed, as well as dominant plant species within each plant community, were recorded. Wildlife detections were made through observation of scat, trails, tracks, burrows, nests, and/or visual and aural observation. In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site plant communities, and presence of potential jurisdictional drainage and/or wetland features were noted.

3.3 SOIL SERIES ASSESSMENT

On-site and adjoining soils were researched prior to the field visit using the USDA NRCS Soil Survey for Los Angeles County, California, Southeastern Part. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes the survey area has undergone.

3.4 PLANT COMMUNITIES

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photography. The plant communities were classified in accordance with Sawyer, Keeler-Wolf and Evens (2009), CDFW (2003), and Holland (1986), delineated on an aerial photograph, and then digitized into GIS Arcview. The Arcview application was used to compute the area of each plant community in acres.

3.5 PLANTS

Common plant species observed during the field surveys were identified by visual characteristics and morphology in the field, and recorded in a field notebook. Unusual and less familiar plants were photographed on-site and identified in the laboratory using taxonomical guides. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual. Scientific names are provided immediately following common names of plant species (first reference only).

3.6 WILDLIFE

Wildlife species detected during field surveys by sight, calls, tracks, scat, or other sign were recorded during surveys in a field notebook. Field guides were used to assist with identification of species during surveys included *The Sibley Field Guide to the Birds of Western North America* (Sibley 2003) and *The Sibley Guide to Birds* (Sibley 2014) for birds, *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003) for herpetofauna, and *A Field Guide to Mammals of North America* (Reid 2006).

Although common names of wildlife species are fairly well standardized, scientific names are provided immediately following common names in this report (first reference only).

3.7 JURISDICTIONAL AREAS

Aerial photography was reviewed prior to conducting the habitat assessment. The aerials were used to locate and inspect any potential natural drainage features and water bodies that may fall under the jurisdiction of the Corps, Regional Board, CDFW, or CCC. In general, surface drainage features indicated as blue-line streams on USGS maps that are observed or expected to exhibit evidence of flow are considered potential riparian/riverine habitat and are also subject to state and federal regulatory authorities.

Section 4 Existing Conditions

4.1 LOCAL CLIMATE

Los Angeles County is located along the southern California coast and into the western Mojave Desert. Its climate ranges from generally cool winters and moderate summers along the coast to cool winters and warm to hot summers in the desert, with its rainfall occurring almost entirely in the winter. Climatological data obtained for the City of El Segundo indicates the annual precipitation averages 13.15 inches per year. Almost all of the precipitation in the form of rain occurs in the months between November and March, with hardly any occurring between the months of April and October. The wettest month is February, with a monthly average total precipitation of 3.11 inches, and the driest month is July, with a monthly average total precipitation of 0.03 inch. The average minimum and maximum temperatures are 56.1 and 70.6 °F respectively with December being the coldest month (monthly average 48°F) and August and September being the hottest (monthly average 77°F). Temperatures during the site visit were in the mid-70s (°F) with patchy cloud cover.

Insufficient rainfall has resulted in severe drought conditions for much of Los Angeles County. According to the U.S. Drought Monitor, Los Angeles County is experiencing “D3 - Extreme Drought” and “D4 - Exceptional Drought” conditions (USDM 2016). Locally, the City of El Segundo is experiencing “D4 – Exceptional Drought” conditions. Other jurisdictions within the West Basin service area are similarly experiencing severe drought conditions.

4.2 TOPOGRAPHY AND SOILS

On-site surface elevation ranges from sea level to approximately 115 feet above mean sea level and generally slopes to the northwest. Soils within and adjacent to the survey area were researched prior to the field visit using the USDA NRCS Custom Soil Resource Report for Los Angeles County, California, Southeastern Part. According to the Custom Soil Resource Report, soils have not been mapped within the project site.

4.3 SURROUNDING LAND USES

The project site is located immediately to the west of an active Chevron oil refinery, east of Vista del Mar Boulevard. Dockweiler State Beach is located to the north, and Manhattan Beach and a residential neighborhood are located to the south. A public bike trail and a small strip of open sandy shoreline are located immediately to the west, with the Pacific Ocean on the other side. The Los Angeles International Airport is located approximately 1.33 miles to the north.

Section 5 Discussion

Michael Baker biologist Travis J. McGill conducted a field investigation of the survey area on November 2, 2015 to document existing conditions and determine the potential for special-status biological resources to occur within the survey area. Michael Baker field staff encountered no limitations during the site visits. Refer to Appendix A for representative photographs taken throughout the survey area.

5.1 SITE CONDITIONS

The project site is located at the ESGS on the western edge of the City of El Segundo. The project site contains three water-quality basins, two of which were full of water at the time of Michael Baker's habitat assessment. The power plant abuts a narrow strip of shoreline to the west. While this beach is privately owned by Southern California Edison and Chevron, public access is still allowed and it is frequented by beachgoers.

5.2 VEGETATION

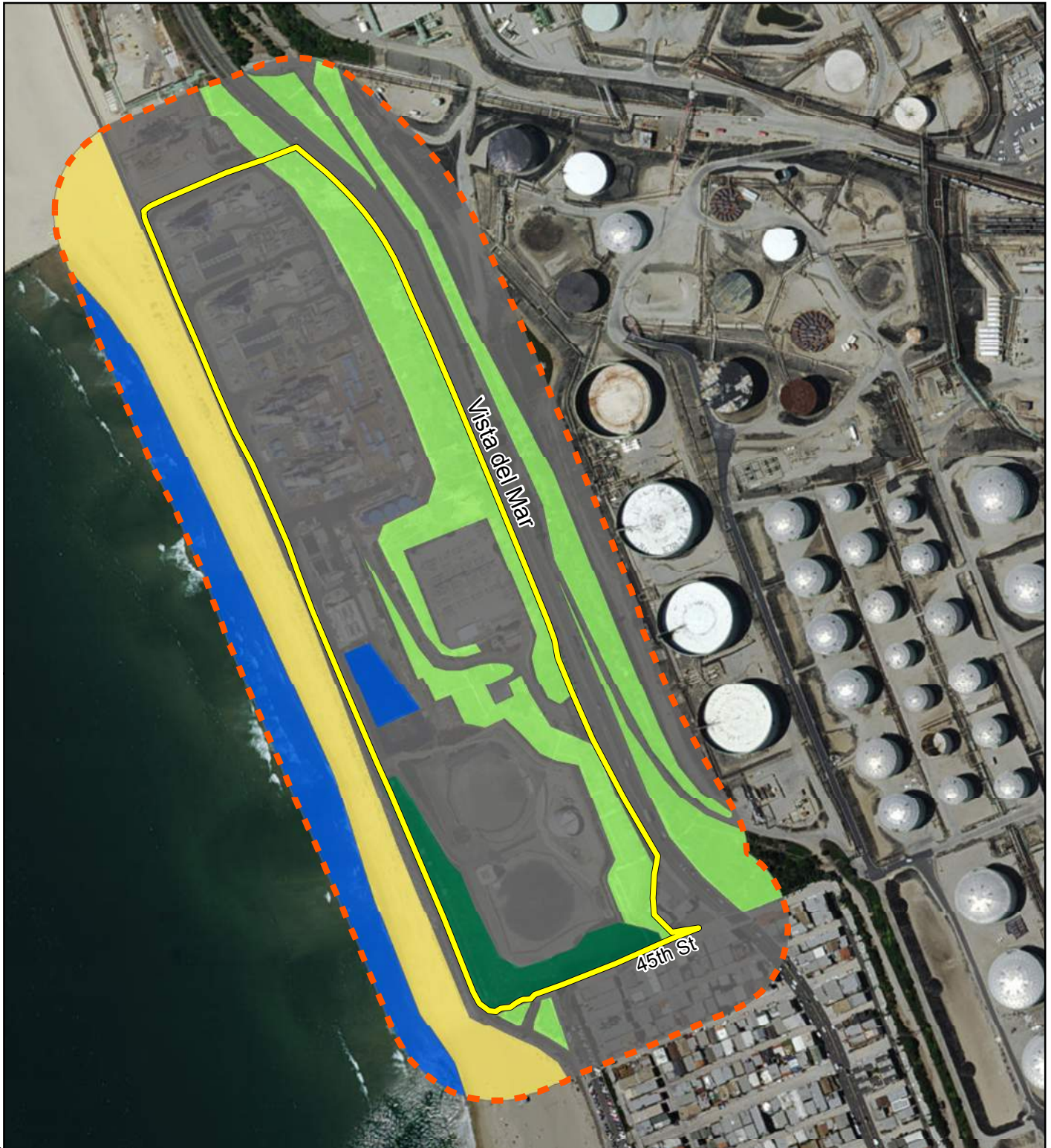
Two (2) plant communities were observed within the survey area, restored coastal scrub and ornamental, as well as two non-vegetative habitat types, open water and sandy beach (Exhibit 5, *Vegetation*). In addition, there was one (1) land cover type on-site that would be classified as developed. The vegetation communities are described in further detail below.

5.2.1 RESTORED COASTAL SCRUB

The restored coastal scrub plant community occurs along the slopes of the southwestern corner of the project site. This plant community is primarily composed of native vegetation including common yarrow (*Achillea millefolium*), brittlebush (*Encelia farinosa*), Menzies' goldenbush (*Isocoma menziesii*), Douglas' nightshade (*Solanum douglasii*), lemonadeberry (*Rhus integrifolia*), and coast buckwheat (*Eriogonum parvifolium*), but also includes some non-natives, particularly Mexican fan palm (*Washingtonia robusta*), pine (*Pinus* sp.), New Zealand flax (*Phormium* sp.), and rabbitsfoot grass (*Polypogon monspeliensis*). This community intergrades into ornamental vegetation in the southeastern corner of the project site. Water irrigation pipelines are present throughout this community to provide artificial irrigation.

5.2.2 ORNAMENTAL

Ornamental areas are present along the remainder of the slopes within the survey area, which is primarily found along the eastern half of the project site and along the entire length beneath Vista del Mar Boulevard. These slopes are dominated by iceplant (*Carpobrotus edulis*), especially in the southern half of the project site. Additional ornamental shrubs and trees, including Mexican fan palm, are present on the slopes in the northern half of the project site.



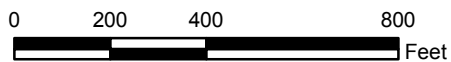
Legend

- Project Site
- Survey Area (250' Radius)
- Restored Coastal Scrub (2.3 Acres)
- Ornamental (13.4 Acres)
- Sandy Beach (9.7 Acres)
- Open Water (6.1 Acres)
- Developed (41.1 Acres)

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WEST BASIN OCEAN WATER DESALINATION PROJECT
HABITAT ASSESSMENT

Vegetation



5.2.3 OPEN WATER

Open water is located on-site in water quality basins, as well as west of the project site, within the survey area, in association with the ocean. There are two basins on the western boundary of the power plant. At the time of the survey both basins were full of water. There is no vegetation associated with these basins. Open water is also present west of the project site in the Pacific Ocean. This habitat is utilized by several avian species that also frequent sandy habitat found on the shore.

5.2.4 SANDY BEACH

The sandy beach area is located between the project site and the Pacific Ocean. The beach is mostly bare but contains a jetty at its north end and a rocky slope along its eastern end associated with a public bike trail. Silver beachweed (*Ambrosia chamissonis*) is growing sparsely in and around the rocky slope.

5.2.5 DEVELOPED

Developed areas generally consist of paved, impervious surfaces and include most of the project site except for the vegetated slopes. A small water quality basin is located near the southwest corner of the project site. This basin is completely vegetated with grasses but otherwise is surrounded by pavement and contains several water distribution pipes within it. In addition, within the general survey area a paved public bike trail is located immediately west of the project site. A series of conveyance pipelines has also been proposed to carry desalinated water from the project site to local municipalities in the surrounding area. These pipelines generally follow existing paved road rights-of-way.

5.3 WILDLIFE

Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species observed, expected, or not expected to occur within the survey area. The discussion is to be used as a general reference and is limited by the season, time of day, and weather condition in which the survey was conducted. Wildlife observations were based on calls, songs, scat, tracks, burrows, and actual sightings of animals.

5.3.1 FISH

No fish were observed on or within the survey area. The on-site water quality basins are not associated with natural drainages and would not be expected to incidentally carry fish in them. Marine fish may occur in the ocean within the survey area. The surfline was not surveyed or otherwise examined for the presence of fish.

5.3.2 AMPHIBIANS

No amphibians were observed on or within the vicinity of the survey area. The on-site water quality basins are not associated with natural drainages and would not be expected to support any amphibian species, and there are no local amphibian species that would be able to survive, let alone breed in, hypersaline and turbulent ocean conditions. Therefore, no amphibians are expected to occur and they are presumed absent within the survey area.

5.3.3 REPTILES

No reptiles were observed on or within the vicinity of the survey area. Because the survey area is along the beach, partially including the Pacific Ocean, and is otherwise surrounded by development on its remaining three sides, few reptile species would be expected to occur. The only reptilian species that would be expected to occur within the survey area include western fence lizard (*Sceloporus occidentalis*) and southern alligator lizard (*Elgaria multicarinata*).

5.3.4 BIRDS

The biggest inhabitants of the site are birds. Six (6) bird species were identified within the survey area during Michael Baker's habitat assessment, including brown pelican (*Pelecanus occidentalis*), willet (*Tringa semipalmata*), Marbled godwit (*Limosa fedoa*), western gull (*Larus occidentalis*), Heermann's gull (*Larus heermanni*), and rock pigeon (*Columba livia*). The survey area provides foraging habitat for a small number of avian species, primarily shorebirds and raptors, and minimal cover outside of the vegetated slopes on the project site. Common avian species expected to occur within the survey area include black-bellied plover (*Pluvialis squatarola*), sanderling (*Calidris alba*), mourning dove (*Zenaida macroura*), black phoebe (*Sayornis nigricans*), song sparrow (*Melospiza melodia*), and yellow-rumped warbler (*Setophaga petechia*).

5.3.5 MAMMALS

No mammals were observed on or within the vicinity of the survey area. The survey area provides suitable habitat for a limited variety of mammalian species adapted to urban conditions. However, most mammal species are nocturnal and are difficult to observe during a diurnal field visit. The only mammalian species that would be reasonably expected to occur within the survey area are California ground squirrel (*Otospermophilus beecheyi*), Virginia opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*), which may occur on vegetated slopes or in the rocky slope/jetty.

5.4 NESTING BIRDS

No nesting birds were detected during the field survey, which was conducted in November 2015 outside of the avian nesting season. The ornamental vegetation along the northern edge of the project site presents marginal nesting habitat, but this area is also subject to continuous disturbance from the power plant and from adjacent traffic along Vista del Mar Boulevard. In addition to the re-vegetated coastal sage scrub and ornamental vegetation, the abandoned structures within the project site have the potential to provide suitable nesting opportunities for a limited number of avian species. Nesting activity within the project site is expected to be minimal.

5.5 MIGRATORY CORRIDORS AND LINKAGES

Habitat linkages provide links between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is

essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging.

The only notable open land is located along the shoreline, which foraging shorebirds may use to move up and down the coast. This area is assumed not to be impacted by the proposed project. There are no movement corridors within the power plant site.

5.6 JURISDICTIONAL AREAS

There are four key agencies that regulate activities within coastal streams, wetlands, and riparian areas in California. The Corps Regulatory Division regulates activities pursuant to Section 404 of CWA, Section 10 of the Rivers and Harbors Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act. Of the State agencies, the CDFW regulates activities under the Fish and Game Code Section 1600-1616, the Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act, and the CCC regulates activities under the California Coastal Act.

No jurisdictional drainage features were observed within the project site. However, any project-related structures or discharges into the Pacific Ocean may require permitting under the Corps, Regional Board, CDFW, CCC, State Lands Commission, USFWS, and NMFS.

5.7 SPECIAL-STATUS BIOLOGICAL RESOURCES

The CNDDDB was queried for reported locations of listed and special-status plant and wildlife species as well as sensitive natural plant communities in the Venice USGS 7.5-minute quadrangle. A search of published records of these species was conducted within this quadrangle using the CNDDDB Rarefind 5 online software and CNDDDB Quickview Tool. The CNPS Inventory of Rare and Endangered Vascular Plants of California supplied additional information regarding the distribution and habitats of vascular plants in the vicinity of the survey area. The habitat assessment was used to assess the ability of the plant communities found on-site to provide suitable habitat for relevant special-status plant and wildlife species.

The literature search identified twenty-three (23) special-status plant species, sixty-eight (68) special-status wildlife species, and two (2) special-status habitats as having the potential to occur within the Venice quadrangle. Special-status plant and wildlife species were evaluated for their potential to occur within the survey area based on habitat requirements, availability and quality of suitable habitat, and known distributions. Special-status habitats were evaluated based on their identified presence or absence from the project site. Biological resources determined to have the potential to occur within the general project vicinity based on this record search are presented in Appendix B, *Potentially Occurring Special-Status Biological Resources*, and discussed in further detail below.

5.7.1 SPECIAL-STATUS PLANTS

Twenty-three (23) special-status plant species have been recorded in the CNDDDB and CNPS in the Venice quadrangle (refer to Appendix B). Based on the results of the habitat assessment along with habitat requirements, availability and quality of habitat needed by each species, and known distributions, it was determined that all special-status plant species are presumed absent from the survey area. There is no longer any naturally-occurring vegetative habitat on the project site, but adjacent terrestrial habitat is natural. All on-site vegetation has been planted and/or restored. Therefore, no special-status plant species are expected to occur within the survey area.

5.7.2 SPECIAL-STATUS WILDLIFE

Sixty-eight (68) special-status wildlife species have been reported in the Venice quadrangle. California brown pelican (*Pelecanus occidentalis californicus*) was observed within the survey area during the habitat assessment. However, the project site does not provide suitable nesting habitat for this species. Based on habitat requirements for specific species and the availability and quality of habitats needed by each special-status wildlife species, it was determined that the survey area has a high potential to support western snowy plover, California gull (*Larus californicus*), double-crested cormorant (*Phalacrocorax auritus*), and Allen's hummingbird (*Selasphorus sasin*), and a moderate potential to support redhead (*Aythya americana*), Vaux's swift (*Chaetura vauxi*), El Segundo blue butterfly, black oystercatcher (*Haematopus bachmani*), Caspian tern (*Hydroprogne caspia*), long-billed curlew (*Numenius americanus*), and elegant tern (*Thalasseus elegans*). There is a low potential for Cooper's hawk (*Accipiter cooperii*), great egret (*Ardea alba*), great blue heron (*Ardea herodias*), brant (*Branta bernicla*), northern harrier (*Circus cyaneus*), snowy egret (*Egretta thula*), white-tailed kite (*Elanus leucurus*), merlin (*Falco columbarius*), American peregrine falcon (*Falco peregrinus anatum*), osprey (*Pandion haliaetus*), and California least tern (*Sternula antillarum browni*) to occur in the survey area. All remaining special-status wildlife species are presumed to be absent from the survey area based on habitat requirements, availability and quality of habitat needed by each species, and known distributions. Brief species accounts are provided below for those species determined to have a high potential to occur or that are considered present, as well as for El Segundo blue butterfly due to its regional significance.

California Brown Pelican

California brown pelican is a CDFW fully protected subspecies of the brown pelican that has been delisted from both the federal and California Endangered Species Act (formerly endangered on both lists). It is a year-round resident of Los Angeles County. The brown pelican is found mostly offshore along coastal waters, but may also venture inland into large open waters; it is known to occur inundated reservoirs throughout the County. It usually nests on the ground, in trees, or on cliffs along the Pacific Coast (Shields 2014). However, the only breeding colonies of this subspecies along the California coast are located on Anacapa Island and Santa Barbara Island. The project site is located along the California coast, where brown pelicans (as well as several other birds) can commonly be found foraging offshore; however, there is no suitable nesting habitat within the survey area. This species was observed flying over the project site during Michael Baker's November 2015 habitat assessment. Implementation of the proposed project is not expected to have any adverse impacts to brown pelicans.

Western Snowy Plover

Western snowy plover is a federally threatened species that has also been designated by the CDFW as a species of special concern. It is a year-round resident in Los Angeles County, though it may become less common in the late spring and early summer. They are typically found on beaches, tidal flats, lagoon margins, and saline waters or salt-evaporation ponds. In Los Angeles County they are found almost exclusively along the coast, although they are additionally well known to occur in the Lancaster area at the Piute Ponds and other waste treatment facilities. Nests are typically built on barren or sparsely-vegetated beaches and dunes. Along the Pacific Coast, snowy plovers may begin building nests as early as January but typically later in February, with the first eggs usually laid during the first or second week of March (Page et al. 2009). This species is known to occur at Dockweiler State Beach and to a lesser extent at Manhattan Beach and has a high potential to be present along the shoreline below the power plant. The shoreline within the survey area provides minimal nesting habitat for this species. However, due to a high level of human activities along these section of the beach, western snowy plover is not expected to nest within the survey area. Prior to construction activities, a pre-construction nesting bird clearance survey shall be conducted, focusing on the presence/absence of western snowy plover within the survey area, specifically along the shoreline. Implementation of the proposed project is not expected to have any adverse impacts to western snowy plover as long as this species does not nest along the shoreline within the survey area (within 500 feet of the project footprint).

El Segundo Blue Butterfly

El Segundo blue butterfly is a federally endangered species. It is restricted to the coastal dunes of Los Angeles County, where its only known host plant, coast buckwheat, occurs. It is believed that loose sand is a requirement for this species, as its young bury themselves underground upon pupation before emerging as adult butterflies. At the time of the USFWS 5-year review in 2008, the El Segundo blue butterfly was only known to be extant at seven (7) locations: two (2) within the Airport Dunes Recovery Unit in the vicinity of Los Angeles International Airport, one (1) within the El Segundo Unit at the Chevron Preserve in the City of El Segundo, and four (4) in the Torrance Unit between Redondo Beach and Malaga Cove. A previous occurrence in the Ballona Unit at the Ballona Wetlands is now considered extirpated. In addition, while El Segundo blue butterfly has also been reported on Vandenberg Air Force Base and Palos Verdes Peninsula, this has not been genetically or taxonomically confirmed. Adult butterflies emerge from the ground between mid-June and early September, after which they eat, mate, and lay eggs within a period lasting on average from 4 days (in the wild) to 2 weeks (in captivity). Eggs are laid on the flowers of coast buckwheat, and hatch within 3 to 5 days. Larvae remain within flower heads and feed upon coast buckwheat seeds for 18 to 25 days, after which they undergo pupation and fall to the ground, remaining buried under leaf litter or underground until they emerge as adults a year or more later. The Chevron Preserve is known to have a robust population of several thousand butterflies and is only 0.4 mile northeast of the project site, separated by the Chevron Refinery. El Segundo blue butterfly has a moderate potential to occur within areas of coast buckwheat on the restored slopes on the southern end of the project site. Prior to site development, a focused survey for El Segundo blue butterfly shall be conducted during the appropriate season the year prior to construction within suitable habitat on the project site.

California Gull

California gull is a CDFW watch list species. It is a year-round resident of Los Angeles County and is commonly found in aquatic areas throughout coastal and inland/desert Los Angeles County. Because this species does not nest in Los Angeles County, or anywhere along the Pacific coast, it is somewhat less common during the summer months, although still abundant. Along the Pacific coast California gulls will use sandy beaches, rocky coasts, mudflats, estuaries, deltas, ponds, and lakes. The project site is located along the California coast, where California gulls are often abundant in large flocks on beaches. This species has a high potential to occur along the shoreline and in the ocean adjacent to the power plant, and can probably be considered present. Implementation of the proposed project is not expected to have any adverse impacts to California gulls.

Double-crested Cormorant

Double-crested cormorant is a CDFW watch list species. It is a year-round resident of Los Angeles County. It is found throughout coastal and inland/desert Los Angeles County in aquatic areas, including the ocean, creeks, marshes, and ponds and lakes. This species typically nests on rocky or sandy islands, but may also use trees, artificial sites, or vegetation mats in marshes (Dorr et al. 2014). This species typically begins laying eggs in mid-April, with young fledging until the end of August (Hatch and Weseloh 1999). The project site is located along the California coast, where double-crested cormorants can commonly be found flying offshore. This species has a high potential to fly over the project site during daily movements; however, there is no suitable nesting habitat within the survey area. Implementation of the proposed project is not expected to have any adverse impacts to double-crested cormorant.

Allen's Hummingbird

Allen's hummingbird is a year-round resident of Los Angeles County, where it can be found throughout the cismontane lowlands and less frequently in the mountains. This species, however, has only steadily increased its distribution over the last 15 years, originating as a resident Channel Islands subspecies (*Selasphorus sasin sedentarius*). This subspecies expanded onto the immediate mainland coast (Palos Verdes) and has since gradually expanded inland into Riverside and as far south as San Diego as a permanent breeding resident of the mainland (Clark and Mitchell 2013). The *sedentarius* subspecies on the mainland is found primarily in urban and suburban habitats, including among other areas parks and backyards. The breeding period of the mainland *sedentarius* subspecies begins in late October and extends through mid-July, which is possible due to the year-round nectar from the ornamental and landscaped plantings that this group of birds frequents. The project site is located along the California coast, where Allen's hummingbirds are prolific. This species has a high potential to occur on-site and may nest in ornamental vegetation along the site's northern edge. Prior to construction activities, a pre-construction nesting bird clearance survey shall be conducted. Implementation of the proposed project is not expected to have any adverse impacts to Allen's hummingbird as long as there are no active nests within the survey area.

5.7.3 SPECIAL-STATUS PLANT COMMUNITIES

According to the CNDDDB, two (2) special-status plant communities have been recorded in the Venice quadrangle: Southern Coastal Salt Marsh and Southern Dune Scrub (refer to Appendix B). Neither of these communities, nor any other special-status plant community, is present on the project site.

5.8 CRITICAL HABITAT

Under the federal Endangered Species Act, “Critical Habitat” is designated at the time of listing of a species or within one year of listing. “Critical Habitat” refers to habitat or a specific geographic area that contains the elements and features that are essential for the survival and recovery of the species. In the event that a project may result in take or in adverse effects to a species’ designated Critical Habitat, the project proponent may be required to engage in suitable mitigation. However, consultation for impacts to Critical Habitat is only required when a project has a federal nexus (i.e. occurs on federal land, is issued federal permits [e.g. Corps Section 404 Clean Water Act permit], or receives any other federal oversight or funding). If a project does not have a federal nexus, Critical Habitat consultations are not required.

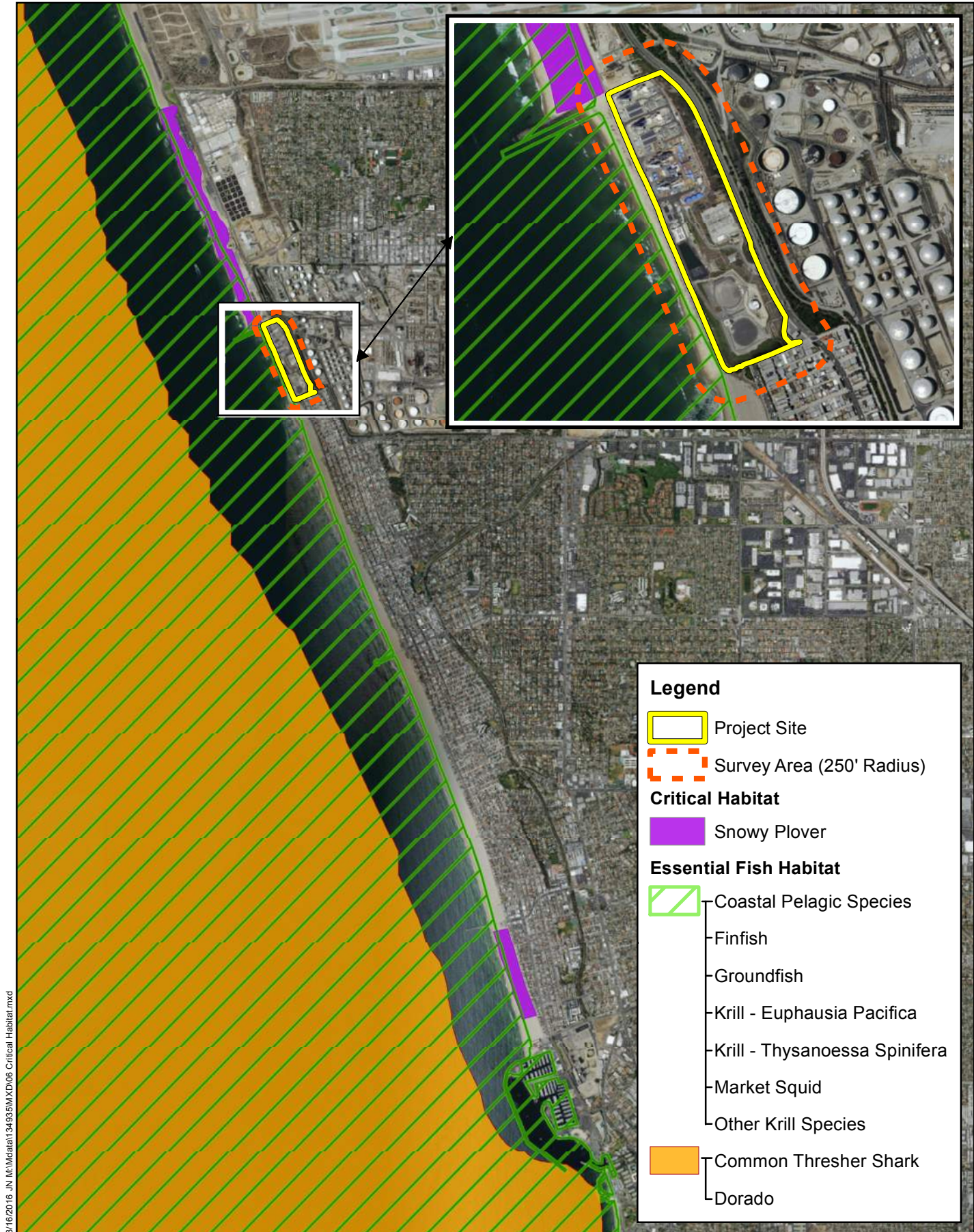
The project site is not located within federally designated Critical Habitat. However, western snowy plover designated Critical Habitat Subunit 45C, Dockweiler South, is located immediately north of the ESGS along Dockweiler State Beach (77 FR 36727-36869) and is located within the survey area (Exhibit 6, *Critical Habitat and Essential Fish Habitat*). In addition, Subunit 45B, Dockweiler North, is approximately 2.5 miles north of the power plant and Subunit 45D, Hermosa State Beach, is approximately 3.25 miles to the south. No other Critical Habitat is located within a 5-mile radius of the project site.

5.9 ESSENTIAL FISH HABITAT

EFH encompasses all types of aquatic habitat, including wetlands, coral reefs, seagrasses, and rivers, where fish breed, spawn, feed, and grow to maturity. NOAA and the regional Fishery Management Councils identify EFH for all life stages of every federally managed fish species. Under the provisions of MSA Section 305(b), consultation with NMFS for impacts to EFH is only required for projects with a federal nexus. Of the eight designated fisheries regions in the United States, the project site is located within the Pacific Region. The Pacific Region Fishery Management Council has designated EFH within the survey area for groundfish and coastal pelagic species in association with the Pacific Ocean (refer to Exhibit 5). EFH for groundfish ends at the high tide line.

5.10 ENVIRONMENTALLY SENSITIVE HABITAT AREAS

Under the California Coastal Act, ESHAs are defined as “any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.” According to the City of El Segundo’s Local Coastal Program, “There are no environmentally sensitive habitat areas in the coastal zone in El Segundo, thus Sections 30240(a) and (b) of the Coastal Act are inapplicable.”



3/16/2016 JUN M:\Mdata\134935M\XD06 Critical Habitat.mxd

WEST BASIN OCEAN WATER DESALINATION PROJECT
HABITAT ASSESSMENT



Section 6 Conclusions and Recommendations

On-site and surrounding land uses have heavily disturbed, if not completely eliminated, naturally occurring habitats from the proposed project site, reducing the suitability of the habitat to support most special-status plant and wildlife species. The survey area includes a steam generating power plant (the project site) and a 250-foot buffer area. The survey area is mostly developed with only two (2) plant communities: restored coastal scrub and ornamental. In addition, there were three (3) land cover types on-site that would be classified as open water, sandy beach, and developed.

No special-status plant species were observed on-site during the habitat assessment. All vegetated areas within the survey area are manmade ornamental areas or areas that have been revegetated with a specific seed mix. Based on habitat requirements for specific species, the availability and quality of habitats needed by each special-status plant species, and the manmade nature of the on-site vegetation, it was determined that the project site does not provide suitable habitat that would support any of the special-status plant species known to occur in the general vicinity of the project site.

One (1) special-status wildlife species was identified within the survey area during Michael Baker's November 2, 2015 habitat assessment: California brown pelican. Based on the survey results, it was determined that the survey area has a high potential to support western snowy plover, California gull, double-crested cormorant, and Allen's hummingbird, and a moderate potential to support redhead, Vaux's swift, El Segundo blue butterfly, black oystercatcher, Caspian tern, long-billed curlew, and elegant tern. All remaining special-status plant and wildlife species have a low potential to occur or are presumed absent from the survey area based on habitat requirements, availability and quality of habitat needed by each species, and known distributions. Implementation of the proposed project is not expected to result in any temporary or permanent impacts to these species.

Special attention was given to the suitability of the on-site habitat to support western snowy plover and El Segundo blue butterfly. As noted above, western snowy plover has a high potential to forage within the survey area. This species is known to occur at Dockweiler State Beach to the immediate north and to a lesser extent at Manhattan Beach to the immediate south and has a high potential to be present along the shoreline west of the power plant. However, due to a high level of human activities along these sections of the beach, western snowy plover is not expected to nest within the survey area. El Segundo blue butterfly is known to occur in the vicinity of the project site at the Airport Preserve (west of Los Angeles International Airport) approximately 1.4 miles to the north, as well as at the Chevron Preserve approximately 0.4 mile northeast of the project site and separated by refinery facilities. The southern and southwestern slopes of the project site were planted in 2008-2009 with a sage scrub seed mix that included coast buckwheat, the only known host plant of the El Segundo blue butterfly. Based on an analysis of the quality and extent of on-site habitat, the presence of this species in nearby areas, and the degree of urbanization in the area, El Segundo blue butterfly has a moderate potential to be found on-site.

No jurisdictional drainage features were observed within the project site and no regulatory permitting will be required within the site boundaries. However, any project-related structures or discharges into

the Pacific Ocean may require permitting under the Corps, Regional Board, CDFW, CCC, State Lands Commission, USFWS, and NMFS.

The following mitigation measures are proposed to mitigate impacts from the development of this project:

BIO-1: All construction activities shall comply with the federal Migratory Bird Treaty Act of 1918 (MBTA), and *California Fish and Game Code* Sections 3503, 3503.5, 3511 and 3513. The MBTA governs the taking and killing of migratory birds, their eggs, parts, and nests and prohibits the take of any migratory bird, their eggs, parts, and nests. Compliance with the MBTA shall be accomplished by completing the following:

- Construction activities involving vegetation removal shall be conducted between September 1 and December 31. If construction occurs inside the nesting season between January 15 and August 31 (this time frame includes both the passerine and raptor nesting season), a pre-construction nesting bird clearance survey shall be conducted by a qualified biologist within 72 hours prior to vegetation removal and construction activities to identify any active nesting locations. All suitable habitat within 500 feet of the project site shall be thoroughly surveyed for the presence of nesting avian species. If the biologist does not find any active nests, the construction work shall be allowed to proceed. The biologist conducting the clearance survey shall document a negative survey with a report indicating that no impacts to active avian nests shall occur.
- If the biologist finds an active nest on the project site and determines that the nest may be impacted, the biologist shall delineate an appropriate buffer zone around the nest. The size of the buffer shall be determined by the biologist in consultation with CDFW and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. These buffers are typically 300 feet from the nests of non-listed passerine species and 500 feet from the nests of raptors and listed species. Any active nests observed during the survey shall be mapped on an aerial photograph. Only vegetation removal and construction activities (if any) that have been approved by a biological monitor shall take place within the buffer zone until the nest is no longer considered active. The biologist shall serve as a construction monitor when construction activities take place near active nest areas to ensure that no indirect impacts on these nests occur. Results of the pre-construction survey and any subsequent monitoring shall be provided to the Property Owner/Developer, CDFW, and the City.

BIO-2: A qualified biologist shall conduct a pre-construction clearance survey for western snowy plover on and in the vicinity of the project site prior to the start of construction. This will include a focused search for western snowy plover in suitable habitat within 500 feet of proposed construction activities, including in designated Critical Habitat on Dockweiler State Beach. Western snowy plover shall be avoided by waiting for them to leave an area before working in it. If western snowy plover are observed nesting within 500 feet of construction activities, a minimum buffer of 500 feet shall be delineated around the nest and monitored until the nest is no longer considered active.

BIO-3: A Worker Environmental Awareness Program (WEAP) shall be implemented to educate all construction personnel of the area's environmental concerns and conditions, including special-status species, and relevant environmental protection measures. The WEAP will constitute the conveyance of environmental concerns and appropriate work practices, including spill prevention, emergency response measures, protection of sensitive resources, and proper implementation of Best Management Practices, to all construction and maintenance personnel. All new workers that arrive after construction has started shall be trained under the WEAP prior to them beginning work.

BIO-4: All work areas shall be visibly flagged or staked prior to construction. Construction activities shall be limited to these approved work areas except with prior authorization from regulatory agencies. No construction activities will occur in tidal waters without first receiving applicable permits and regulatory approvals from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, CDFW, California Coastal Commission, State Lands Commission, United States Fish and Wildlife Service, and/or the National Marine Fisheries Service.

BIO-5: A qualified biological monitor shall be present during all project-related vegetation removal and during all construction immediately adjacent to the open beach. The monitor shall be familiar with the identification of western snowy plover. The monitor will be responsible for ensuring that no snowy plovers are present within or immediately adjacent to the construction zone.

BIO-6: All trash, including food-related and construction-related trash, will be deposited in a suitable, closed container so as to avoid attracting scavenger wildlife species to the project site.

BIO-7: All hazardous material spills (e.g. oil, vehicle fluids) shall be contained immediately and properly cleaned so as to prevent pollution of tidal waters or of the adjacent beach.

BIO-8: A focused survey for El Segundo blue butterfly will be conducted by a qualified biologist within suitable habitat containing coast buckwheat on the project site during the appropriate season the year prior to construction. The adult flight stage of this species can last as little as 4 days and as much as 2 weeks per individual, normally beginning in mid-June and ending in early September. If this species is found in areas that will be affected by project construction, ground disturbance, or staging, an incidental take statement from the USFWS authorizing take of this species will be required prior to development of the project site.

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Appendix A Site Photographs



Photograph 1: Facing west at two on-site water quality basins. The basin in the background is kept full of water, whereas the basin in the foreground is usually drained (but held water at the time of the 11/2/2015 field survey).



Photograph 2: Facing south at the southern edge of the site, which is vegetated with a restored coastal scrub seedmix. This is the only native vegetation community on the project site.



Photograph 3: Facing south toward the Pacific Ocean. The project site is separated from the beach by a paved bike trail. This section of beach is immediately south of Designated Critical Habitat for western snowy plover (*Charadrius alexandrinus nivosus*), which likely occur in this area.



Photograph 4: Facing north from the eastern side of the project site. Most of the vegetation on the site's slopes is ornamental. In this area it is almost entirely ice plant (*Carpobrotus edulis*).



Photograph 5: This water quality basin on the eastern side of the project site does not hold water but is completely covered in grasses.



Photograph 6: Most of the project site is a developed steam generation plant.

Appendix B Potentially Occurring Special-Status
Biological Resources

Table B-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Status	Habitat	Observed On-site	Potential to Occur
WILDLIFE SPECIES				
<i>Accipiter cooperii</i> Cooper’s hawk	Fed: None CA: WL	Generally found in forested areas up to 3,000 feet in elevation, especially near edges and rivers. Prefers hardwood stands and mature forests, but can be found in urban and suburban areas where there are tall trees for nesting. Common in open areas during nesting season.	No	Low. There is suitable habitat. This species is adapted to urban environments and occurs commonly.
<i>Ammodramus savannarum</i> grasshopper sparrow	Fed: None CA: SSC	Occur in grassland, upland meadow, pasture, hayfield, and old field habitats. Optimal habitat contains short- to medium-height bunch grasses interspersed with patches of bare ground, a shallow litter layer, scattered forbs, and few shrubs. May inhabit thickets, weedy lawns, vegetated landfills, fence rows, open fields, or grasslands.	No	Presumed absent. There is no suitable habitat.
<i>Anniella pulchra pulchra</i> silvery legless lizard	Fed: None CA: SSC	Occurs in moist warm loose soil with plant cover. Moisture is essential. Can be found in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks,. Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine and mock heather often indicate suitable habitat. Often can be found under surface objects such as rocks, boards, driftwood, and logs.	No	Presumed absent. There is no suitable habitat.
<i>Aquila chrysaetos</i> golden eagle	Fed: None CA: FP; WL	Occupies nearly all terrestrial habitats of the western states except densely forested areas. Favors secluded cliffs with overhanging ledges and large trees for nesting and cover. Hilly or mountainous country where takeoff and soaring are supported by updrafts is generally preferred to flat habitats. Deeply cut canyons rising to open mountain slopes and crags are ideal habitat.	No	Presumed absent. There is no suitable habitat.
<i>Ardea alba</i> great egret	Fed: None CA: None	Yearlong resident throughout California, except for the high mountains and deserts. Feeds and rests in fresh, and saline emergent wetlands, along the margins of estuaries, lakes, and slow-moving streams, on mudflats and salt ponds, and in irrigated croplands and pastures.	No	Low. May occur along the shoreline.

Scientific Name Common Name	Status	Habitat	Observed On-site	Potential to Occur
<i>Ardea herodias</i> great blue heron	Fed: None CA: None	Fairly common all year throughout most of California, in shallow estuaries and fresh and saline emergent wetlands. Less common along riverine and rocky marine shores, in croplands, pastures, and in mountains about foothills.	No	Low. May occur along the shoreline.
<i>Athene cunicularia</i> burrowing owl	Fed: None CA: SSC	Primarily a grassland species, but it persists and even thrives in some landscapes highly altered by human activity. Occurs in open, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. The overriding characteristics of suitable habitat appear to be burrows for roosting and nesting and relatively short vegetation with only sparse shrubs and taller vegetation.	No	Presumed absent. There is no suitable habitat.
<i>Aythya americana</i> redhead	Fed: None CA: SSC	Occurs year round in California with the breeding season extending from April to August. Nest in freshwater emergent wetlands where dense strands of cattails and tules are interspersed with areas of deep, open water.	No	Moderate. There is suitable habitat within the on-site ponds, when inundated.
<i>Bombus crotchii</i> crotch bumble bee	Fed: None CA: None	Occurs from the California coast to the Sierra-Cascade crest and into Mexico. Utilizes plants in the Genera <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	No	Presumed absent. There is no suitable habitat.
<i>Botaurus lentiginosus</i> American bittern	Fed: None CA: None	Widely distributed in fresh emergent wetlands, primarily west of the Sierra Nevada. In the Central Valley, fairly common October to April, uncommon to rare rest of the year. Less common on coastal slope, and no longer breeds regularly south of Monterey Co.	No	Presumed absent. There is no suitable habitat.
<i>Branta bernicla</i> brant	Fed: None CA: SSC	Outside of the breeding season, this species becomes predominantly coastal, inhabiting estuaries, tidal mudflats, sandy shores, coastal saltmarshes, and shallow muddy bays.	No	Low. May occur in the on-site ponds, when inundated, or immediately offshore.
<i>Brennania belkini</i> Belkin's dune tabanid fly	Fed: None CA: None	Inhabits coastal sand dunes of southern California.	No	Presumed absent. There is no suitable habitat.
<i>Buteo regalis</i> ferruginous hawk	Fed: None CA: WL	Found in open country, including dry prairie, sagebrush, and steppe-deserts with short vegetation. Often found on plowed fields and other cultivated lands.	No	Presumed absent. There is no suitable habitat.
<i>Carolella busckana</i> Busck's gallmoth	Fed: None CA: None	Found in coastal scrub dunes.	No	Presumed absent. There is no suitable habitat.

Scientific Name Common Name	Status	Habitat	Observed On-site	Potential to Occur
<i>Chaetura vauxi</i> Vaux's swift	Fed: None CA: SSC	Prefers redwood and Douglas-fir habitats with nest-sites in large hollow trees and snags, especially tall, burned-out stubs.	No	Moderate. May fly over the site.
<i>Charadrius alexandrinus nivosus</i> western snowy plover	Fed: THR CA: SSC	Occurs on sandy beaches, salt pond levees and along the shores of large alkali lakes. Requires sandy or gravelly substrate for nesting.	No	High. Known to occur on both Dockweiler State Beach and Manhattan Beach.
<i>Chlidonias niger</i> black tern	Fed: None CA: SSC	Preferred summer habitats include inland marshes and sloughs with fairly dense cattail or other marsh vegetation and pockets of open water.	No	Presumed absent. There is no suitable habitat.
<i>Cicindela hirticollis gravida</i> sandy beach tiger beetle	Fed: None CA: None	Found in moist sand near the ocean in coastal dune habitat.	No	Presumed absent. There is no suitable habitat.
<i>Cicindela senilis frosti</i> senile tiger beetle	Fed: None CA: None	Inhabits marine shoreline, from central California coast south to salt marshes of San Diego, also found at Lake Elsinore.	No	Presumed absent. There is no suitable habitat.
<i>Circus cyaneus</i> northern harrier	Fed: None CA: SSC	Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Mostly found in flat, or hummocky, open areas of tall, dense grasses moist or dry shrubs, and edges for nesting, cover, and feeding.	No	Low. May forage over the site.
<i>Cistothorus palustris clarkae</i> Clark's marsh wren	Fed: None CA: SSC	Restricted to freshwater and brackish marshes dominated by bulrushes (<i>Scirpus</i> spp.) or cattails (<i>Typha</i> spp.)	No	Presumed absent. There is no suitable habitat.
<i>Coelus globosus</i> globose dune beetle	Fed: None CA: None	Inhabits foredunes and sand hammocks immediately bordering the coast.	No	Presumed absent. There is no suitable habitat.
<i>Danaus plexippus pop. 1</i> monarch - California overwintering population	Fed: None CA: None	Occurs in open fields and meadows dominated by milkweed. In winter, species can be found on the coast of southern California in eucalyptus groves and at high altitudes in central Mexico.	No	Presumed absent. There is no suitable habitat.
<i>Egretta thula</i> snowy egret	Fed: None CA: None	Widespread in California along shores of coastal estuaries, fresh and saline emergent wetlands, ponds, slow-moving rivers, irrigation ditches, and wet fields. In southern California, common yearlong in the Imperial Valley and along the Colorado River.	No	Low. May occur along the shoreline.
<i>Elanus leucurus</i> white-tailed kite	Fed: None CA: FP	Occurs in low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Uses trees with dense canopies for cover. Important prey item is the California vole.	No	Low. May forage over the site.

Scientific Name Common Name	Status	Habitat	Observed On-site	Potential to Occur
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	Fed: END CA: END	A rare to locally uncommon, summer resident in wet meadow and montane riparian habitats (2,000 to 8,000 ft) in the Sierra Nevada and Cascade Range. Most often occurs in broad, open river valleys or large mountain meadows with lush growth of shrubby willows.	No	Presumed absent. There is no suitable habitat.
<i>Emys marmorata</i> western pond turtle	Fed: None CA: SSC	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater. Found at elevations from sea level to over 5,900 feet (1,800 m).	No	Presumed absent. The on-site ponds are artificial with no natural drainages to enter them. The surrounding area is entirely developed with no suitable habitat.
<i>Eremophila alpestris actia</i> California horned lark	Fed: None CA: WL	Prefers riparian woodlands along streams and rivers with mature, dense stands of willows, cottonwoods or smaller spring fed or boggy areas with willows or alders. Nests in hollow ground often next to grass tuft or clod of earth or manure.	No	Presumed absent. There is no suitable habitat.
<i>Eucosma hennei</i> Henne's eucosman moth	Fed: None CA: None	Endemic to the El Segundo dunes.	No	Presumed absent. There is no suitable habitat.
<i>Euphilotes battoides allyni</i> El Segundo blue butterfly	Fed: END CA: None	Found in the sand dunes of El Segundo.	No	Presumed absent. There is no suitable habitat.
<i>Falco columbarius</i> merlin	Fed: None CA: WL	During the breeding season it is found in mostly open country, including taiga, plains, and prairies. During the winter it prefers open areas with scattered groups of trees.	No	Low. May forage over the site.
<i>Falco peregrinus anatum</i> American peregrine falcon	Fed: Delisted CA: Delisted; FP	Very uncommon breeding resident, and uncommon as a migrant. Active nesting sites are known along the coast north of Santa Barbara, in the Sierra Nevada, and in other mountains of northern California. Breeds mostly in woodland, forest, and coastal habitats. Riparian areas and coastal and inland wetlands are important habitats yearlong, especially in nonbreeding seasons.	No	Low. May forage over the site.
<i>Grus canadensis tabida</i> greater sandhill crane	Fed: None CA: THR ; FP	Found primarily in open freshwater wetlands, including shallow marshes and wet meadows. Nests in moist areas at margins of extensive wet meadows and marshes.	No	Presumed absent. There is no suitable habitat.
<i>Haematopus bachmani</i> black oystercatcher	Fed: None CA: None	Found along rocky shorelines in all seasons.	No	Moderate. May be found on or around the jetty.

Scientific Name Common Name	Status	Habitat	Observed On-site	Potential to Occur
<i>Hydroprogne caspia</i> Caspian tern	Fed: None CA: None	Common to very common along the California coast and at scattered locations inland, from April through early August. Nests in dense colonies on sandy estuarine shores, on levees in salt ponds, and on islands in alkali and freshwater lakes. Breeding adult often flies substantial distances to forage in lacustrine, riverine, and fresh and saline emergent wetland habitats.	No	Moderate. May occur along the shoreline.
<i>Icteria virens</i> yellow-breasted chat	Fed: None CA: SSC	Primarily found in tall, dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. Breeding habitat must be dense to provide shade and concealment. It winters south the Central America.	No	Presumed absent. No suitable habitat is present on site.
<i>Ixobrychus exilis</i> least bittern	Fed: None CA: SSC	In southern California, common summer resident at Salton Sea and Colorado River, in dense emergent wetlands near sources of freshwater, and in desert riparian (saltcedar scrub). Probably nests only in emergent wetlands.	No	Presumed absent. There is no suitable habitat.
<i>Lanius ludovicianus</i> loggerhead shrike	Fed: None CA: SSC	Often found in broken woodlands, shrublands, and other habitats. Prefers open country with scattered perches for hunting and fairly dense brush for nesting. Highest density occurs in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats.	No	Presumed absent. There is no suitable habitat.
<i>Larus californicus</i> California gull	Fed: None CA: WL	Fairly common nester at alkali and freshwater lacustrine habitats east of the Sierra Nevada and Cascades, and an abundant visitor to coastal and interior lowlands in nonbreeding season. Preferred habitats along the coast are sandy beaches, mudflats, rocky intertidal, and pelagic areas of marine and estuarine habitats, as well as fresh and saline emergent wetlands.	No	High. Almost certainly occurs on the beach south of the project site.
<i>Laterallus jamaicensis coturniculus</i> California black rail	Fed: None CA: THR ; FP	Occurs in salt marshes, freshwater marshes, and wet meadows. Requires dense cover of upland vegetation to provide protection from predators.	No	Presumed absent. There is no suitable habitat. This species is rare anywhere in southern California.
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	Fed: None CA: SSC	Occurs on open areas or semi-open country, typically in grasslands, agricultural fields, or sparse coastal scrub.	No	Presumed absent. There is no suitable habitat.

Scientific Name Common Name	Status	Habitat	Observed On-site	Potential to Occur
<i>Microtus californicus stephensi</i> south coast marsh vole	Fed: None CA: SSC	Inhabits wet, coastal marsh habitats.	No	Presumed absent. There is no suitable habitat.
<i>Mycteria americana</i> wood stork	Fed: None CA: SSC	Found in freshwater and estuarine wetlands, primarily nesting in cypress or mangrove swamps.	No	Presumed absent. There is no suitable habitat. This species is native to the eastern U.S. and is rare in California.
<i>Numenius americanus</i> long-billed curlew	Fed: None CA: WL	Preferred winter habitats include large coastal estuaries, upland herbaceous areas, and croplands. On estuaries, feeding occurs mostly on intertidal mudflats.	No	Moderate. May occur along the shoreline.
<i>Nycticorax nycticorax</i> black-crowned night heron	Fed: None CA: None	Fairly common, yearlong resident in lowlands and foothills through most of California, including the Salton Sea and Colorado River areas, and very common locally in large nesting colonies. Feeds along the margins of lacustrine, large riverine, and fresh and saline emergent habitats and rarely, on kelp beds in marine subtidal habitats. Nests and roosts in dense-foliaged trees and dense emergent wetlands.	No	Presumed absent. There is no suitable habitat.
<i>Onychobaris langei</i> Lange's El Segundo Dune weevil	Fed: None CA: None	Found within the El Segundo dunes, Los Angeles County.	No	Presumed absent. There is no suitable habitat.
<i>Pandion haliaetus</i> osprey	Fed: None CA: WL	Associated strictly with large, fish-bearing waters, primarily in ponderosa pine through mixed conifer habitats. Uses large trees, snags, and dead-topped trees in open forest habitats for cover and nesting. Requires open, clear waters for foraging and uses rivers, lakes, reservoirs, bays, estuaries, and surf zones.	No	Low. May forage over the site.
<i>Panoquina errans</i> wandering (=saltmarsh) skipper	Fed: None CA: None	Found in salt marsh, alkali meadow, and upland habitats.	No	Presumed absent. There is no suitable habitat.
<i>Passerculus sandwichensis beldingi</i> Belding's savannah sparrow	Fed: None CA: END	Year-round obligate resident of southern California salt marshes. Particularly favors areas dominated by pickleweed.	No	Presumed absent. There is no suitable habitat.
<i>Passerculus sandwichensis rostratus</i> large-billed savannah sparrow	Fed: None CA: SSC	Limited to open, low salt marsh vegetation, including grasses, pickleweed, and iodine bush around the mouth of the Colorado River and adjacent coastlines of the uppermost Gulf of California. Winters in southern California.	No	Presumed absent. There is no suitable habitat.
<i>Pelecanus occidentalis californicus</i> California brown pelican	Fed: Delisted CA: Delisted; FP	Found in estuarine, marine subtidal, and marine pelagic waters along the California coast.	Yes	High. Likely to fly over the site.

Scientific Name Common Name	Status	Habitat	Observed On-site	Potential to Occur
<i>Perognathus longimembris pacificus</i> Pacific pocket mouse	Fed: END CA: SSC	Occurs on loose sandy soils that support sparse coastal sage scrub, grassland, and ruderal habitats.	No	Presumed absent. There is no suitable habitat.
<i>Phalacrocorax auritus</i> double-crested cormorant	Fed: None CA: WL	Yearlong resident along the entire coast of California and on inland lakes, in fresh, salt and estuarine waters.	No	High. Likely to fly over the site.
<i>Plegadis chihi</i> white-faced ibis	Fed: None CA: WL	Prefers to feed in fresh emergent wetland, shallow lacustrine waters, muddy ground of wet meadows, and irrigated or flooded pastures and croplands. Nests in dense, fresh emergent wetland.	No	Presumed absent. There is no suitable habitat.
<i>Poliophtila californica californica</i> coastal California gnatcatcher	Fed: THR CA: SSC	Obligate resident of sage scrub habitats that are dominated by California sagebrush (<i>Artemisia californica</i>). This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. Ranges from the Ventura County, south to San Diego County and northern Baja California and it is less common in sage scrub with a high percentage of tall shrubs. Prefers habitat with more low-growing vegetation.	No	Presumed absent. There is no suitable habitat.
<i>Rallus longirostris levipes</i> light-footed clapper rail	Fed: END CA: END; FP	Occurs in coastal saline emergent wetlands along Southern California. Prefers emergent wetland dominated by pickleweed and cordgrass. Requires shallow water and mudflats for foraging, with adjacent higher vegetation for cover during high water.	No	Presumed absent. There is no suitable habitat.
<i>Rallus longirostris obsoletus</i> California clapper rail	Fed: END CA: END; FP	Lives in coastal salt and brackish marshes and tidal sloughs of San Francisco Bay and Suisun Bay. Stays mainly in the upper to lower zones of coastal salt marshes dominated by pickleweed and cordgrass.	No	Presumed absent. There is no suitable habitat.
<i>Selasphorus sasin</i> Allen's hummingbird	Fed: None CA: None	Breeders are most common in coastal scrub, valley foothill hardwood, and valley foothill riparian habitats, but also are common in closed-cone pine cypress, urban, and redwood habitats. Occurs in a variety of woodland and scrub habitats as a migrant.	No	High. Likely to occur on-site.
<i>Setophaga petechia</i> yellow warbler	Fed: None CA: SSC	Nests over all of California except the Central Valley, the Mojave Desert region, and high altitudes and the eastern side of the Sierra Nevada. Winters along the Colorado River and in parts of Imperial and Riverside Counties. Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders or in mature chaparral. May also use oaks, conifers, and urban areas near stream courses.	No	Presumed absent. No suitable habitat is present on site.

Scientific Name Common Name	Status	Habitat	Observed On-site	Potential to Occur
<i>Sorex ornatus salicornicus</i> southern California saltmarsh shrew	Fed: None CA: SSC	Occur in coastal salt marshes in Orange, Los Angeles, and Ventura counties.	No	Presumed absent. There is no suitable habitat.
<i>Stereolepis gigas</i> giant sea bass	Fed: None CA: None	Occupy rocky habitats near kelp beds, ledges and drop offs at depths of 35 to 130 feet. May also be found foraging over sandy bottom away from rocky reefs.	No	Presumed absent. There is no suitable habitat.
<i>Sternula antillarum browni</i> California least tern	Fed: END CA: END; FP	Prefers broad, level expanse of open sandy or gravelly beach, dredge spoil and other open shoreline areas, and broad river valley sandbars.	No	Low. May occur along the shoreline.
<i>Streptocephalus woottoni</i> Riverside fairy shrimp	Fed: END CA: None	Restricted to deep vernal pools and ponds lying within annual grasslands.	No	Presumed absent. There is no suitable habitat.
<i>Thalasseus elegans</i> elegant tern	Fed: None CA: WL	Breeds on flat rocky areas and is strongly tied to the coast. Forages in inshore waters, estuarine habitats, salt ponds and lagoons.	No	Moderate. May occur along the shoreline.
<i>Trigonoscuta dorothea dorothea</i> Dorothy's El Segundo Dune weevil	Fed: None CA: None	Found within the El Segundo dunes, Los Angeles County.	No	Presumed absent. There is no suitable habitat.
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	Fed: None CA: None	Found in coastal lagoons and areas where creek mouths join tidal marshes.	No	Presumed absent. There is no suitable habitat.
<i>Vireo bellii pusillus</i> least Bell's vireo	Fed: END CA: END	Primarily occupy Riverine riparian habitat that typically feature dense cover within 1 -2 meters of the ground and a dense, stratified canopy. Typically it is associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodlands, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities. It uses habitat which is limited to the immediate vicinity of water courses, 2,000 feet elevation in the interior.	No	Presumed absent. There is no suitable habitat.
<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	Fed: None CA: SSC	Nests in fresh emergent wetland with dense vegetation and deep water, often along borders of lakes or ponds. Forages in emergent wetland and most, open areas, especially cropland and muddy shores of lacustrine habitat.	No	Presumed absent. There is no suitable habitat.
PLANT SPECIES				
<i>Abronia maritima</i> red sand-verbena	Fed: None CA: None CNPS: 4.2	Occurs on coastal dunes. Found at elevations ranging from 0 to 328 feet. Blooming period is from February to November.	No	Presumed absent. There is no suitable habitat.

Scientific Name Common Name	Status	Habitat	Observed On-site	Potential to Occur
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i> Ventura Marsh milk-vetch	Fed: END CA: END CNPS: 1B.1	Grows in coastal dunes, coastal scrub, marshes and swamps. Found at elevations ranging from 3 to 115 feet. Blooming period is from June to October.	No	Presumed absent. There is no suitable habitat. The only known record has been extirpated.
<i>Astragalus tener</i> var. <i>titi</i> coastal dunes milk-vetch	Fed: END CA: END CNPS: 1B.1	Habitats include vernal mesic areas, sandy coastal bluff scrub, coastal dunes, and mesic coastal prairie. Found at elevations ranging from 3 to 164 feet. Blooming period is from March to May.	No	Presumed absent. There is no suitable habitat. The only known record has been possibly extirpated.
<i>Camissoniopsis lewisii</i> Lewis' evening-primrose	Fed: None CA: None CNPS: 3	Found in coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland in sandy or clay soils. Found at elevations ranging from 0 to 984 feet. Blooming period is from March to June.	No	Presumed absent. There is no suitable habitat.
<i>Centromadia parryi</i> ssp. <i>australis</i> southern tarplant	Fed: None CA: None CNPS: 1B.1	Occurs in disturbed areas near coastal salt marshes, grasslands, vernal pools, and coastal sage scrub habitat. Found at elevations ranging from 0 to 1,575 feet. Blooming period is from May to November.	No	Presumed absent. There is no suitable habitat.
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i> Orcutt's pincushion	Fed: None CA: None CNPS: 1B.1	Occurs in sandy areas within coastal bluff scrub and coastal dunes. Found at elevations ranging from 10 to 328 feet. Blooming period is from January to August.	No	Presumed absent. There is no suitable habitat.
<i>Chenopodium littoreum</i> coastal goosefoot	Fed: None CA: None CNPS: 1B.2	Found within coastal dune habitats. Found at elevations ranging from 33 to 98 feet. Blooming period is from April to August.	No	Presumed absent. There is no suitable habitat. The only known record has been extirpated.
<i>Chorizanthe parryi</i> var. <i>fernandina</i> San Fernando Valley spineflower	Fed: Candidate CA: END CNPS: 1B.1	Grows in sandy coastal scrub, valley and foothill grassland habitats. Found at elevations ranging from 492 to 4,003 feet. Blooming period is from April to July.	No	Presumed absent. There is no suitable habitat. The only known record has been extirpated.
<i>Deinandra paniculata</i> paniculate tarplant	Fed: None CA: None CNPS: 4.2	Occurs in coastal scrub, vernal pools, valley and foothill grassland habitats. Found at elevations ranging from 82 to 3,084 feet. Blooming period is from April to November.	No	Presumed absent. There is no suitable habitat.
<i>Dichondra occidentalis</i> western dichondra	Fed: None CA: None CNPS: 4.2	Grows within chaparral, cismontane woodland, coastal scrub, valley and foothill grassland habitats. Found at elevations ranging from 164 to 1,640 feet. Blooming period is from January to July.	No	Presumed absent. There is no suitable habitat.

Scientific Name Common Name	Status	Habitat	Observed On-site	Potential to Occur
<i>Dithyrea maritima</i> beach spectaclepod	Fed: None CA: THR CNPS: 1B.1	Prefers coastal dunes and sandy coastal scrub habitats. Found at elevations ranging from 10 to 164 feet. Blooming period is from March to May.	No	Presumed absent. There is no suitable habitat.
<i>Eryngium aristulatum var. parishii</i> San Diego button-celery	Fed: END CA: END CNPS: 1B.1	Occurs in coastal scrub, valley and foothill grassland, and vernal pools in mesic soils. Found at elevations ranging from 66 to 2,034 feet. Blooming period is from April to June.	No	Presumed absent. There is no suitable habitat. The only known record has been extirpated.
<i>Erysimum insulare</i> island wallflower	Fed: None CA: None CNPS: 1B.3	Habitats include coastal dunes and coastal bluff scrub. Found at elevations ranging from 0 to 984 feet. Blooming period is from March to July.	No	Presumed absent. There is no suitable habitat.
<i>Erysimum suffrutescens</i> suffrutescent wallflower	Fed: None CA: None CNPS: 4.2	Prefers coastal bluff scrub, maritime chaparral, coastal dunes, and coastal scrub habitats. Found at elevations ranging from 0 to 492 feet. Blooming period is from January to July.	No	Presumed absent. There is no suitable habitat.
<i>Hordeum intercedens</i> vernal barley	Fed: None CA: None CNPS: 3.2	Grows in coastal dunes, coastal scrub, vernal pools, valley and foothill grassland habitats. Grows at elevations ranging from 16 to 3,281 feet. Blooming period is from March to June.	No	Presumed absent. There is no suitable habitat.
<i>Juncus acutus ssp. leopoldii</i> southwestern spiny rush	Fed: None CA: None CNPS: 4.2	Habitats include coastal dunes, meadows and seeps, marshes and swamps. Found at elevations ranging from 10 to 2,953 feet. Blooming period is from March to June.	No	Presumed absent. There is no suitable habitat.
<i>Lasthenia glabrata ssp. coulteri</i> Coulter's goldfields	Fed: None CA: None CNPS: 1B.1	Prefers playas, vernal pools, and coastal salt marshes and swamps. Found at elevations ranging from 3 to 4,003 feet. Blooming period is from February to June.	No	Presumed absent. There is no suitable habitat.
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	Fed: None CA: None CNPS: 1B.1	Grows in coastal scrub, vernal pools, meadows and seeps, and alkaline valley and foothill grassland habitats. Found at elevations ranging from 10 to 3,970 feet. Blooming period is from April to July.	No	Presumed absent. There is no suitable habitat. The only known record has been possibly extirpated.
<i>Phacelia ramosissima var. australitoralis</i> south coast branching phacelia	Fed: None CA: None CNPS: 3.2	Found in chaparral, coastal dunes, coastal scrub, and coastal salt marshes and swamps in sandy or sometimes rocky soils. Found at elevations ranging from 16 to 984 feet. Blooming period is from March to August.	No	Presumed absent. There is no suitable habitat.
<i>Phacelia stellaris</i> Brand's star phacelia	Fed: None CA: None CNPS: 1B.1	Prefers coastal dunes and coastal scrub habitats. Found at elevations ranging from 3 to 1,312 feet. Blooming period is from March to June.	No	Presumed absent. There is no suitable habitat.

Scientific Name Common Name	Status	Habitat	Observed On-site	Potential to Occur
<i>Potentilla multijuga</i> Ballona cinquefoil	Fed: None CA: None CNPS: 1A	Grows in brackish meadows and seeps. Found at elevations ranging from 0 to 7 feet. Blooming period is from June to August.	No	Presumed absent. There is no suitable habitat. The only known record has been extirpated.
<i>Suaeda esteroa</i> estuary seablite	Fed: None CA: None CNPS: 1B.2	Occurs in coastal salt marshes and swamps. Found at elevations ranging from 0 to 16 feet. Blooming period is from May to January.	No	Presumed absent. There is no suitable habitat.
<i>Suaeda taxifolia</i> woolly seablite	Fed: None CA: None CNPS: 4.2	Occurs within coastal bluff scrub, coastal dunes, marshes and swamps. Found at elevations ranging from 0 to 164 feet. Blooming period is from January to December.	No	Presumed absent. There is no suitable habitat.
HABITATS				
Southern Coastal Salt Marsh	CDFW Sensitive Habitat	Found in flat, protected waters usually within the protection of a barrier island, estuary, or along low-energy coastlines.	No	Absent.
Southern Dune Scrub	CDFW Sensitive Habitat	Dynamic habitats that are affected by wave action, tides, wind, and trampling. They develop where there is a substantial amount of blown, dry sand. Plants consist of mostly prostrate herbs with creeping stems and long fleshy taproots.	No	Absent.

U.S. Fish and Wildlife Service (Fed) - Federal
 END- Federal Endangered
 THR- Federal Threatened
 Delisted- Removed from the Endangered Species List

California Department of Fish and Wildlife (CA) - California
 END- California Endangered
 THR- California Threatened
 Delisted- Removed from the California Endangered Species List
 FP- California Fully Protected
 SSC- California Species of Special Concern
 WL- Watch List

California Native Plant Society (CNPS) California Rare Plant Rank
 1A Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
 1B Plants Rare, Threatened, or Endangered in California and Elsewhere
 3 Plants About Which More Information is Needed – A Review List
 4 Plants of Limited Distribution – A Watch List

Threat Ranks
 0.1- Seriously threatened in California
 0.2- Moderately threatened in California
 0.3- Not very threatened in California