
Appendix C EIP Biological Technical Report

Draft

Biological Resources Technical Report Newland Street Residential Project EIR



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NEWLAND STREET RESIDENTIAL PROJECT

Draft Biological Technical Report

Prepared for
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Appendix A Sensitive Species Potentially Occurring in the Area

INTRODUCTION

EIP Associates (EIP) has prepared this report to document the biological resources associated with the Newland Street Residential Development project site (Study Area) located in the City of Huntington Beach, California. This technical report describes the biological resources that occur throughout the Study Area, describes the results of a detailed literature search, identifies potential direct, indirect, and cumulative project impacts on these resources, and assesses the need for additional focused surveys of the area. It also recommends potential mitigation measures to avoid or reduce these impacts to a less-than-significant level, where feasible. This technical information is provided for project review under the *California Environmental Quality Act*, state and federal *Endangered Species Acts*, and other pertinent regulations.

ENVIRONMENTAL SETTING

Regional Setting

The Study Area is contained within the United States Geological Survey (USGS) 7.5-minute series topographical map for Seal Beach. The site is located in the City of Huntington Beach, Orange County California (Figure 1).

Site Characteristics

■ *Adjacent and Existing Land Use*

The 23.1 acre site is located inland and northeast of State Route 1 (also referred to as the Pacific Coast Highway [PCH]). Boarding the site to the west and south is a wetland and open space and the Huntington Beach Channel. The site is bordered by Lomond Drive to the north, Newland Street to the east, and north of the terminus of Hamilton Avenue.

The majority of the Study Area is currently vacant, graded soil, surrounded by chain link and masonry fencing. As a result of the previous industrial uses and extensive soil disturbance, the graded soil portion of the site supports minimal vegetation. The northeast corner of the site (approximately 4.5 acres located at 21401 Newland Street) is currently used as a recreational vehicle and boat storage facility, consisting of a large paved surface parking area and a temporary trailer serving as an administration office (Photos 1 and 2).

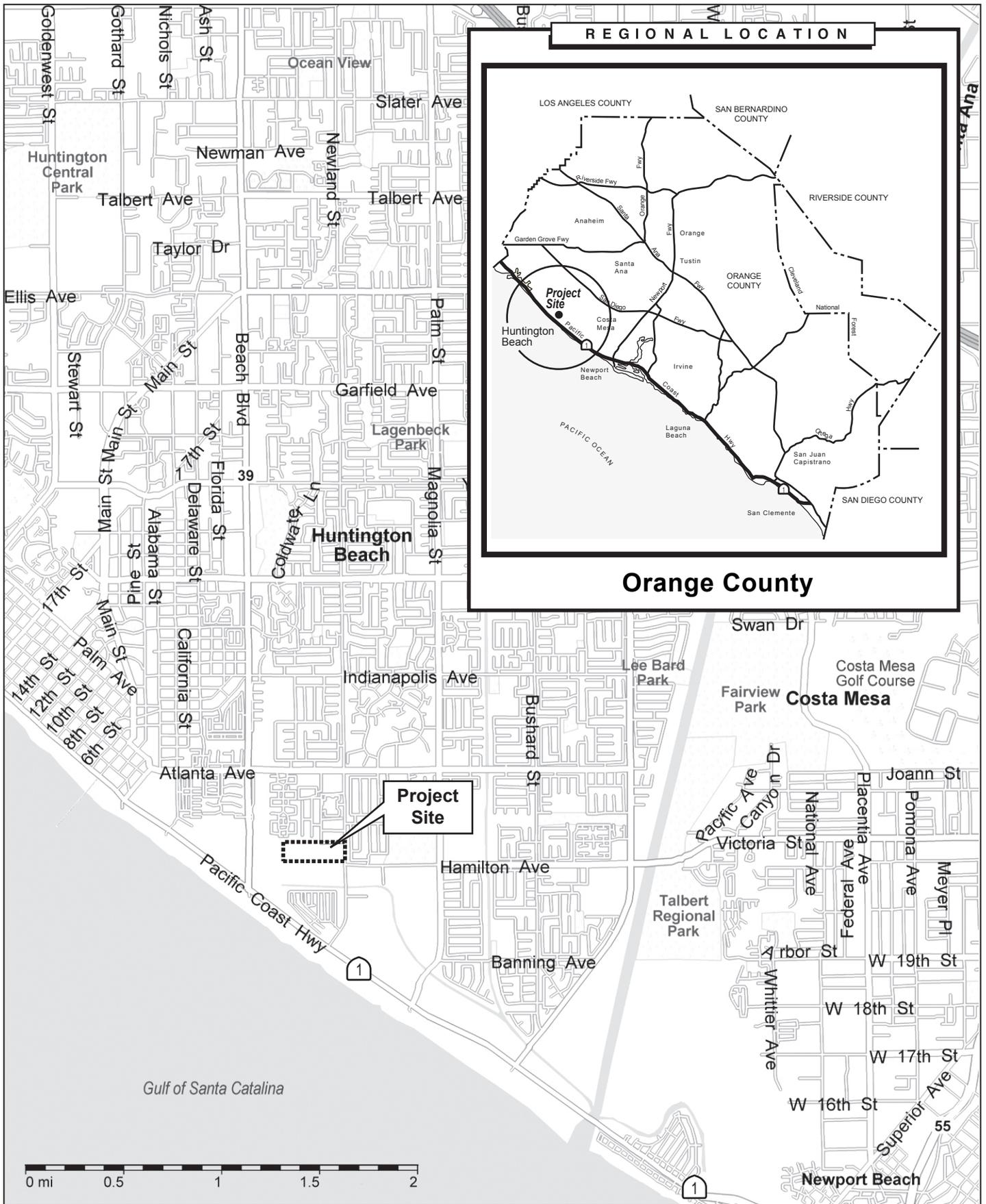


FIGURE 1
Project Vicinity & Regional Location Map

Source: Microsoft Trips and Streets, 2004

City of Huntington Beach



11034-00





Photo 1: Looking southeast across site



Photo 2: Looking west across site

■ **Soils and Topography**

From the 1950s until 2002, the majority of the site was used as an oil storage facility and pipeline terminal. All facilities and materials related to former oil storage/pipeline uses have been removed. The project area has been previously graded as part of a completed soil remediation program due to the property's historic industrial use and has been backfilled with "clean" soil.

The site is underlain by alluvial sediment of the Holocene age. These deposits are generally thought to be derived from sediments laid down by the Santa Ana River across the Orange County coastal plain (LGC 2005). Subsurface investigations revealed alluvial deposits generally consisting of silty clays and clayey silts to a depth of approximately 15 feet. Below this layer fine to medium grain sand was observed with scattered layers of silty sand and silt. In general across the site surface clay soils were wet and soft; underlying soils were moist to wet and varied in consistency from loose to very dense (LCG 2005).

■ **Vegetation**

The Study Area consists primarily of disturbed landscape with limited areas of ruderal vegetation that occur along the periphery of the site. Additionally ornamental vegetation can be found along the southern, northern, and eastern edge of the Study Area. These vegetation types will be discussed in detail in the "Vegetation Communities" section.

Site Remediation Activities

The Study Area is located on a former oil tank farm for which decommissioning and remediation is complete. The primary constituents of concern for remediation activities were lead, polyaromatic hydrocarbons and fuel-related hydrocarbons such as, diesel, gasoline, and benzene. The area has been excavated and backfilled with "clean" soil. The excavated areas were sampled to determine the extent of contamination remaining in the soil. Excavations were conducted in several phases until representative samples met the remediation goals. Once remediation goals were met the Santa Ana Regional Water Quality Control Board issued a "no further action" and certificate of completion verifying remediation for identified contaminants.

METHODOLOGY

This report was prepared based on information collected during a biological field survey of the Study Area on July 6 and August 3, 2005. The July 6 surveys were performed from 7:00 A.M. until 1:30 P.M.

Literature Survey

Information on occurrences of special-status species in the vicinity of the Study Area was obtained from searching databases and lists of California Department of Fish and Game's (CDFG) *Natural Diversity Data Base* (CNDDDB, January 2005) and California Native Plant Society's (CNPS) *Electronic Inventory* (January 2004) for the U. S. Geological Survey's (USGS) 7.5-minute Los Alamitos, Long Beach, Newport Beach and Anaheim Quadrangles. Information on the status of special-status plant and animal species potentially occurring within the Study Area was also obtained from the CDFG's *Special Vascular Plants, Bryophytes, and Lichens List* (January 2005), the CDFG's *List of State and Federally Listed Endangered and Threatened Animals of California* (January 2005), and the CDFG's *List of Special Animals* (January 2005). This search range encompasses a sufficient distance to accommodate for regional habitat diversity and to overcome the limitations of the CNDDDB. The CNDDDB is based on reports of actual occurrences and does not constitute an exhaustive inventory of every resource.

Additionally, background information on biological resources was derived from the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), the *List of California Terrestrial Natural Communities Recognized by the Natural Diversity Data Base* (CDFG 2002, January), and the *Jepson Manual of Higher Plants of California* (J.C. Hickman, Ed., 1993), and a wetland delineation of the project area and adjacent parcels (Glen Lukos Associates, Inc., 2004). Based upon the results of the literature review and record searches, a list of special-status plant and animal species and habitats with the potential to occur within the Study Area was developed for verification in the field.

Field Surveys

■ Plant Surveys

A general botanical survey was performed on July 6, 2005. The survey included an assessment of vegetation types and plant communities occurring within the Study Area, as well as a general search for wetland indicator plant species and an assessment of potential habitat for special status species. Plant species were identified in the field or collected for future identification. Plants were identified using keys in Hickman (1993), Munz (1974), and Abrams (1923). Taxonomy follows Hickman (1993) for scientific and common names. The results of the survey are shown in Tables 1a and 1b.

Blooming periods were taken from the *CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California* (CNSPI information dated 2002). The plant survey was conducted at a time of year when not all potentially sensitive species were both evident and identifiable.

■ **Wildlife Surveys**

A general wildlife survey was performed simultaneously with the plant survey on July, 6 2005. Surveys included active searches for reptiles and amphibians that involved lifting, overturning, and carefully replacing rocks and debris and observing reptile activity on dirt areas and in drainage bottoms. Birds were identified by standard visual and auditory recognition, and the presence of nests or other evidence of breeding activity was noted. Surveys for mammals included searching for and identifying diagnostic signs, including scat, footprints, scratch-outs, dusting bowls, burrows, and trails.

ON-SITE BIOLOGICAL RESOURCES

Vegetation Communities

The vegetation within the 23.1-acre site was limited; the majority of the site consisted of un-vegetated disturbed bare landscape (Figure 2). The areas along the northern and eastern (Lomond and Newland streets) boundary of the site are generally characterized by ruderal and ornamental vegetation types. A total of fifteen plant species and four habitat types were observed within the Study Area.

■ **Ruderal Vegetation**

Though not a true habitat community as defined by Holland (1986), ruderal areas are dominated by highly adaptive and invasive species with few to no native species and are found most frequently in areas disturbed by human activities such as agriculture, construction, or other land clearing activities. Disturbed habitat typically occurs throughout areas such as, vacant lots, abandoned oil fields, roadsides, and parks. Characteristic ruderal species identified on site include Italian rye (*Lolium multiflorum*), annual rye grass (*Lolium rigidum*), rip gut brome (*Bromus diandrus*), and five-hook bassia (*Bassia hyssopifolia*). In addition, saltgrass (*Distichlis spicata*) is present along the western edge of the project site. In general, the presence of saltgrass (*Distichlis spicata*) would indicate the potential presence of this vegetation community at the project site, however based on the formal wetland delineation performed of the project site and as summarized below, no alkali meadow habitat is present within the limits of the project site. These species are found on approximately 0.73 acre of the Study Area.

Table 1a Native Plant Species Observed within the Huntington Beach Newland Street Project Study Area

<i>Scientific Name</i>	<i>Common Name</i>
ANGIOSPERMAE: DICOTYLEDONAE	DICOT FLOWERING PLANTS
Bataceae <i>Batis maritima</i>	Saltwort Family Saltwort
Chenopodiaceae <i>Salicornia virginica</i>	Saltbush Family Common pickleweed
ANGIOSPERMAE: MONOCOTYLEDONAE	MONOCOT FLOWERING PLANTS
Cyperaceae <i>Scirpus maritimus</i>	Sedge Family Alkali Bullrush
Palmae <i>Washingtonia filifera</i>	Palm Family California Fan Palm
Poaceae <i>Distichlis spicata</i>	Grass Family Salt grass
SOURCE: EIP field survey performed July 6, 2005	

Table 1b Nonnative Plant Species Observed within Huntington Beach Newland Street Project Study Area

<i>Scientific Name</i>	<i>Common Name</i>
ANGIOSPERMAE: DICOTYLEDONAE	DICOT FLOWERING PLANTS
Apocynaceae <i>Nerium Oleander</i>	Dogbane Family Oleander
Buxaceae <i>Buxus sp.</i>	Boxwood Family Boxwood
Caryophyllaceae <i>Spergularia villosa</i>	Carnation Family Sand Spurry
Chenopodiaceae <i>Bassia hyssopifolia</i>	Saltbush Family Five-Hook Bassia
Malvaceae <i>Malvella leprosa</i>	Mallow Family Alkali Mallow
ANGIOSPERMAE: MONOCOTYLEDONAE	MONOCOT FLOWERING PLANTS
Cyperaceae <i>Callistemon sp.</i>	Sedge Family Bottlebrush
Poaceae <i>Bromus diandrus</i> <i>Lolium multiflorum</i> <i>Lolium rigidum</i> <i>Phalaris arundinacea</i>	Grass Family Ripgut brome Italian rye grass Annual rye grass Canary grass
SOURCE: EIP field survey performed July 6, 2005	

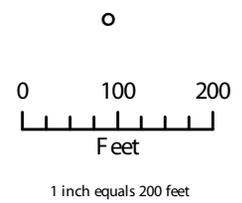


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Source: USGS, DOQQ, Newport Beach SW, 1998; and EIP Associates, Approximate Project Boundary, Site Vegetation, August 17, 2005, and GIS Program, August 17, 2005.

Project Number 11034-00



- Project Boundary
- Bare/Disturbed
- Developed Hardscape
- Ornamental
- Ruderal

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Figure 2
VEGETATIVE COVER
 Newland St.
 Residential Project
 Huntington Beach, CA

■ **Ornamental**

Ornamental landscaping is not a true habitat classification as defined by Holland (1986), but occurs in large enough stands to warrant specific analysis. Ornamental habitat within the site is located along the northern and eastern fence line. Ornamental vegetation covers approximately 0.96 acre along the perimeter of the Study Area; common ornamental species observed on the site include oleander (*Nerium oleander*) bottlebrush (*Callistemon* sp.) and boxwood (*Buxus* sp.).

■ **Disturbed**

Disturbed areas cover most of the site (approximately 17.04 acres). These areas are devoid of vegetation primarily as a result of soil remediation activities.

■ **Developed Hardscape**

Developed areas include infrastructure features such as roads, buildings, parking lots, storage areas. The vegetation in these areas is sparse and highly disturbed. Approximately 4.52 acres of the Study Area is classified as developed hardscape; this area is currently being used as a recreational vehicle and boat storage facility.

Wildlife

A total of seven wildlife species were recorded within the Study Area through direct observation, detection of vocalizations, or observation of sign. These species are listed in Table 2 and include 6 avian and 1 mammal species. Wildlife and wildlife signs (including tracks, scat, carcasses, burrows, nests, excavations, vocalizations, and observations) were noted and recorded on standardized data sheets.

■ **Wildlife movement**

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Fragmentation can also occur when a portion of one or more habitats is converted into another habitat, such as when woodland or scrub habitat is altered or converted into grasslands after a disturbance such as fire, mudslide, or grading activities. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, would not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information (MacArthur and Wilson 1967; Soule 1987; Harris and Gallagher 1989; Bennett 1990). Wildlife

corridors mitigate the effects of this fragmentation by (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs (Noss 1983; Simberloff and Cox 1987; Harris and Gallagher 1989).

Table 2 Wildlife Species Observed within the Huntington Beach Newland Street Project Study Area

<i>Scientific Name</i>	<i>Common Name</i>
VERTEBRATES	
AVES	BIRDS
Corvidae <i>Corvus corvax</i>	Common raven
Emberizidae <i>Spizella passerine</i>	Chipping sparrow
Fringillidae <i>Carpodacus mexicanus</i>	House finch
Hirundinidae <i>Hirundo rustica</i>	Barn swallow
Laridae <i>Larus occidentalis</i>	Western gull
Ploceidae <i>Passer domesticus</i>	House sparrow
MAMMALIA	MAMMALS
Canidae <i>Canis familiaris</i>	Domestic dog

SOURCE: EIP field survey performed July 6, 2005

This is not intended to be an exhaustive list of all bird species that may occur at one time or another within the Study Area during their migration

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, or individuals extending range distributions); (2) seasonal migration; and (3) local movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). A number of terms have been used in various wildlife movement studies, such as "wildlife corridor," "travel route," "habitat linkage," and "wildlife crossing," to refer to areas in which wildlife move from one area to another. To clarify the meaning of these terms and facilitate the discussion of wildlife movement in this analysis, these terms are defined as follows:

- **Travel route:** A landscape feature (such as a ridgeline, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally

preferred because it provides the least amount of topographic resistance in moving from one area to another. It contains adequate food, water, and/or cover while moving between habitat areas and provides a relatively direct link between target habitat areas.

- **Wildlife corridor:** A piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat for a variety of species.
- **Wildlife crossing:** A small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are manmade and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These often represent "choke points" along a movement corridor.

Within a large open space area in which there are few or no manmade or naturally occurring physical constraints to wildlife movement, wildlife corridors, as defined above, may not yet exist. Given an open space area that is both large enough to maintain viable populations of species and provide a variety of travel routes (canyons, ridgelines, trails, riverbeds, and others), wildlife would use these "local" routes while searching for food, water, shelter, and mates, and would not need to cross into other large open space areas. Based on their size, location, vegetative composition, and availability of food, some of these movement areas (e.g., large drainages and canyons) are used for longer lengths of time and serve as source areas for food, water, and cover, particularly for small- and medium-size animals. This is especially true if the travel route is within a larger open space area. However, once open space areas become constrained and/or fragmented as a result of urban development or construction of physical obstacles, such as roads and highways, the remaining landscape features or travel routes that connect the larger open space areas can "become" corridors as long as they provide adequate space, cover, food, and water, and do not contain obstacles or distractions (e.g., manmade noise, lighting) that would generally hinder wildlife movement.

Although bird flyways are not traditionally considered wildlife movement corridors, wetlands serve as important habitat for bird species during migration through the Pacific Flyway. Many bird species use wetland areas as an annual stopover location for several days of rest and feeding prior to continuing migration. These habitats also provide critical staging areas for migratory species.

The site is not expected to function as an important regional wildlife corridor because it is bounded by development to the north and east and contains primarily disturbed areas. The disturbed ground is primarily devoid of vegetation and thus reduces wildlife foraging and localized movement within the Study Area. The

adjacent land uses act as significant barriers to wildlife movement and the Study Area would not meet the criteria of a significant wildlife movement corridor. Given the lack of cover and food sources the Study Area would be expected to provide very limited overland movement opportunities for wildlife species.

SENSITIVE BIOLOGICAL RESOURCES

The following section addresses sensitive biological resources observed, reported, or having the potential to occur on the site. These sensitive resources include plant and wildlife species that have been afforded special status and/or sensitive recognition by federal and state resource agencies, as well as private conservation organizations and special interest groups such as the CNPS (List 1A, 1B, and 2). In general, the principal reason an individual taxon (species, subspecies, or variety) is given such recognition is the documented or perceived decline or limitation of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss. Appendix A lists sensitive plants and animals known to occur within the region of the project (Seal Beach, Long Beach, Los Alamitos, Newport Beach, and Anaheim USGS quads), along with their federal and state listing and potential for occurrence on the site. In addition, special-status biological resources include vegetation types and habitats that are unique, of relatively limited distribution in the region, or of particularly high wildlife value. These resources have been defined by federal, State, and local government conservation programs.

In addition to the other sources listed in this section, the following sources were used to determine the special status of biological resources:

- **Plants**—CNPS 2005. Electronic Inventory of Rare and Endangered Vascular Plants of California. California Native Plant Society, Sacramento, California. California Natural Diversity Data Base (CNDDDB), 2003. Various Federal Register notices from the USFWS regarding listing status of plant species.
- **Wildlife**—California Natural Diversity Data Base (CNDDDB), 2005. Federal Register notices from the USFWS regarding listing status of wildlife species.
- **Habitats**—California Natural Diversity Data Base (CNDDDB), 2005.

Sensitive habitats are vegetation types, associations, or sub-associations that support concentrations of special status plant or wildlife species, are of relatively limited distribution, or are of particular value to wildlife. Although special status habitats are not afforded legal protection unless they support protected species, potential impacts on them may increase concerns and mitigation suggestions by resources agencies.

A *federally Endangered species* is one facing extinction throughout all or a significant portion of its geographic range. A *federally Threatened species* is one likely to become endangered within the foreseeable future throughout all or a significant portion of its range. The presence of any federally Threatened or Endangered species on a site generally imposes constraints on development or requires mitigation to offset impacts,

particularly if development would result in “take” of the species or its habitat. The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct. Harm in this sense can include any disturbance to habitats used by the species during any portion of its life history.

Proposed species are those officially proposed by the USFWS for addition to the federal Threatened and Endangered species list. Because proposed species may soon be listed as Threatened or Endangered, these species could become listed prior to or during implementation of a proposed development project.

California considers an *Endangered species* as one whose prospects of survival and reproduction are in immediate jeopardy, a *Threatened species* 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, and a *Rare species* as one present in such small numbers throughout its range that it may become Endangered if its present environment worsens. Rare species apply primarily to California native plants. State Threatened and Endangered species are protected against take unless an incidental take permit is obtained from the wildlife agencies (Section 2080–2081.1 of the Fish and Game Code of California).

Federal Species of Concern are species (a “term of art” for former Category 2 candidates) with an informal designation by the USFWS for some declining species that are not federal candidates for listing at this time, but are noted as species of concern in the California Natural Diversity Database (CNDDDB) (California Department of Fish and Game 2005b). This list has not been updated by the USFWS since 1996 and is included for informational purposes only.

California Species of Special Concern is an informal designation used by the CDFG for some declining wildlife species that are not state candidates. This designation does not provide legal protection but signifies that these species are recognized as special status by the CDFG.

Species that are *California Fully Protected* and *Protected* include those protected by special legislation for various reasons, such as the mountain lion and white-tailed kite. Fully protected species may not be taken or possessed at any time. California Protected Species include those species that may not be taken or possessed at any time except under special permit from the department issued pursuant to Sections 650 and 670.7 of the California Code of Regulations, or Section 2081 of the Fish and Game Code.

A species that is considered a *Special Animal* is one that is tracked by the CNDDDB. Species of *Local Concern* are those that have no official status with the resource agencies, but are being watched because either there is a unique population or the species is declining in the region.

The CNPS is a resource conservation organization that has developed an inventory of California's special status plant species (CNPS 2005). This inventory is the summary of information on the distribution, rarity, and endangerment of California's vascular plants. This rare plant inventory is comprised of four lists. CNPS presumes that **List 1A** plant species are extinct in California because they have not been seen in the wild for many years. CNPS considers **List 1B** plants as rare, threatened, or endangered throughout their range. **List 2** plant species are considered rare, threatened, or endangered in California but more common in the rest of its range. Plant species for which CNPS needs additional information are included on **List 3**. **List 4** plant species are those of limited distribution in California whose susceptibility to threat appears low at this time.

The potential for sensitive species to occur within the Study Area was based on the following criteria:

- **Absent:** Species was not observed during focused surveys conducted at an appropriate time for identification of the species or species is restricted to habitats that do not occur within the Study Area.
- **Low:** No records exist of the species occurring within the Study Area or its vicinity or habitats needed to support the species are of poor quality.
- **Moderate:** A historical record exists of the species within the vicinity of the Study Area (approximately 5 miles) and the habitat requirements associated with the species occur within the Study Area.
- **High:** Both a historical record exists of the species within the Study Area or its immediate vicinity (approximately 1 mile) and the habitat requirements associated with the species occur within the Study Area.
- **Species Observed:** The species was observed within the Study Area at the time of the survey

State and Federally Listed Species

No threatened or endangered species were observed within the Study Area during EIP's survey of the entire site. However, this survey was not intended to determine the presence/absence of threatened or endangered species, only assess the potential for them to occur based on habitat suitability. Focused surveys to determine presence/absence would be at the discretion of the appropriate State or Federal resource agencies.

Fourteen federally/state listed threatened or endangered species were identified as potentially occurring within a 10-mile radius of the Study Area (Appendix A). As discussed below, three of the state and/or federally listed species found historically in the area have at least a moderate potential to occur within the Study Area. Belding's savannah sparrow (*Passerculus sandwichensis* ssp. *beldingi*) has a high potential to occur within the Study Area, and the California least tern (*Sterna antillarum* ssp. *browni*) and western snowy plover (*Charadrius alexandrinus nivosus*) have a moderate potential to occur within the Study Area. The remaining 11 species are considered to have a low potential to occur or to be absent due to lack of suitable habitat within

the Study Area. Each of the State and/or federally listed species and its probability of occurrence are described in more detail in the species accounts that follow as well as within Appendix A.

San Diego Fairy Shrimp (*Branchinecta sandiegonensis*). The San Diego fairy shrimp is listed as endangered by the U.S. Fish and Wildlife Service. It is known from a limited area of coastal mesas in Orange and San Diego counties (Eriksen and Belk 1999). This fairy shrimp appears when late fall, winter, and spring rains fill small, shallow, unpredictable seasonal vernal pools. Maximum longevity of adults in the field is about 42 days, following a 10 to 20 day maturation period (Eriksen and Belk 1999). There is no suitable habitat within the Study Area, so it is unlikely that this species is present.

Western Snowy Plover (*Charadrius alexandrinus nivosus*). The western snowy plover was listed as threatened by USFWS in 1993 and critical habitat was designated in 1999. They have declined as a nesting species throughout California, in part due to human disturbance of sandy beaches typically used for nesting and roosting. The Pacific coast population of the western snowy plover breeds primarily on coastal beaches from southern Washington to southern Baja California, Mexico. The nesting season extends from early March through late September. The breeding season generally begins earlier in more southerly latitudes, and may be two to four weeks earlier in southern California than in Oregon and Washington. Snowy plover's nest on sandy beaches and dunes by creating a shallow depression as a nest, using driftwood, rocks, or bushes as cover; nests may also be entirely out in the open. Nests typically occur in flat, open areas with sandy or saline substrates. Vegetation and driftwood are usually sparse or absent. No areas within the city have reported recent extant populations of Western snowy plover. The nearest population sited within the city limits was noted within Newland Street Marsh in 1986. Due to the marginally suitable habitat present on-site and since the latest sighting of plovers within 5 miles of the Study Area occurred in 1986, the potential for this species to occur within the Study Area is considered moderate. There are three USFWS proposed critical habitat areas for the snowy plover in the City: 1) Least Tern Sanctuary; 2) Bolsa Chica area (technically an unincorporated portion adjacent to the City); and 3) a portion of Huntington State Beach across from Bolsa Chica.

Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*). The yellow-billed cuckoo is a federal species of concern and a State listed endangered species. In California this species requires dense, wide riparian woodlands with well-developed understories for breeding. It occurs in densely foliaged, deciduous trees and shrubs, especially willows that are required for roost sites. It is restricted when breeding to river bottoms and other mesic habitats where humidity is high and where the dense understory abuts slow-moving watercourses, backwaters, or seeps. Willow is almost always a dominant component of the vegetation. The only known occurrence was from the San Gabriel River near Artesia in 1912. The population is listed as extirpated by the CDFG.

California Black Rail (*Laterallus jamaicensis coturniculus*). The California black rail is listed as California State threatened species. The historical distribution of the California black rail ranged from the San Francisco Bay Area and the delta of the Sacramento and San Joaquin rivers south along the coast to northern Baja California. California black rails are still present within the remaining tidal marshlands of northern and coastal southern California. Significant loss of saltwater and freshwater wetland habitat in recent decades has significantly reduced the populations of California black rail. California black rails prefer to live in tidal salt marshes with a heavy canopy of pickleweed and an open structure below the canopy for nesting. The breeding season begins in February, normally with a single brood with an average clutch size of 6 eggs. California black rails have been reported to abandon their nests if disturbed before completing their clutch, but have not been noted in the area since 1970. There is no suitable habitat for the California black rail within the Study Area.

Belding's Savannah Sparrow (*Passerculus sandwichensis ssp. beldingi*). This savannah sparrow is a small, brown, resident songbird. It is a state-listed endangered species. This sparrow occurs in coastal areas of southern California and Baja California where it is a year-round resident of coastal salt marshes and associated mudflats and salt flats. Dense stands of pickleweed in the upper region of salt marshes that flood only during extremely high spring tides are its preferred nesting habitat. Belding's savannah sparrow forages on insects in the marsh and intertidal zone as well as in nearby mudflats and salt flats. This species occurs within wetland habitat of Long Beach, Seal Beach, and Newport Beach, the closest being in Newland Street Marsh, immediately adjacent to the Study Area. This species has a high probability of nesting and/or foraging within the Study Area.

Coastal California Gnatcatcher (*Polioptila californica californica*). The California gnatcatcher is listed as threatened by the USFWS and, as an obligate resident of southern California coastal sage scrub communities near arid hillsides, mesas, and washes. As there is not habitat for this species in the Study Area, it is not expected to be present.

Lightfooted Clapper Rail (*Rallus longirostris levipes*). The light-footed clapper rail is a federal and State endangered species. It inhabits coastal salt and freshwater marshes containing cordgrass, cattails or tules, and rushes and forages in higher marsh vegetation, along vegetation and mudflat interface, and along tidal creeks. Its population declines were due to habitat loss of floodplain river areas and tidal estuaries. It is found within Seal Beach National Wildlife Refuge, Upper Newport Bay and Bolsa Chica Ecological Reserve. As there is not habitat for this species in the Study Area, it is not expected to be present.

California Least Tern (*Sterna antillarum ssp. browni*). The California least tern is a medium-sized black and white migratory bird. It is a federal and state-listed endangered species. It breeds along the coast

of southern California in abandoned salt ponds, on sandy beaches, and along estuarine shores in San Francisco Bay. Of the twelve known occurrence of this species within the vicinity of the Study Area, Belmont Shore Beach, NASA Island, Bolsa Chica Ecological Reserve, Terminal Island, Huntington State Beach, and Harbor Lake (Harbor Park) are the only sites that have active (extant) populations near the city. Due to the marginally suitable habitat present on-site, the potential for this species to occur within the Study Area is considered moderate.

Pacific Pocket Mouse (*Perognathus longimembris pacificus*). The Pacific pocket mouse is a federally-listed endangered species and a California Species of Concern. Historically, the Pacific pocket mouse range once extended from Los Angeles County south to the Mexican border. Currently pocket mice are only found within 4 kilometers of the coast on fine grained sandy substrates in coastal sage scrub, coastal strand, and river alluvium. Two occurrences are noted by the CNDDDB; however, both occurred prior to 1932 and are noted as extirpated by the CDFG. Due to the marginally suitable habitat present on-site and the lack of recent sightings of this species in the area, this species is considered absent.

Ventura Marsh Milk-vetch (*Astragalus pycnostachyus* var. *lanosisimus*). Ventura Marsh Milk-vetch is a federally and state listed endangered species. This is an herbaceous perennial in the pea family. It has a thick taproot and multiple erect, reddish stems, 16 to 36 inches tall, that emerge from the root crown. The blooming time has been recorded as July to October. With the exception of the extant Ventura County population, the species is believed extirpated from all other areas from which it has been collected. The single known population of the Ventura Marsh Milk-vetch occurs in a degraded site near the city of Oxnard. This plant is not expected to occur within the Study Area or in adjacent areas due to the lack of suitable habitat.

San Fernando Valley Spineflower (*Chorizanthe parryi* var. *fernandin*). This species is a member of the buckwheat family and grows in sandy or gravelly soils along dry washes. The San Fernando Valley Spineflower typically blooms with tiny white flowers from April to June. It is threatened by loss of habitat and competition with exotic invasive plants. It formerly occurred in San Bernardino, Riverside, Orange, Ventura, and Los Angeles Counties, but now known only to occur in a few locations. This plant is not expected to occur within the Study Area or in adjacent areas due to the lack of suitable habitat.

Salt Marsh Bird's Beak (*Cordylanthus maritimus* ssp. *maritimus*). This species is a hemiparasitic annual herb that is federally and state-listed as endangered. This species occurs in coastal dunes and coastal salt marshes and swamps along coastal California south to Baja. It flowers from May to October and can be found at elevations up to 100 feet. The Study Area is located outside the typical elevation limits characteristic of this species. Due to historical activities and soil remediation within the Study Area, suitable

habitat for this species does not occur within the Study Area; therefore, this species is not expected to occur.

California Orcutt grass (*Orcuttia californica*). California Orcutt grass is a state and federally-listed endangered species. It is a member of the grass family (*Poaceae*) that is a bright green, sticky, aromatic annual with flowers borne in dense spikes. This species was once commonly found in the volcanic terrace and valley vernal pool systems of southern California in Los Angeles, Riverside and San Diego counties. This species was last collected near Lakewood, sometime prior to 1977 and is listed as extirpated by the CNDDDB (2004.) This plant is not expected to occur within the Study Area or in adjacent areas due to the lack of suitable habitat.

Lyon's Pentachaeta (*Pentachaeta lyonii*). Lyon's pentachaeta is a State and federally-listed endangered species. It is an herbaceous, annual plant that has yellow ray and disk flowers arranged in heads. Habitat for Lyon's pentachaeta consists of sparsely vegetated openings in grassland, coastal sage scrub, and chaparral. The species is a poor competitor, and is currently limited to areas of shallow soils or heavy clay with reduced shrub and grass competition. Currently, this species is known only from the coastal mountain region of northern Los Angeles County and southern Ventura County in the Santa Monica Mountains and in the Simi Valley (California Department of Fish and Game 2000). This plant is not expected to occur within the Study Area or in adjacent areas due to the lack of suitable habitat.

Jurisdictional Areas (USACE/CDFG)

Under Section 404 of the *Clean Water Act* (CWA) the U.S. Army Corps of Engineers (USACE or Corps) is charged with regulating the discharge of dredge and fill materials into jurisdictional waters of the United States. The term “waters of the United States,” or “jurisdictional waters,” has a broad meaning that includes not only specific types of water bodies, but also special aquatic sites, such as wetlands.

The term wetland is used to describe a particular landscape characterized by inundation or saturation with water for a sufficient duration to support hydric soils and/or wetland vegetation. Wetland areas are characterized by prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands provide habitats that are essential to the survival of many threatened or endangered species as well as other wetland-dependent species. Wetlands also have value to the public for flood retention, storm abatement, aquifer recharge, water quality improvement, and for aesthetic qualities.

Regulatory agencies with jurisdiction over wetlands include the U.S. Army Corps of Engineers (USACE), with authority to enforce two federal regulations involving wetland preservation; the *Clean Water Act* (Section 404), which regulates the disposal of dredge and fill materials in waters of the U.S.; and the *Rivers*

and Harbors Act of 1899 (Section 10), which regulates diking, filling, and placement of structures in navigable waterways. State regulatory agencies with jurisdiction over wetlands include the State Water Resources Control Board (SWRCB), which enforces compliance with the federal *Clean Water Act* (Section 401) regulating water quality; the California Coastal Commission (CCC), which regulates development within the coastal zone as stated in the *California Coastal Act*, (Sections 30230, 30231, 30233c, and 30240); and the CDFG, which asserts jurisdiction over waters and wetlands with actions that involve alterations to streams or lakes by issuing Streambed Alteration Agreements under Section 1600 of the Fish and Game Code.

■ **USACE Definition**

Waters of the United States, as defined by regulation and refined by case law, include (1) the territorial seas; (2) coastal and inland waters, lakes, rivers, and streams that are navigable waters of the United States, including their adjacent wetlands; (3) tributaries to navigable waters of the United States, including adjacent wetlands; (4) interstate waters and their tributaries, including adjacent wetlands; and (5) all other waters of the United States not identified above, such as some isolated wetlands and lakes, intermittent and ephemeral streams, prairie potholes, and other waters that are not a part of a tributary system to interstate waters or navigable waters of the United States, the degradation or destruction of which could affect interstate commerce.

Under USACE and EPA regulations, wetlands are defined as, “Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.” In nontidal waters, the lateral extent of USACE jurisdiction is determined by the ordinary high water mark (OHWM) which is defined as the: “Line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” (33 CFR 328[e]). In tidal waters, the USACE’s jurisdiction under Section 404 of the *Clean Water Act* extends to the high tide line (HTL), which, in the absence of actual data, is defined as “a line of oil or scum along shore objects, a more or less continuous deposit of fine shells or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gauges, or other suitable means that delineate the general height reached by a rising tide.”

■ **California Department of Fish and Game Definition**

The CDFG uses the U.S. Fish and Wildlife Service (USFWS) definition of wetlands, as follows: “Areas that are periodically or permanently covered by shallow water or dominated by hydrophytic vegetation, or in

which the soils are predominantly hydric in nature.” This wetland definition represents a policy used by the Fish and Game Commission pursuant to Fish and Game Code Section 703. According to the policy, the CDFG wetland definition is the same as the USFWS wetland definition in Cowardin et al. (1979). The CDFG considers this a “one parameter” test. In practice, most wetlands are identified by CDFG by the dominance of hydrophytic vegetation (i.e., when more than 50 percent of the vegetation cover is by obligate, facultative wetland, or facultative plants). In such cases, the CDFG has determined that it is not necessary to determine the presence or absence of wetland hydrology or hydric soils.

In addition, when any alteration of a lake, stream, or river could adversely affect fish and wildlife resources within the State, the CDFG is empowered under Section 1600 of the Fish and Game Code to issue a Streambed Alteration Agreement, which is designed to ensure protections of said resources

■ **California Coastal Act Definition**

In the California coastal zone, the California Coastal Commission (CCC), with the assistance of the CDFG is responsible for determining the presence of wetlands subject to regulation under the *California Coastal Act of 1976 (CCA)* and the federal *Coastal Zone Management Act (CZMA)*. Under the CCA, wetlands are defined as “land within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens” (Public Resource Code §30121).

However, further precision in wetlands jurisdiction is provided to the Coastal Commission under the California Code of Regulations (CCR). Under these provisions wetlands are defined as:

...land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentration of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some during each year and their location within, or adjacent to vegetated wetland or deepwater habitats. (14 CCR 13577)

The CDFG wetland definition and classification system is the delineation methodology generally followed by the CCC. One important difference in the CDFG wetlands definition compared to that under Section 404 of the CWA (Corps definition listed above) is that the CDFG only requires the presence of one attribute (e.g., hydrology, hydric soils, or hydrophytic vegetation) for an area to qualify as a wetland.

Wetlands Delineation Results

A formal Jurisdictional Delineation was conducted of the Study Area by Glen Lukos Associates in 2004 to identify areas subject to Corps jurisdiction under Section 404 of the *Clean Water Act* and regulation under the

California Coastal Act. The site evaluation included analysis of current and historic aerial photographs, topographic maps, vegetation, and soils information. Based on this analysis, Glen Lukos Associates found that the site has contained no jurisdictional waters or wetlands potentially subject to the jurisdiction of the Corps. In addition, as the site is outside of the Coastal Zone, no impacts to Coastal Zone wetlands would occur. However, it is important to note that approximately 12.38 acres of alkali wetlands are directly adjacent to the western and southern boundary of the Study Area and would be subject to *California Coastal Act* and Army Corps of Engineers jurisdiction.

EIP Associates completed a wetlands delineation in January 2006 that confirmed the results of the previous delineation. [to be updated upon completion of delineation]

PROJECT IMPACTS

Potential impacts of the construction and operation of the residential development are discussed in brief below.

Threatened, Endangered, and Sensitive Species

■ *Listed Species*

No state- or federally listed threatened or endangered species were observed within the Study Area during EIP's survey of the entire site. However, these surveys were not intended to determine the presence/absence of threatened or endangered species, only assess the potential for them to occur based on habitat suitability. Focused surveys to determine presence/absence have not been performed and would be at the discretion of the appropriate state or federal resource agencies.

As discussed on page 19, three federal and/or state listed species were identified as occurring, or potentially occurring, in the immediate vicinity of the site's boundaries. If these species are present during ground disturbance, construction, operation, and maintenance activities associated with the proposed project, including, but not limited to, grading, materials laydown, building construction, and construction and/or service vehicle traffic, it could result in direct impacts to listed species including the following:

- Direct loss of a sensitive species
- Increased human disturbance in previously undisturbed habitats
- Mortality by construction or other human-related activity
- Impairing essential behavioral activities, such as breeding, feeding, or shelter/refugia
- Destruction or abandonment of active nest(s)
- Direct loss of occupied habitat
- Permanent habitat loss including loss of foraging, nesting, or refuge

In addition, potential indirect impacts may include, but are not limited to, the following:

- Displacement of wildlife by construction activities
- Disturbance in essential behavioral activities due to an increase in ambient noise levels and/or artificial light from plant lighting, and outdoor lighting around facilities

Direct or indirect impacts to these species would constitute a significant impact.

With regard to western snowy plover, this species is known to have been present in the wetland areas immediately adjacent to the Study Area. In addition, western snowy plovers are ground nesters and have been known to nest in areas with little to no ground cover, such as the Study Area. The nesting season for this species extends from early March through late September. Should construction activities be conducted on-site between those months, direct impacts could occur in the rare event that plovers are nesting on-site. It should be noted that the nearest designated critical habitat for western snowy plover is approximately 2 miles to the southeast of the Study Area and would not be impacted by activities within the Study Area.

Belding's savannah sparrow is also known to be present immediately adjacent to the Study Area. Unlike plovers, Belding's savannah sparrow typically nests in dense stands of pickleweed between January and August. Given the known occurrence in the adjacent wetlands and the dominance of pickleweed in this area, there is a high probability of Belding's savannah sparrow nesting in the adjacent wetlands.

Because both the western snowy plover and Belding's savannah sparrow may nest in the immediately adjacent wetland habitat to the south and west of the Study Area, the use of heavy construction equipment, which would increase ambient noise levels in the immediate area, may result in nest abandonment if construction is conducted during either species' breeding seasons.

The third listed species identified as potentially occurring at the Study Area, California least tern, has been known to nest on bare or sparsely vegetated flat substrates, such as the Study Area. Typically, terns will nest between the months of April and August. No terns have been noted at the Study Area or in the surrounding wetland area. The nearest identifiable tern population is located at the Seal Beach National Wildlife Refuge, located less than five miles to the northwest. Additionally, Huntington State Beach and the Bosla Chica nesting islands are nesting sanctuaries for the California least tern located in the project vicinity. While no terns have been noted at or near the site in recent past, the conditions on-site are marginally conducive to their presence/establishment.

Because these species are protected by state and/or federal *Endangered Species Acts* impacts to them would be considered significant without mitigation.

■ **Other Sensitive Species**

Sensitive wildlife species known to occur in the vicinity of the Study Area include three mammal species: the South coast marsh vole, Southern California saltmarsh shrew, and American badger. Due to recent soil remediation activities and the deposition of 11,000 cubic yards of soil material within the Study Area, any of the mammal species listed above that may have been present within the Study Area boundaries are likely absent at the present time. While these three mammal species would not likely occupy the Study Area, the wetland areas surrounding the Study Area would provide adequate habitat for each of these species. As a result, potential impacts could result to individuals traversing the Study Area to get from one area of wetland habitat to another. However, as the three species listed above are primarily nocturnal, potential indirect impacts to these species, including impacts that could occur to individuals traversing the Study Area, are considered minimal with construction activities occurring during the daytime. Therefore, impacts with regard to the other special status species potentially occurring in the Study Area are not expected to be significant.

■ **Migratory Bird Treaty Act**

Many migratory avian species and raptors, which may use portions of the site (ornamental vegetation), or areas directly adjacent to the site during breeding season, are protected under the (*Migratory Bird Treaty Act*) MBTA while nesting. Project implementation and construction-related activities including, but not limited to, grading, materials laydown, facilities construction, and construction vehicle traffic and noise may result in the disturbance of nesting and non-nesting MBTA-protected sensitive species that could occur within the Study Area or in the adjacent wetlands; including sensitive species such as western snowy plover, California least tern, and Belding's savanna sparrow. The loss or disturbance of an MBTA protected occupied nest, or substantial interference with roosting and foraging opportunities for migratory species, sensitive avian species, or raptors would constitute a significant impact.

Jurisdictional Waters and Wetlands

As discussed in the Regulatory Setting discussion above, for an area to be considered a wetland under Section 404 of the Clean Water Act it must meet a series of specific criteria. Specifically, the USACE definition (Environmental Laboratory 1987) states:

The following definition, diagnostic environmental characteristics, and technical approach comprise a guideline for the identification and delineation of wetlands.

- a. Definition: The Corps (Federal Register, Section 328.3(b), 1991) and the EPA (Federal Register, Section 230.4(t), 1991) jointly define wetlands as: Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

- b. Diagnostic environmental characteristics: Wetlands have the following general diagnostic environmental characteristics:
1. Vegetation: The prevalent vegetation consists of macrophytes that are typically adapted to areas having hydrologic and soil conditions described in (a) above. Hydrophytic species, due to morphological, physiological, and/or reproductive adaptation(s), have the ability to grow, effectively compete, reproduce, and/or persist in anaerobic soil conditions.
 2. Soil: Soils are present and have been classified as hydric, or they possess characteristics that are associated with reducing soil conditions.
 3. Hydrology: The area is inundated either permanently, or periodically at mean water depths < 6.6 ft. (~ 2 m), or the soil is saturated to the surface at some time during the growing season of the prevalent vegetation. The period of inundation or soil saturation varies according to the hydrologic/soil moisture regime and occurs in both tidal and nontidal situations

Technical approach for the identification and delineation of wetlands: Except in certain situations defined in this manual, evidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland determination.

As identified the preceding section, a formal jurisdictional and wetland delineation was conducted to identify areas within and around the Study Area that could be subject to regulation under the Clean Water Act (Glen Lukos and Associates 2004). The delineation determined that although the Study Area did not contain jurisdictional wetlands, areas adjacent to the south and west contained approximately 12.38 acres of alkali wetlands. In addition to this, during EIP Associates 2005 reconnaissance-level surveys, a small (less than 0.05 acre) of saltgrass, an obligate wetland plant, was found to be encroaching onto the property from the adjacent (western) wetlands (see Photo 3). This is likely the result of the record rains that fell in southern California during 2005-2006, which resulted in substantial, but non-normal, ponding conditions throughout the region. Although the presence of vegetation alone does not indicate that this portion of the Study Area would be considered a wetland, without further detailed surveys it cannot be ruled out.

The project could result in potentially significant direct or indirect impacts to both on-site and adjacent 404 wetlands, as well as indirect impacts to the southerly Coastal Act wetlands. Specifically, the removal of the western chain link fence and construction of the retaining wall could directly impact wetlands that are adjacent to the fence posts and associated lighting structures (refer to Photograph 3). Indirect impacts could include disturbance resulting from changes to hydrological conditions that alter water supply and quality to any of the adjacent wetlands. To reduce potential indirect impacts MM Bio 3 would be implemented. This mitigation, taken in combination with CWA permitting and compliance with existing laws including the “no net loss” policy, NPDES Phase I and II, and SWRCB Waste Discharge Requirements (WDR), would reduce both direct and indirect impacts to federally protected wetlands as defined by Section 404 of the Clean Water Act.



Photo 3: Saltgrass along western fence line—July 6, 2005

Sensitive Plant Communities

As discussed in the previous section most wetlands are identified by CDFG by the dominance of hydrophytic vegetation (i.e., when more than 50 percent of the vegetation cover of the area under consideration is by obligate, facultative wetland, or facultative plants) and that it is not necessary to determine the presence or absence of wetland hydrology or hydric soils. Therefore, the small area of saltgrass on the western fence line could be considered a wetland and thus would be considered sensitive habitat by the CDFG. Direct or indirect impacts, including the removal of this habitat or hydrological impacts such as changes to hydrological conditions that alter water supply and quality to the onsite and adjacent sensitive wetlands would be considered a significant impact. To reduce potential direct and indirect impacts, MM 3, 4, and 5 would be implemented. This mitigation, taken in combination with CWA permitting the requirements under Section 1600 of the Fish and Game Code and compliance with existing laws including the “no net loss” policy, NPDES Phase I and II, and SWRCB WDRs, would reduce direct and indirect impacts to sensitive habitat.

Wildlife Movement Corridors and Habitat Fragmentation

As discussed in Section 1.4.2 above, the Study Area site is not expected to function as an important regional wildlife corridor and given the lack of cover and food sources, the Study Area would be expected to provide very limited overland movement opportunities for wildlife species. In addition, although the wetland areas adjacent to the Study Area would be a potential stopover site for the avian species migrating along the Pacific Flyway, the Study Area itself would not be expected to provide food or refuge to the majority of these migratory species due to the lack of suitable foraging, nesting and roosting habitat within the Study Area (please refer to Photos 1 and 2).

A substantial increase in habitat fragmentation is not expected to result from the proposed project, because it is located in a currently developed area. Although, the ability of local wildlife to use the site as a crossing area into the wetland will likely be decreased through both the construction and operation phase of the project due to the disturbance these activities will create. In addition, potential lighting of structures at the proposed development may have additional impacts to local wildlife in the adjacent wetland and the area due to light spillover, affecting the movement of certain species through the area. Mitigation measure 6 would reduce this potentially significant impact.

Local Policies or Ordinances Protecting Biological Resources

Several of the policies related to biological resources focus on Environmentally Sensitive Habitat Areas (ESHAs). The City's Coastal Element identifies two ESHAs within the City: (1) The Huntington Beach wetland areas and (2) the California least tern nesting sanctuary. Wetlands adjacent to the project site are considered ESHAs; however, these ESHAs do not occur within the project site, and related goals, policies and objectives are not relevant to the project. The project area is outside the Coastal Zone is not located in an ESHA.

Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or Other Approved Local, Regional, or State Habitat Conservation Plan

The project does not lie within any adopted habitat conservation plan area. There would be no impacts.

CUMULATIVE IMPACTS

The primary effects of the project, when considered with the past, present, and probable future projects in the vicinity of the Study Area, would be the cumulative direct loss of undeveloped land and the potential removal of sensitive wildlife, plants, and habitats. Loss of sensitive or rare habitat within the localized areas

would further decrease the amount of this habitat within the immediate area and add to the cumulative loss of these species and/or communities in the region.

This cumulative impact analysis considers development of the proposed project, in conjunction with other development within the vicinity of the project in the City of Huntington Beach. If any of the species noted above are found to be present within the Study Area, then measures would be developed in consultation with the appropriate resource agencies, per MM 1 and MM 2. As noted above, the Study Area is currently bare due to recent soil removal activities and does not provide a locally or regionally important natural habitat or wildlife corridor. Therefore, the project has a limited potential to contribute to cumulative impacts.

As with this project, other cumulative projects would undergo CEQA documentation that would address site-specific impacts to biological resources. Therefore, compliance with applicable federal, state, and local regulations would ensure that projects would not result in significant cumulative adverse biological impacts. Thus, the project's contribution to cumulative impacts described above associated would be expected to be less than significant.

As noted above, any impacts to wetland areas, both in terms of the proposed project and other related projects, would be subject to CDFG policies and the requirements of the *Clean Water Act* and, potentially, the *California Coastal Act*. As part of the requirements of these acts of legislation, a "no net loss of wetland habitat" policy would apply to any development project in the area. As such, the impact of the proposed project would not be cumulatively considerable with respect to net wetland habitat loss. Therefore, compliance with state and federal regulations with regard to wetlands would insure that cumulative impacts to wetland areas would be expected to be less than significant due to the "no net loss of wetland habitat" policy.

RECOMMENDED MITIGATION MEASURES

MM 1

Listed Species

Two weeks prior to grading or the construction of facilities, and per applicable USFWS and/or CDFG protocols, pre-construction surveys to determine the presence or absence of Western snowy plover, Belding's savannah sparrow, and California least tern would be required. These surveys should extend 300 feet off-site into the surrounding wetland areas to determine the presence of active nests adjacent to the project site. Should active nests be found, a 250-foot, no-construction buffer would be required around each active nest, as it extends into the project site/construction footprint.

If the nesting Western snowy plover, Belding's savannah sparrow, or California least tern are found to be present on the project site or within the buffer area and cannot be avoided, mitigation would

be required under the Endangered Species Act. To this extent mitigation measures shall be developed with the CDFG and USFWS to reduce potential impacts to these species to less-than-significant levels through a combination of the following:

- On-site preservation or habitat enhancement.
- Off-site mitigation through the purchase of suitable habitat or participation on an existing mitigation bank.
- Preparation of a Habitat Conservation Plan if there is no Federal nexus.

MM 2 If the construction phase occurs during the avian breeding season, generally February through August 15, then prior (within 2 weeks) to the onset of construction activities, surveys for nesting special-status and/or migratory avian species and raptors will be conducted on the project site following USFWS and/or CDFG guidelines. If no active avian nests are identified on or within 200 feet of the construction areas, no further mitigation is necessary.

Alternatively, to avoid impacts, the project applicant can begin construction after the previous breeding season for local raptors and other special-status species has ended (generally after mid-August) and before the next breeding season begins (generally before February). Should special-status species and/or raptors choose to nest in an area within 200 feet of active construction that was initiated after mid-August and prior to February of the following year, the project sponsor shall only be required to provide a buffer of 200 feet between activities and the nest site.

If active nests for avian species of concern, migratory species, or raptors are found within the construction footprint or a 200-foot buffer zone, construction shall be delayed within the construction footprint and buffer zone until the young have fledged or appropriate mitigation measures responding to the specific situation are developed in consultation with USFWS or CDFG.

MM 3-A Prior to final map approval the Applicant shall prepare an updated jurisdictional delineation of the project site to confirm present-day conditions. The delineation shall be performed by a qualified wetland specialist in accordance with USACE as well as CDFG methodology of all wetlands, seeps and stream channels within a site. The wetland specialist shall prepare and submit a request for a jurisdictional determination to the USACE. Those waters not subject to the USACE jurisdiction could fall under the regulatory control of the local RWQCB or CDFG. The wetland specialist shall submit the delineation documents along with the USACE jurisdictional determination to the RWQCB and CDFG and request an assessment of jurisdiction. If the areas in question are subject to the USACE or RWQCB jurisdiction then the following two measures shall be implemented as required. If the areas in question are not jurisdictional, then there is no impact to wetlands and no further action is required.

MM 3-B Permitting. If jurisdictional wetlands are determined to be present on the project site, the wetland specialist should prepare an application for fill of waters subject to the USACE jurisdiction as determined in MM2. If appropriate, this specialist should also submit a request for a streambed alteration agreement from CDFG because CDFG also has jurisdiction over lakes and streams under Section 1600 of the Fish and Game Code. For wetlands that are not subject to the USACE jurisdiction within the project area, an application for a Waste Discharge Requirement or Waiver of Waste Discharge Requirement should be submitted to the local RWQCB. The regulatory requirements contained within the Clean Water Act, the Waste Discharge Requirement, and the

Streambed Alteration Agreement would mandate minimal intrusion into jurisdictional areas and compensatory mitigation for permanent impacts to these areas.

MM 3-C Restoration Plan. Once an approved wetland delineation is in place, the wetland specialist should develop a comprehensive wetland restoration plan to offset impacts to these resources. Restoration could include on- or off-site construction of wetlands, contribution of funds to a local mitigation bank, or restoration of existing yet relatively poor quality wetlands. The USACE and CDFG goals are to permit no net loss of functions and values of wetland habitat. The replacement ratio of wetland acreage required to achieve this goal is a minimum of 1(new):1(old) but could be higher.

MM 4 Sensitive Habitat Restoration Plan.

Prior to issuance of a grading permit, the project applicant shall implement Best Management Practices (BMPs), in compliance with the Stormwater Pollution Prevention Plan and NPDES Permit that will be required as part of the proposed development. The BMPs shall include, but are not limited to, sandbagging around the southern and western borders of the Study Area, temporary catch basins, and hay bales to prevent additional runoff and/or sediment from washing into the adjacent wetland areas. When habitat that is regulated by the Clean Water Act (404) or otherwise defined as sensitive by the CDFG, would be impacted, either directly or indirectly, a Sensitive Habitat Restoration Plan shall be prepared to detail the specifics of the proposed habitat replacement mitigation. The plan shall be prepared prior to applicable vegetation or habitat modification by a qualified restoration specialist who has appropriate knowledge for each habitat type, shall be approved by CDFG, CCC, and/or USACE (depending upon jurisdiction and applicability), and shall include all measures for the revegetation and maintenance of on- and/or off-site habitat. For Section 404 wetlands, this mitigation measure would be fulfilled by MM 3-C above.

The plan shall include the following, as necessary:

- (a) The details and procedures required to prepare the restoration site for planting (i.e., grading, soil preparations, soil stocking, etc.), including the need for a supplemental irrigation system, if any.*
- (b) The methods and procedures for the installation of the plant materials. Plant protection measures identified by this document, the project biologist, and/or agency personnel shall be incorporated into the planting design and layout.*
- (c) Guidelines for the maintenance of the mitigation site during the establishment phase of the plantings. The maintenance program shall contain guidelines for the control of nonnative plant species, maintenance of the irrigation system, and replacement of plant species from locally occurring genomes*
- (d) The revegetation plan shall include a monitoring plan that when implemented will evaluate developing habitat and/or vegetation such that its final replacement value and ratio shall be at a minimum of 1:1 for USACE and California Coastal Act defined wetlands, or as otherwise mandated. Specific goals for the restored habitat shall be defined by quantitative and qualitative characteristics of similar habitats and plants (e.g., density, cover, species composition, structural development). The monitoring effort shall include an evaluation of not only the plant material installed, but the use of it by wildlife. Monitoring reports of the mitigation site shall be reviewed by the permitting state and federal agency(s).*

- (e) Topsoil from seasonal wetlands contains the seed bank for the plant species that occupy the wetland. Removal of topsoil from these areas shall either (1) comply with the most recent USACE guidelines at the time of construction or (2) consist of removal of the top 2 inches of soil, followed by the next 4 inches of soil, and placement of these layers in constructed wetlands in reverse order (e.g., first the 4 inches followed by the 2 inches) to approximately reconstruct the natural soil horizon.*
- (f) Contingency plans and appropriate remedial measures shall also be outlined in the revegetation plan should the plantings fail to meet designated success criteria and planting goals*
- (g) Use of exotic invasive species or other plants listed in the Exotic Pest Plant of Greatest Ecological Concern in California (1999, California Invasive Plant Council, as amended) shall be prohibited within the project area.*

MM 5 *Runoff from the project site during construction and operation should be routed away from the adjacent wetlands. To this extent, any drainage system should include standard urban water runoff reduction measures and runoff prevention measures should be incorporated into the landscape design along the western and southern perimeter. This would include, but not be limited to landscaped berms and vegetated swales around the perimeter of the site to prevent stormwater runoff from flowing into the wetlands and to provide some treatment prior to it exiting the site. Landscaping of the berm should only consist of native species of grasses and other appropriate vegetation that are non-invasive.*

The berm should be monitored following each significant rain event during the construction period and for one-year after the completion of construction to ensure that runoff from the project site does not flow into the adjacent wetland areas. Guidelines for the maintenance of the site should be established during the establishment phase of the plantings. The maintenance program should contain guidelines for the control of non-native plant species, maintenance of the system, and replacement of plant species.

MM 6 *Use of exotic invasive species or other plants listed in the Exotic Pest Plant of Greatest Ecological Concern in California (1999, California Invasive Plant Council, as amended) should be prohibited within the project area.*

MM 7 *Nighttime lighting shall be angled down and away from the adjacent wetland areas. Further, the use of prismatic glass coverings and cutoff shields is recommended to further prevent light spillover off site.*

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APPENDIX A

SENSITIVE SPECIES POTENTIALLY
OCCURRING IN THE AREA

APPENDIX A

Sensitive Species Potentially Occurring in the Area				
Common Name	Scientific Name	Status ² Fed//CA/CNPS	Habitat and Seasonal Distribution in California Known Occurrence within the Vicinity of the Project Site	Potential to Occur
WILDLIFE				
Amphibians				
Southwestern pond turtle	<i>Clemmys marmorata pallida</i>	Fed: None CA: SC	Permanent or nearly permanent water in a wide variety of habitat types; marshes, sloughs, ponds, slow-moving streams; requires basking sites such as partially submerged logs, rocks, or open mud banks. Most Pacific slope drainages below 4,500 ft. elevation from the San Francisco Bay area to northwestern Baja California.	<i>Absent</i> —No suitable habitat exists within the site boundaries.
Invertebrates				
San Diego fairy shrimp	<i>Branchinecta sandiegonensis</i>	Fed: Endangered CA: None	This species is found within vernal pools.	<i>Absent</i> —No suitable habitat exists within the site boundaries.
Monarch butterfly	<i>Danaus plexippus</i>	Fed: None CA: Wintering sites protected	A typical wintering site for the monarch butterfly is a grove of trees within a mile of the ocean in creek drainages. Eucalyptus trees are used as wintering sites 90 percent of the time.	<i>Absent</i> —No suitable habitat exists within the site boundaries.
Reptiles				
San Diego horned lizard	<i>Phrynosoma coronatum blainvillei</i>	Fed: None CA: SC	Inhabits coastal sage scrub and chaparral in arid and semi-arid climate conditions. Prefers friable, rocky, or shallow sandy soils where adequate prey exists (native harvester ants).	<i>Absent</i> —No suitable habitat exists within the site boundaries.
Birds				
Tricolored blackbird	<i>Agelaius tricolor</i>	Fed: None CA: SC	A colonial nester in freshwater marshes and along streams. Preferred nesting habitat is dense bulrush and cattails (National Geographic Society, 1983), although nesting can occur in blackberry thickets, willows, mustard, thistles, nettles, and grasses (Beedy et al., 1991). Foraging occurs in wet meadows, rice fields, and rangeland.	<i>Absent</i> —No suitable habitat exists within the site boundaries.
Burrowing owl	<i>Athene cucularia</i>	Fed: None CA: SC	Open, dry annual or perennial grasslands, desert, and scrublands with low-growing vegetation. Nests in mammal burrows, most notably, California ground squirrel.	<i>Absent</i> —No suitable habitat exists within the site boundaries.

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Common Name	Scientific Name	Status ² Fed//CA/CNPS	Habitat and Seasonal Distribution in California Known Occurrence within the Vicinity of the Project Site	Potential to Occur
Western snowy plover	<i>Charadrius alexandrinus nivosus</i>	Fed: Threatened CA: SC	Snowy plover nest on sandy beaches and dunes by creating a shallow depression as a /nest, using driftwood, rocks, or bushes as cover; nests may also be entirely out in the open.	Moderate—Plovers have been found in the immediately adjacent wetland but not since 1986. In addition, the on-site habitat is marginally suitable to plover nesting requirements.
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Fed: None CA: Endangered	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Also prefers thickets of willow mixed with cottonwood.	Absent—No suitable habitat exists within the site boundaries.
California black rail	<i>Laterallus jamaicensis coturniculus</i>	Fed: None CA: Threatened	Occurs in tidal salt marsh heavily grown to pickleweed; also in freshwater and brackish marshes, all at low elevation.	Absent—No suitable habitat exists within the site boundaries.
Belding's Savannah Sparrow	<i>Passerculus sandwichensis ssp. beldingi</i>	Fed: None CA: Endangered	This sparrow occurs in coastal areas of southern California and Baja California where it is a year-round resident of coastal salt marshes and associated mudflats and salt flats. Dense stands of pickleweed in the upper region of salt marshes that flood only during extremely high spring tides are its preferred nesting habitat. Belding's savannah sparrow forages on insects in the marsh and intertidal zone as well as in nearby mudflats and salt flats.	High—This species is known to historically occupy the immediately adjacent wetland. In addition, the presence of pickleweed immediately adjacent to the site is a further indication.
Coastal California gnatcatcher	<i>Polioptila californica californica</i>	Fed: Threatened CA: SC	Occurs in coastal sage scrub vegetation on mesas, arid hillsides, and in washes and nests almost exclusively in California sagebrush	Absent—No suitable habitat exists within the site boundaries.
Light-footed clapper rail	<i>Rallus longirostris levipes</i>	Fed: Endangered CA: Endangered	This species inhabits coastal salt and freshwater marshes containing cordgrass, cattails or tules, and rushes and forages in higher marsh vegetation, along vegetation and mudflat interface, and along tidal creeks.	Absent—No suitable habitat exists within the site boundaries.
California least tern	<i>Sterna antillarum browni</i>	Fed: Endangered CA: Endangered	Colonial breeder on bare or sparsely vegetated flat substrates: Sand beaches, alkali flats, land fills, or paved areas.	Moderate—Nests associated with this species can be found on substrates similar to the site and have been noted within 5 miles in the recent past (Sunset Aquatic Park and Seal Beach National Wildlife Refuge).

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Common Name	Scientific Name	Status ² Fed//CA/CNPS	Habitat and Seasonal Distribution in California Known Occurrence within the Vicinity of the Project Site	Potential to Occur
Mammals				
South coast marsh vole	<i>Microtus californicus stephensi</i>	Fed: None CA: SC	Tidal marshes in Los Angeles, Orange, and Southern Ventura Counties.	Low—No suitable habitat exists within the site boundaries; however, immediately adjacent to the site, potential habitat is present. Individuals may traverse the site.
Big free-tailed bat	<i>Nyctinomops macrotis</i>	Fed: None CA: SC	Lives in rocky areas of desert scrub or coniferous forests. Roosts by day in crevices on cliff faces.	Absent—No suitable habitat exists within the site boundaries or immediately adjacent to the site.
Southern California saltmarsh shrew	<i>Sorex ornatus salicornicus</i>	Fed: None CA: SC	Salt marshes with fairly dense ground cover, nesting sites above mean high tide and free from inundation, and fairly moist surroundings	Low—No suitable habitat exists within the site boundaries; however, immediately adjacent to the site, suitable habitat is present. Individuals may traverse the site.
Pacific pocket mouse	<i>Perognathus longimembris pacificus</i>	Fed: Endangered CA: SC	Historically, the Pacific pocket mouse range once extended from Los Angeles County south to the Mexican border. Currently pocket mice are only found within 4 kilometers of the coast on fine-grained sandy substrates in coastal sage scrub, coastal strand, and river alluvium.	Absent—No suitable habitat exists within the site boundaries. Further, the last known occurrence of this species in the project area occurred in 1865.
American badger	<i>Taxidea taxus</i>	Fed: None CA: SC	Prefers open areas with enough soil to dig in, but can be found from high alpine country to low valleys. May also frequent brushlands with little groundcover. Especially common in large grass and sagebrush meadows and valleys	Low—No suitable habitat exists within the site boundaries; however, immediately adjacent to the site, suitable habitat is present. Individuals may traverse the site.
PLANTS				
Chaparral sand-verbena	<i>Abronia villosa</i> var. <i>aurita</i>	Fed: None CA: None CNPS: List 1B	Found on the coastal side of the southern California mountains in chaparral and coastal sage scrub plant communities in areas of full sun, and sandy soil. From 80 to 1600 meters in elevation. Blooming period January–August.	Absent—No suitable habitat exists within the site boundaries or immediately adjacent to the site.

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Aphanisma	<i>Aphanisma blitoides</i>	Fed: None CA: None CNPS: List 1B	Coastal bluff scrub, coastal dunes, coastal scrub. Bluffs and slopes near the ocean in sandy or clay soils from 1 to 305 meters in elevation. Blooming period May–August.	Absent—Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
Ventura marsh milk-vetch	<i>Astragalus pycnostachyus</i> var. <i>lanosisimus</i>	Fed: Endangered CA: Endangered CNPS: List 1B	Coastal salt marshes (note: With the exception of the extant Ventura County population, the species is believed extirpated from all other areas from which it has been historically collected. Last collected within what is thought to be Bolsa Chica Wetlands in 1882.) Blooming period July–August.	Absent—Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
Coulter's saltbush	<i>Atriplex coulteri</i>	Fed: None CA: None CNPS: List 1B	Perennial herb or subshrub; alkaline or clay soils, open areas; coastal bluff scrub, coastal sage scrub, valley foothill grassland from 3 to 460 meters in elevation. Blooming period March–October.	Absent—Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
South Coast saltscale	<i>Atriplex pacifica</i>	Fed: None CA: None CNPS: List 1B	Perennial herb that grows in xeric, often mildly disturbed locales within coastal bluff scrub, coastal scrub, and playas. From 1 to 140 meters in elevation. Blooming period March–October.	Absent—Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
Parish's brittle-scale	<i>Atriplex parishii</i>	Fed: None CA: None CNPS: List 1B	Alkali meadows, vernal pools, chenopod scrub, playas. Usually on drying alkali flats with fine soils. Blooming period June–October.	Absent—Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
Davidson's saltscale	<i>Atriplex serenana davidsonii</i>	Fed: None CA: None CNPS: List 1B	Found association with the alkali vernal pools, alkali annual grassland, alkali playa, and alkali scrub components of alkali vernal plains. From 10 to 200 meters in elevation. Blooming period April–October.	Absent—Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.

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Santa Barbara morning-glory	<i>Calystegia sepium</i> ssp. <i>binghamiae</i>	Fed: None CA: None CNPS: List 1B	Coastal wetlands. Blooming period April–May.	<i>Absent</i> —Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
Southern tarplant	<i>Chorizanthe parryi</i> var. <i>fernandina</i>	Fed: None CA: None CNPS: List 1B	Found in the margins of marshes and swamps, in vernal mesic grassland areas and near vernal pools and other seasonal water sources below 1300 ft. elev. Known from Los Angeles, Orange, Santa Barbara, San Diego, and Ventura Cos.; Baja California. Blooming period June–November.	<i>Absent</i> —Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
San Fernando Valley spineflower	<i>Chorizanthe parryi</i> var. <i>fernandin</i>	Fed: Endangered CA: Endangered CNPS: List 1B	This species grows in sandy or gravelly soils along dry washes. It is a member of the coastal sage and alluvial fan scrub communities from 150 to 1220 meters in elevation. Blooming period April–June.	<i>Absent</i> —No suitable habitat exists within the site boundaries or immediately adjacent to the site.
Salt marsh bird's beak	<i>Cordylanthus maritimus</i> spp. <i>maritimus</i>	Fed: Endangered CA: Endangered CNPS: List 1B	Well-drained soils of open sites in coastal habitats, often on bluffs or flats near bodies of brackish water or with a relatively high water table, in association with dune or coastal shrubland vegetation. Blooming period June–October.	<i>Absent</i> —Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
Many-stemmed dudleya	<i>Dudleya multicaulis</i>	Fed: None CA: None CNPS: List 1B	Found in chaparral, coastal scrub, valley and foothill grassland. Endemic to Southern California. Generally found in heavy, often clayey soils or grassy slopes from 0-790 meters in elevation. Blooming period April–June	<i>Absent</i> —Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
Low Angeles sunflower	<i>Helianthus nuttallii</i> ssp. <i>parishii</i>	Fed: None CA: None CNPS: List 1A	Marshes and swamps (coastal salt and freshwater). Historical from southern California. From 5 to 1,675 m in elevation. Blooming period August–October.	<i>Absent</i> —Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.

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Coulter's goldfields	<i>Lastenia glabrata</i> spp. <i>coulteri</i>	Fed: None CA: None CNPS: List 1B	Alkaline soils in playas, sinks, marshes, and grasslands from 1 to 1220 m in elevation. Blooming period February–June.	Absent—Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
Mud nama	<i>Nama stenocarpum</i>	Fed: None CA: None CNPS: List 2	Grows on the muddy embankments of ponds and lakes. It is also reported to utilize river embankments. Generally occurs from 5 to 500 meters in elevation. Blooming period January–July	Absent—Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
Prostrate navarretia	<i>Navarretia prostrata</i>	Fed: None CA: None CNPS: List 1B	This species occurs within coastal sage scrub, valley and foothill grassland (alkaline washes) and vernal pools between 15 and 700 m in Los Angeles and west San Bernardino Counties. Blooming period April–May.	Absent—Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
Coastal woolly heads	<i>Nemacaulis denudata</i> var. <i>denudata</i>	Fed: None CA: None CNPS: List 1B	Found in well developed coastal sand dunes along the beaches. The back dunes, in mildly protected locales, seem to be preferred. Generally occurs from 0 to 100 m in elevation. Blooming period April–September.	Absent—Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
California Orcutt grass	<i>Orcuttia californica</i>	Fed: Endangered CA: Endangered CNPS: List 1B	Associated with vernal pools. Blooming period April–Aug.	Absent—Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
Lyon's pentachaeta	<i>Pentachaeta lyonii</i>	Fed: Endangered CA: Endangered CNPS: List 1B	Found within chaparral coastal scrub and valley and foothill grasslands. Blooming period Mar–April.	Absent—Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.

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Sanford's arrowhead	<i>Sagittaria sanfordii</i>	Fed: None CA: None CNPS: List 1B	Freshwater marshes and swamps from 0 to 610 meters in elevation. Blooming period May–October.	<i>Absent</i> —Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
Salt-spring checkerbloom	<i>Sidalcea neomexicana</i>	Fed: None CA: None CNPS: List 1B	Perennial herb. Occurs in coastal scrub, chaparral, lower montane coniferous forest, brackish marshes, Mohavean desert scrub, and playas on alkaline, mesic soils from 15 to 1,530 m in elevation. Blooming period March–June.	<i>Absent</i> —Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
Estuary seablite	<i>Suaeda esteroa</i>	Fed: None CA: None CNPS: List 1B	Grows within the periphery of coastal salt marsh. Soils at such locales are usually mapped as tidal flats from 0 to 5 m in elevation. Blooming period May–January.	<i>Absent</i> —Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.
San Bernardino aster	<i>Symphotricum defoliatum</i>	Fed: None CA: None CNPS: List 1B	Usually occurs in meadows, springs and streams, it also occurs in upland habitats. Blooming period July–November.	<i>Absent</i> —Due to historical activities and soil removal at the project site, the project site is currently denuded and habitat is not suitable for the presence of this species.

CDFG SENSITIVE HABITATS

Southern coastal salt marsh	CDFG Sensitive	N/A	<i>Absent</i> —Due to historical activities and soil removal at the site, no habitat of this type exists on site. However, immediately adjacent to the site, this habitat is present.
Southern cottonwood willow riparian forest	CDFG Sensitive	N/A	<i>Absent</i> —No suitable habitat exists within the site boundaries or immediately adjacent to the site.
Southern dune scrub	CDFG Sensitive	N/A	<i>Absent</i> —No suitable habitat exists within the site boundaries or immediately adjacent to the site.

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Southern foredune		CDFG Sensitive	N/A	Absent—No suitable habitat exists within the site boundaries or immediately adjacent to the site.

Federal (FED)

- FE = Federally listed; Endangered
- FT = Federally listed, Threatened
- SC = Federal Species of Concern; not an active term, and is provided for informational purposes only.
- FPE = Federally Proposed for Listing as Endangered
- FPT = Federally Proposed for Listing as Threatened
- FC = Federal candidate species (former Category 1 candidates)

State

- ST = State listed; Threatened
- SE = State listed; Endangered
- FP = Fully protected
- SC = California Species of Special Concern

California Native Plant Society (CNPS) designations analyzed

- List 1A: Plants presumed extinct in California
- List 1B: Plants rare and endangered in California and throughout their range
- List 2: Plants rare, threatened or endangered in California but more common elsewhere in their range.

- * ■ Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or at a critical stage in their life cycle when residing in California.
- Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation within California.
- Taxa closely associated with a habitat that is declining in California (e.g., wetland, riparian, old growth forest).