

Appendix C

Biological Resources Assessment Memorandum



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Project No: 18-06891

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Planner
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City of Long Beach
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Via email: maryanne.cronin@longbeach.gov

Subject: Biological Resources Assessment Memorandum for the 300 Studebaker Road Industrial Park Project, Long Beach, California

Dear Ms. Cronin,

Rincon Consultants, Inc. (Rincon) is pleased to submit this Biological Resources Assessment Memorandum (BRAM) for the 300 Studebaker Road Industrial Park Project (Project) located at 300 Studebaker Road in Long Beach, California. The purpose of the BRAM is to address the status and condition of sensitive biological resources and rare, threatened, and endangered species with the potential to occur at the project site or to be affected by the proposed construction activities.

The project impacts, regulations, and mitigation measures (MMs) are discussed in accordance with the California Environmental Quality Act (CEQA) and anticipated environmental review related to the project.

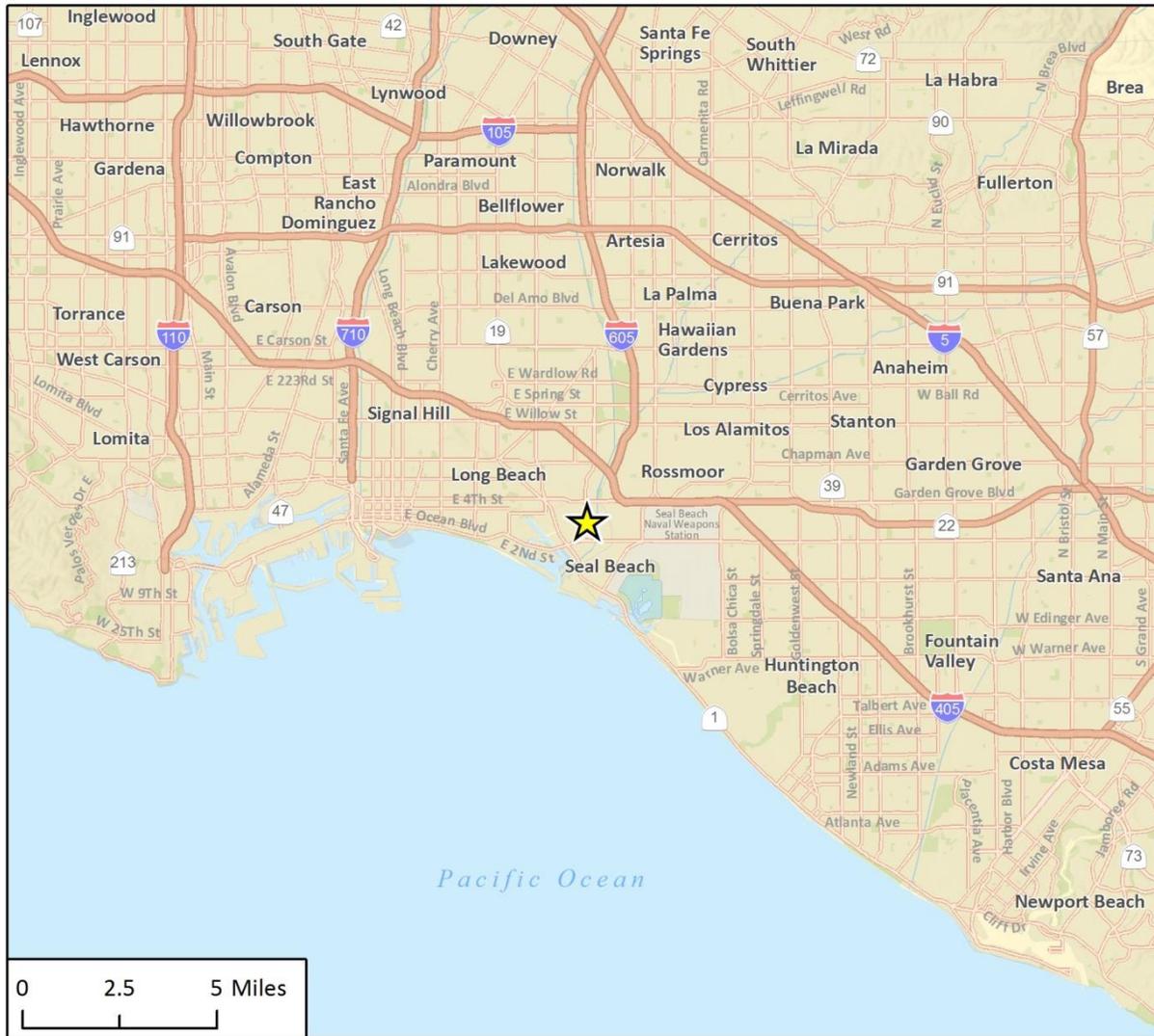
Project Description and Location

The proposed project is located at 300 Studebaker Road, Long Beach, California, approximately 0.2 mile west of the San Gabriel River and 1.7 miles northeast of Alamitos Bay (Figure 1). The project site encompasses 6.69 acres of land situated east of Studebaker Road and 1.81 acres at the northwest and southwest corners of the intersection of Studebaker Road and Loynes Drive and includes five parcels, which are identified as Assessor Parcel Numbers (APNs) 7237-017-007, 7237-017-008, 7237-017-009, 7237-018-001, and 7237-019-005. The project site is located in Section 2 of Township 5 south, Range 12 west (San Bernardino baseline and meridian), and depicted on *Los Alamitos*, California United States Geological Survey 7.5-minute quadrangle map (Figure 2).

Industrial Development

The proposed project involves demolition of 400 square feet of existing concrete and asphalt paving, as well as development of two concrete tilt-up industrial buildings, situated within the 6.69 acres of land east of Studebaker Road. The two 35-foot high buildings would total 139,200 sf, including 21,000 sf office space. The individual building sizes would be 91,700 sf and 47,500 sf, respectively. The project would support potential uses such light manufacturing, warehousing, assembly and distribution. The building layout may be broken into six or more individual spaces depending upon final tenant demand.

Figure 1 Regional Location



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★ Project Location

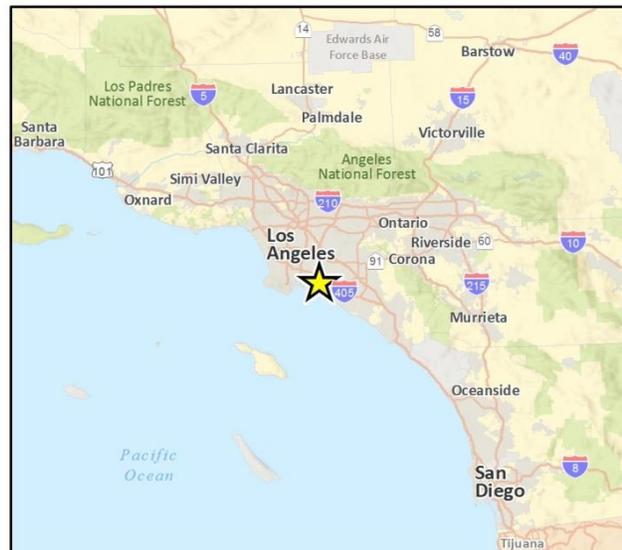
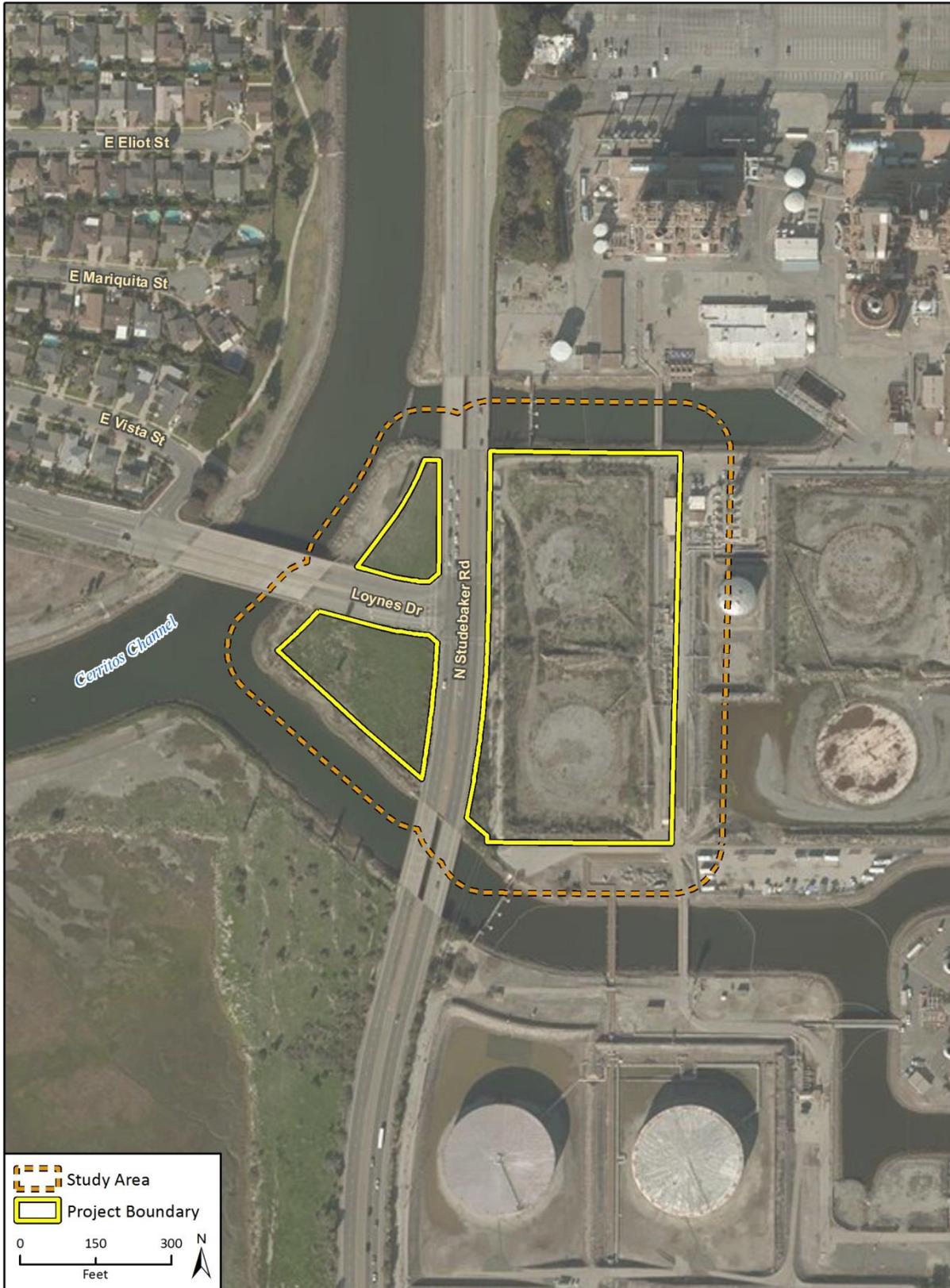


Fig. 1 Regional Location

Figure 2 Project Location





Office spaces would be provided in the interior frontage of each building to support the business operations. Office space would occupy a maximum of 25 percent of the gross floor area pursuant to Chapter 21.33 of the City of Long Beach Municipal Code. Office space in Building 1 would total 14,000 sf and 7,000 sf in Building 2, which together represents 21,000 sf, or 15 percent of the gross floor area.

Proposed buildings are designed such that visitor parking would be in front of the buildings as they face Studebaker Road. Truck access and employee parking would be to the rear of the buildings. The buildings would not exceed Southeast Area Development Improvement Plan (SEADIP) height standards. Non-glare glazing is incorporated into the design. Proposed lighting fixtures reduce light and glare potential from the site, both the lighting and glazing are designed to produce a bird safe environment out of consideration to the proximity of wetlands areas. Landscaping or low walls would provide a barrier to lights from cars that are parked facing Studebaker Road. There would be no light spillage onto the roadway.

Dedicated Open Space

The parcels situated west of Studebaker Road (APNs 7237-018-001, 7237- 017-007, -008, -009) are currently vacant; undeveloped; and within the Coastal Habitat, Wetlands, and Recreation land use designation under the Southeast Area Specific Plan (SEASP) for the City of Long Beach (SEASP, Long Beach 2017)¹. Specifically, SEASP classifies the parcels west of Studebaker Road as “undeveloped upland.” The project involves planting of an assortment of native grasses and tree species consistent with the Los Cerritos Wetlands Authority recommendations, including low growing grasses along street frontage on these parcels. Consultation with the Los Cerritos Wetlands Authority would be required for final approval of landscape plans for these parcels.

Methodology

Regulatory Overview

Regulated or sensitive resources studied and analyzed herein include special-status plant and wildlife species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, and locally protected resources, such as protected trees. For the purpose of this report, potential impacts to biological resources were analyzed based on the following statutes:

Federal

- Federal Endangered Species Act (ESA)
- Federal Clean Water Act (CWA)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act

¹ The City of Long Beach repealed the SEADIP and replaced it with the SEASP on May 1, 2016. However, the California Coastal Commission (CCC) continues to recognize the SEADIP as the existing, adopted Specific Plan, while the SEASP awaits approval from the agency.



State

- California Environmental Quality Act (CEQA)
- California Endangered Species Act (CESA)
- California Fish and Game Code (CFGC)
- Porter-Cologne Water Quality Control Act

Local

- City of Long Beach Municipal Code Section 14.28
- City of Long Beach Southeast Area Specific Plan
- City of Long Beach Southeast Area Development and Improvement Plan

Literature Review

Prior to conducting the biological field survey, Rincon Senior Biologist Megan Minter reviewed the project plans (provided by the client), aerial photographs, and previous historical land use of the survey area. Queries of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) (CDFW 2019) and the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS 2019) were conducted to obtain comprehensive information regarding state and federally listed species as well as other special-status species considered to have potential to occur within a 5-mile radius of the project site. For CNPS query purposes, a 9-quadrangle search area centered on the project site was used.

In addition, regionally occurring sensitive biological resources and geological information related to the site were researched from the following sources:

- USFWS Critical Habitat Portal (U.S. Fish and Wildlife Service [USFWS] 2019a)
- USFWS Information, Planning, and Conservation System (USFWS 2019b)
- USFWS National Wetland Inventory (NWI) Mapper (USFWS 2019c)
- Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2019)

Field Survey

A field reconnaissance survey was conducted by Rincon Senior Biologist Megan Minter on April 1, 2019, to document the existing site conditions and to evaluate the potential for presence of sensitive biological resources including sensitive plant and animal species, sensitive plant communities, potentially jurisdictional waters of the U.S. and wetlands, and habitat for federally and state protected species. Weather conditions during the survey included an average temperature of 70 degrees Fahrenheit, with calm winds up to three miles per hour, and clear skies with good visibility. The biologist defined the survey area as the project site including a 100-foot survey buffer (Figure 2). The survey was conducted on foot and by remote observation with 10x30 binoculars. All biological resources encountered within the survey area were recorded.

During the survey, an inventory of all plant and animal species observed was compiled. Plant species nomenclature and taxonomy follows *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012). All species encountered were noted and identified to the lowest possible taxonomic level.



The habitat requirements for each regionally occurring special-status species were assessed and compared to the type and quality of the habitats observed within the project site during the site visit. The survey was conducted to make an initial determination regarding the presence or absence of terrestrial biological resources including plants, birds and wildlife.

Based on the results of the site visit, literature review, and species known to occur regionally, Rincon assessed the potential for the proposed project to impact special-status species within the survey area. The potential presence of special-status species is based on the site visit and literature review and is intended to assess habitat suitability within the project area only. Definitive surveys to confirm the presence or absence of special-status species were not performed and are not included within this analysis. The findings and opinions conveyed in this report are based exclusively on the methodology described above.

Existing Conditions

Soils

The project site contains only one soil type: Urban land-Typic Xerorthents, dredged spoil complex, 0 to 2 percent slopes (NRCS 2019). This soil type is common in commercial developments along the coast.

All on-site soil appears to have been subject to varying degrees of topsoil removal through grading and excavation and is sandy fill dirt mixed with gravel. The eastern parcel is bordered by a large berm that was originally constructed to contain spills from the large storage tanks on site. The berm contains mammal burrows of various sizes.

Vegetation

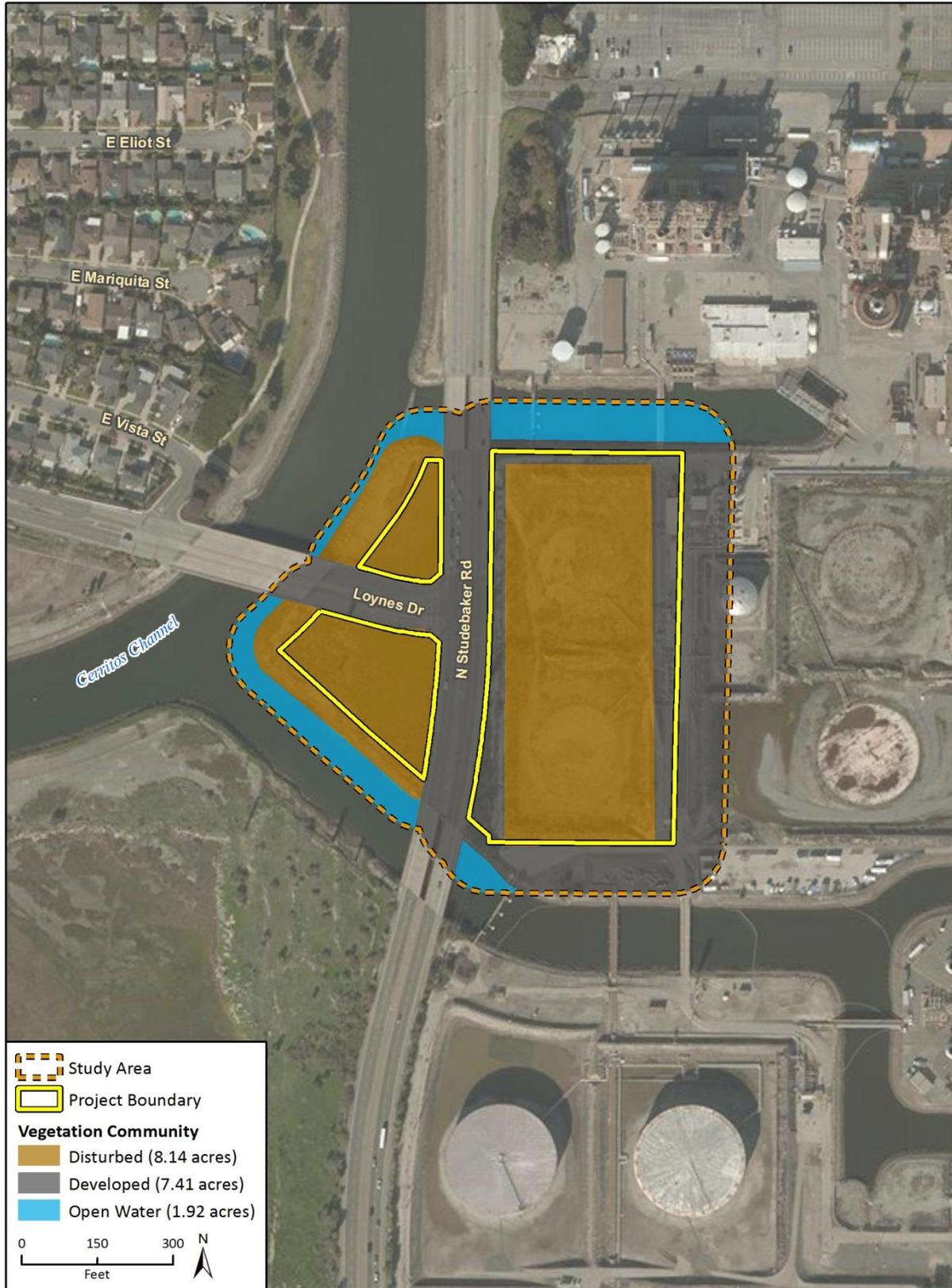
Two vegetation communities occur within the survey area: Disturbed and Developed (Figure 3). The vegetation classification used for this analysis is based on Sawyer et al. (2009), but modified as needed to most accurately describe the existing vegetation communities on-site. A total of nine plant species were observed within the survey area during the site reconnaissance survey (identified and discussed below), all of which are non-native.

Disturbed

Disturbed habitats have been physically disturbed (by previous legal human activity) and are no longer recognizable as a native or naturalized vegetation association but continue to retain a soil substrate. Typically, vegetation of disturbed areas, if present, is nearly exclusively composed of non-native plant species such as landscape ornamentals or ruderal exotic species that take advantage of disturbance and which removes any capability of providing viable natural habitat for uses other than dispersal (Oberbauer et al. 2008).

Within the survey area, disturbed habitat comprises the majority of the project site and is dominated by non-native weedy vegetation. Vegetation on the west side of Studebaker Road is sparse and scattered and includes Russian thistle (*Salsola tragus*), red-stemmed filaree (*Erodium cicutarium*), brome grasses (*Bromus* spp.) and various mustards (*Brassica* spp., *Sisymbrium irio*). Vegetation on the east side of Studebaker Road is much denser and includes brome grasses, Russian thistle, and yellow star thistle (*Centaurea solstitialis*).

Figure 3 Vegetation Communities



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010101g_3 Vegetation Map



Developed

Developed land includes areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. It is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation (Oberbauer et al. 2008).

Asphalt roadways line the northern and eastern borders of the eastern parcel. A concrete berm and walkway line the western edge of the eastern parcel. Ornamental trees line the perimeter of each project parcel along Studebaker Road and Lyones Drive. Species included Mexican fan palm

(*Washingtonia robusta*) and Brazilian pepper tree (*Schinus terebinthifolius*). A line of power poles is present along Studebaker Road on the eastern parcel.

Open Water

The Los Cerritos Channel is located directly adjacent to the proposed project site within the survey area but is separated from the project site by a chain link fence and a barren beach area bounded by rip-rap.

Wildlife

The project site provides little habitat for wildlife species due to the nature of the surrounding industrial land use and the lack of native vegetation on-site. Avian species observed on-site during the field reconnaissance survey are included in Table 1. The only other wildlife species observed on site was western fence-lizard (*Sceloporus occidentalis*).

Table 1 Avian Species Observed During April 1, 2019 Reconnaissance Survey

Scientific Name	Common Name
<i>Calypte anna</i>	Anna’s hummingbird
<i>Corvus brachyrhynchos</i>	American crow
<i>Corvus corax</i>	common raven
<i>Haemorhous mexicanus</i>	house finch
<i>Haemorhous purpureus</i>	purple finch
<i>Larus californicus</i>	California gull
<i>Passer domesticus</i>	house sparrow
<i>Psaltriparus minimus</i>	Bushtit
<i>Sayornis nigricans</i>	black phoebe
<i>Spizella passerina</i>	chipping sparrow
<i>Streptopelia decaocto</i>	Eurasian collared-dove
<i>Zenaida macroura</i>	mourning dove
<i>Zonotrichia leucophrys</i>	white-crowned sparrow

Nesting Birds and Roosting Bats

Established ornamental trees and the power pole structure along the east side of Studebaker Road in the survey area could provide nesting areas for common nesting birds protected under the CFGC Section 3503 and the MBTA.



Bat species are not likely to utilize disturbed or developed habitat in areas without neighboring insect or floral foraging habitat nearby. The nearby Los Cerritos Wetlands, located south of the project site, would provide suitable insect population for foraging; however, the lack of buildings and dense tree canopies on-site further reduce on-site roosting potential. Evidence of roosting bats was not observed during the site survey.

Sensitive Biological Resources and Impact Analysis

Special-Status Species

Special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS under the Federal ESA; those considered “Species of Concern” by the USFWS; those listed or candidates for listing as Rare, Threatened, or Endangered by the CDFW under the CESA; animals designated as “Fully Protected” by the CFGC; animals listed as “Species of Special Concern” (SSC) by the CDFW; CDFW Special Plants, specifically those with California Rare Plant Ranks (CRPR) of 1B, 2, 3, and 4 in the CNPS’s Inventory of Rare and Endangered Vascular Plants of California (2018).

Furthermore, biological resources, including vegetation communities, are ranked globally (G) and State-wide (S) 1 through 5 (more critical to less critical with those alliances ranked as G or S 1 through 3 being considered as special-status, with some exceptions).

Local, state, and federal agencies regulate special-status species and may require an assessment of their presence or potential presence to be conducted on site prior to the approval of proposed development on a property. This section discusses sensitive biological resources observed on the project site and evaluates the potential for the project site to support other sensitive biological resources. A list of special-status plant and animal species with potential to occur onsite was developed based on a review of a 5-mile search of the CNDDDB (CDFW 2019) and a 9-quad search of the CNPS’s online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2019) and can be found in Attachment A.

Pursuant to Appendix G of the CEQA Guidelines, the proposed project would have a significant effect on biological resources if it would:

- a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.*

The CNDDDB/CNPS query results include 32 special-status plant species within five miles of the project site. Special-status plant species typically have specialized habitat requirements, including plant community types, soils, elevational ranges. No suitable habitat exists within the survey area for any of these plant species and all are classified as having no potential to occur on-site (Attachment A). No special-status plant species were observed during the site reconnaissance survey.

The CNDDDB query results include 24 special-status wildlife species within five miles of the project site. The potential for special-status wildlife species to occur on the site was assessed based on known distribution, habitat requirements, and existing site conditions. No special-status wildlife species were determined to have potential to occur on-site (Attachment A) and, similarly, none were detected within or immediately surrounding the survey area during the site reconnaissance survey. The lack of potential for special-status wildlife species occurrence is based on low habitat quality in disturbed and developed areas of the site, lack of native vegetation, isolation from other suitable habitat due to developed land uses surrounding the site, and high levels of human disturbance.



The project would not have any substantial adverse effect on any candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

Sensitive Plant Communities

Pursuant to Appendix G of the CEQA Guidelines, the proposed project would have a significant effect on biological resources if it would:

- b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.*

The only habitat present on the project site is disturbed and previously developed. The project would not have any substantial adverse effect on any riparian habitat or sensitive vegetation communities.

Jurisdictional Wetlands and Waterways

Pursuant to Appendix G of the CEQA Guidelines, the proposed project would have a significant effect on biological resources if it would:

- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*

As analyzed in the Jurisdictional Delineation Report prepared for the project, the Los Cerritos Channel and an associated cold-water intake for the Alamitos Energy Station (AES) are within the survey area. However, these waters were not formally delineated because they are channelized and sufficiently separated from the project site that they would not be impacted by the proposed project.

Indirect impacts to jurisdictional resources would be avoided through project design. The proposed project would comply with current National Pollutant Discharge Elimination System (NPDES) and Los Angeles County MS4 permit regulations and would also include storm water Low Impact Development (LID) Best Management Practices (BMPs). Additionally, the project would comply with Chapter 18.74 of the Long Beach Municipal Code which regulates the implementation of the LIDs and BMPs for projects in the City of Long Beach.

Wildlife Movement

Pursuant to Appendix G of the CEQA Guidelines, the proposed project would have a significant effect on biological resources if it would:

- d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.*

Wildlife corridors are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as between foraging and denning areas, or they may be regional in nature, allowing movement across the landscape. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Examples of barriers or impediments to movement include housing and other urban development, roads, fencing, unsuitable habitat, or open areas with little vegetative cover. Regional and local wildlife movements are expected to be concentrated near topographic features that allow convenient passage, including roads, drainages, and ridgelines.



The project site is encompassed by developed industrial and residential properties and established transportation corridors. The project site is located adjacent to the Los Cerritos Wetlands; however, it has been previously disturbed. The site does not serve as a migratory wildlife corridor and the proposed project would not interfere substantially with the movement of any native wildlife species. The project would be designed in such a way to protect nocturnal wildlife movement and to comply with SEASP requirements, which regulates the placement and intensity of outdoor lighting and includes noise reduction measures during construction.

Local Policies and Ordinances

Pursuant to Appendix G of the CEQA Guidelines, the proposed project would have a significant effect on biological resources if it would:

- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*

The City of Long Beach Municipal Code Section 14.28 states that tree trimming and removal of any City-owned street tree will be conducted by the Public Works Department following submittal of an application for a no-fee permit (City of Long Beach, 2006, 2013). No trees on or immediately adjacent to the property appear to be currently located directly in or along a public right-of-way. Therefore, the project would not conflict with Municipal Code Section 14.28.

The project is located within the California Coastal Zone and is subject to the policies pursuant to the California Coastal Commission (CCC). The project falls under the City of Long Beach's Local Coastal Program (Long Beach 1980) and, under it, is located within the Southeast Area Development and Improvement Plan (SEADIP, Long Beach 2006) area. According to the SEADIP, the eastern parcel is slated for development is within Subarea 19 while the western parcels are within Subarea 24.

In the SEADIP, Subarea 19 is identified as industrial and fully developed in accordance with the provisions of the zone. As such, development of the proposed project, which includes industrial buildings, in Subarea 19 would comply with the SEADIP. Subarea 24 is designated for restoration to native wetland habitat. Under the proposed project, the western parcels would be restored to native wetland habitat and donated to the Los Cerritos Wetland Trust. Restoration plans would be prepared in consultation with Los Cerritos Wetlands Authority and in compliance with requirements of the SEADIP. As such, development of the proposed project in Subarea 24 would comply with the SEADIP and, therefore, with the City of Long Beach's Local Coastal Program.

No Environmentally Sensitive Habitat Areas (ESHA) occur on the project site. Therefore, the project would not conflict with Section 30240 of the SEASP.

Adopted or Approved Plans

Pursuant to Appendix G of the CEQA Guidelines, the proposed project would have a significant effect on biological resources if it would:

- f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.*

The project site is not subject to any Habitat Conservation Plan, Natural Conservation Community Plan, or other local, regional, or state habitat conservation plan.



Recommended Actions

Pre-construction Nesting Bird Surveys

Migratory or other common nesting birds, while not designated as special-status species, are protected by the CFGC and MBTA and may nest on the power pole structure along Studebaker Road or in ornamental trees on-site. Therefore, construction of the project has the potential to directly (by destroying a nest) or indirectly (construction noise, dust, and other human disturbances that may cause a nest to fail) impact nesting birds protected under the CFGC and MBTA. The following measure is recommended to maintain compliance with the CFGC Section 3503 and the MBTA with respect to nesting birds:

- If initial clearing activities prior to the start of construction take place during the bird nesting season (generally February 1 through August 31, but variable based on seasonal and annual climatic conditions), a nesting bird survey should be performed by a qualified biologist within seven days of such activities to determine the presence/absence, location, and status of any active nests on-site or within 100 feet of the site. The findings of the survey should be summarized in a report to be submitted to the City of Long Beach prior to undertaking construction activities at the site.
- If nesting birds are found on-site, a construction buffer of 500 feet for nesting raptors or threatened or endangered species and 100 feet of all other nesting birds should be implemented around the active nests and demarcated with fencing or flagging. Nests should be monitored at a minimum of once per week by the qualified biologist until it has been determined that the nest is no longer being used by either the young or adults. No ground disturbance should occur within this buffer until the qualified biologist confirms that the breeding/nesting is completed and all the young have fledged. If project activities must occur within the buffer, they should be conducted at the discretion of the qualified biologist.
- If no nesting birds are observed during pre-construction surveys, no further actions would be necessary.

Limitations

This document was prepared for use solely and exclusively by the City of Long Beach, care of Maryanne Cronin, who may use it to provide information to satisfy CEQA requirements. No other use or disclosure is intended or authorized by Rincon, nor shall this report be relied upon or transferred to any other party without the express written consent of Rincon Consultants. This work has been performed in accordance with good commercial, customary, and generally accepted biological investigation practices conducted at this time and in this geographic area. The findings and opinions conveyed in this report are based on a suitability analysis level only and did not include definitive surveys for the presence or absence of the special-status species that may be present. Definitive surveys for special-status wildlife and plant species generally require specific survey protocols requiring extensive field survey time to be conducted only at certain times of the year. The findings and opinions conveyed in this report are based on this methodology. It is understood that Rincon is to be held harmless for any inverse condemnation or devaluation of said property that may result if Rincon's report or information generated during our performance of services is used for other purposes.

Thank you for the opportunity to support your environmental analysis needs for this project. Please contact us if you have any questions.



Sincerely,
Rincon Consultants, Inc.

Handwritten signature of Amy Leigh Trost in blue ink.

Amy Leigh Trost
Associate Biologist

Handwritten signature of Brenna Vredevelde in blue ink.

Brenna Vredevelde
Senior Biologist

Handwritten signature of Steven J. Hongola in black ink.

Steven J. Hongola
Principal/Senior Ecologist

Attachments

- Attachment A CNDDDB/CNPS Query Results and Occurrence Potentials
- Attachment B Site Survey Photographs



References

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Attachment A

CNDDDB/CNPS Query Results and Occurrence Potentials

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Plants and Lichens				
<i>Abronia villosa</i> var. <i>aurita</i> chaparral sand-verbena	None/None G5T2?/S2 1B.1	Chaparral, coastal scrub, desert dunes. Sandy areas. -60-1570 m. annual herb. Blooms (Jan)Mar-Sep	None	Suitable coastal scrub or chaparral habitats do not occur on site.
<i>Aphanisma blitoides</i> aphanisma	None/None G3G4/S2 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub. On bluffs and slopes near the ocean in sandy or clay soils. 3-305 m. annual herb. Blooms Feb-Jun	None	Suitable coastal scrub habitats do not occur on site.
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i> Ventura Marsh milk-vetch	Endangered/ Endangered G2T1/S1 1B.1	Marshes and swamps, coastal dunes, coastal scrub. Within reach of high tide or protected by barrier beaches, more rarely near seeps on sandy bluffs. 1-35 m. perennial herb. Blooms (Jun)Aug-Oct	None	Suitable marshes and swamps, coastal dunes, or coastal scrub do not occur on site.
<i>Atriplex coulteri</i> Coulter's saltbush	None/None G3/S1S2 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Ocean bluffs, ridgetops, as well as alkaline low places. Alkaline or clay soils. 2-460 m. perennial herb. Blooms Mar-Oct	None	Suitable coastal scrub or grassland habitats do not occur on site.
<i>Atriplex pacifica</i> south coast saltscale	None/None G4/S2 1B.2	Coastal scrub, coastal bluff scrub, playas, coastal dunes. Alkali soils. 1-400 m. annual herb. Blooms Mar-Oct	None	Suitable coastal scrub, playas, or coastal dunes do not occur on site.
<i>Atriplex parishii</i> Parish's brittle-scale	None/None G1G2/S1 1B.1	Vernal pools, chenopod scrub, playas. Usually on drying alkali flats with fine soils. 5-1420 m. annual herb. Blooms Jun-Oct	None	Suitable vernal pools and playas do not occur on site.
<i>Atriplex serenana</i> var. <i>davidsonii</i> Davidson's saltscale	None/None G5T1/S1 1B.2	Coastal bluff scrub, coastal scrub. Alkaline soil. 0-460 m. annual herb. Blooms Apr-Oct	None	Suitable coastal scrub habitats do not occur on site.
<i>Calochortus weedii</i> var. <i>intermedius</i> intermediate mariposa-lily	None/None G3G4T2/S2 1B.2	Coastal scrub, chaparral, valley and foothill grassland. Dry, rocky open slopes and rock outcrops. 60-1575 m. perennial bulbiferous herb. Blooms May-Jul	None	Suitable habitats do not occur on site.
<i>Calystegia felix</i> lucky morning-glory	None/None G1Q/S1 1B.1	Meadows and seeps, riparian scrub. Sometimes alkaline, alluvial. 30-215 m. annual rhizomatous herb. Blooms Mar-Sep	None	Suitable meadow, seeps, and riparian scrub habitats do not occur on site.
<i>Camissoniopsis lewisii</i> Lewis' evening-primrose	None/None G4/S4 3	Valley and foothill grassland, coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub. Sandy or clay soil. 0-300 m. annual herb. Blooms Mar-May(Jun)	None	Suitable habitats do not occur on site.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
<i>Centromadia parryi</i> ssp. <i>australis</i> southern tarplant	None/None G3T2/S2 1B.1	Marshes and swamps (margins), valley and foothill grassland, vernal pools. Often in disturbed sites near the coast at marsh edges; also in alkaline soils sometimes with saltgrass. Sometimes on vernal pool margins. 0-975 m. annual herb. Blooms May-Nov	None	Suitable habitats do not occur on site.
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i> salt marsh bird's-beak	Endangered/ Endangered G4?T1/S1 1B.2	Marshes and swamps, coastal dunes. Limited to the higher zones of salt marsh habitat. 0-10 m. annual herb (hemiparasitic). Blooms May-Oct(Nov)	None	Suitable marshes and swamps do not occur on site.
<i>Dudleya multicaulis</i> many-stemmed dudleya	None/None G2/S2 1B.2	Chaparral, coastal scrub, valley and foothill grassland. In heavy, often clayey soils or grassy slopes. 15-790 m. perennial herb. Blooms Apr-Jul	None	Suitable habitats do not occur on site.
<i>Dudleya stolonifera</i> Laguna Beach dudleya	Threatened/ Threatened G1/S1 1B.1	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. In thin soil on north-facing sandstone cliffs. 5-185 m. perennial stoloniferous herb. Blooms May-Jul	None	Suitable habitats do not occur on site.
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego button-celery	Endangered/ Endangered G5T1/S1 1B.1	Vernal pools, coastal scrub, valley and foothill grassland. San Diego mesa hardpan & claypan vernal pools & southern interior basalt flow vernal pools; usually surrounded by scrub. 15-880 m. annual/perennial herb. Blooms Apr-Jun	None	Suitable habitats do not occur on site.
<i>Helianthus nuttallii</i> ssp. <i>parishii</i> Los Angeles sunflower	None/None G5TH/SH 1A	Marshes and swamps (coastal salt and freshwater). 35-1525 m. perennial rhizomatous herb. Blooms Aug-Oct	None	Suitable marshes and swamps do not occur on site.
<i>Hordeum intercedens</i> vernal barley	None/None G3G4/S3S4 3.2	Valley and foothill grassland, vernal pools, coastal dunes, coastal scrub. Vernal pools, dry, saline streambeds, alkaline flats. 5-1000 m. annual herb. Blooms Mar-Jun	None	Suitable habitats do not occur on site.
<i>Isocoma menziesii</i> var. <i>decumbens</i> decumbent goldenbush	None/None G3G5T2T3/S2 1B.2	Coastal scrub, chaparral. Sandy soils; often in disturbed sites. 1-915 m. perennial shrub. Blooms Apr-Nov	None	Suitable coastal scrub or chaparral habitats do not occur on site.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	None/None G4T2/S2 1B.1	Coastal salt marshes, playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-1375 m. annual herb. Blooms Feb-Jun	None	Suitable marsh, playa, or vernal pool habitats do not occur on site.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
<i>Nama stenocarpa</i> mud nama	None/None G4G5/S1S2 2B.2	Marshes and swamps. Lake shores, river banks, intermittently wet areas. 5-500 m. annual/perennial herb. Blooms Jan-Jul	None	Suitable marshes and swamps do not occur on site.
<i>Nasturtium gambelii</i> Gambel's water cress	Endangered/ Threatened G1/S1 1B.1	Marshes and swamps. Freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level. 5-330 m. perennial rhizomatous herb. Blooms Apr-Oct	None	Suitable marshes and swamps do not occur on site.
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	None/None G2/S2 1B.1	Coastal scrub, valley and foothill grassland, vernal pools, meadows and seeps. Alkaline soils in grassland, or in vernal pools. Mesic, alkaline sites. 3-1235 m. annual herb. Blooms Apr-Jul	None	Suitable habitats do not occur on site.
<i>Nemacaulis denudata</i> var. <i>denudata</i> coast woolly-heads	None/None G3G4T2/S2 1B.2	Coastal dunes. 0-100 m. annual herb. Blooms Apr-Sep	None	Suitable coastal dunes do not occur on site.
<i>Orcuttia californica</i> California Orcutt grass	Endangered/ Endangered G1/S1 1B.1	Vernal pools. 10-660 m. annual herb. Blooms Apr-Aug	None	Suitable vernal pools do not occur on site.
<i>Pentachaeta lyonii</i> Lyon's pentachaeta	Endangered/ Endangered G1/S1 1B.1	Chaparral, valley and foothill grassland, coastal scrub. Edges of clearings in chaparral, usually at the ecotone between grassland and chaparral or edges of firebreaks. 30-630 m. annual herb. Blooms (Feb)Mar-Aug	None	Suitable habitats do not occur on site.
<i>Phacelia ramosissima</i> var. <i>australitoralis</i> south coast branching phacelia	None/None G5?T3Q/S3 3.2	Chaparral, coastal scrub, coastal dunes, coastal salt marsh. Sandy, sometimes rocky sites. 5-300 m. perennial herb. Blooms Mar-Aug	None	Suitable coastal scrub or salt marshes do not occur on site.
<i>Phacelia stellaris</i> Brand's star phacelia	None/None G1/S1 1B.1	Coastal scrub, coastal dunes. Open areas. 3-370 m. annual herb. Blooms Mar-Jun	None	Suitable coastal scrub or dunes do not occur on site.
<i>Ribes divaricatum</i> var. <i>parishii</i> Parish's gooseberry	None/None G5TX/SX 1A	Riparian woodland. Salix swales in riparian habitats. 65-300 m. perennial deciduous shrub. Blooms Feb-Apr	None	Suitable riparian habitats do not occur on site.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	None/None G3/S3 1B.2	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0-605 m. perennial rhizomatous herb (emergent). Blooms May-Oct(Nov)	None	Suitable marsh and swamp habitats do not occur on site.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
<i>Sidalcea neomexicana</i> salt spring checkerbloom	None/None G4/S2 2B.2	Playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub. Alkali springs and marshes. 3-2380 m. perennial herb. Blooms Mar-Jun	None	Suitable habitats do not occur on site.
<i>Suaeda esteroa</i> estuary seablite	None/None G3/S2 1B.2	Marshes and swamps. Coastal salt marshes in clay, silt, and sand substrates. 0-80 m. perennial herb. Blooms (May)Jul-Oct(Jan)	None	Suitable marsh and swamp habitats do not occur on site.
<i>Symphotrichum defoliatum</i> San Bernardino aster	None/None G2/S2 1B.2	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland. Vernal mesic grassland or near ditches, streams and springs; disturbed areas. 2-2040 m. perennial rhizomatous herb. Blooms Jul-Nov	None	Suitable habitats do not occur on site.
Invertebrates				
<i>Bombus crotchii</i> Crotch bumble bee	None/None G3G4/S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	None	Suitable food plants do not occur on site.
<i>Cicindela gabbii</i> western tidal-flat tiger beetle	None/None G2G4/S1	Inhabits estuaries and mudflats along the coast of Southern California. Generally found on dark-colored mud in the lower zone; occasionally found on dry saline flats of estuaries.	None	Suitable estuaries or mudflats do not occur on site.
<i>Cicindela hirticollis gravida</i> sandy beach tiger beetle	None/None G5T2/S2	Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico. Clean, dry, light-colored sand in the upper zone. Subterranean larvae prefer moist sand not affected by wave action.	None	Suitable waters with sandy substrate do not occur on site.
<i>Cicindela latesignata</i> <i>latesignata</i> western beach tiger beetle	None/None G2G4T1T2/S1	Mudflats and beaches in coastal Southern California.	None	Suitable mudflats and beaches do not occur on site.
<i>Cicindela senilis frosti</i> senile tiger beetle	None/None G2G3T1T3/S1	Inhabits marine shoreline, from Central California coast south to salt marshes of San Diego. Also found at Lake Elsinore Inhabits dark-colored mud in the lower zone and dried salt pans in the upper zone.	None	Suitable marine habitats do not occur on site.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
<i>Danaus plexippus pop. 1</i> monarch - California overwintering population	None/None G4T2T3/S2S3	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	None	Suitable roosting trees do not occur on site.
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	None/None G2/S2	Inhabits coastal lagoons, estuaries and salt marshes, from Sonoma County south to San Diego County. Found only in permanently submerged areas in a variety of sediment types; able to withstand a wide range of salinities.	None	Suitable marsh and lagoon habitats do not occur on site.
Reptiles				
<i>Anniella stebbinsi</i> southern California legless lizard	None/None G3/S3 SSC	Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	None	Suitable loose, moist soils do not occur on site.
<i>Chelonia mydas</i> green turtle	Threatened/ None G3/S1	Marine. Completely herbivorous; needs adequate supply of seagrasses and algae.	None	Suitable marine habitats do not occur on site.
<i>Emys marmorata</i> western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	None	Suitable slow moving waters do not occur on site.
<i>Phrynosoma blainvillii</i> coast horned lizard	None/None G3G4/S3S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	None	Suitable loose soils do not occur on site.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Birds				
<i>Agelaius tricolor</i> tricolored blackbird	None/Candidate Endangered G2G3/S1S2 SSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	None	Suitable nesting substrate does not occur on site.
<i>Athene cunicularia</i> burrowing owl	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	None	Suitable habitats with low-growing vegetation do not occur on site.
<i>Buteo regalis</i> ferruginous hawk	None/None G4/S3S4 WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	None	Suitable open habitats for foraging and trees for nesting do not occur on site.
<i>Charadrius alexandrinus nivosus</i> western snowy plover	Threatened/ None G3T3/S2S3 SSC	Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	None	Suitable sandy or gravelly coastal areas do not occur on site.
<i>Passerculus sandwichensis beldingi</i> Belding's savannah sparrow	None/ Endangered G5T3/S3	Inhabits coastal salt marshes, from Santa Barbara south through San Diego County. Nests in Salicornia on and about margins of tidal flats.	None	Suitable salt marshes do not occur on site.
<i>Pelecanus occidentalis californicus</i> California brown pelican	Delisted/ Delisted G4T3T4/S3 FP	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators. Roosts communally.	None	Suitable coastal islands do not occur on site.
<i>Rallus obsoletus levipes</i> light-footed Ridgway's rail	Endangered/ Endangered G5T1T2/S1 FP	Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation. Requires dense growth of either pickleweed or cordgrass for nesting or escape cover; feeds on molluscs and crustaceans.	None	Suitable salt marshes do not occur on site.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
<i>Riparia riparia</i> bank swallow	None/ Threatened G5/S2	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	None	Suitable riparian habitats do not occur on site.
<i>Sternula antillarum browni</i> California least tern	Endangered/ Endangered G4T2T3Q/S2 FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, land fills, or paved areas.	None	Suitable nesting substrate does not occur on site.
Mammals				
<i>Lasiurus xanthinus</i> western yellow bat	None/None G5/S3 SSC	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	None	Suitable riparian and palm habitats do not occur on site.
<i>Microtus californicus stephensi</i> south coast marsh vole	None/None G5T1T2/S1S2 SSC	Tidal marshes in Los Angeles, Orange and southern Ventura counties.	None	Suitable tidal marshes do not occur on site.
<i>Nyctinomops macrotis</i> big free-tailed bat	None/None G5/S3 SSC	Low-lying arid areas in Southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	None	Suitable arid habitats do not occur on site.
<i>Sorex ornatus salicornicus</i> southern California saltmarsh shrew	None/None G5T1?/S1 SSC	Coastal marshes in Los Angeles, Orange and Ventura counties. Requires dense vegetation and woody debris for cover.	None	Suitable coastal marshes do not occur on site.
Sensitive Natural Communities				
<i>Southern Coastal Salt Marsh</i> Southern Coastal Salt Marsh	None/None G2/S2.1		None	This sensitive community does not occur on site.
<i>Southern Foredunes</i> Southern Foredunes	None/None G2/S2.1		None	This sensitive community does not occur on site.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Status: Federal/State		CRPR (CNPS California Rare Plant Rank):		
FE = Federal Endangered		1A = Presumed Extinct in California		
FT = Federal Threatened		1B = Rare, Threatened, or Endangered in California and elsewhere		
PFT = Proposed Federal Threatened		2 = Rare, Threatened, or Endangered in California, but more common elsewhere		
FDL = Federal Delisted		3 = Need more information (a Review List)		
SE = State Endangered		4 = Plants of Limited Distribution (a Watch List)		
ST = State Threatened		CRPR Threat Code Extension:		
SR = State Rare		.1 = Seriously endangered in California (>80% of occurrences threatened / high degree and immediacy of threat)		
SDL = State Delisted		.2 = Fairly endangered in California (20-80% of occurrences threatened)		
SSC = CDFW Species of Special Concern		.3 = Not very endangered in California (<20% of occurrences threatened)		
FP = CDFW Fully Protected				
WL = CDFW Watch List				
<hr/>				
Other Statuses:				
G1 or S1 Critically Imperiled Globally or Subnationally (state)				
G2 or S2 Imperiled Globally or Subnationally (state)				
G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)				
G4/5 or S4/5 Apparently secure, common and abundant				
GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery				
Additional notations may be provided as follows:				
T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species)				
Q – Questionable taxonomy that may reduce conservation priority				
? – Inexact numeric rank				

Attachment B

Site Survey Photographs



Photograph 1. Overview of project site east of Studebaker Road. The berm surrounding the site is visible on the right side of the photo. Photograph was taken from the north side of parcel, facing south.



Photograph 2. View of fence and edge of paved AES access road that forms a boundary between the site and the cold-water intake channel. Photograph facing northeast.



Photograph 3. View of fence and edge of paved AES access road that forms a boundary between the site and the cold-water intake channel. Photograph facing east.



Photograph 4. View of boundary between the proposed restoration area on the right and the Cerritos Channel on the left. The vegetated area visible in this photograph on the right would be restored with native vegetation. This area is fenced off from the Cerritos Channel and an area of compacted sand and gravel separates them.



Photograph 5. View of parcel on the south side of Loynes Drive that would be restored with native vegetation. This parcel is also fenced and separated from the Cerritos Channel similar to Photograph 4 above.



Photograph 6. View of parcel on the north side of Loynes Drive that would be restored with native vegetation.