

5.2 Biological Resources

This section describes the biological resources at and near the Huntington Beach Energy Center Project (HBEP) site, and the potential effects the project may have on these resources. Section 5.2.1 presents the project setting and Section 5.2.2 discusses the affected environment, including an overview of the region, habitat and vegetation communities, and special status species. Section 5.2.3 presents an environmental analysis of the project, including standards of significance, potential impacts of construction and operation of the HBEP facility, and impacts to special-status species. Section 5.2.4 evaluates any potential cumulative effects to biological resources in the project vicinity, and Section 5.2.5 addresses proposed mitigation measures that would avoid, minimize, or compensate for adverse impacts. Section 5.2.6 presents agency contacts, and Section 5.2.7 describes the laws, ordinances, regulations and standards (LORS) that apply to the project. Section 5.2.8 states that no additional permits are required and Section 5.2.9 contains the references used to prepare this section.

5.2.1 Setting

The HBEP site is located in an industrial area of Huntington Beach at 21730 Newland Street, just north of the intersection of the Pacific Coast Highway (Highway 1) and Newland Street. The project is located on the site of the existing Huntington Beach Generating Station, an operating power plant. The HBEP site is bounded on the west by a manufactured home/recreational vehicle park, on the north by a tank farm, on the north and east by the Huntington Beach Channel and residential areas, on the southeast by the Huntington Beach Wetland Preserve / Magnolia Marsh wetlands, and to the south and southwest by the Huntington Beach State Park and the Pacific Ocean. The site is located on a gently sloping coastal plain.

HBEP is a 939-megawatt combined-cycle power plant, consisting of two power blocks. Each power block is composed of three combustion turbines with supplemental fired heat recovery steam generators, a steam turbine generator, an air-cooled condenser, and ancillary facilities. . No offsite linear developments are proposed as part of the project.

The project will use potable water, provided by the City of Huntington Beach, for construction and operational process and sanitary uses. During operation, stormwater and process wastewater will be discharged to a retention basin and then ultimately to the Pacific Ocean via an existing outfall. Sanitary wastewater will be conveyed to the Orange County Sanitation District via the existing City of Huntington Beach sewer connection. Two 230-kilovolt (kV) transmission interconnections will connect HBEP Power Blocks 1 and 2 to the existing onsite Southern California Edison 230-kV switchyard.

HBEP construction will require the removal of the existing Huntington Beach Generating Station Units 1, 2, and 5. Demolition of Unit 5, scheduled to occur between the fourth quarter of 2014 and the end of 2015, will provide the space for the construction of HBEP Block 1. Construction of Blocks 1 and 2 are each expected to take approximately 42 and 30 months, respectively, with Block 1 construction scheduled to occur from the first quarter of 2015 through the second quarter of 2018, and Block 2 construction scheduled to occur from the first quarter of 2018 through the second quarter of 2020. Removal/demolition of existing Huntington Beach Generating Station Units 1 and 2 is scheduled to occur from the fourth quarter of 2020 through the third quarter of 2022.

Existing Huntington Beach Generating Station Units 3 and 4 were licensed through the California Energy Commission (00-AFC-13C) and demolition of these units is authorized under that license and will proceed irrespective of the HBEP. Therefore, demolition of existing Huntington Beach Generating Station Units 3 and 4 is not part of the HBEP project definition. However, to ensure a comprehensive review of potential project impacts, the demolition of existing Huntington Beach Generating Station Units 3 and 4 is included in the cumulative impact assessment. Removal/demolition of existing Huntington Beach Generating Station Units 3 and 4 will be in advance of the construction of HBEP Block 2.

HBEP construction will require both onsite and offsite laydown and construction parking areas. Approximately 22 acres of construction laydown will be required, with approximately 6 acres at the Huntington Beach Generating Station used for a combination of laydown and construction parking, and 16 acres at the AGS site used for construction laydown (component storage only, no assembly of components at AGS). During HBEP construction,

the large components will be hauled from the construction laydown area at the AGS site to the HBEP site as they are ready for installation.

Construction worker parking for HBEP and the demolition of the existing units at the Huntington Beach Generating Station will be provided by a combination of onsite and offsite parking. A maximum of 330 parking spaces will be required during construction and demolition activities. As shown on Figure 2.3-3 in Section 2.0, Project Description, construction/demolition worker parking will be provided at the following locations:

- Approximately 1.5 acres onsite at the Huntington Beach Generating Station (approximately 130 parking stalls)
- Approximately 3 acres of existing paved/graveled parking located adjacent to HBEP across Newland Street (approximately 300 parking stalls)
- Approximately 2.5 acres of existing paved parking located at the corner of Pacific Coast Highway and Beach Boulevard (approximately 215 parking stalls)
- 225 parking stalls at the City of Huntington Beach shore parking west of the project site.
- Approximately 1.9 acres at the Plains All American Tank Farm located on Magnolia Street (approximately 170 parking stalls)

5.2.2 Affected Environment

This section provides an overview of the region including discussions of significant wetlands and other protected natural areas, sensitive habitats, designated critical habitat and special-status plants and animals. For the purposes of this document, the site includes the entire Huntington Beach Generating Station site and the offsite laydown area located at the AGS site. The regional overview of the project area includes, but is not limited to, the area within 10 miles of the HBEP site and 10 miles of the offsite laydown area.

The project site is approximately 14 feet above mean sea level and can be found on the U.S. Geological Survey (USGS) Newport Beach, California 7.5-minute series topographic quadrangle within Section 13, Township 06 south, Range 11 west (San Bernardino Meridian). The HBEP site is located immediately north of the Pacific Coast Highway (also known as State Route 1) and east of Newland Street. Land use in the region primarily includes urban development, industrial areas, the ASCON landfill, parklands and open space and wetlands preserves.

The offsite laydown area is approximately 10 to 15 feet above mean sea level and can be found on the USGS Los Alamitos, California 7.5-minute series topographic quadrangle within Section 02, Township 05 north, Range 12 west (San Bernardino Meridian) and is located 0.25 mile south of State Route 22 and north of Westminster Avenue. Land use in the region primarily includes industrial, commercial, residential, and parklands.

A description of regional biogeography, wetlands and other sensitive resources was obtained from reference sources including, but not limited to, the *Ecological Subregions of California* (United States Department of Agriculture [USDA], 1997), the California Department of Fish and Game (CDFG) *Biological Information and Observation System* (BIOS, 2012), and the *California Wetlands Information System* (DWR, 2012). The U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) was also queried to determine the location of reported wetlands in proximity to the site (USFWS, 2012). These sources, as well as aerial photographs and USGS topographical maps, were consulted to determine the terrestrial and aquatic biological resources with potential to occur within 10 miles of the HBEP site and within 10 miles of the offsite laydown area.

A list of sensitive biological resources for the region including natural communities and special-status plant and wildlife species was compiled for the project using the CDFG California Natural Diversity Database (CNDDB) RareFind database (CDFG, 2012a) as well as other publically available studies, information and resources. A list of potentially occurring sensitive biological resources was generated for the region based on the combined results of these reference sources. Appendix 5.2A includes tables listing regional special-status plant and wildlife species.

5.2.2.1 Regional Overview

The HBEP site lies within the Los Angeles Plain subsection of the Southern California Coast Section (USDA, 1997). This subsection is characterized by flat floodplains and terraces and very gently sloped alluvial fans with small areas of marine terraces. Steep hills and mountains including parts of the Santa Monica and San Gabriel Mountains are found in the northern part of this subsection; parts of the San Jose and Puente Hills are found along the eastern edge of the subsection. Historically, the predominant natural plant communities in the Los Angeles Plain included grasslands, shrub lands, salt marshes, dune lands, and woodlands (USDA, 1997). Extensive urban development throughout the region has replaced most of the natural communities with urban development and today natural areas are restricted to scattered open space preserves and other protected areas. Current land use within the region is predominantly urban development including the communities of Huntington Beach, Fountain Valley, and Costa Mesa. These areas are characterized by a mixture of commercial and residential development interspersed with schools, public beaches, landscaped parks, open space, and wetland preserves.

The regional climate is moderated by marine influences with a mean annual temperatures ranging from about 53 to 72 degrees Fahrenheit (°F). The mean annual precipitation is about 13 inches, with most of the rainfall occurring between November and March.

The HBEP site is adjacent to Huntington Beach State Park and is approximately 900 feet inland from the Pacific Ocean. The site is located in the East Coastal Plain subarea of the Santa Ana River Hydrologic Area (RWQCB, 1986). The Magnolia Marsh wetland preserve is along the southeastern border of the project site. Other nearby wetland preserves include Brookhurst Marsh, Talbert Marsh, and Newland Marsh (Figures 5.2-1a and 5.2-1b). The Huntington Beach Channel runs along the northeastern boundary of the Huntington Beach Generating Station site and the Talbert Channel is located approximately 0.5 mile to the east of the site.

The laydown area is approximately 2 miles north of the San Pedro Bay. The San Gabriel River is located immediately along the eastern boundary of the AGS site. In this area, the river has been channelized between levees that are maintained by the Los Angeles Department of Power and Water. The Los Cerritos Channel is located immediately along the west side of the site. Two side channels from the Los Cerritos channel have been constructed for cooling water intakes for the Alamitos site. The AGS site is located within the San Gabriel Watershed in the South Coast Hydrologic Region (BIOS, 2012).

5.2.2.2 Significant Regional Wetlands and Other Protected Areas

Several important ecological reserves, wetland preservation sites, and designated open spaces occur in the regional vicinity. These protected areas represent some of the best remaining habitat in the region and provide important habitat for migratory birds along the Pacific flyway as well as habitat for several special-status plants and animals. Figure 5.2-1a and Figure 5.2-1b show the locations of these protected areas in relation to HBEP and the offsite laydown area. Figures 5.2-2a and 5.2-2b provides a delineation of wetland habitats, including any potential jurisdictional and non-jurisdictional wetlands delineated out to 250 feet from the edge of disturbance. For purposes of these figures, wetlands as defined by the Coastal Act are included, which include “lands 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” (Coastal Act Section 30121).

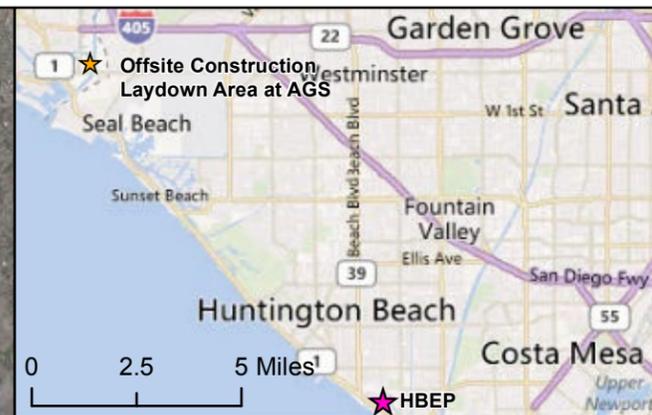
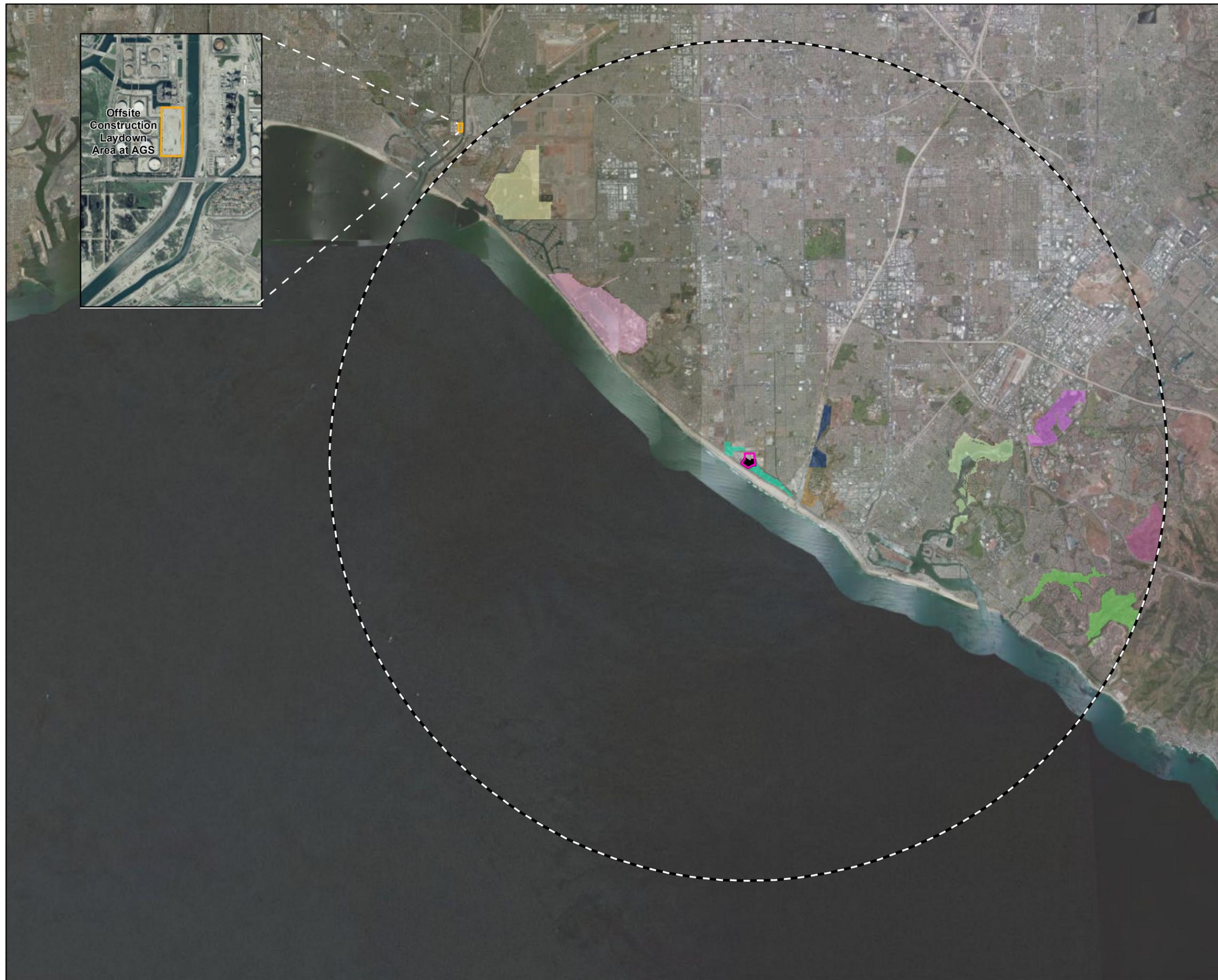
The closest habitat to the HBEP site, Huntington Beach Wetlands Conservancy Coastal Marsh Complex, is immediately adjacent to and southeast of the project area. Other habitats within a 10-mile radius from the HBEP site are approximately 1.5 to 9.5 miles away from the site. For the HBEP offsite laydown area, other habitats within a 10-mile radius, and not previously included within the 10-mile radius of HBEP, are approximately 1 to 5.9 miles from the offsite laydown area. Each of these areas is briefly described below.

- **Huntington Beach Wetlands Conservancy’s Coastal Marsh Restoration Complex** – The Huntington Beach Wetlands Conservancy has been actively restoring coastal wetland habitats along the Talbert Channel and Huntington Beach Channel since 1989. The wetland restoration in this area includes four units: Newland Marsh, Magnolia Marsh, Brookhurst Marsh, and Talbert Marsh. Collectively these areas encompass approximately 193 acres. Primary habitats included coastal salt marsh, open water, and salt panne.

Restoration of these areas began with the removal of the seaward levee of the Huntington Beach Flood Control Channel to restore tidal influence into the Talbert and Brookhurst Marshes. Restoration of the Magnolia Marsh site began in April of 2009 and involved excavation of 40,000 cubic yards of fill to recreate historical tidal channels. The restoration work in Magnolia Marsh was completed in February 2010. HBEP is located adjacent to the Huntington Beach Wetlands Conservancy's Coastal Marsh Restoration Complex.

Several special-status wildlife species have been reported or observed in these wetlands. The wetland complex supports a breeding population of Belding's savanna sparrow's (*Passerculus sandwichensis beldingi*), a state listed endangered species. The wetland complex also provides foraging habitat for other endangered bird species including the western snowy plover (*Charadrius alexandrinus nivosus*) and the California least tern (*Sternula antillarum browni*) (Merkel & Associates, 2004). Other special-status wildlife species observed utilizing the area include California brown pelicans (*Pelecanus occidentalis*) (foraging only) and the salt marsh skipper (*Panoquina errans*).

- **Talbert Nature Preserve** – The Talbert Nature Preserve is in Costa Mesa, California, along the east side of the Santa Ana River approximately 1.5 miles east of the HBEP site. Natural communities in this preserve include coastal strand (dunes), native grassland, woodlands, and riparian woodland/scrub. Special-status species known to occur in this area include southern tar plant (*Centromadia parryi* ssp. *australis*) and Davidson's salt scale (*Atriplex serenana* var. *davidsonii*).
- **U.S. Army Corps of Engineers Los Angeles District – Salt Marsh Restoration Project** – The Los Angeles District of the USACE owns approximately 92 acres of salt marsh habitat just north of the Pacific Coast Highway on the eastern side of the Santa Ana River 1.5 miles southeast of the HBEP site. The marsh is subject to muted tidal influence due to the elevation and operation of tidal gates. This wetland area supports a high diversity of bird species including the western snowy plover and Belding's savannah sparrow.
- **Bolsa Chica Wetlands** – The Bolsa Chica wetlands are approximately 3.8 miles to the northwest of the HBEP site. These wetlands encompass approximately 900 acres, approximately one third of which is owned by the State and managed as the Bolsa Chica Ecological Reserve. Approximately 80 percent of the wetland is comprised of a mixture of salt marsh and open mudflats with the remaining 20 percent consisting of open water. The Huntington Harbor is the only area fully open to tidal flows. Tidal flows to the inner parts of Bolsa Bay, including the ecological reserve, are controlled by flood gates. Over 300 species of birds have been observed at these wetlands including 32 special-status birds such as the California least tern, western snowy plover, Belding's savanna sparrow, and light-footed clapper rail (*Rallus longirostris levipes*). Several special-status plants, amphibians, reptiles, and mammals are also known to occur in this area including southern tarplant, Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), San Diego horned lizard (*Phrynosoma coronatum blainvillii*), western pond turtle (*Emys marmorata*), silvery legless lizard (*Anniella pulchra*) and the southern California salt marsh shrew (*Sorex ornatus salicornicus*).
- **Upper Newport Bay Ecological Reserve / Nature Preserve** – Upper Newport Bay Ecological Reserve and Nature Preserve includes approximately 1,350 acres of wetland habitats including open water, mud flats, and coastal salt marsh. This wetland area is approximately 5 miles east of the HBEP site. In 1975, the State purchased 752 acres of the wetlands and established the Upper Newport Bay Ecological Reserve which is managed by the CDFG. The ecological reserve is bordered on three sides by the Upper Newport Bay Regional Park and Nature preserve owned and managed by Orange County. The upper Newport Bay is hydrologically connected to the lower Newport bay by a narrow constricted channel at the Pacific Coast Highway. Complete tidal flushing of the upper bay occurs every 3 to 4 days. This wetland provides habitat for a number of bird species including the light footed Clapper rail, Belding's savanna sparrow, California least tern, and brown pelican. One endangered plant species, salt marsh bird's-beak (*Cordylanthus maritimus* ssp. *maritimus*), is also found in this area.



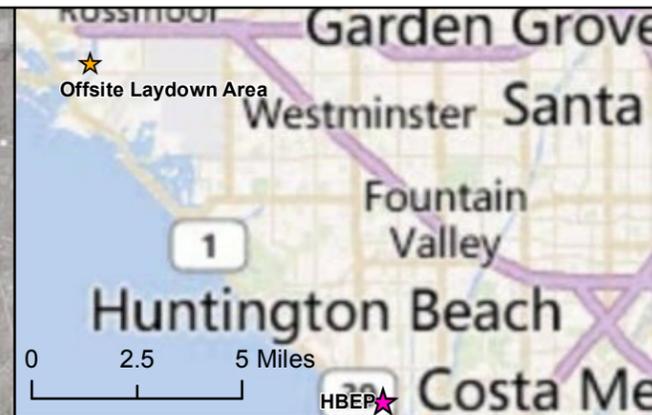
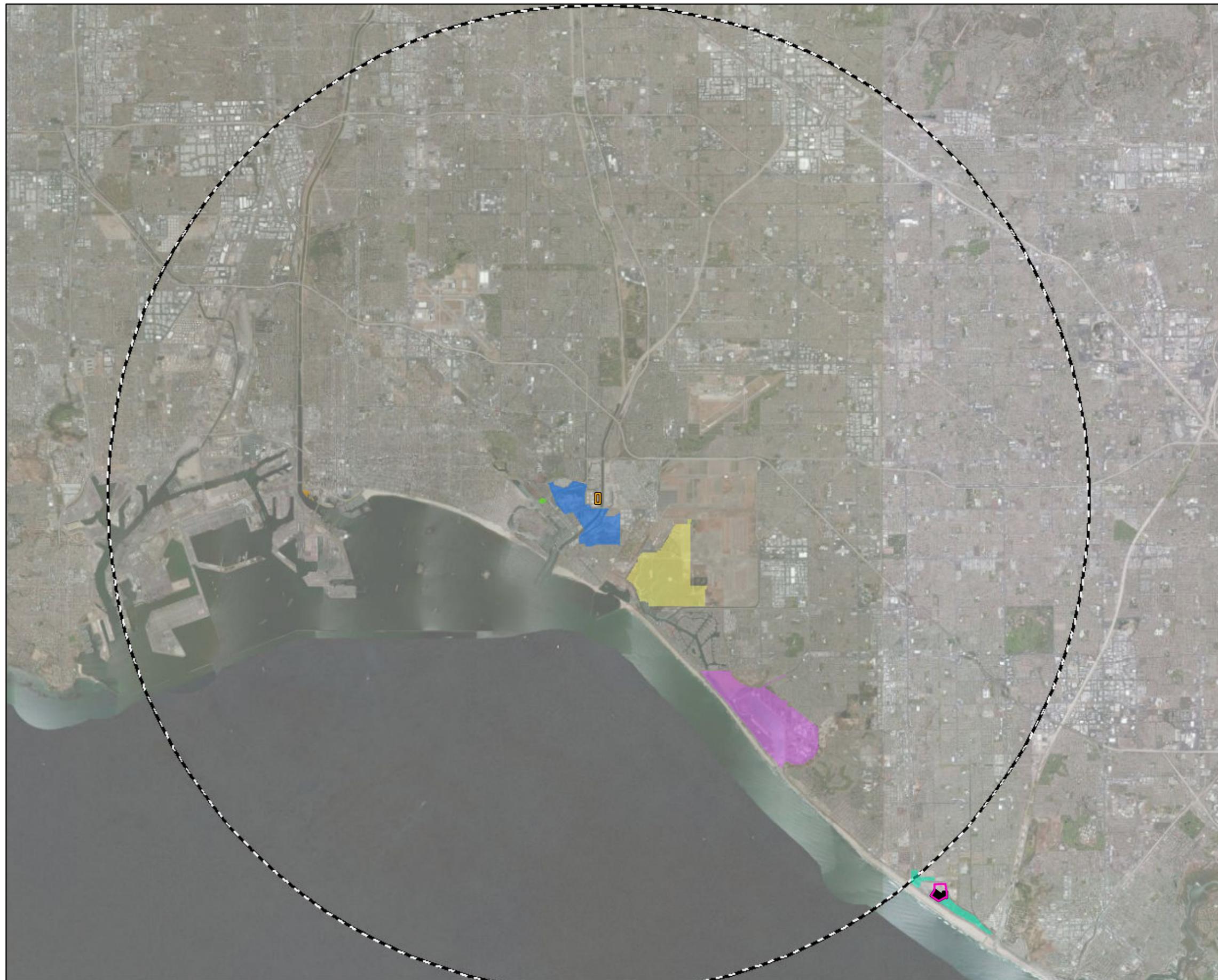
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- AES Huntington Beach Generating Station
- AES Huntington Beach Energy Project
- Offsite Construction Laydown Area at AGS
- 10-Mile Radius From Project Site
- Bolsa Chica Ecological Reserve
- Bommer Canyon Open Space Preserve
- Huntington Beach Wetlands Conservancy
- Laguna Coast Wilderness Park
- San Joaquin Freshwater Marsh Reserve
- Seal Beach National Wildlife Refuge
- Talbert Nature Preserve
- USACE Salt Marsh Restoration
- Upper Newport Bay Ecological Reserve/Nature Preserve

Source: California Protected Areas Dataset (CPAD - www.calands.org) - copyright 2009 GreenInfo Network



FIGURE 5.2-1a
Significant Regional Wetlands and Protected Areas
 AES Huntington Beach Energy Project
 Huntington Beach, California



Legend

-  Offsite Construction Laydown Area at AGS
-  AES Huntington Beach Generating Station
-  AES Huntington Beach Energy Project
-  10-Mile Radius From Project Site
-  Bolsa Chica Ecological Reserve
-  Golden Shore Marine Biological Reserve Park
-  Huntington Beach Wetlands Conservancy
-  Jack Dunster Marine Biological Reserve
-  Seal Beach National Wildlife Refuge
-  Los Cerritos Wetlands Area

Source: California Protected Areas Dataset (CPAD - www.calands.org) - copyright 2009 GreenInfo Network
 California Department of Fish & Game Wildlife Habitat Data Analysis Branch (2006),
 Los Cerritos Wetlands Authority (2010).



FIGURE 5.2-1b
Significant Regional Wetlands and Protected Areas
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 250-Foot Radius From Project Site
- Wetland Type**
- Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Riverine

Source:
U.S. Fish and Wildlife Service, NWI (2011)

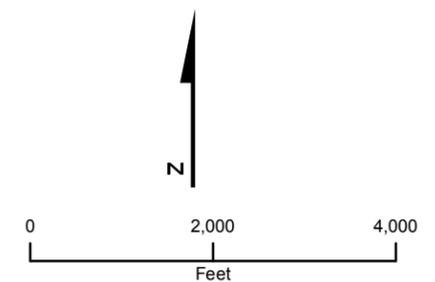
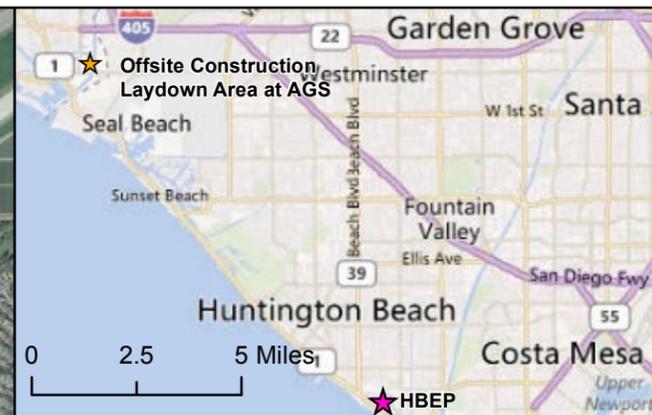
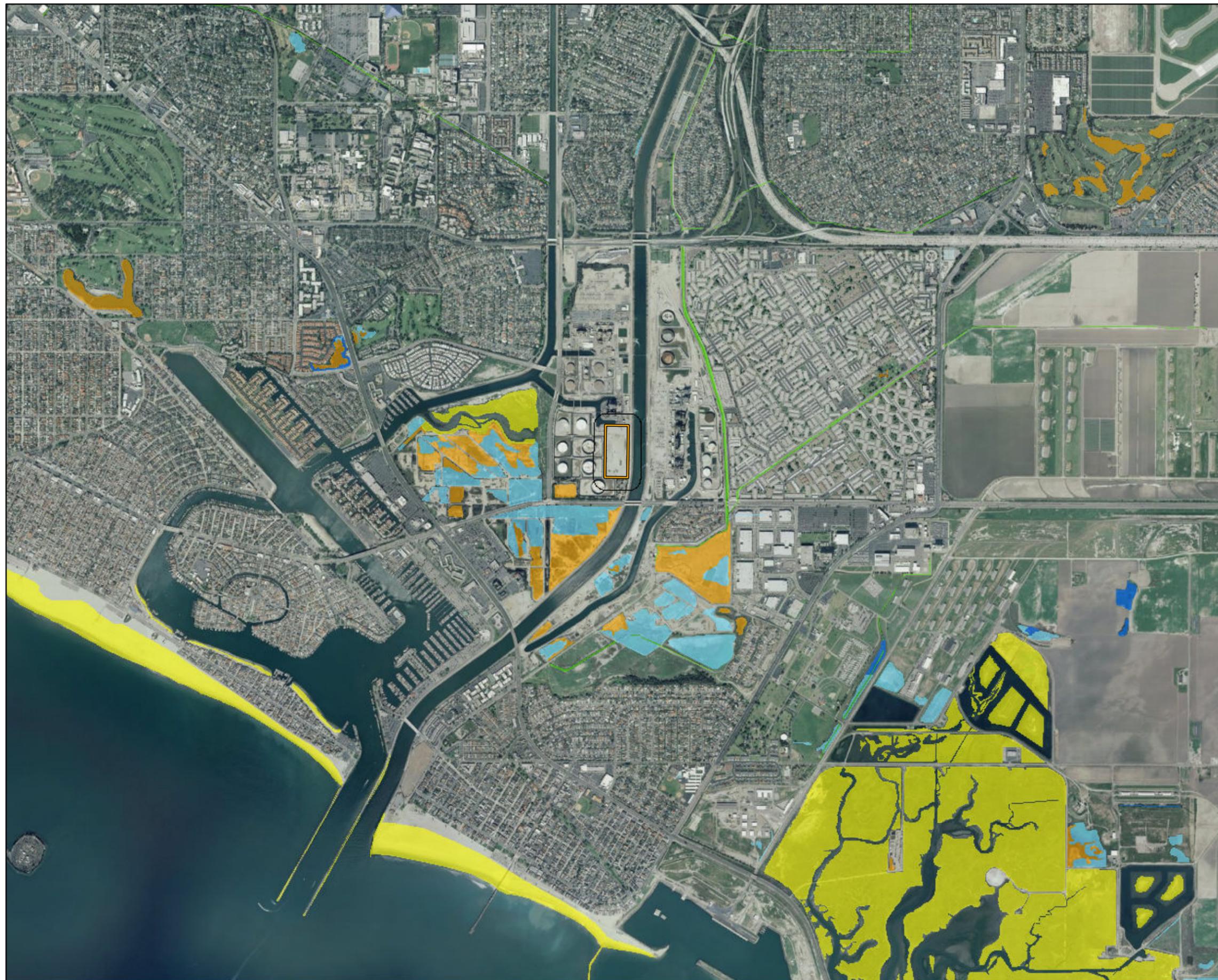


FIGURE 5.2-2a
Wetland Delineation
AES Huntington Beach Energy Project
Huntington Beach, California



Legend

-  Offsite Construction Laydown Area at AGS
-  Buffer_250ft_HB_project
-  Estuarine and Marine Wetland
-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond
-  Riverine

Source:
U.S. Fish and Wildlife Service, NWI (2011)

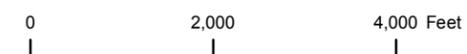


FIGURE 5.2-2b
Wetland Delineation
AES Huntington Beach Energy Project
Huntington Beach, California

- **San Joaquin Freshwater Marsh Reserve** – The 512-acre San Joaquin Marsh Reserve is located at the head of Newport Bay approximately 7 miles east of the HBEP site. The University of California Natural Reserve Program owns 202 acres of the reserve which are managed through U.C. Irvine. Orange County owns the remaining 310 acres. The reserve includes a variety of habitats including seasonal ponds, tule marsh, riparian woodland/scrub, wet meadow, and uplands. Over 200 species of birds have been observed at the reserve including special-status species such as the light-footed clapper rail, California least tern, Swainson's hawk (*Buteo swainsoni*), white tailed kite (*Elanus leucurus*), and tricolored blackbird (*Agelaius tricolor*). Other special-status species observed in this area include the western pond turtle and chaparral ragwort (*Senecio aphanactis*).
- **Seal Beach National Wildlife Refuge** – The Seal Beach National Wildlife refuge is located approximately 8 miles northwest of the HBEP site within the boundaries of the Seal Beach Naval Weapons Station. The refuge includes 911 acres of remnant saltwater marsh in the Anaheim Bay estuary. The refuge provides important habitat for a number of migratory birds as well as three endangered species including the light footed clapper rail, California least tern, and Belding's savanna sparrow.
- **Laguna Coast Wilderness Park** – The 7,000-acre Laguna Coast wilderness park is located in the southwestern part of the San Joaquin Hills approximately 8 miles east of the HBEP site. Important natural communities associated with this area include coastal sage scrub, maritime chaparral, woodlands, and grasslands. Special-status species known to occur in this area include the California gnatcatcher (*Polioptila californica*) and the orange-throated whiptail (*Cnemidophorus hyperythrus*).
- **Boomer Canyon Open Space Preserve** – The City of Irvine's Boomer Canyon Open Space Preserve encompasses approximately 37,000 acres and has been officially designated as a Natural Landmark by the state of California as well as the U.S. Department of the Interior. The preserve contains large contiguous patches of natural habitats including coastal sage scrub, chaparral, woodlands, grassland, and riparian areas. Several special-status species including the California gnatcatcher, cactus wren (*Campylorhynchus brunneicapillus*), peregrine falcon (*Falco peregrinus*), orange throated whiptail, and the Pacific pocket mouse (*Perognathus longimembris pacificus*) are known to occur on the preserve. A portion of the Boomer Canyon Open Space preserve is located approximately 9.5 miles east of the HBEP site.
- **Los Cerritos Wetlands** – The Los Cerritos wetlands complex is an approximately 500-acre site that is adjacent to the AGS site and approximately 1,245 feet west of the offsite laydown area. In addition, approximately 2 acres of this site have been established as a California least tern nesting site (City of Long Beach, 2006). This site also has the potential to support other wildlife species.
- **Jack Dunster Marine Biological Reserve** – The Jack Dunster Marine Biological Reserve is a 2.7-acre site that contains 1.5 acres of land and 1.2 acres of shallow water that was been constructed on the northwestern side of the Los Cerritos Channel. Habitats that are represented in this small reserve include coastal sage scrub, coastal marsh, intertidal mudflats, and rocky intertidal (City of Long Beach, 2012a). The reserve is located approximately 1 mile west of the HBEP offsite laydown area and provides habitat for waterfowl and fish.
- **Golden Shore Marine Biological Reserve Park** – In 1997, the City of Long Beach's Golden Shore Marine Biological Reserve Park was originally a launch ramp and parking lot that was converted into 6.4 acres of intertidal and sub tidal wetlands habitat as mitigation for the conversion of 20 acres of Shoreline Park into the Aquarium of the Pacific and the Rainbow Harbor commercial/recreation attraction (City of Long Beach, 2012b). This park is located approximately 5.9 miles west of the HBEP offsite laydown area. This reserve park has salt marsh habitat that contains cordgrass, pickle weed, and saltgrass at slightly higher elevations, which provides habitat for waterfowl and fish.

5.2.2.3 Sensitive Habitat Types Identified in the CNDDDB and Critical Habitat

Sensitive habitats within 10 miles of the HBEP site include significant natural communities identified by the CNDDDB, including southern coastal salt marsh, southern foredunes, southern cottonwood willow riparian forest, and southern coast live oak riparian forest. For the offsite laydown area, sensitive habitats within 10 miles include

southern coastal marsh, southern dune scrub, and southern foredunes. Critical habitat for the coastal California gnatcatcher and the San Diego fairy shrimp is also present in the regional vicinity of the HBEP site. The only designated critical habitat within 10 miles of the offsite laydown area is for the western snowy plover. Sensitive habitat types and critical habitat areas within 10 miles of the HBEP site and the offsite laydown area are shown on Figures 5.2-3a and 5.2-3b. Descriptions of these areas are provided below.

- **Southern Coastal Salt Marsh** – Southern coastal salt marsh occurs in areas subject to regular tidal flooding by salt water such as sheltered inland bays, estuaries, and lagoons. The distribution of plant species within the salt marsh is often in distinct zones based on the frequency and duration of tidal flooding. Typically California cordgrass (*Spartina foliosa*) occurs at the lowest elevations adjacent to open water that are subject to regular, prolonged tidal inundation. The mid-elevation areas of the marsh area typically characterized by pickleweed (*Salicornia virginica*) and are generally subject cyclical inundation during high tides and drying during low tides. The upper marsh zone is generally subject to flooding for short durations and only during higher high tides. It supports a more diverse mixture of plant species including pickleweed, saltgrass (*Distichlis spicata*), alkali heath (*Frankenia salina*), alkali weed (*Cressa truxilensis*), California seablite (*Suaeda californica*), and marsh jaumea (*Jaumea carinosa*).

The historic extent of salt marsh habitat throughout the south coast region has been dramatically reduced as a result of urban coastal development. Today, this community is restricted to isolated patches surrounded by development or in designated protected areas. In the immediate vicinity of the HBEP site southern coastal salt marsh habitat is found in the Huntington Beach Wetlands Conservancy's Coastal Marsh Restoration Complex, at the USACE salt marsh Restoration project near the mouth of the Santa Ana River, at the Talbert Nature Preserve, at the Bolsa Chica Ecological Reserve, and at the Seal Beach National Wildlife Refuge (Figure 5.2-3a). In addition to the locations provided previously, additional southern coastal salt marsh habitat is also found to the east northeast of the offsite laydown area (Figure 5.2-3b).

- **Southern Foredunes** – Foredunes are similar to active sand dunes but are subject to less wind, have more stable sand, and greater availability to groundwater; therefore, the area supports the establishment of plant species that further stabilize the dunes. As with other natural habitats, the historic extent of foredunes in southern California has been dramatically reduced as a result of urban coastal development. Native plant species commonly found in this habitat include beach morning glory (*Calystegia soldanella*), silver bur ragweed (*Ambrosia chamissonis*), and common eucrypta (*Eucrypta alba*). Southern foredune habitat has been mapped to the southeast of the HBEP site within Huntington Beach State Park and at Newport Beach, which is located southeast of the offsite laydown area (Figures 5.2-3a and 5.2-3b). A small area of southern foredune habitat is also found at the Bolsa Chica Ecological Reserve.
- **Southern Dune Scrub** – Southern dune scrub is characterized as a dense coastal scrub community of scattered shrubs, subshrubs, and herbs that are typically less than 1 meter tall often associated with a high percentage of cover. This habitat type is drier, fairly warmer, and experiences less onshore wind when compared to central and northern dune scrub habitats. Native plants commonly found in this habitat include beach saltbush (*Atriplex leucophylla*), California croton (*Croton californicus*), California ephedra (*Ephedra californica*), mock heather (*Ericameria ericoides*), dune lupine (*Lupinus chamissonis*), desert thorn (*Lycium brevipes*), prickly pear, lemonade berry, and jojoba (*Simmondsia chinensis*) (Holland, 1986). This sensitive habitat type occurs adjacent to and northwest of HBEP and southeast of the offsite laydown area (Figures 5.2-3a and 5.2-3b).
- **Southern Cottonwood Willow Riparian Forest** – Southern cottonwood willow riparian forest is characterized by broadleaf winter-deciduous trees including cottonwoods (*Populus fremontii*; *P. trichocarpa*) and several types of willows including black willow (*Salix gooddingii*), sand bar willow (*Salix exigua*), Pacific willow (*Salix lasiandra*), and arroyo willow (*Salix lasiolepis*). Associated species include sycamore (*Platanus racemosa*), mugwort (*Artemisia douglasiana*), and coyotebrush (*Baccharis glutinosa*). Southern cottonwood willow riparian scrub has been mapped as occurring along the Santa Ana River greenbelt to the east and northeast of the HBEP site.



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 10-Mile Radius From Project Site
 - Sensitive Habitats**
 - Southern Coastal Salt Marsh
 - Southern Cottonwood Willow Riparian Forest
 - Southern Dune Scrub
 - Southern Foredunes
 - Critical Habitats**
 - Coastal California gnatcatcher
 - Western Snowy Plover/Southern Coastal Salt Marsh
 - San Diego fairy shrimp

Source: California Department of Fish and Game, Habitat Conservation Division, Wildlife and Habitat Data Analysis Branch, March 2012.
 U.S. Fish and Wildlife Service, Carlsbad Fish and Wildlife Office February 13, 2008.



FIGURE 5.2-3a
Sensitive Natural Communities
and Critical Habitat
 AES Huntington Beach Energy Project
 Huntington Beach, California



Legend

-  Offsite Construction Laydown Area at AGS
-  AES Huntington Beach Generating Station
-  AES Huntington Beach Energy Project
-  10-Mile Radius From Project Site
- Sensitive Habitats**
-  Southern Coastal Salt Marsh
-  Southern Dune Scrub
-  Southern Foredunes
- Critical Habitats**
-  Western Snowy Plover/Southern Coastal Salt Marsh

Source: California Department of Fish and Game, Habitat Conservation Division, Wildlife and Habitat Data Analysis Branch, March 2012.
 U.S. Fish and Wildlife Service, Carlsbad Fish and Wildlife Office February 13, 2008.



FIGURE 5.2-3b
Sensitive Natural Communities
and Critical Habitat
 AES Huntington Beach Energy Project
 Huntington Beach, California

- **Southern Coast Live Oak Riparian Forest** – Southern coast live oak riparian forest is characterized by locally dense evergreen woodlands dominated by coast live oak (*Quercus agrifolia*). Associated species may include bay laurel (*Umbellularia californica*), big leaf maple (*Acer macrophyllum*), mugwort, toyon (*Hertermeles arbutifolia*), wild rose (*Rosa californica*), and poison oak (*Toxicodendron diversilobum*). A small area of southern coast live oak woodland has been identified approximately 9 miles southeast of the HBEP site.
- **Critical Habitat** – Critical habitat for three federally listed species occurs in the regional vicinity of the HBEP site. Critical Habitat for the coastal California gnatcatcher is approximately a mile and a half east of the HBEP site on the east side of the Talbert Channel, just north of Highway 1 and approximately 9.28 miles east of the project area within the southern California NCCP Subregion of Orange County (USFWS, 2007a) (Figure 5.2-3a). There is no critical habitat for the coastal California gnatcatcher within 10 miles of the offsite laydown area (Figure 5.2-2b). Critical habitat for the San Diego Fairy shrimp is found approximately 2 miles to the east and 2.3 miles to the northeast of the HBEP site (Figure 5.2-2a). For the western snowy plover, there is critical habitat within a 10-mile radius of HBEP and offsite laydown area, which is found in the Bolsa Chica Ecological Reserve and State Beach (Figures 5.2-3a and 5.2-3b) (USFWS, 2005). Additional critical habitat for this species has been designated at the mouth of the Santa Ana River (USFWS, 2005), which is within 10 miles of HBEP (Figure 5.2-3a).

5.2.2.4 Regional Sensitive or Special-status Species

Special-status species information was compiled from a variety of sources and is summarized in tables provided in Appendix 5.2A. The tables list all special-status species historically found or with the potential to occur within the project region including regional species listed as threatened or endangered that have special requirements under the federal Endangered Species Act (ESA) (USFWS, 1970) and the California Endangered Species Act (CESA) (Fish and Game Code, Sections 2050 et seq). Other non-listed sensitive and special-status species including CNPS List 1-4 species, CDFG Species of Special Concern, CDFG Fully Protected Species, and other CDFG Special Animals and bird species are also tabulated in Appendix 5.2A. This appendix includes the status designation for each species, habitat types that may support these species in the project region, a determination of potential for these species to occur within the HBEP 1-mile survey area, and a rationale for the occurrence determination. Species that were observed during the site visit are discussed in subsequent subsections and photographs of the HBEP site, offsite parking lots and offsite laydown area are found in Appendix 5.2B. A copy of biological resources staff resumes is provided in Appendix 5.3C. In addition, agency consultation correspondence is included in Appendix 5.3D. The known locations of special-status species identified in the CNDDDB records within a 10-mile range of the HBEP site are shown on Figure 5.2-4a and within 10 miles of the offsite laydown area are displayed on Figure 5.2-4b. In addition, special-status species that occur within one mile of the HBEP site and offsite laydown area are provided in Figures 5.2-4c and 5.2-4d.

Plants were considered to be sensitive or special-status if one or more of the following criteria were met:

- Federally or state-listed, proposed, or candidate for listing, as rare, threatened or endangered (USFWS, 2011; CDFG, 2012b)
- State Special Plant as defined by the CNDDDB (CDFG, 2012b)
- Designated by the CNPS in its Inventory of Rare and Endangered Plants of California (CNPS, 2012)

Animals were considered to be sensitive or special-status if one or more of the following criteria were met:

- Federally- or state-listed, proposed, or candidate for listing as threatened or endangered (USFWS, 2011; CDFG, 2011)
- California State Species of Concern as defined by the CNDDDB (CDFG, 2011)
- California State Fully Protected Species (CDFG, 2011)
- State Special Animal as defined by the CNDDDB (CDFG, 2011)

Sensitive and special-status species from the regional lists with habitat(s) and/or known distribution within the 1-mile survey area for HBEP and offsite laydown area were evaluated for potential impacts from the project construction, demolition and operation, and the results of the evaluation are discussed below in Section 5.2.3.2 and Section 5.2.3.3. Special-status species from the regional lists with habitats or known distribution that do not occur within the project area were not evaluated beyond the tables in Appendix 5.2A.

5.2.2.4.1 Observed Plant Species

The site is entirely developed with no natural habitats present. Vegetation observed during the September 2011 site walk was limited to landscaping trees and shrubs and a few scattered weedy plants. The potential for special-status plants to occur on site was considered extremity low and rare plant surveys are not recommended for this site.

5.2.2.4.2 Observed Wildlife Species

There is no natural habitat on the site and the potential for special-status wildlife to occur on site is limited. The open space and wetland habitats surrounding the site do, however, provide habitat for special-status species in the immediate vicinity of the site. Wildlife species observed on site during the September visit included mourning dove (*Zenaida macroura*), house finch (*Carpodacus mexicanus*), and one western fence lizard (*Sceloporus occidentalis*). A few gulls (*Larus* sp.), cormorants (*Phalacrocorax* sp.), and a great egret (*Ardea alba*) were observed in the adjacent Huntington Beach Wetlands Conservancy's Coastal Marsh Restoration Complex. Almost all of the special-status wildlife species reported in the California Natural Diversity Database in the regional vicinity are found in coastal dunes, marshes, riparian areas, grasslands, and coastal sage scrub. The California least tern (*Sterna antillarum browni*, a state and federal endangered species) will nest in open sparsely vegetated areas — including landfill sites and paved areas — and could be considered to have a very limited potential to occur on the site. Other birds protected under the Migratory Bird Treaty Act (MBTA) such as killdeer (*Charadrius vociferous*), pigeons (*Columba* sp.), doves (*Zenaida* sp.), house finches, and sparrows (*Passer* sp.) may nest in open areas and in unused structures on the site.

5.2.2.5 Land Cover Types and Vegetation Communities

Land cover types and vegetation communities identified within a 1-mile radius of the HBEP site and offsite laydown area are shown in figure series 5.2-5a (1-19) and 5.2-5b (1-12) (provided at the end of this section due to their size). Urban development collectively represents the largest land use in the survey area. Other land cover and natural vegetation communities identified include industrial, landfill, parks and open space, and coastal salt marsh wetland preserves. The Pacific Ocean is approximately 1,000 feet to the southwest of the HBEP site and 1.5 miles southwest of the offsite laydown area.

- **Urban** – Urban developed areas include residential, commercial, and light industrial uses, as well as public schools and other municipal facilities. The majority of the land use to the northwest, north, and east of the HBEP site consist of urban development. For the offsite laydown area, the majority of this land use type is located to the north, northeast, southwest, south, and northwest.
- **Industrial and Landfill** – Industrial areas include the SCE 230-kV substation and former fuel oil tanks immediately north of the HBEP site as well as the former Plains All American Tank Farm on the east side of the site. Another large industrial area (Orange County Sanitation District) is present on the west side of the Santa Ana River, north of the Pacific Coast Highway. The ASCON landfill is located just to the northeast of the site. The offsite laydown area is located within the existing AGS site and additional industrial areas are located across the San Gabriel River flood control channel to the east.
- **Parks and Open Space** – Parks and open space include natural and landscaped areas that have been designated for recreational uses or provide undeveloped green space. Parks in the immediate vicinity of the HBEP site include Huntington Beach State Park, Edison Community Park, Gisler Park, and Eader Park. Open space areas include the Santa Ana River green belt as well as areas undeveloped, landscaped areas along Magnolia Street, east of the project area. Additional parks and open space are located to the west and south of the offsite laydown area.



Legend

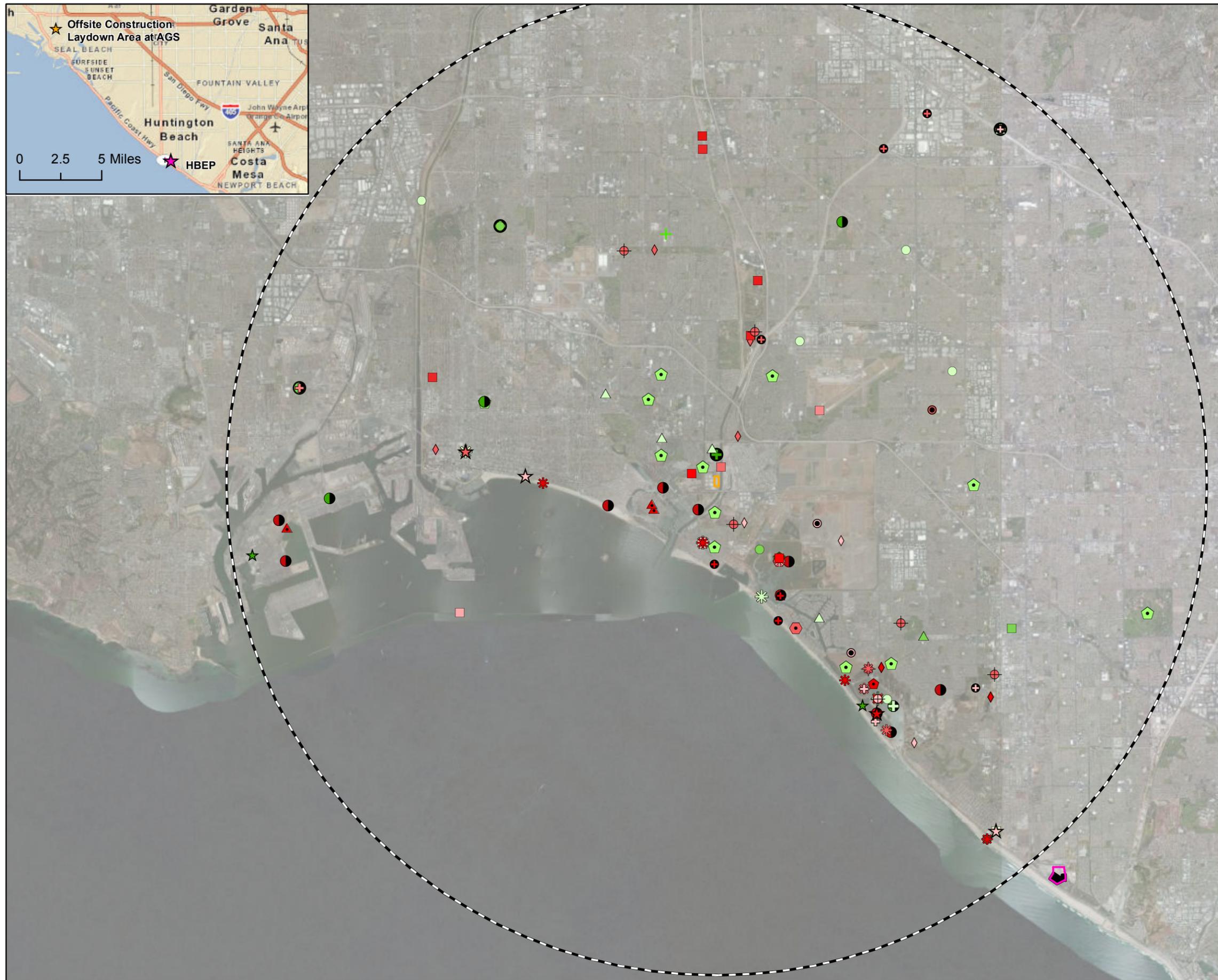
Plants	Animals
○ Coulter's goldfields	□ American badger
● Coulter's saltbush	■ Belding's savannah sparrow
● Davidson's saltscale	○ California black rail
□ Gambel's water cress	○ California horned lark
■ Los Angeles sunflower	● California least tern
■ Nuttall's scrub oak	⊕ Dorothy's El Segundo Dune weevil
△ San Bernardino aster	⊕ Pacific pocket mouse
△ Sanford's arrowhead	⊕ San Diego fairy shrimp
△ South Coast saltscale	★ bank swallow
⊕ Ventura Marsh milk-vetch	★ big free-tailed bat
⊕ aphanisma	★ black skimmer
⊕ chaparral ragwort	◇ burrowing owl
★ chaparral sand-verbena	◇ coast horned lizard
★ cliff spurge	◇ coastal California gnatcatcher
★ coast woolly-heads	⊕ coastal cactus wren
⊕ estuary seablite	⊕ globose dune beetle
⊕ many-stemmed dudleya	⊕ grasshopper sparrow
⊕ mesa horkelia	□ hoary bat
○ mud nama	□ least Bell's vireo
○ prostrate vernal pool navarretia	○ light-footed clapper rail
○ salt marsh bird's-beak	○ mimic tryonia (=California brackishwater snail)
○ southern tarplant	○ monarch butterfly
	○ orangethroat whiptail
	△ osprey
	△ red-diamond rattlesnake
	△ sandy beach tiger beetle
	△ senile tiger beetle
	○ south coast marsh vole
	○ southern California rufous-crowned sparrow
	⊕ southern California saltmarsh shrew
	⊕ wandering (=saltmarsh) skipper
	⊕ western beach tiger beetle
	⊕ western mastiff bat
	⊕ western pond turtle
	○ western snowy plover
	○ western tidal-flat tiger beetle
	○ western yellow bat
	○ white-tailed kite
	○ yellow-breasted chat
	□ 10 Mile Buffer
	□ AES Huntington Beach Generating Station
	□ AES Huntington Beach Energy Project

Source: California Department of Fish and Game, Habitat Conservation Division, Wildlife and Habitat Data Analysis Branch, March 2012.

CNDDDB version 03/2012.
 Please Note: The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.



FIGURE 5.2-4a
Special-Status Species
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- | | |
|----------------------------------|---|
| Plants | Animals |
| California Orcutt grass | Belding's savannah sparrow |
| Coulter's goldfields | California brown pelican |
| Coulter's saltbush | California least tern |
| Davidson's saltscale | Dorothy's El Segundo Dune weevil |
| Gambel's water cress | Pacific pocket mouse |
| Los Angeles sunflower | bank swallow |
| Lyon's pentachaeta | big free-tailed bat |
| Parish's brittlescale | black skimmer |
| Salt Spring checkerbloom | burrowing owl |
| San Bernardino aster | coast horned lizard |
| Sanford's arrowhead | coastal California gnatcatcher |
| Ventura Marsh milk-vetch | ferruginous hawk |
| coast woolly-heads | green turtle |
| estuary seablite | light-footed clapper rail |
| mud nama | mimic tryonia (=California brackishwater snail) |
| prostrate vernal pool navarretia | monarch butterfly |
| salt marsh bird's-beak | sandy beach tiger beetle |
| southern tarplant | senile tiger beetle |
| | silver-haired bat |
| | south coast marsh vole |
| | southern California saltmarsh shrew |
| | tricolored blackbird |
| | wandering (=saltmarsh) skipper |
| | western beach tiger beetle |
| | western mastiff bat |
| | western pond turtle |
| | western snowy plover |
| | western tidal-flat tiger beetle |
| | western yellow bat |
| | western yellow-billed cuckoo |
| | 10-Mile Radius From Project Site |
| | Offsite Construction Laydown Area at AGS |
| | AES Huntington Beach Generating Station |
| | AES Huntington Beach Energy Project |

Source: California Department of Fish and Game, Habitat Conservation Division, Wildlife and Habitat Data Analysis Branch, March 2012.

CNDDDB version 03/2012.
 Please Note: The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.

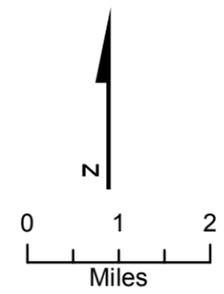
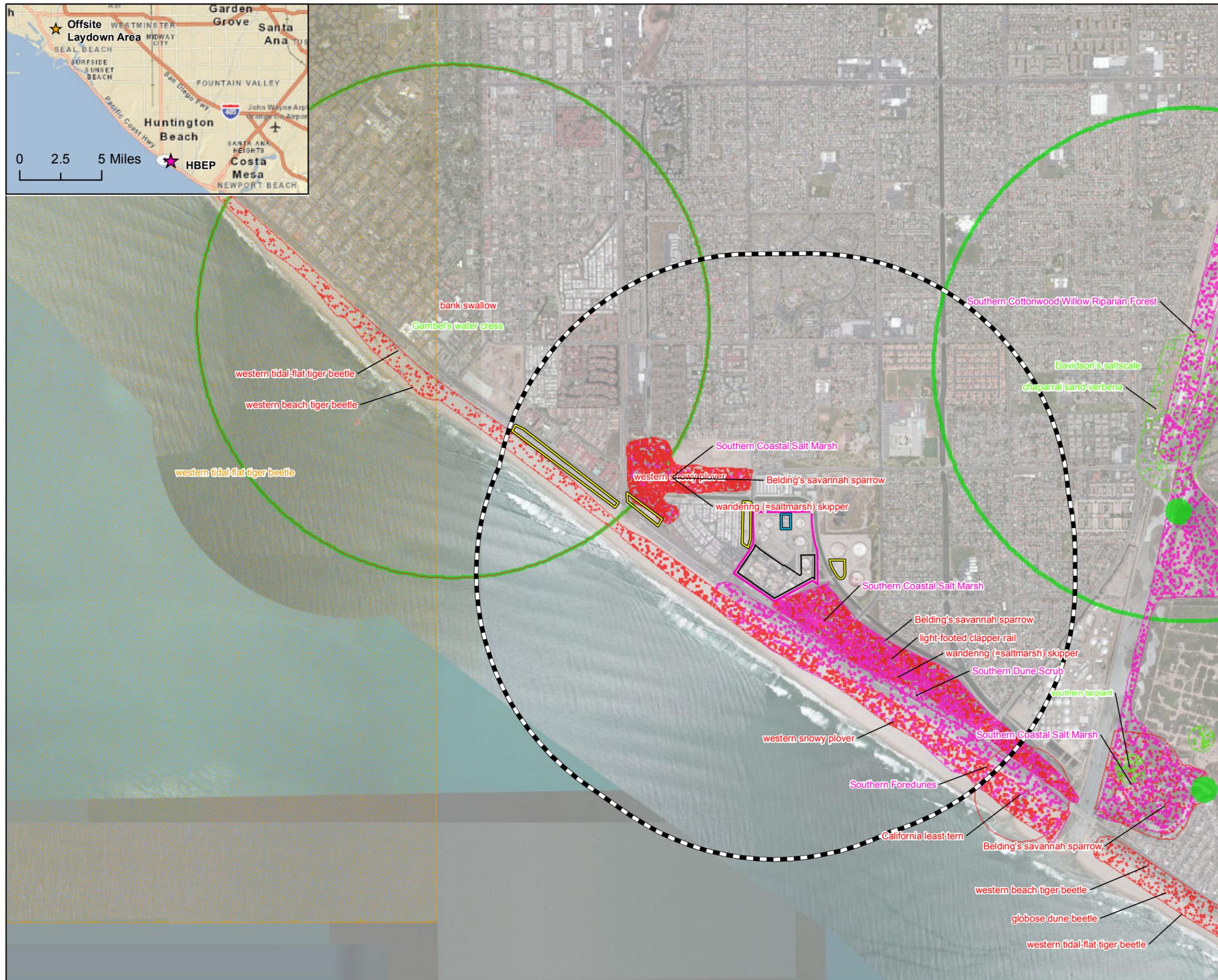


FIGURE 5.2-4b
Special-Status Species
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - Offsite Construction Parking
 - Onsite Construction Parking
 - 1-Mile Radius From Project Site
 - Plant (80m)
 - Plant (specific)
 - Plant (non-specific)
 - Plant (circular)
 - Animal (80m)
 - Animal (specific)
 - Animal (non-specific)
 - Animal (circular)
 - Terr. Comm. (80)
 - Terr. Comm. (specific)
 - Terr. Comm. (non-specific)
 - Terr. Comm. (circular)
 - Aqu. Comm. (80)
 - Aqu. Comm. (specific)
 - Aqu. Comm. (non-specific)
 - Aqu. Comm. (circular)
 - Sensitive EO's (Commercial only)

Source: California Department of Fish and Game, Habitat Conservation Division, Wildlife and Habitat Data Analysis Branch, March 2012.

CNDDDB version 03/2012.
 Please Note: The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.

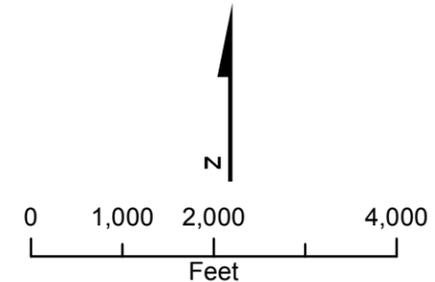
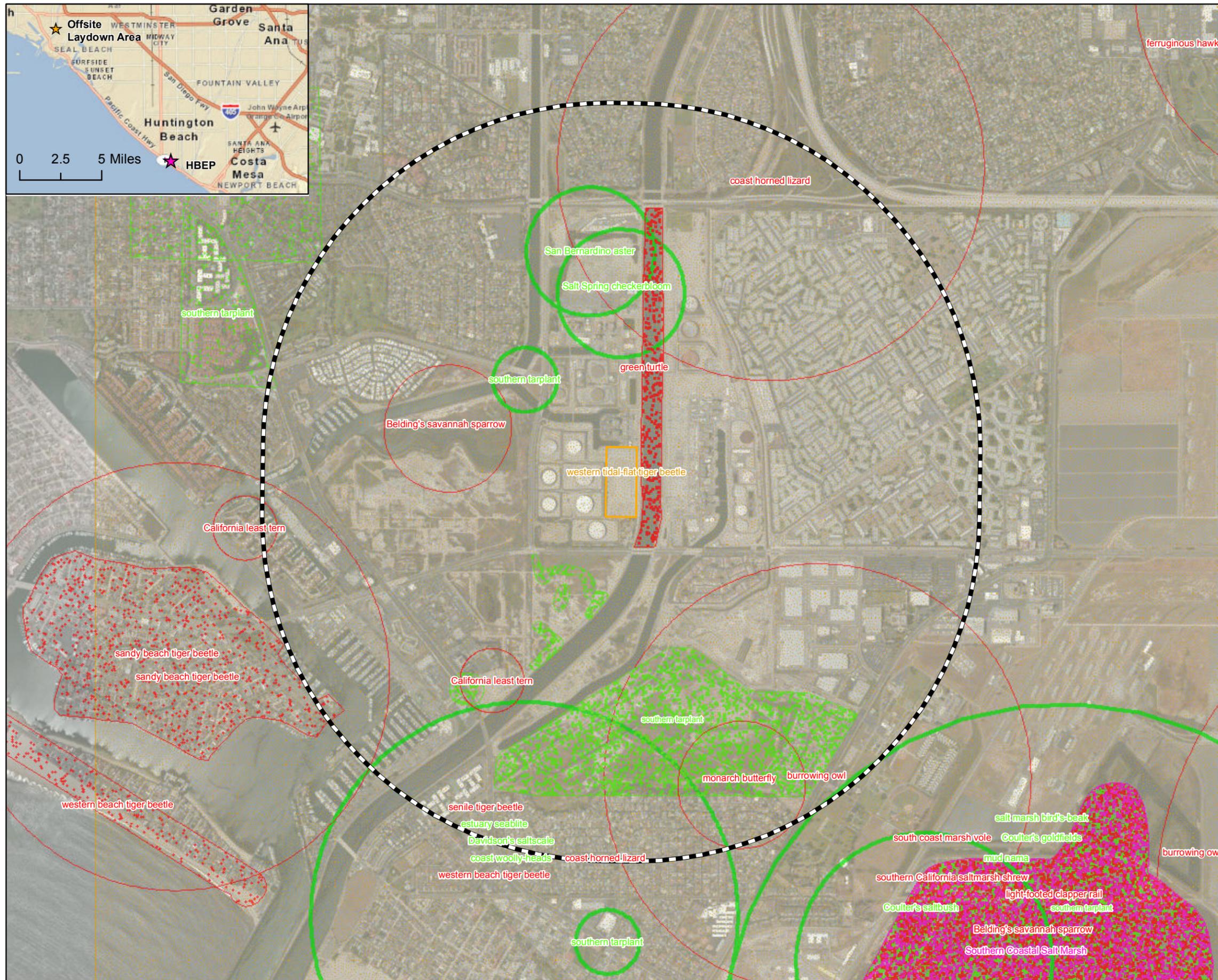


FIGURE 5.2-4c
Special-Status Species
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - Offsite Construction Parking
 - Onsite Construction Parking
 - 1-Mile Radius From Project Site
 - Plant (80m)
 - Plant (specific)
 - Plant (non-specific)
 - Plant (circular)
 - Animal (80m)
 - Animal (specific)
 - Animal (non-specific)
 - Animal (circular)
 - Terr. Comm. (80)
 - Terr. Comm. (specific)
 - Terr. Comm. (non-specific)
 - Terr. Comm. (circular)
 - Aqu. Comm. (80)
 - Aqu. Comm. (specific)
 - Aqu. Comm. (non-specific)
 - Aqu. Comm. (circular)
 - Sensitive EO's (Commercial only)

Source: California Department of Fish and Game, Habitat Conservation Division, Wildlife and Habitat Data Analysis Branch, March 2012.

CNDDDB version 03/2012.
 Please Note: The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area.

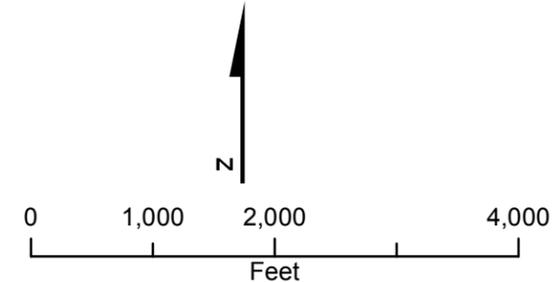


FIGURE 5.2-4d
Special-Status Species
 AES Huntington Beach Energy Project
 Huntington Beach, California

- **Coastal Salt Marsh Wetland Preserves** – The Huntington Beach Wetlands Conservancy’s coastal salt marsh complex is found in the immediate vicinity of the HBEP site. Magnolia Marsh is located immediately east of the HBEP site. The Brookhurst and Talbert Marshes are located to the southeast of Magnolia Marsh and the Newland Marsh is located to the northwest of the HBEP site (Figures 5.2-1a and 5.2-2a). Vegetation in these areas is characterized by pickleweed with other salt tolerant species such as salt grass, alkali heath, and saltwort (*Batis maritima*). Open unvegetated salt pannes and tidal channels are also present in some areas (some photographs are provided in Appendix 5.2B).

5.2.2.6 HBEP Site and Associated Facilities

5.2.2.6.1 HBEP Site

HBEP will be located on the existing Huntington Beach Generating Station, a currently operating power plant adjacent to the Pacific Coast Highway. The existing Huntington Beach Generating Station includes four steam turbines (Units 1 – 4), and a fifth combustion turbine (Unit 5) that is no longer in use. SCE owns and operates a 230-kV substation on the existing Huntington Beach Generating Station site. Former fuel oil tanks are present in the northern and northeastern part of the Huntington Beach Generating Station. Two detention basins are present along the southern boundary of the Huntington Beach Generating Station and landscape trees and shrubs have been planted around the perimeter fencing. No natural habitat or wetlands are present on the existing Huntington Beach Generating Station.

5.2.2.6.2 Temporary Construction Lay down and Parking Areas

Existing developed areas will be used for construction laydown and construction parking areas. In addition to available space at the HBEP site for construction laydown, an additional 16 acres of a cleared and leveled open lot at the AGS will be used as a remote construction laydown area to support HBEP construction. As discussed in Section 5.2.1, and as shown on Figure 2.3-3 in Section 2.0, Project Description, offsite construction/demolition parking includes:

- Approximately 1.5 acres onsite at the Huntington Beach Generating Station (approximately 130 parking stalls)
- Approximately 3 acres of existing paved/graveled parking located adjacent to HBEP across Newland Street (approximately 300 parking stalls)
- Approximately 2.5 acres of existing paved parking located at the corner of Pacific Coast Highway and Beach Boulevard (approximately 215 parking stalls)
- 225 parking stalls at the City of Huntington Beach shore parking west of the project site.
- Approximately 1.9 acres at the Plains All American Tank Farm located on Magnolia Street (approximately 170 parking stalls)

5.2.2.7 Special-status Plant Species

Three special-status plant species have been documented within a 1-mile radius of HBEP. Southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*) is known to occur in the Huntington Beach Wetlands Conservancy’s coastal salt marsh preserved immediately adjacent to the HBEP site (Merkel & Associates, 2004). This plant is a California Native Plant Society List 4 species, and is found at scattered locations within the marsh habitats throughout the complex. The largest population is reported from the southeastern part of the Brookhurst Marsh along the back dunes next to the Pacific Coast Highway (Merkel & Associates, 2004). The Gambel’s water cress (*Nasturtium gambelii*) has been recorded in the regional vicinity from a historic 1908 collection (CDFG, 2012a) and this occurrence has most likely been extirpated by development. Based on historical records, Davidson’s saltscale (*Atriplex serenana* var. *davidsonii*) has been recorded in the regional vicinity of the project area. This species was also documented along the Santa Ana River and in the vicinity of the Upper Newport Bay (CDFG, 2012a). The HBEP site is located entirely within existing developed areas with no natural habitat and the project will not affect the adjacent salt marsh wetland habitats; therefore, the project will not affect any special-status plant species.

Three special-status plants are known to occur or have occurred within a 1-mile radius of the offsite laydown area. Salt spring checkerbloom (*Sidalcea neomexicana*) has been documented to the north of the project area. This species is a California Native Plant Society List 2.2 species that typically occurs in wetlands but can also be found in non-wetland habitats including creosote bush scrub, chaparral, and coastal sage scrub (Calflora, 2012). Southern tarplant (*Centromadia parryi* ssp. *australis*) has been documented to the south and northwest of the project area. This species is a California Native Plant Society List 1B.1 species that typically occurs in seasonally moist (saline) grasslands and in lowlands near the coast (Calflora, 2012). The last special-status rare plant that was found within 1 mile of the project area is the San Bernardino aster (*Symphyotrichum defoliatum*). It can be found in grasslands (Calflora, 2012). The offsite laydown area is located entirely within existing developed areas with no natural habitat; therefore, the project will not affect any special-status plant species.

5.2.2.8 Special-Status Wildlife Species

Six special status wildlife species are known to occur in the immediate vicinity of the HBEP site, including three federally listed endangered bird species, one state-listed endangered bird species, one fully protected bird species, and one butterfly that is included on the CDFG special animals list. In addition, five special-status wildlife species are known to occur or have occurred in the immediate vicinity of the offsite laydown area, including one federally-listed bird species, one state-listed bird species, one federally protected reptile species, one reptile included on the CDFG special animals list, and one butterfly that is a species of common conservation concern. Descriptions of these species are provided in the following sections.

5.2.2.8.1 Federal Endangered Species Act

Three federally listed bird species are known to occur in the regional vicinity of the HBEP site. One of these listed species is also known to occur in the regional vicinity of the offsite laydown area. None of these species have suitable forage or nesting habitat on the HBEP site; however, suitable nesting and foraging habitat is present in the Coastal Wetlands and shoreline in the immediate vicinity of the project. In addition, suitable nesting and foraging habitat is present northwest of the offsite laydown area.

- **Western Snowy Plover** – The western snowy plover is a federally listed endangered species. This small shorebird is about 6 inches long, it has a thin dark bill and is pale brown to gray above with a white or buff colored underside with darker patches on its shouldered and head. Plovers typically forage for small invertebrates in wet or dry beach-sand, in salt marshes, and within low foredune vegetation. The western snowy plover breeds primarily above the high tide line on coastal beaches, sand spits, dune-backed beaches, sparsely-vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries from southern Washington to southern Baja California, Mexico. The breeding season extends from March 1 through September 30. The USFWS reported a significant decline in breeding locations, especially in southern California (USFWS, 2007b). The western snowy plover is reported to regularly utilize coastal salt marsh habitats in the vicinity of the HBEP site for foraging and loafing (Merkel & Associates, 2004). Historically, the western snowy plover was known to breed along the beach from Upper Newport Bay to Anaheim Bay. The last documented nest at Huntington Beach State Park was in 1955 (CDFG, 2012a) and currently the only known nesting location in Orange County is at the Bolsa Chica wetlands (USFWS, 2007b).
- **Light-footed Clapper Rail** – The light-footed clapper rail is a federal and state listed endangered species. This medium sized marsh bird is approximately 14 inches long with long legs, a long slightly down-curved beak, and a short, upturned tail. The plumage is a grayish brown on the back, gray and white barred on the flanks, and cinnamon colored on the breast. The light-footed clapper rail forages for mollusks and crustaceans in coastal salt marshes, mudflats, and along tidal channels. Nest sites are usually in areas of dense marsh vegetation including pickle weed, cord grass or tule (*Schoenoplectus* spp.) with the breeding season extending from early March through August. The light footed clapper rail has been reported to breed in the Brookhurst Marsh in the immediate vicinity of the HBEP site. This species is also know to breed in other wetland habitats in the regional vicinity including the Bolsa Chica wetlands, Seal Beach National wildlife refuge, the upper Newport Bay Ecological Reserve, and the San Joaquin Freshwater Marsh Reserve.

- California Least Tern** – The California least tern is a federal and state listed endangered species. This species has long narrow wings and a broad forked tail. The body is white with pale gray and it has black tipped wings. The head is black capped with a white streak across the forehead and the bill is yellow with a black tip. This species forages for fish in open water habitats including near shore ocean waters, tidal channels, and estuaries. This species breeds along the California coast from the San Francisco Bay into Northern Baja California. Nest sites include open sandy areas, dirt, and dry mud near suitable foraging habitat. California least terns have been reported to nest on the open sandy beaches of Huntington Beach State Park between the Talbert Channel inlet and the mouth of the Santa Ana River, just over a mile to the southeast of the HBEP site. Nesting California least terns are also found at the Bolsa Chica wetlands, Seal Beach National Wildlife Refuge, and the Upper Newport Bay Ecological Reserve. This species has been observed within one mile southwest of the offsite laydown area (CDFG, 2012a). In addition, according to the Long Beach City Plan, Los Cerritos wetlands have been preserved and an additional 2 acres have been established as a California least tern nesting site (City of Long Beach, 2006).
- Green Sea Turtle** – The sea green turtle (*Chelonia mydas*) is a federally threatened species throughout its Pacific Range. The geographic range of the green sea turtle population in the Pacific Ocean is hard to define because this species is highly migratory; therefore, the western coasts of the United States, Canada, and Mexico constitute shared habitat for Pacific green sea turtles (National Marine Fisheries Service and USFWS, 1998). This species is the largest of the cheloniids and adults can exceed 1-meter carapace length and 100 kg in weight. No nesting habitat has been identified within the west coast of the United States, but this species has been documented regularly in San Diego Bay because of warm water effluent from a power generating station (National Marine Fisheries Service and USFWS, 1998), but water temperatures further up the coastline start to decline. Although a green sea turtle was observed in the area (CDFG, 2012a), this species is not expected to be a common visitor near the project area.

5.2.2.8.2 California Endangered Species Act

One bird species listed under CESA is found in the coastal salt marsh wetlands in the immediate vicinity of the HBEP site. This species has also been observed northwest of the offsite laydown area, in the same area as the Los Cerritos wetlands.

- Belding's Savannah Sparrow** – The Belding's savanna sparrow is a state listed endangered species. This sub-species is distinguished from the more common northern sub-species by a longer and thicker bill, darker and thicker streaks on the underside, darker and coarser streaks on the upper side, and darker marks on the face. Belding's savanna sparrows occur in coastal salt marshes from Santa Barbara south to San Diego. This species forages on the ground for insects, snails and other invertebrates, and seeds. Breeding appears to begin in early March. Nests are constructed on the ground in areas of dense vegetation including pickle weed and salt grass. Belding's savannah sparrows are known to breed in the coastal salt marsh wetlands in the immediate vicinity of the HBEP site (Merkel & Associates, 2004; CDFG, 2012a). This species is also found in the Bolsa Chica wetlands, at the Seal Beach National Wildlife Refuge, the Upper Newport Bay Ecological Reserve, and the USACE salt marsh restoration site on the east side of the Santa Ana River. In addition, this species has also been observed northwest of the offsite laydown area, in the same area as the Los Cerritos wetlands (CDFG, 2012a).

5.2.2.8.3 State Fully Protected Species

One state fully protected species has been observed in the vicinity of the HBEP site. The California brown pelican (*Pelecanus occidentalis*) is a large water bird with a dark brownish body, a long pouched bill, and long broad wings. This species was formerly state and federally listed as an endangered species, but has been de-listed due to recovery of the population. Brown pelicans feed on a variety of fish species which they catch by diving from the air into the water. This species nest in colonies usually on offshore islands. California brown pelicans have been observed foraging within the tidal channels in the vicinity of the HBEP site and are known to utilize the adjacent coastal salt marsh habitat for resting and loafing (Merkel & Associates, 2004).

5.2.2.8.4 CDFG Species of Concern and Special Animals

No CDFG species of concern have been reported in the immediate vicinity of the HBEP site and only one CDFG special animal is known to occur. The wandering or salt marsh skipper (*Panoquina errans*) is a small (0.5 inch) brown butterfly with cream colored spots that is associated with moist salt grass vegetation along the upper margins of coastal salt marshes. This species has been observed in the coastal salt marshes in the immediate vicinity of the HBEP site (Merkel & Associates, 2004). One CDFG species of concern, the coast horned lizard (*Phrynosoma blainvillii*), has been reported within one mile of the offsite laydown area (CDFG, 2012a). This species occurs in valley-foothill hardwood, conifer and riparian habitats, pine-cypress, juniper and annual grassland habitats throughout the central and southern California coast. They inhabit open country, especially sandy areas, washes, flood plains, and wind-blown deposits (Zeiner et al., 1990). Considering the lack of suitable habitat, these species are not expected to occur within the project area or offsite laydown area.

5.2.3 Environmental Analysis

Potential direct and indirect impacts to biological resources were evaluated to determine the permanent and temporary effects of HBEP construction and operation. Results from the field surveys, habitat evaluations, literature review, and aerial imagery interpretation conclude the potential for presence of sensitive biological resources in the immediate vicinity of the HBEP area and offsite laydown area. However, there is no suitable habitat for special-status species within the project area or offsite laydown area since both sites occur in pre-existing and currently operating industrial facilities.

No natural vegetation or habitat is present on the HBEP site or any of the offsite construction laydown and parking areas. There are no project features that would support special-status plants and the project site does not provide suitable habitat for any special-status wildlife species. Potential minor and less-than-significant impacts are expected due to temporary noise disturbance during demolition and construction activities associated with HBEP.

This section identifies biological resources that may be affected either directly or indirectly by the project. Direct and indirect impacts may be either permanent or temporary. These impact categories are defined below and are applied as part of the environmental analysis.

- **Direct** – The California Environmental Quality Act (CEQA) defines direct impacts as those impacts that result from the project and occur at the same time and place. Any alteration, disturbance, or destruction of biological resources that would result from project-related activities is considered a direct impact. Examples include loss of habitat resulting from clearing vegetation, encroaching into wetlands, diverting natural surface water flows, and the loss of individual species.
- **Indirect** – CEQA defines indirect impacts as those caused by the project but occur later in time or are farther removed in distance, though are reasonably foreseeable and are related to the project. As a result of project-related activities, biological resources may also be affected in a manner that is not direct. Examples include elevated noise and dust levels, increased human activity, decreased water quality, and the introduction of invasive plants and wildlife.
- **Permanent** – All impacts that result in the irreversible removal of biological resources are considered permanent. Examples include constructing a building or permanent road on an area containing biological resources.
- **Temporary** – Any impacts considered to have reversible effects on biological resources can be viewed as temporary. Examples include increased vehicle movement and noise from temporary construction activities.

Potential direct and indirect impacts to biological resources were evaluated to determine the permanent and temporary effects of HBEP construction and associated demolition activities, operation, maintenance, and decommissioning of the project and supporting facilities at some point in the future.

5.2.3.1 Significance Criteria

The project would result in a significant impact on the environment if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as endangered, threatened, candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by CDFG or USFWS
- Have a substantial adverse effect on any wetland, riparian habitat or other sensitive natural community or critical habitat identified in local or regional plans, policies, or regulations, or by CDFG or USFWS
- Have a substantial adverse effect on federal or state protected waters of the United States (including wetlands) as defined by Sections 404 and 401 of the Clean Water Act, or the Porter-Cologne Act, either through direct removal, filling, hydrological alteration, or other means
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory native wildlife corridors, or impede the use of wildlife nursery sites
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan
- Threaten to eliminate a plant or animal community.

CEQA Section 15380 provides that a plant or animal species may be treated as “rare or endangered” even if not on one of the official lists if, for example, it is likely to become endangered in the foreseeable future.

5.2.3.2 Potential Impacts of Construction and Demolition

As discussed above, HBEP construction will require the removal of existing Huntington Beach Generating Station Units 1, 2, and 5 during the construction process. The demolition of Unit 5, scheduled to occur between the fourth quarter of 2014 and the end of 2015, will make space for the construction of HBEP Block 1. Construction of Blocks 1 and 2 are each expected to take approximately 42 and 30 months, with Block 1 construction scheduled to occur between the first quarter of 2015 through the second quarter of 2018, and Block 2 construction scheduled to occur between the first quarter of 2018 through second quarter of 2020. Removal/demolition of existing Huntington Beach Generating Station Units 1 and 2 is scheduled to occur between the fourth quarter of 2020 through the third quarter of 2022.

Existing Huntington Beach Generating Station Units 3 and 4 were licensed through the CEC (00-AFC-13C) and demolition of these units is authorized under that license. Therefore, demolition of existing Huntington Beach Generating Station Units 3 and 4 is not part of the HBEP project definition. However, to ensure a comprehensive review of potential project impacts, the demolition of existing Huntington Beach Generating Station Units 3 and 4 is included in the cumulative impact assessment. Removal/demolition of existing Huntington Beach Generating Station Units 3 and 4 is scheduled to occur between the third quarter of 2015 and the second quarter 2017 in advance of the construction of HBEP Block 2.

All of the project activities, including the offsite construction laydown area and offsite construction parking areas, will be located in existing developed areas where no additional clearing or grading of natural vegetation will be required. Additionally, no extra linear features are needed for the project; therefore, there will be no construction- or demolition-related disturbances to natural vegetation or habitats on the offsite construction laydown and offsite construction parking areas.

5.2.3.2.1 HBEP Facility

Activities related to HBEP construction will require site preparation, including demolition and removal of the existing power generation turbines and facilities at the site. All demolition and construction activities will be confined to the existing developed Huntington Beach Generating Station site. HBEP construction will not result in permanent loss of any natural vegetation or habitats that could be used by special-status species. HBEP demolition and construction activities may, however, result in temporary noise impacts to potentially occurring sensitive wildlife species including those that are known to utilize the adjacent wetland habitats.

These impacts could be significant without the implementation of protection or mitigation measures discussed in Section 5.2.5. With the implementation of the mitigation measures, any potentially significant impacts to biological resources resulting from HBEP construction will be reduced to less-than-significant levels.

5.2.3.2.2 Construction Laydown and Parking Areas

Construction of the HBEP facility and related demolition of existing Units 1, 2 and 5 at the existing Huntington Beach Generating Station will require additional areas for equipment staging, material storage, and worker parking. In addition, the separately permitted demolition of existing Units 3 and 4 at the Huntington Beach Generating Station will, on a cumulative basis, use the same equipment staging, material storage and worker parking areas used to support the demolition of existing Units 1, 2 and 5. All of these support areas will be located on existing developed sites and would not result in the loss of any natural vegetation or significant habitats.

5.2.3.2.3 Construction and Demolition Impacts to Special-status Plant Species

There are no sensitive or special-status plants with potential to occur within the HBEP site or within the offsite construction laydown area at AGS; therefore, the project is not expected to result in significant impacts to sensitive or special-status plant species.

5.2.3.2.4 Construction and Demolition Impacts to Special-status Wildlife Species

Construction and demolition activities would not result in the removal of any natural vegetation or sensitive wildlife habitat and would not result in any additional regional habitat fragmentation. Construction activities may result in temporary disturbance from noise and increased traffic. Potential effects on special-status species from construction and operation of HBEP are discussed in the following sections.

- **Foraging Habitat** – The HBEP site does not provide foraging habitat for sensitive and special-status species; however, the Huntington Beach Channel and coastal saltmarsh habitats in the immediate vicinity of the HBEP site provide potentially important foraging habitat for several special-status bird species including Belding's savannah sparrows, California least tern, western snowy plover, and California brown pelican. The offsite laydown area does not provide foraging habitat for sensitive and special-status species; however, Los Cerritos wetlands provides potential nesting and foraging habitat for California least tern. Special-status bat species including western mastiff bat and big-free tailed bat may also use these areas for foraging. The project will not result in the loss of any potential foraging habitat. Potential temporary impacts from construction activities on foraging birds could primarily occur from demolition and construction noise. Mitigation measures are expected to reduce potentially significant impacts to foraging birds and bats.
- **Nesting Birds** – With the exception of onsite landscaping (trees and shrubs), there is no suitable nesting habitat on the HBEP site or within the offsite construction laydown area at AGS. However, the salt marsh wetlands, pannes, and open sandy beaches in the immediate vicinity of HBEP provide suitable nesting habitat for special status birds including Belding's savanna sparrow and California least tern as well as a number of other bird species that area protected by state and federal regulations including the MBTA and CDFG codes. In addition, Los Cerritos wetlands provides potential nesting habitat for the California least tern. Any potential impact to nesting habitat resulting from HBEP would be mitigated to reduce such impacts that may occur to less-than-significant levels.

The project will not result in the permanent loss of nesting habitat for any migratory or resident birds; however, temporary impacts to nesting birds could occur as a result of increased noise and construction/demolition activities. Noise and activity associated with project construction/demolition could disturb nesting birds, causing them to avoid suitable habitat in the vicinity of the construction area. Sensitive bird species could abandon nesting attempts if disturbed during the breeding season during construction/demolition. This could be a significant impact, without mitigation. Prior to construction/demolition, a preconstruction survey will be conducted to identify any active nests within 100 feet of the HBEP site. Monitoring of activities nests during construction/demolition activities will be performed if it is determined that active nests will be significantly disturbed by HBEP activities. With the

implementation of mitigation measures detailed in Section 5.2.5, any potentially significant impacts to nesting birds will be reduced to less-than-significant levels.

- **Wildlife Corridors** – The project is within the Pacific Flyway, a common route of bird migration that extends along the west coast of North America that spans an area from the pelagic regions of the Eastern Pacific to the Great Basin. Construction/demolition activities are not expected to impede migration along the flyway. Terrestrial wildlife habitat in the project area has been significantly fragmented by urban development and no terrestrial wildlife corridors are currently present in the project area. In addition, the project site as well as offsite laydown at AGS and the offsite parking areas near the HBEP site are located in developed areas; therefore, there would be no additional impacts resulting from habitat loss and fragmentation.

5.2.3.2.5 Wetlands and Waters of the United States

HBEP construction and demolition would not cause loss or fill of any wetlands. The HBEP site is immediately adjacent to the Magnolia Marsh, a restored coastal salt marsh habitat. This wetland will not be affected by HBEP because construction and operation will be located entirely within an existing developed area that has been designated for industrial uses (Figure 5.2-2a). The offsite construction laydown area at AGS is immediately adjacent to Los Cerritos wetlands, which provides estuarine habitat; however, this wetland will not be affected by HBEP (Figure 5.2-2b). Erosion control BMPs will be implemented during construction and demolition in accordance with the stormwater pollution prevention plan (SWPPP) required by the State's General Construction Permit for construction projects over 1 acre in size. Additionally, the CEC requires that project owners develop and implement a Drainage, Erosion and Sedimentation Control Plan to reduce the impact of runoff from the construction site. Measures to avoid and minimize soil erosion during construction and demolition are described in more detail in Section 5.2.5.

Appropriate best management practices and existing on site storm water pollution prevention controls will be utilized to avoid any adverse effects to the Magnolia Marsh and other significant wetland resources in the immediate vicinity of the HBEP and the offsite laydown area including the Newland, Brookhurst, Talbert Marshes, and Los Cerritos wetlands.

5.2.3.3 Potential Impacts of Operation

During operation, the HBEP will produce combustion turbine emissions, water discharge, noise, and light. In addition, the air-cooled condenser could pose a collision and electrical hazard to birds. The potential for each of these products of HBEP operation to adversely impact sensitive biological resources at the HBEP site is discussed in the following sections.

5.2.3.3.1 Combustion Turbine Emissions

Air emissions from the combustion turbine exhaust stacks include, but are not limited to, nitrogen oxides (NO_x), and particulates (PM₁₀). Nitrogen oxide gases (NO and NO₂) convert to nitrate particulates in a form that is suitable for uptake by most plants and could promote plant growth and primary productivity. Coastal salt marshes are the most common natural habitats in the vicinity of HBEP where nitrogen deposition may occur. The critical load for atmospheric nitrogen deposition into coastal wetlands is difficult to establish because wetlands subject to tidal exchange have open nutrient cycles. In addition, nitrogen loading in wetlands is often affected by sources other than atmospheric deposition (Morris, 1991). Various studies that have examined nitrogen loading in intertidal salt marsh wetlands have found critical loads to range from between 63 and 400 kg N ha⁻¹ yr⁻¹ (Caffrey et al., 2007; Wingand et al., 2003). HBEP nitrogen deposition impacts are not expected to significantly contribute to nitrogen loading on coastal salt marshes due to several factors, including the high level of NO_x emission controls, air quality mitigation regulations that require offsets (in the form of RECLAIM Trading Credits) to be surrendered annual for actual NO_x emissions, and the fact that predominate wind patterns (west to east) will result in a majority of the air quality impacts occurring inland where time and distance will reduce ground-level concentrations.

Particulate emissions will be controlled by inlet air filtration of the turbine air intakes and the use of low sulfur natural gas. The deposition of PM₁₀ can affect vegetation through either physical or chemical mechanisms.

Physical mechanisms include the blocking of stomata so that normal gas exchange is impaired, as well as potential effects on leaf adsorption and reflectance of solar radiation. Information on physical effects is scarce, presumably in part because such effects are slight or not obvious except under extreme situations (Lodge et al., 1981).

Therefore, aside from the emission control and monitoring which will be incorporated into the HBEP design, no additional mitigation measures are required.

5.2.3.3.2 Stormwater and Process Water Discharge

During construction/demolition and operations the existing stormwater collection system will collect process stormwater from the project site and route it to the oil/water separator before discharge to the Pacific Ocean via an existing NPDES permitted outfall. The Applicant will prepare a SWPPP for HBEP operations that specifies BMPs to be implemented during all project activities to avoid stormwater discharges that would cause water quality degradation.

Because HBEP will draw process water from an existing water supply system and then discharge a small amount of wastewater through the existing ocean outfall, there will be no mechanism for entrainment of aquatic species. In addition, there will be a decrease in outfall discharge from current use levels. For the site monthly maximum average ambient temperature conditions, discharge to the existing outfall will be approximately 29 gpm or approximately 11.6 million gallons per year, compared to approximately 98 billion gallons per year from the existing Huntington Beach Generating Station. The discharge of process and stormwater to the ocean via the existing permitted outfall will not result in a significantly adverse effect to aquatic resources and species during HBEP operations.

5.2.3.3.3 Noise and Light from Plant Operations

The HBEP site is designated in the City of Huntington Beach General Plan for industrial land uses. The site is adjacent to other industrial land uses and major transportation corridors including the Pacific Coast Highway, however, it is also located adjacent to sensitive biological resources including a coastal salt marsh habitat. The existing Huntington Beach Generating Station, urban development, and roadways in the area result in several sources of lighting and noise emissions. Noise associated with HBEP operation is described in more detail in Section 5.7, Noise. Noise from site preparation, construction, and demolition, could temporarily discourage wildlife from foraging and nesting in the coastal wetland habitat immediately adjacent to the project area; however, the existing conditions already include noise associated with existing industrial uses, including the existing Huntington Beach Generating Station, and highway traffic. It is expected that noise from construction/demolition and operations of HBEP would not adversely impact wildlife, as wildlife usually become accustomed to routine background noise.

Noise impacts to wildlife are difficult to measure. Results of several studies summarized by Golden, et al. (1980) indicate no impacts from aircraft noise at 75 dBA for several wildlife species; however, Dooling and Popper (2007) suggest that traffic noise levels above 60 dBA could interfere with avian acoustic communication. The expected loudest composite noise levels from HBEP are approximately 70 dBA at the HBEP fenceline, which will result in a noise level of 63 dBA at 400 feet from the fenceline. Bird nesting habitat is present in the Magnolia Marsh immediately adjacent to HBEP. Noise attributable to the construction of HBEP may be sufficiently high to temporarily discourage birds from nesting in this area.

Bright night lighting could disturb wildlife that occurs adjacent to the project site (such as nesting birds, foraging mammals, and flying insects). Night lighting is also suspected to attract migratory birds to the area so lights on tall towers or structures could result in collisions. Additionally, certain lighting may attract insects which in turn may attract birds (such as nighthawks) and bats to forage. HBEP lighting will meet the requirements for security, operations and maintenance, and safety, and will be shielded and pointed downward and away from the wetland habitat outside of the project area to minimize impacts to nesting birds and other nearby wildlife, and to reduce the potential for avian and bat attraction and collision. Also, night lighting will have switches to allow them to be turned off when not in use.

5.2.3.3.4 Potential for Avian Collisions

Direct and indirect impacts to birds including potential for collision with structures are expected to be minimal given the project location and existing tall structures and facilities on the site. HBEP will be electrically interconnected to the existing SCE substation via short onsite transmission lines. These transmission lines will be onsite among the existing onsite electrical lines that connect into the SCE substation. It is expected that resident and migrating wildlife in the area would be accustomed to maneuvering around structures and other features and the potential for avian collisions is expected to be minimal.

5.2.3.3.5 Effects of Operation on Special-status Species

Impacts to Special-status Plants. There is no suitable habitat for sensitive or special-status plants at the HBEP site and potential indirect impacts from the operation of the facility to coastal saltmarsh wetland habitats in the immediate vicinity of the project will be less than significant. HBEP is not expected to result in significant impacts to sensitive or special-status plant species.

Impacts to Sensitive and Special-status Wildlife Species. Potential impacts to sensitive and special-status wildlife such as Belding's savanna sparrow, California least tern and western snowy plover, among others could occur as a result of disturbance from HBEP construction noise. These impacts have the potential to be significant during the demolition and construction phases of the project.

However, with the implementation of mitigation measures proposed in Section 5.2.5, the project is not expected to result in significant impacts to sensitive and special-status wildlife species. Species-specific impacts are discussed in the following sections.

- **Foraging Birds and Bats** – Potential impacts from construction/demolition activities on foraging birds and bats could primarily occur from temporary displacement resulting from construction/demolition related noise.
- **Nesting Birds.** – There is limited nesting habitat at the HBEP site for bird species. Large landscape trees including palms that may be planted as visual screening around the site have the potential to attract raptors such as barn owls and American Kestrels which could increase predation on shorebirds in the adjacent wetlands. Potential impacts from demolition, construction and operation activities on nesting birds could primarily occur from noise. Sensitive bird species could abandon nesting attempts if disturbed during the breeding season.

5.2.3.3.6 Operation Phase Impacts to Wetlands and Waters of the United States

The Magnolia marsh is immediately adjacent to the HBEP site, but there will be no direct or indirect effects to this wetland as a result of HBEP operation. As stated in Section 2.0, Project Description, the high level of proposed NOx emission controls, air quality mitigation regulations that require offsets (in the form of RECLAIM Trading Credits) to be surrendered annual for actual NOx emissions, and the fact that predominate wind patterns (west to east) will result in a majority of the air quality deposition impacts occurring inland where time and distance will reduce ground-level concentrations. Atmospheric deposition of nitrogen and particulate matter will be less than the currently operational turbines and would not result in a significant impact to the wetland habitats in the immediate vicinity. With appropriate design and monitoring measures, air emissions are not expected to have a significant impact on wetlands and waters of the United States and no additional mitigation measures are proposed.

5.2.4 Cumulative Effects

A cumulative impact refers to a proposed project's incremental effect together with other closely related past, present, and reasonably foreseeable future projects whose impacts may compound or increase the incremental effect of the proposed project (Public Resources Code Section 21083; 14 CCR 15064(h), 15065(c), 15130, and 15355).

Extensive urban development has occurred throughout the region and the majority of natural habitats have been developed. HBEP will not contribute to any additional habitat loss because construction, operation, and demolition will occur within the preexisting Huntington Beach Generating Station and the offsite laydown area is located in the AGS. In addition, HBEP will have a positive effect on the environment because the new facility will

eliminate the use of ocean water as well as produce less emissions and noise. HBEP involves the replacement of existing electrical generating facilities with newer more efficient combustion turbines, which will produce more energy for the same amount of fuel that is currently being used.

The demolition of Huntington Beach Generating Station Units 3 and 4 may increase potential demolition-related impacts, such as increased noise and light levels. However, as Units 3 and 4 are licensed by the CEC, demolition impacts will be mitigated to less than significant levels and these impacts are temporary. HBEP construction-related impacts are expected to include increased noise and light levels, but are also anticipated to be temporary. Once HBEP is fully-operational, emissions are expected to decrease; therefore, creating a positive impact with project implementation. Unit 3 and 4 demolition combined with HBEP construction and operation is not expected to cause significant, unmitigated impacts to biological resources. As stated previously, there would be no loss of natural habitat and no direct impacts to wetlands of waters of the United States. Any potential impacts to special-status species will be reduced to less than significant less by implementing appropriate mitigation measures, such as shielding lighting during demolition and construction related activities (additional mitigation measures are outlined Section 5.2.5). Therefore, HBEP is not expected to cause any adverse cumulative impacts to biological resources.

5.2.5 Mitigation Measures

Mitigation measures are intended to avoid, minimize, and otherwise mitigate potential adverse effects of a project on biological resources that could occur from demolition-, construction-, and operation-related activities. Potential adverse effects that may result from HBEP include disturbance to nesting and foraging bird species in habitats adjacent to HBEP. The project owner will conduct a preconstruction active nest survey within 100 feet of the HBEP site, and, if determined necessary, monitoring of active nests during construction/demolition activities will be performed if it is determined that active nests will be significantly disturbed by HBEP activities.

5.2.6 Laws, Ordinances, Regulations, and Standards

The following sections describe the primary LORS that apply to potential impacts on biological resources in the project area, and list the agencies responsible for enforcing the regulations. A summary of the LORS is provided in Table 5.2-1, at the end of this section.

5.2.6.1 Federal LORS

Federal Endangered Species Act (16 United States Code [USC] 153 et seq.). Applicants for projects that could result in adverse impacts on any federally listed species are required to consult with and mitigate potential impacts in consultation with USFWS. Adverse impacts are defined as “take,” which is prohibited except through authorization of a Section 7 or Section 10 consultation and Incidental Take Authorization. “Take” under federal definition includes “such act as may include significant habitat modification or degradation” (50 CFR 17.3). Species that are not listed are not protected by federal Endangered Species Act, even if they are candidates for listing; however, USFWS advises that a candidate species (as well as species of concern) could be elevated to listed status at any time, and therefore, applicants should regard these species with special consideration.

Migratory Bird Treaty Act (16 USC 703 to 711) protects all migratory birds, including nests and eggs.

Bald and Golden Eagle Protection Act (16 USC 668) specifically protects bald and golden eagles from harm or trade in parts of these species.

5.2.6.2 State LORS

California Endangered Species Act (Fish and Game Code Section 2050 et seq.). Species listed under this act cannot be “taken” or harmed, except under specific permit. At present, “take” means to do or attempt to do the following: hunt, pursue, catch, capture, or kill.

Fish and Game Code Section 3511 describes bird species, primarily raptors, that are “fully protected.” Fully protected birds may not be taken or possessed, except under specific permit requirements.

Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.

Fish and Game Code Section 3503.5 protects all birds of prey and their eggs and nests.

Fish and Game Code Section 3513 makes it unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird.

Fish and Game Code Sections 4700, 5050, and 5515 lists mammal, amphibian, and reptile species that are fully protected in California.

Fish and Game Code Sections 1900 et seq. The Native Plant Protection Act lists threatened, endangered, and rare plants listed by the state.

Title 14, California Code of Regulations, Sections 670.2 and 670.5 lists animals designated as threatened or endangered in California. CSC is a category conferred by CDFG on those species that are indicators of regional habitat changes or are considered potential future protected species. CSC do not have any special legal status, but are intended by CDFG for use as a management tool to take these species into special consideration when decisions are made concerning the future of any land parcel.

California Fish and Game Code (Sections 1601 through 1607) prohibits alteration of any stream, including intermittent and seasonal channels and many artificial channels, without a permit from CDFG. CDFG jurisdiction is limited to areas within the 100-year floodplain. Within this zone, CDFG jurisdiction is subject to the judgment of the department. This applies to any channel modifications that would be required to meet drainage, transportation, or flood control objectives of a project.

California Environmental Quality Act (Public Resources Code Section 15380) defines “rare” in a broader sense than the definitions of threatened, endangered, or species of special concern. Under this definition, CDFG can request additional consideration of species not otherwise protected. CEQA requires that the effects of a project on environmental resources must be analyzed and assessed using criteria determined by the lead agency.

Warren Alquist Act (Public Resources Code Section 25000, et seq.) is a CEQA-equivalent process implemented by the CEC. Preparation of this application will result in an assessment prepared by the CEC staff to fulfill the requirements of CEQA.

5.2.6.3 Local and Other Jurisdictions’ LORS

City of Huntington Beach – General Plan/Local Coastal Plan/Coastal Element. The City of Huntington Beach regulates new development through design review and permit issuance to ensure consistency with Coastal Act requirements and minimize adverse impacts to identified environmentally sensitive habitats and wetland areas. New development projects that are contiguous to wetlands or environmentally sensitive habitat areas must include a minimum of one hundred feet setback from the landward edge of the wetland. In some instances a lesser buffer may be permitted if existing development or site configuration precludes the minimum buffer area.

TABLE 5.2-1
Laws, Ordinances, Regulations, and Standards for Biological Resources

LORS	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
Federal			
Federal Endangered Species Act (Federal ESA, 16 USC 1531 et seq.)	Designates and protects federally threatened and endangered plants and animals and their critical habitat. Applicants for projects that could result in adverse impacts on any federally listed species are required to consult with and mitigate potential impacts in consultation with USFWS.	USFWS	HBEP is not likely to adversely affect the federally endangered Western snowy plover, light-footed clapper rail or California least tern. Informal discussions and coordination with USFWS will determine measures HBEP will undertake to avoid adverse effects to foraging and nesting habitat for these species in the vicinity of the project habitat (Section 5.2.5).
Migratory Bird Treaty Act (16 USC 703 to 711)	Protects all migratory birds, including nests and eggs.	USFWS	HBEP will include mitigation measures to reduce impacts to resident and migratory birds to a less-than-significant level (Section 5.2.5).
Bald and Golden Eagle Protection Act (16 USC 668)	Specifically protects bald and golden eagles from harm or trade in parts of these species.	USFWS	HBEP will include mitigation measures to reduce impacts to eagles to a less-than-significant level (Section 5.2.5).
State			
California Endangered Species Act (Fish and Game Code Section 2050 et seq.).	Species listed under this act cannot be “taken” or harmed, except under specific permit.	CEC	HBEP will include mitigation measures to reduce impacts to State listed species including the light-footed clapper rail, California least tern and Belding’s savannah sparrow to a less-than-significant level (Section 5.2.5).
Fish and Game Code Section 3511	Describes species, primarily birds, which are “fully protected.” Fully protected species may not be taken or possessed, except under specific permit requirements.	CDFG	HBEP will include mitigation measures to reduce impacts to fully protected species to a less-than-significant level (Section 5.2.5).
Fish and Game Code Section 3503	States that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.	CDFG	HBEP will include mitigation measures to reduce impacts to bird nests and eggs to a less-than-significant level (Section 5.2.5).
Fish and Game Code Section 3503.5	Protects all birds of prey and their eggs and nests.	CDFG	HBEP will include mitigation measures to reduce impacts to bird nests and eggs to a less-than-significant level (Section 5.2.5).
Fish and Game Code Section 3513	Makes it unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird.	CDFG	HBEP will include mitigation measures to reduce impacts to birds of prey to a less-than-significant level (Section 5.2.5).
Fish and Game Code Sections 4700, 5050, and 5515	Lists mammal, amphibian, and reptile species that are fully protected in California.	CDFG	HBEP will include mitigation measures to reduce impacts to fully protected mammal, amphibian, or reptile species to a less-than-significant level (Section 5.2.5).

TABLE 5.2-1
Laws, Ordinances, Regulations, and Standards for Biological Resources

LORS	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
Fish and Game Code Sections 1900 et seq.,	The Native Plant Protection Act lists threatened, endangered, and rare plants listed by the State.	CDFG	No state threatened, endangered or rare plants will be impacted by HBEP (Section 5.2.5).
Title 14, California Code of Regulations, Sections 670.2 and 670.5	Lists animals designated as threatened or endangered in California.	CDFG	HBEP will include mitigation measures to reduce impacts to threatened and endangered animals to a less-than-significant level (Section 5.2.5).
California Fish and Game Code (Sections 1601 through 1607)	Prohibits alteration of any stream, including intermittent and seasonal channels and many artificial channels, without a permit from CDFG.	CDFG	No streams, including intermittent and seasonal channels will be affected by HBEP (Section 5.2.5).
CEQA (Public Resources Code Section 15380)	CEQA requires that the effects of a project on environmental resources must be analyzed and assessed using criteria determined by the lead agency.	CEC	The AFC analysis and process is CEQA equivalent. All requirements under CEQA are met with the analysis in the HBEP AFC (Section 5.2.6.2).
Warren Alquist Act (Public Resources Code Section 25000, et seq.)	Warren-Alquist Act is a CEQA-equivalent process implemented by the CEC.	CEC	The AFC analysis and process is CEQA equivalent. All requirements under the Warren-Alquist Act are met with the analysis in the HBEP AFC (Section 5.2.6.2)
Local			
City of Huntington Beach – General Plan/Local Coastal Plan/Coastal Element	Regulates new development through design review and permit issuance to ensure consistency with Coastal Act requirements and minimize adverse impacts to identified environmentally sensitive habitats and wetland areas.	City of Huntington Beach	HBEP construction and operation will be located entirely within an existing developed areas that has been designated for industrial uses in the Huntington Beach General Plan.

5.2.7 Agencies and Agency Contacts

Involved agencies and agency contacts are listed in Table 5.2-2.

TABLE 5.2-2

Agency Contacts for Biological Resources

Issue	Agency	Contact
State listed species	California Department of Fish and Game	Matthew Chirdon (858) 467-4284 mchirdon@dfg.ca.gov
Federally listed species	United States Fish and Wildlife Service	Jonathan Snyder 6010 Hidden Valley Road, Suite 101 Carlsbad, CA 92011 (760) 431-9440 x307 jonathan_d_snyder@fws.gov
City of Huntington Beach General Plan – Local Coastal Element	City of Huntington Beach	Jane James, Senior Planner (714) 536-5596

5.2.8 Permits and Permit Schedule

No federal or state listed or other special status species will be significantly affected by HBEP construction or operation; therefore, no additional permits are required and a schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits is not applicable.

5.2.9 References

Biogeographic Information and Observation System (BIOS). 2012. California Department of Fish and Game. Available online at: <http://bios.dfg.ca.gov/>.

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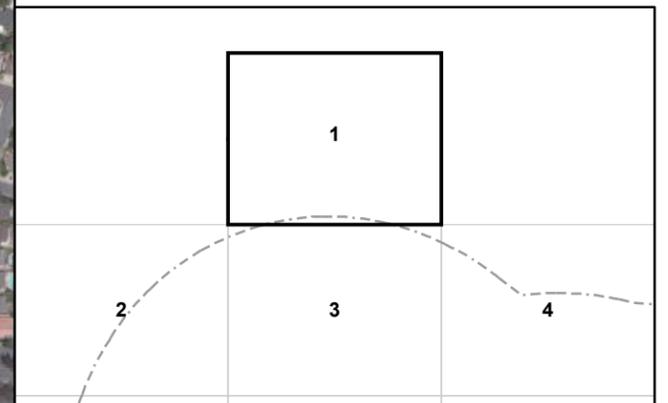
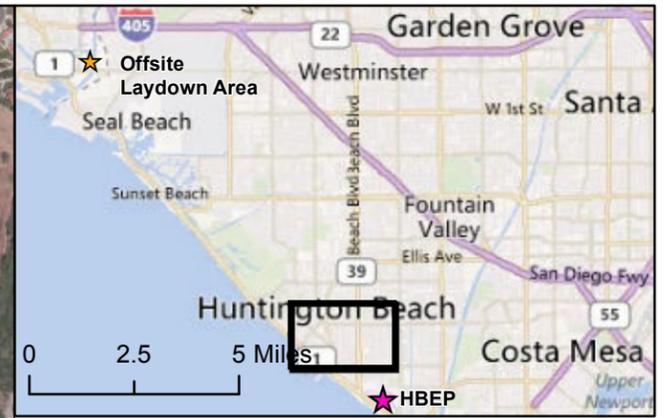
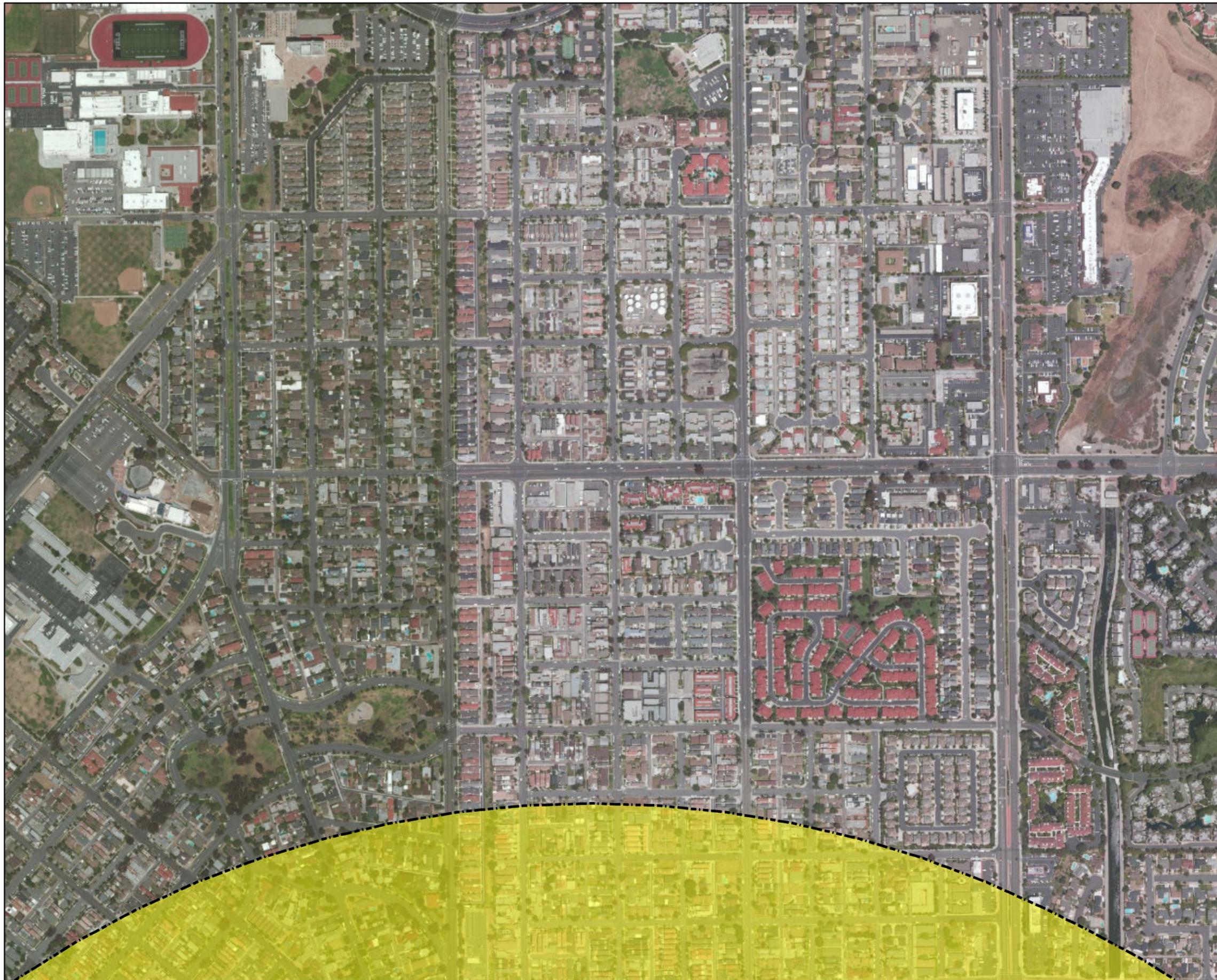
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- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

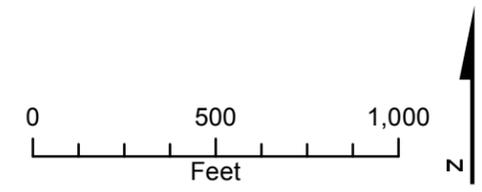
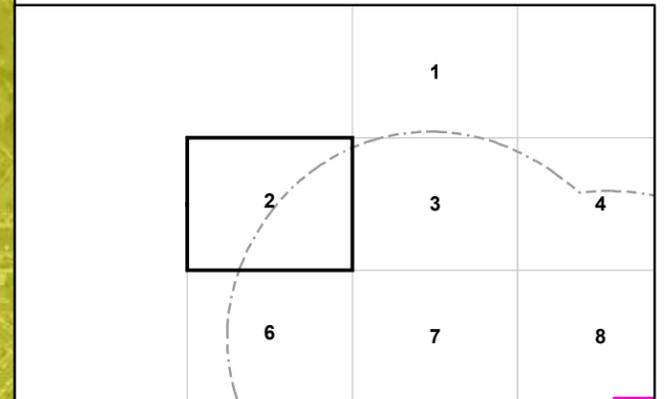
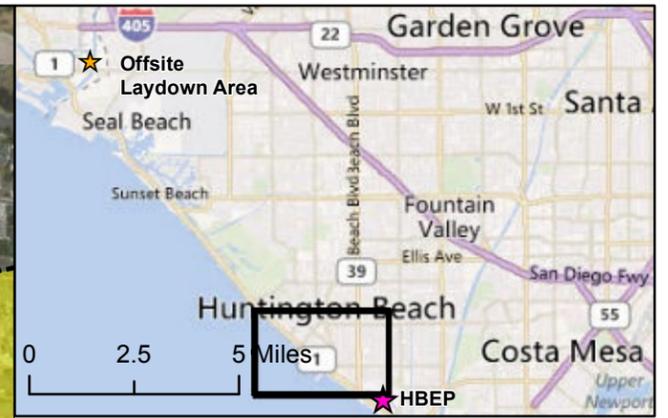
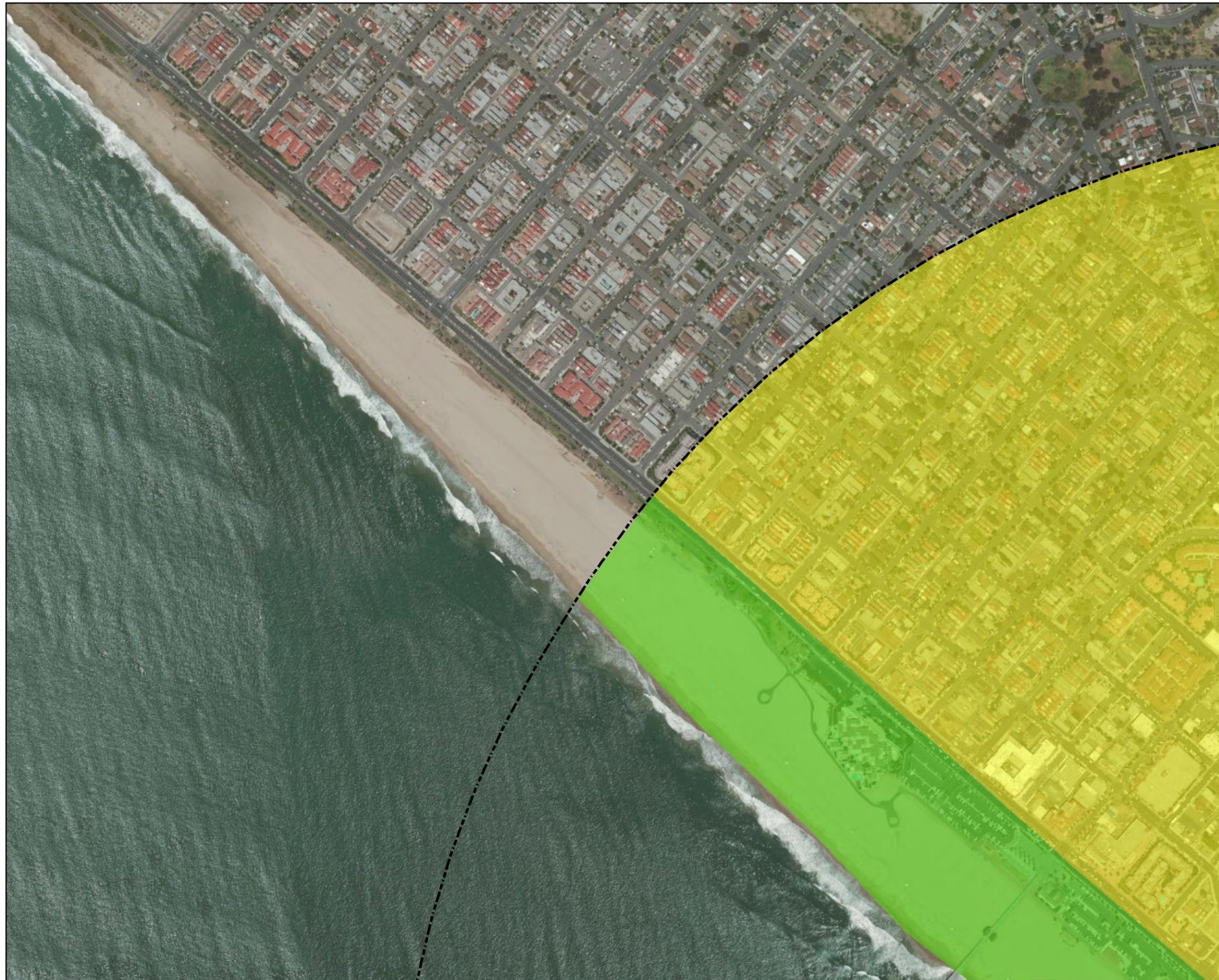


Figure 5.2-5a
HBEP - 01
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- █ AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

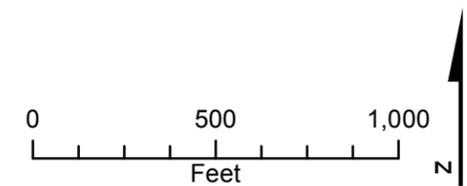
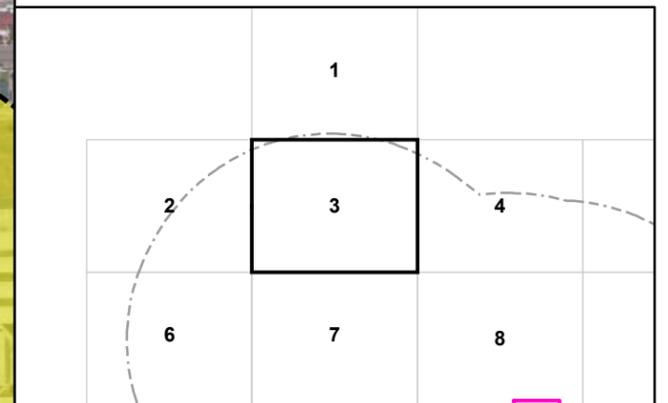
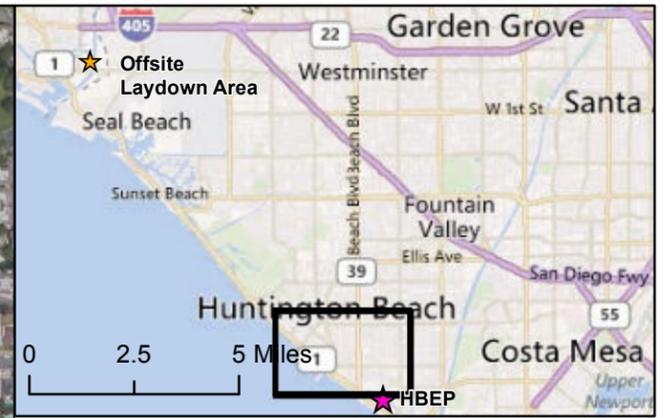
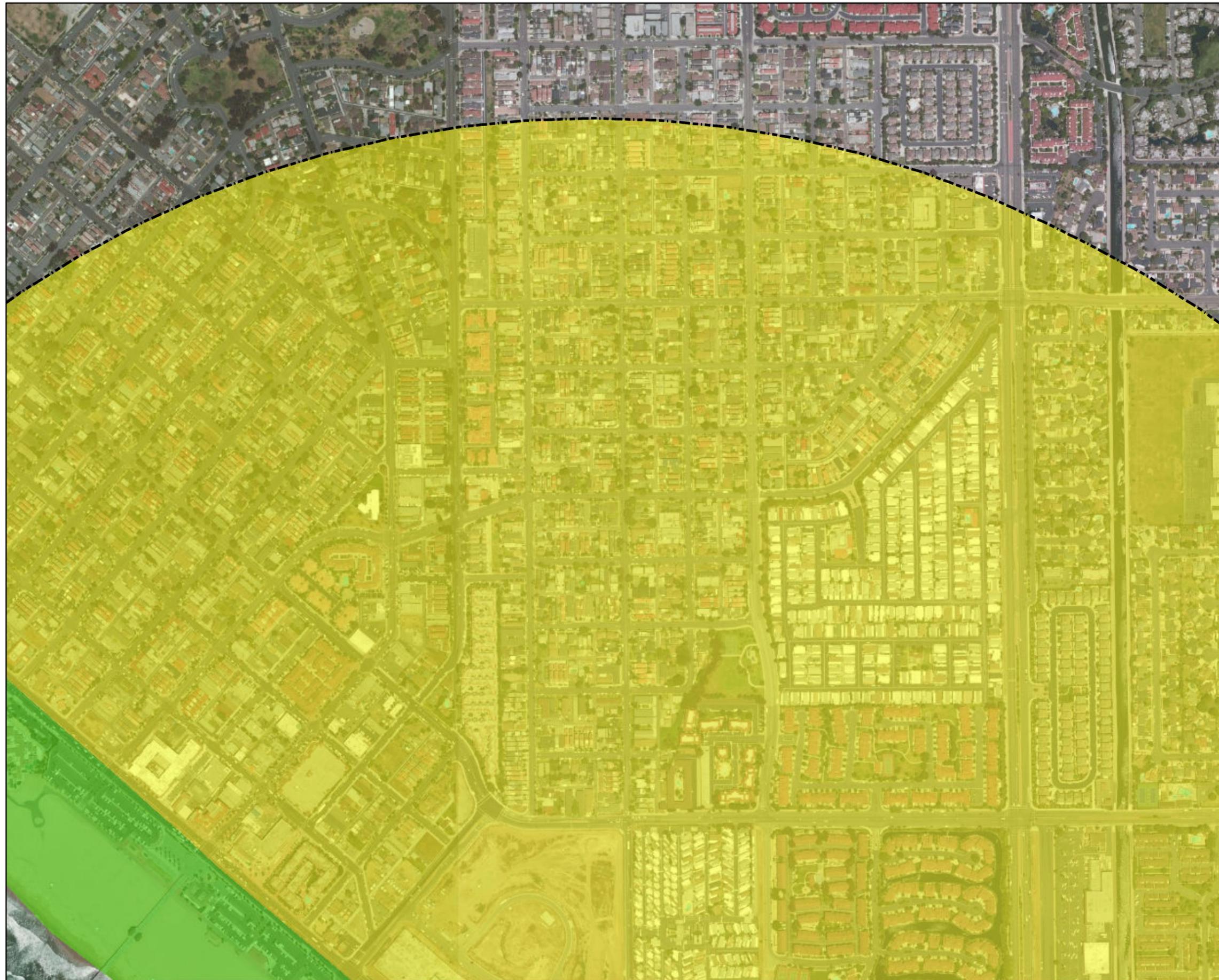


Figure 5.2-5a
HBEP - 02
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

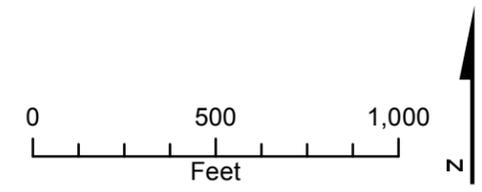
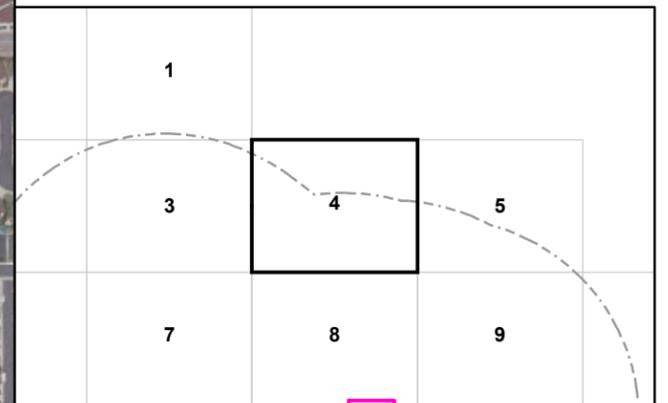
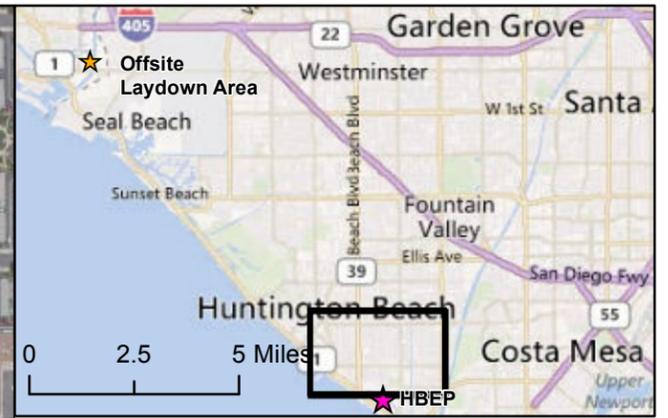
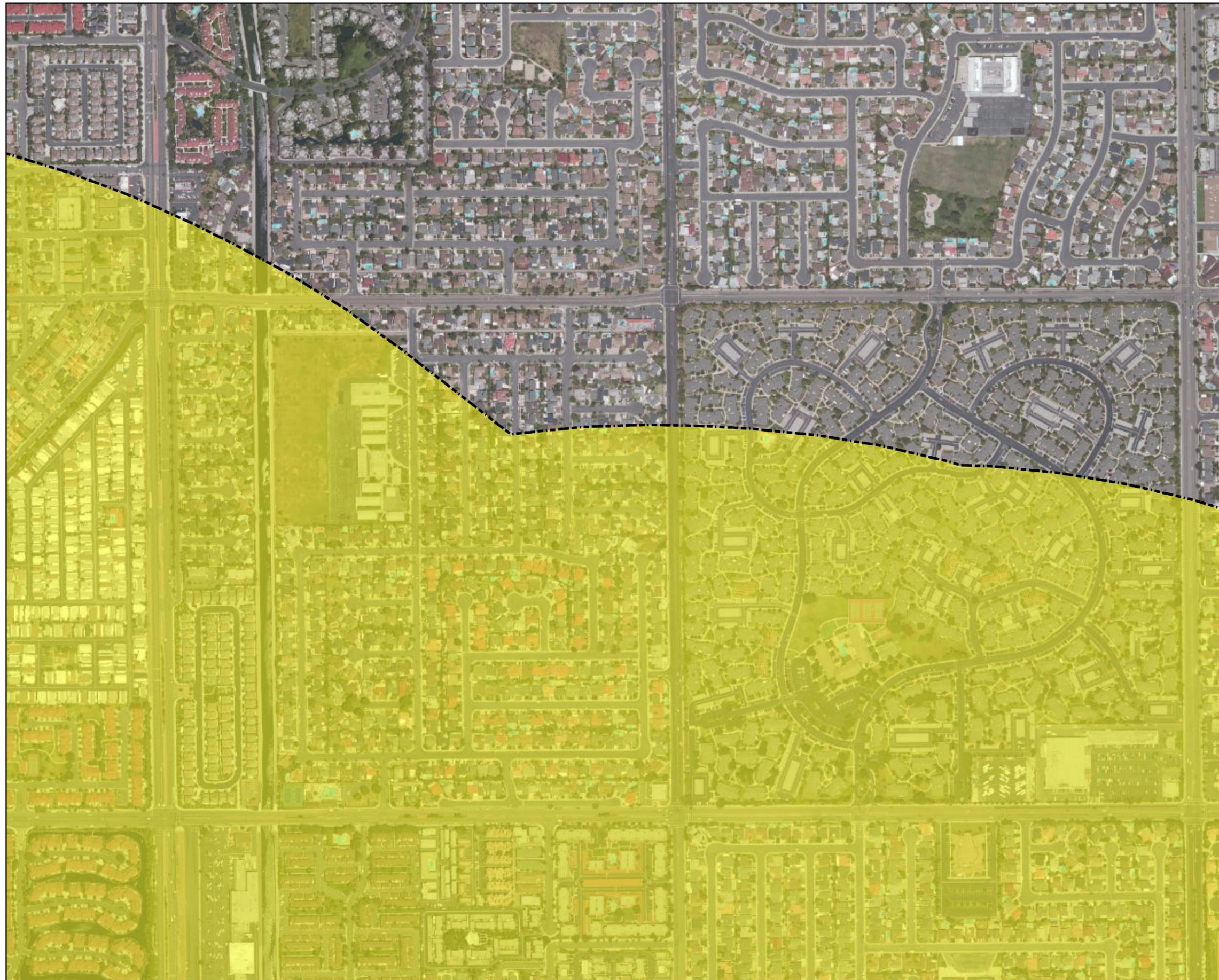


Figure 5.2-5a
HBEP - 03
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

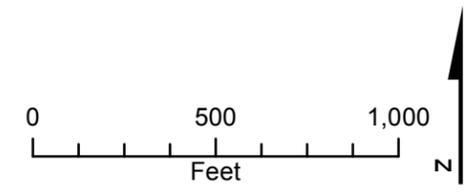
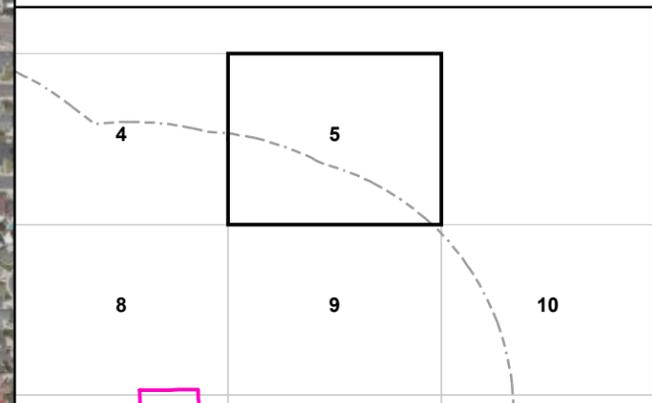
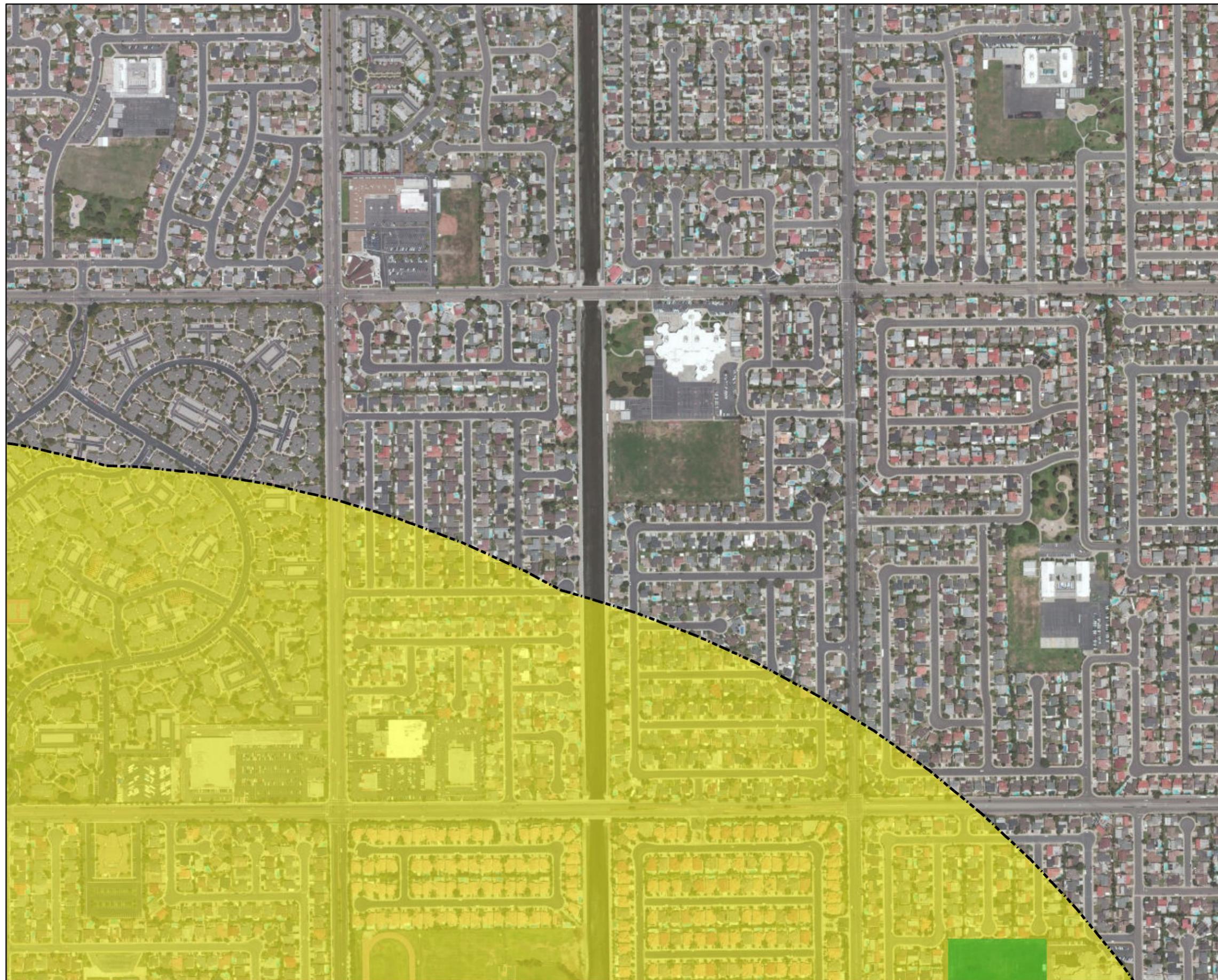


Figure 5.2-5a
HBEP - 04
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

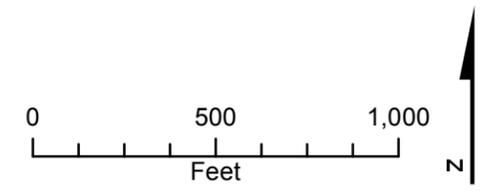
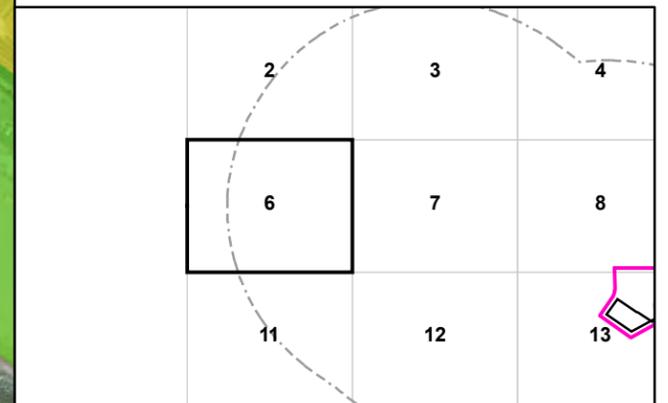
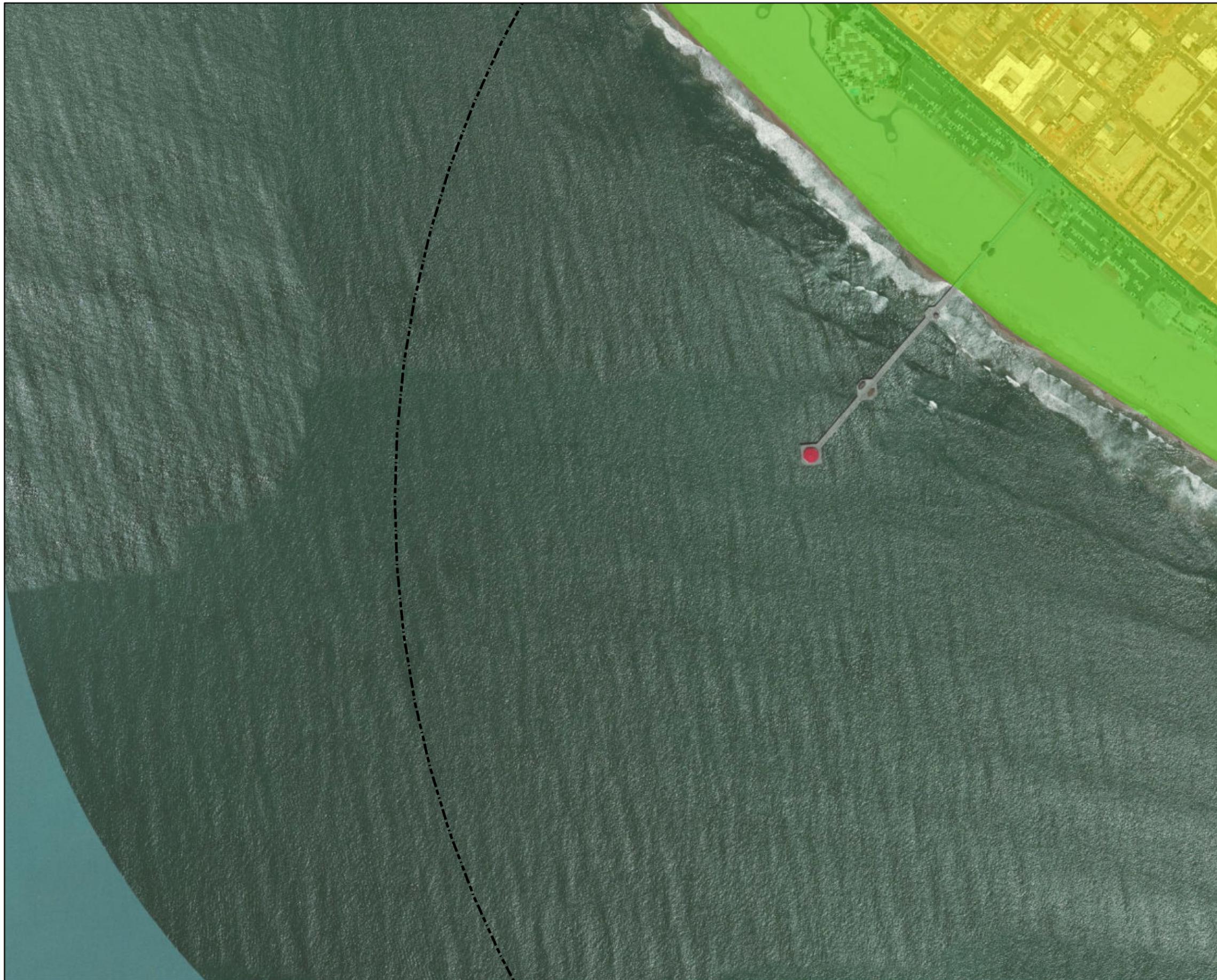


Figure 5.2-5a
HBEP - 05
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

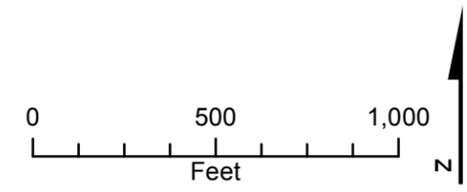
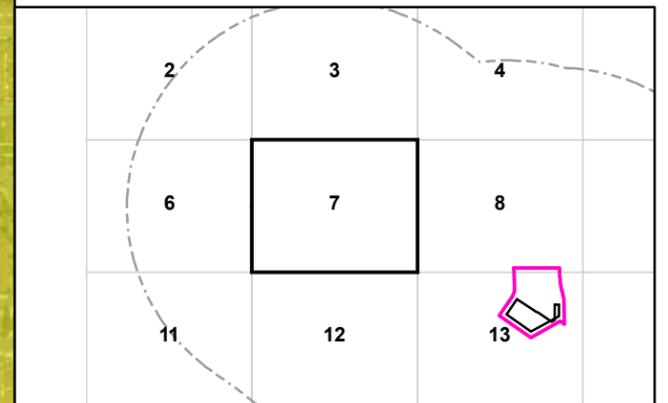


Figure 5.2-5a
HBEP - 06
Land Cover and Natural Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

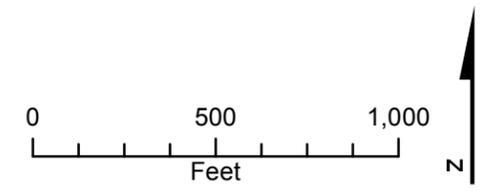
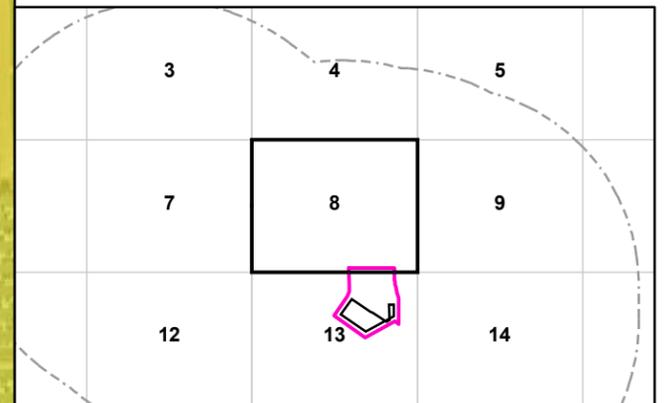
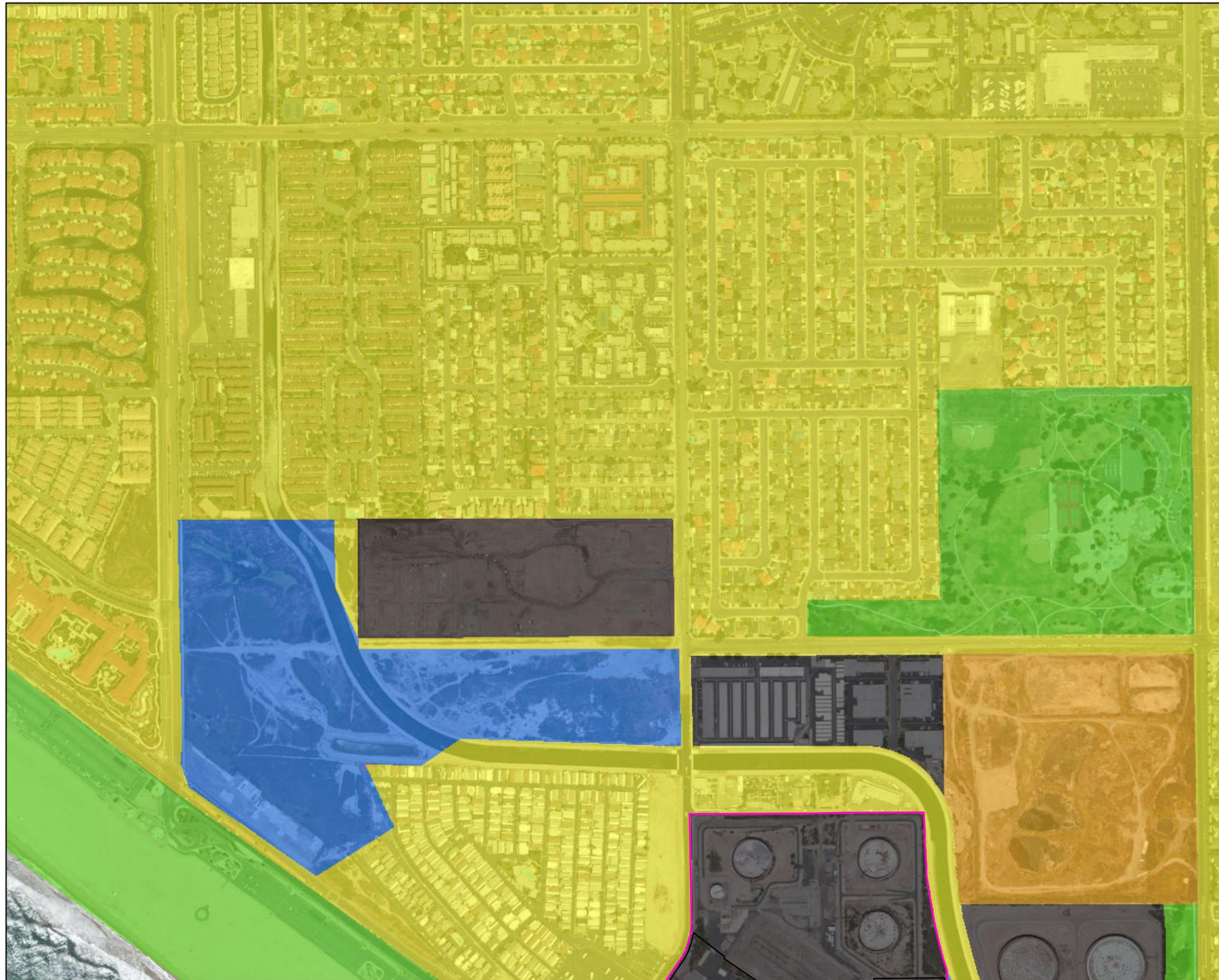


Figure 5.2-5a
HBEP - 07
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

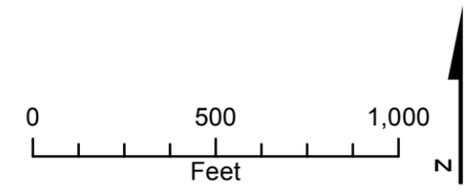
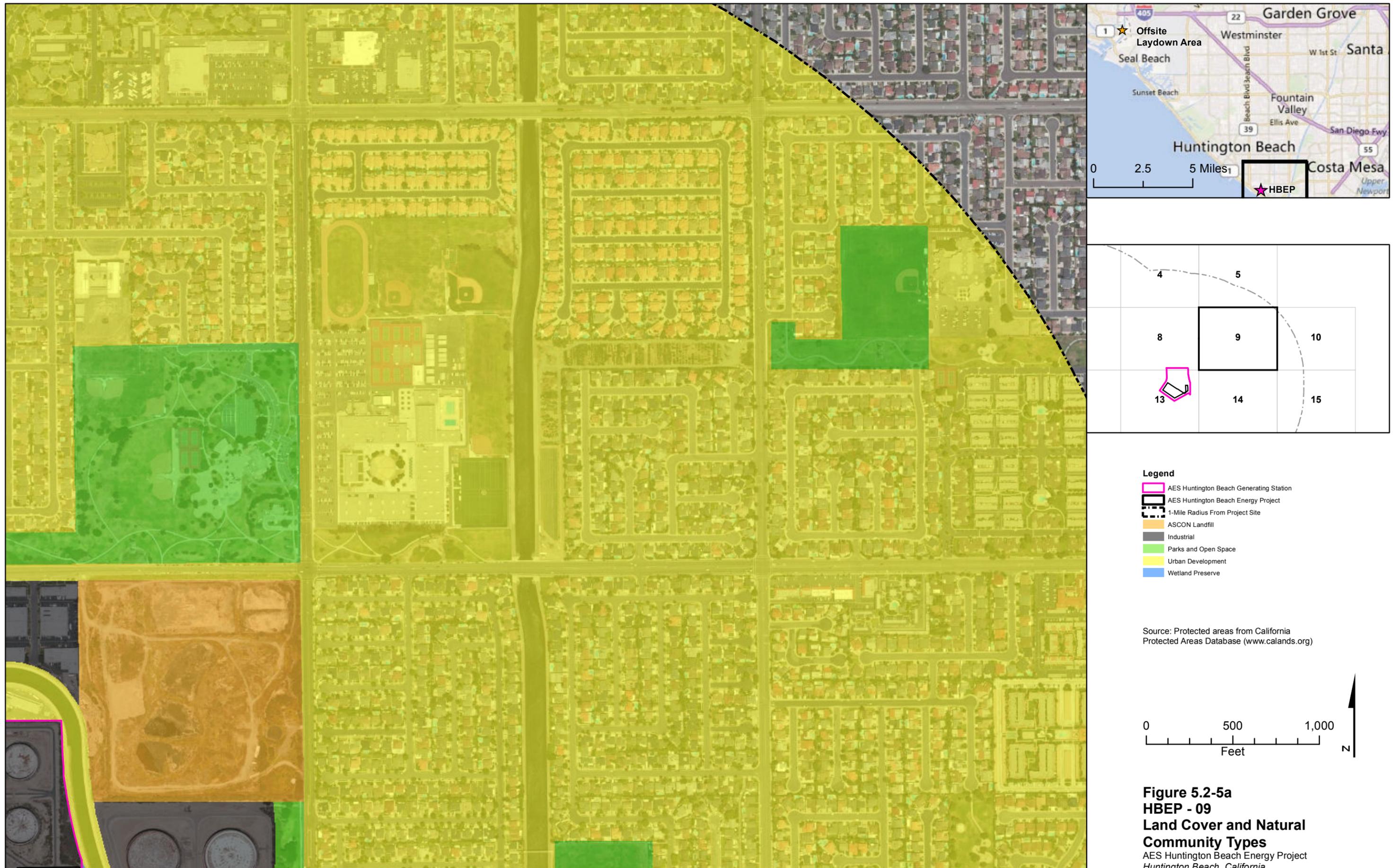


Figure 5.2-5a
HBEP - 08
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

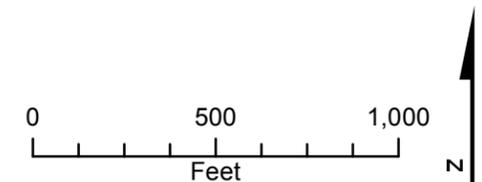
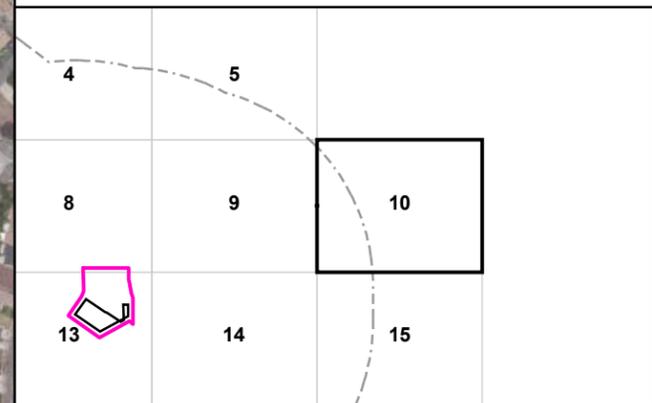
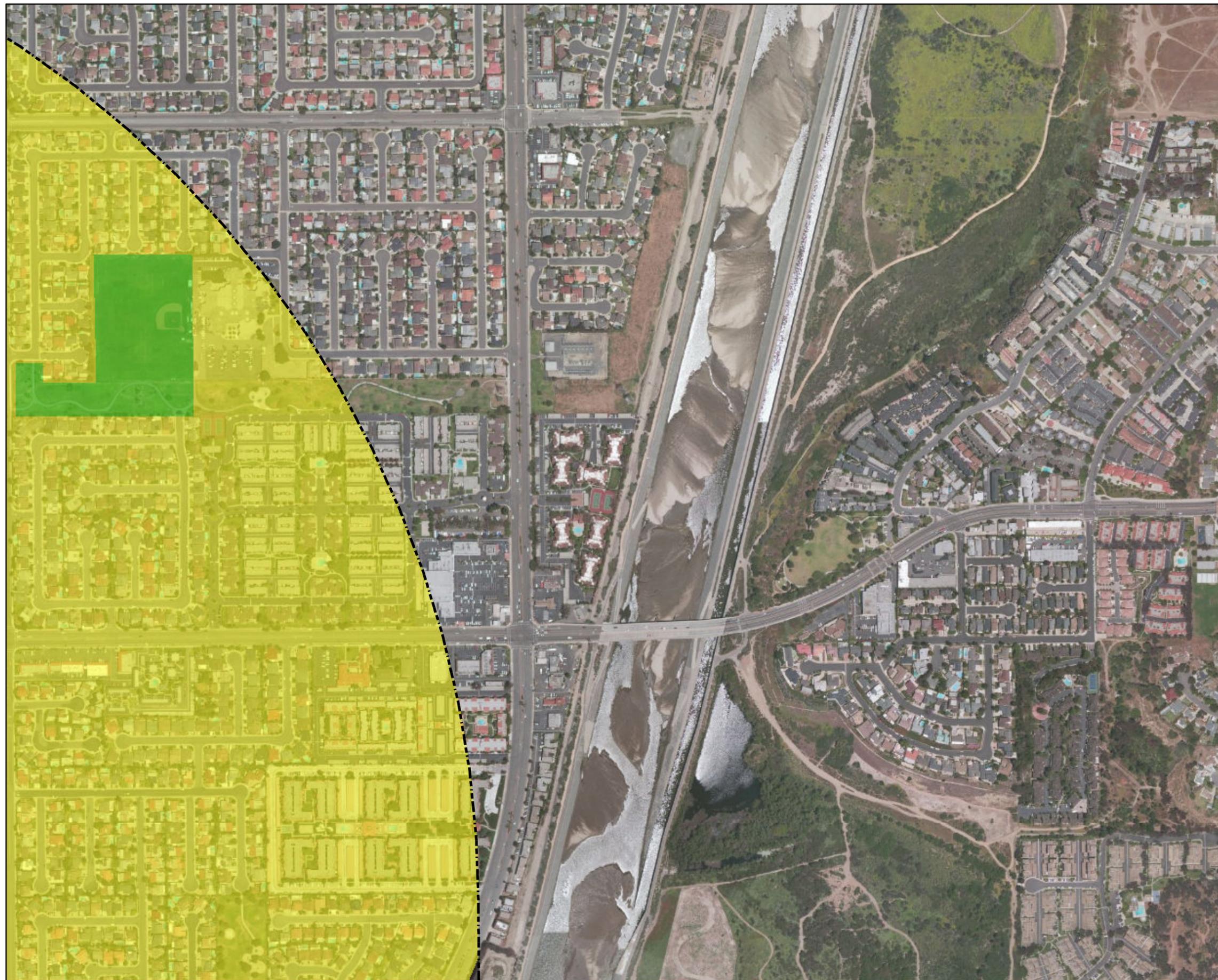


Figure 5.2-5a
HBEP - 09
Land Cover and Natural Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

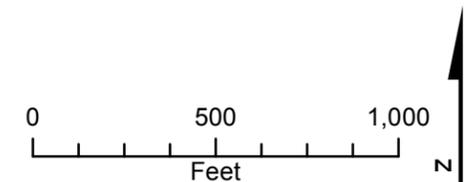
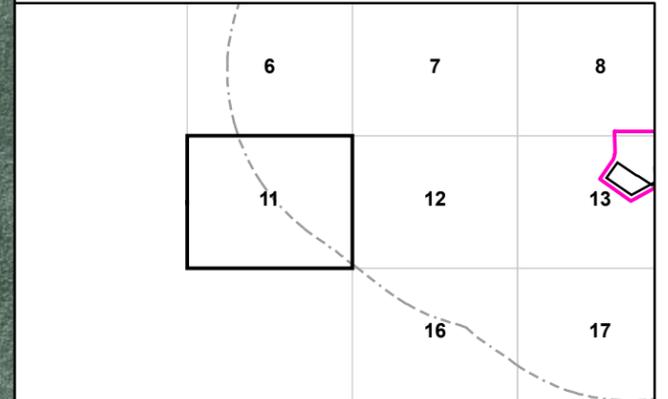


Figure 5.2-5a
HBEP - 10
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

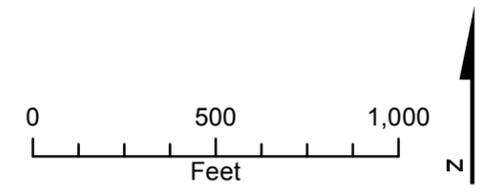
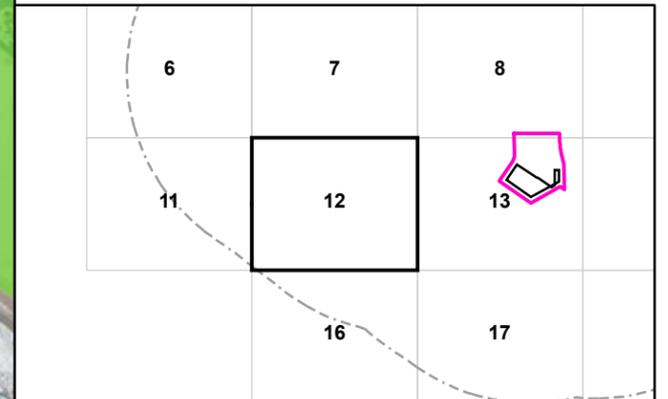
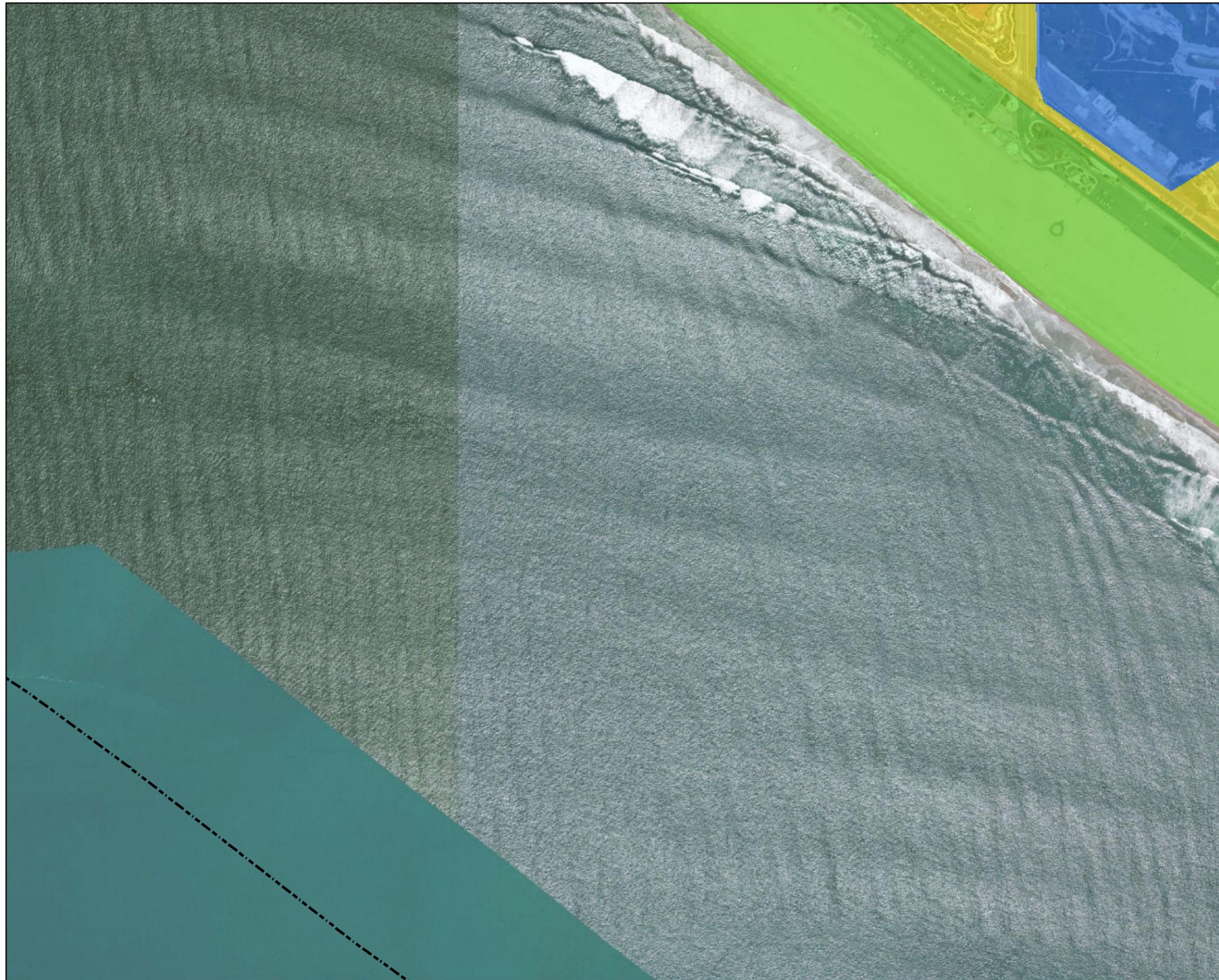


Figure 5.2-5a
HBEP - 11
Land Cover and Natural Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



Legend

- AES Huntington Beach Generating Station
- AES Huntington Beach Energy Project
- 1-Mile Radius From Project Site
- ASCON Landfill
- Industrial
- Parks and Open Space
- Urban Development
- Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

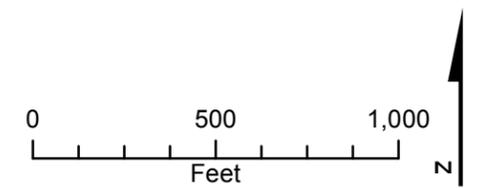
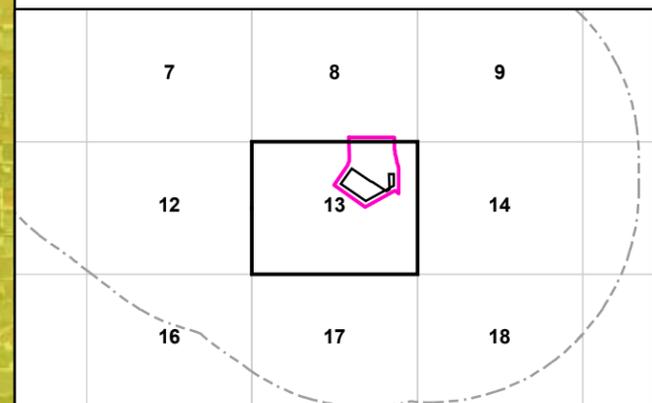


Figure 5.2-5a
HBEP - 12
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

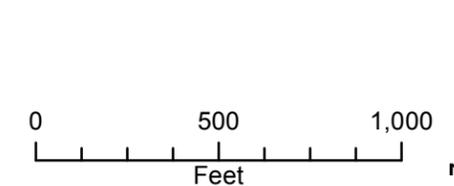
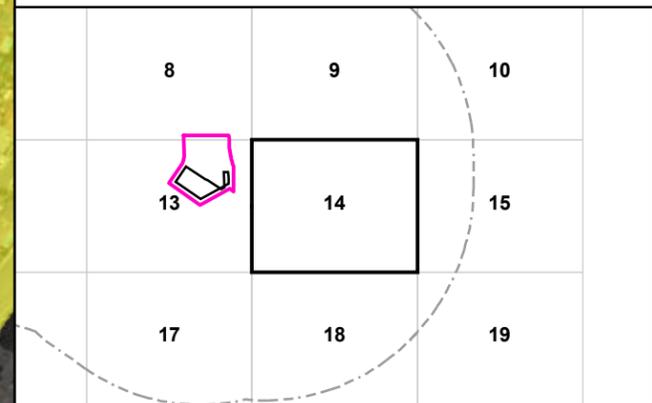


Figure 5.2-5a
HBEP - 13
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

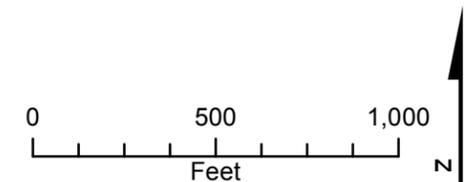
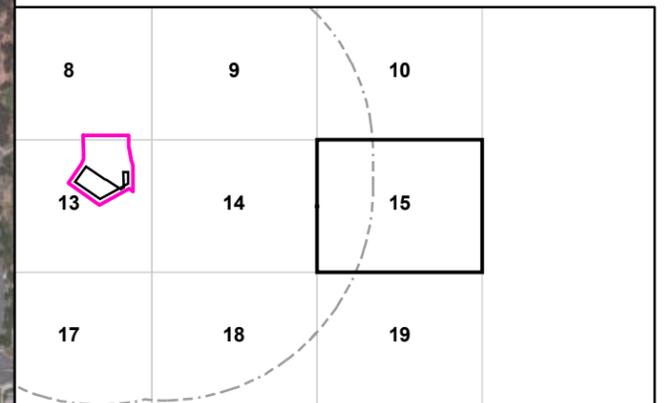
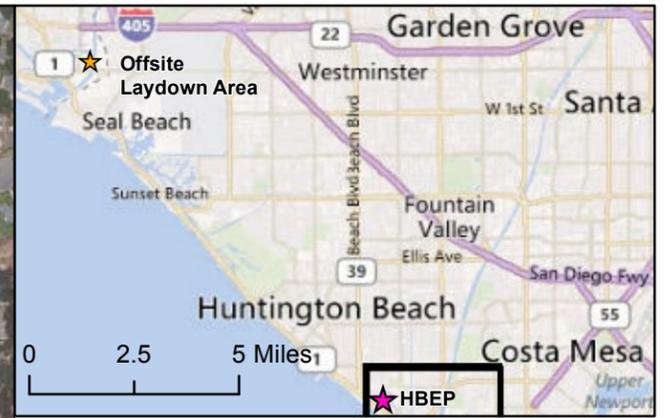
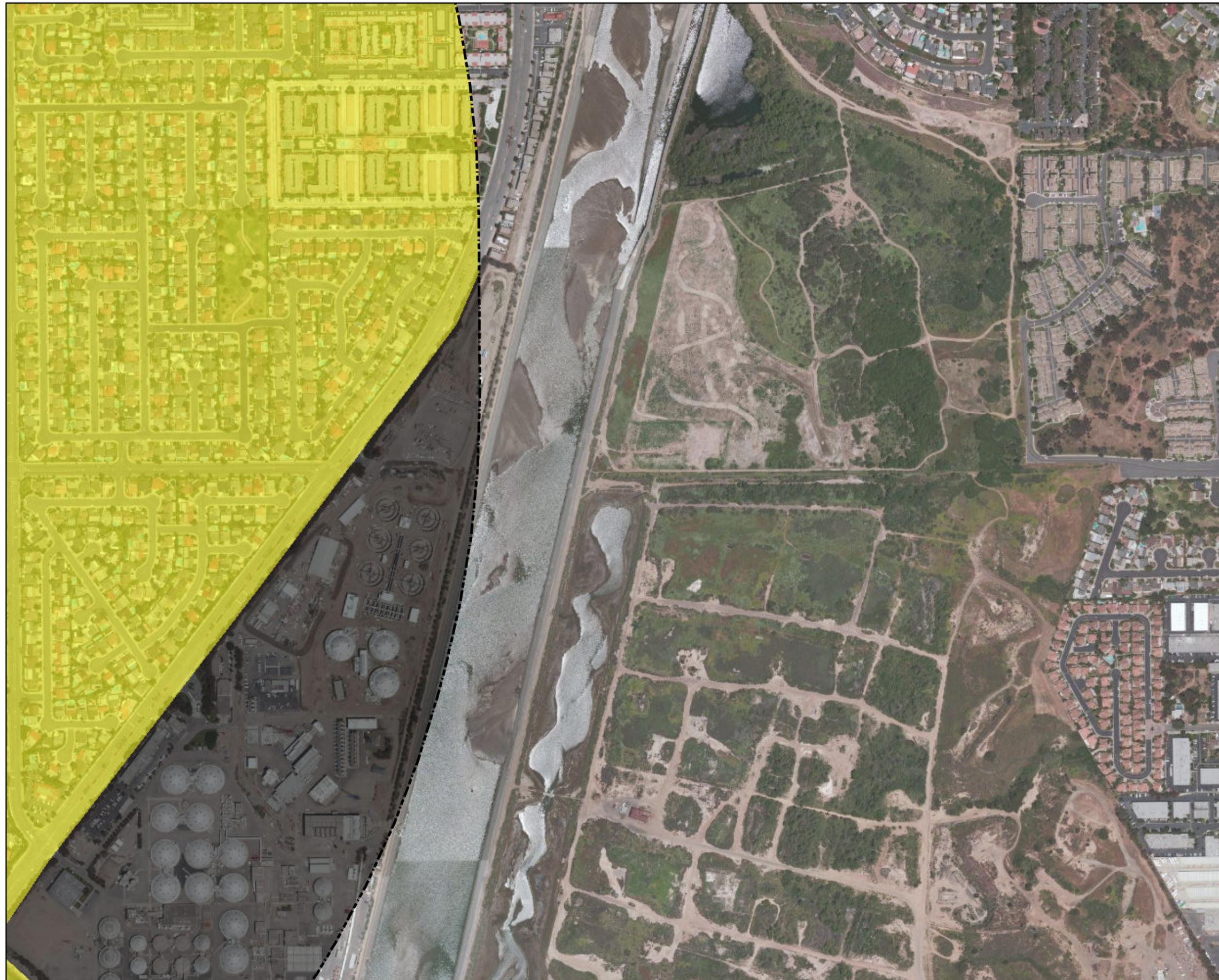


Figure 5.2-5a
HBEP - 14
Land Cover and Natural Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

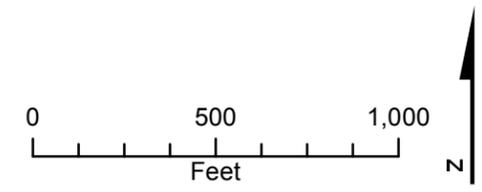
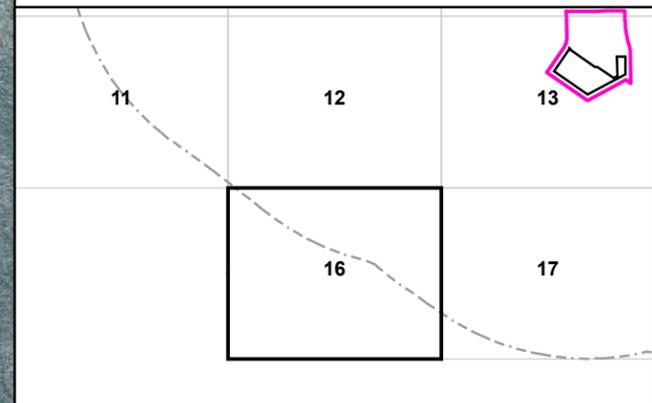
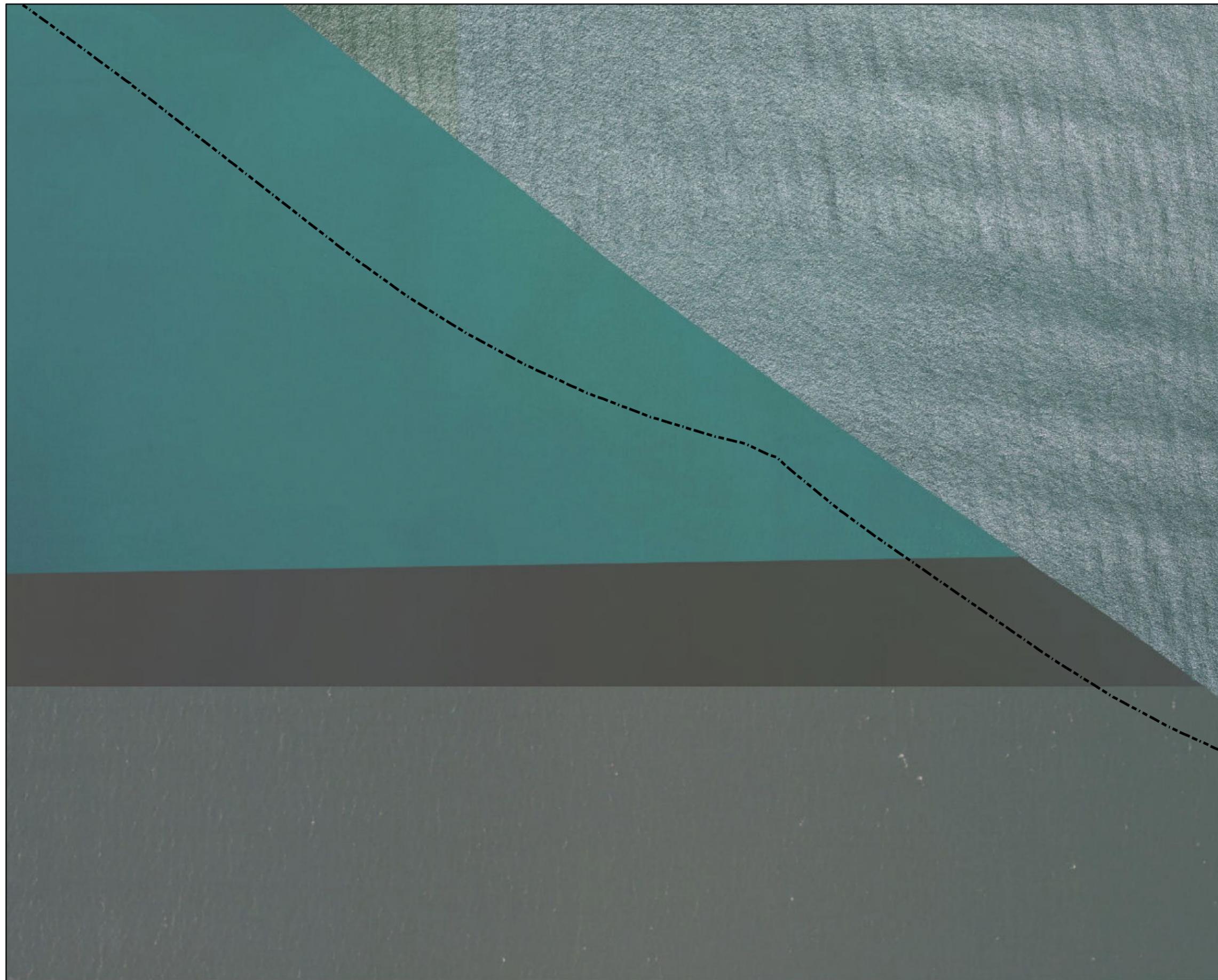


Figure 5.2-5a
HBEP - 15
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

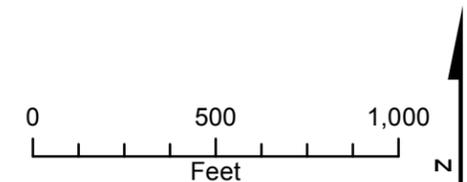
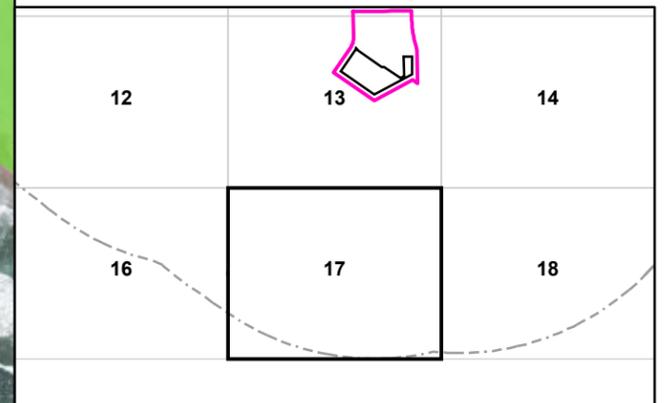
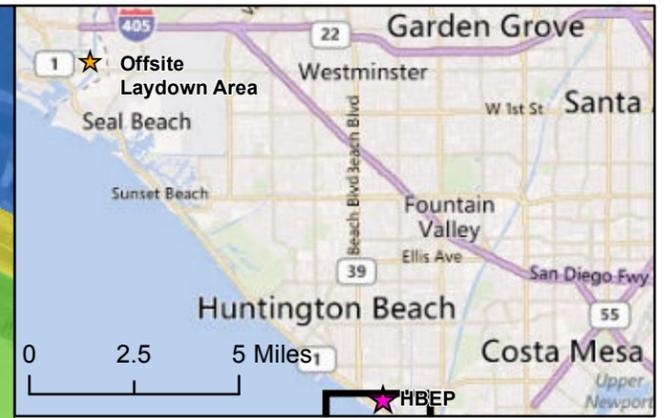
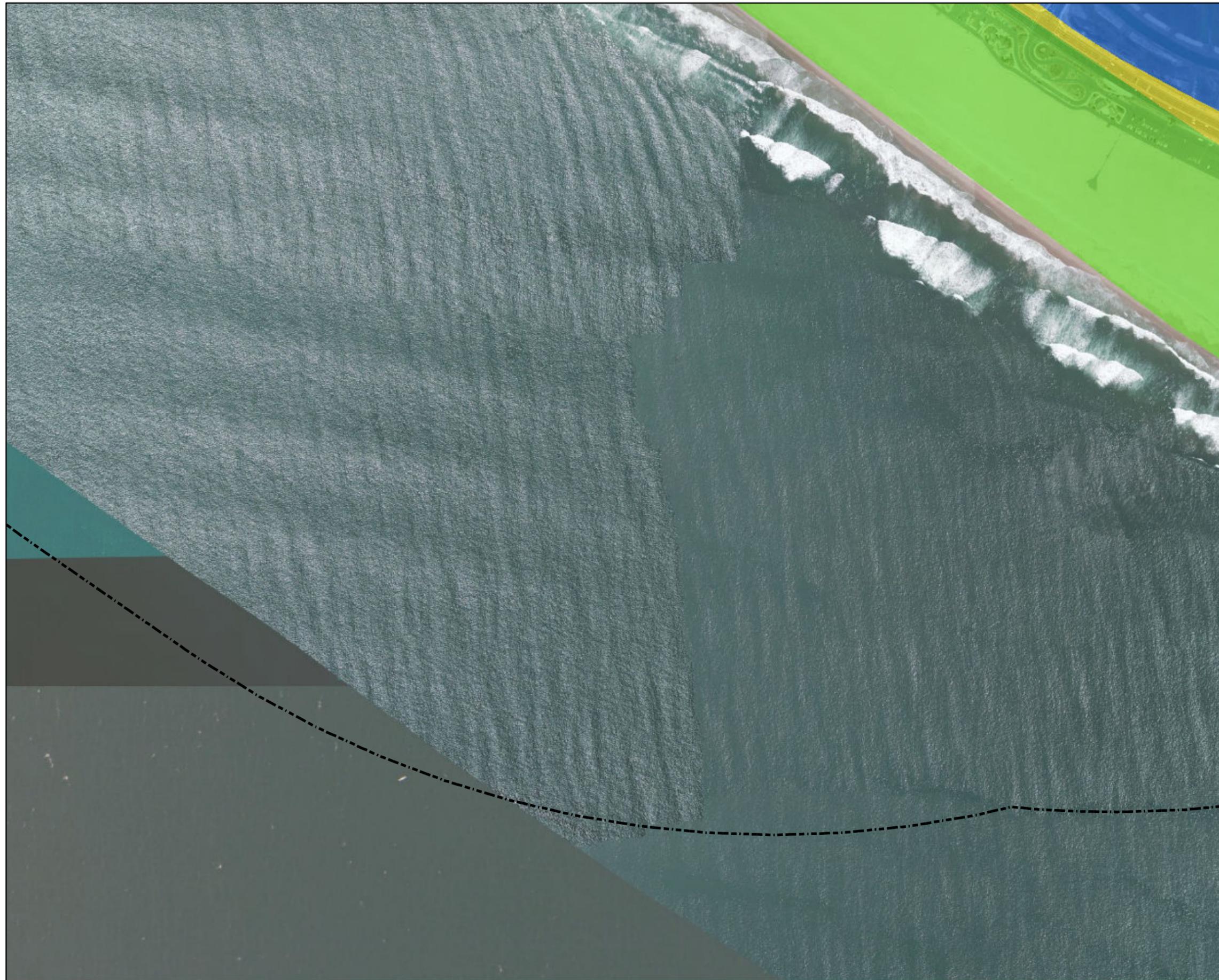


Figure 5.2-5a
HBEP - 16
Land Cover and Natural Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

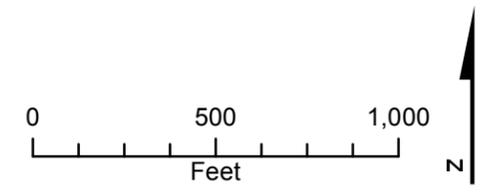
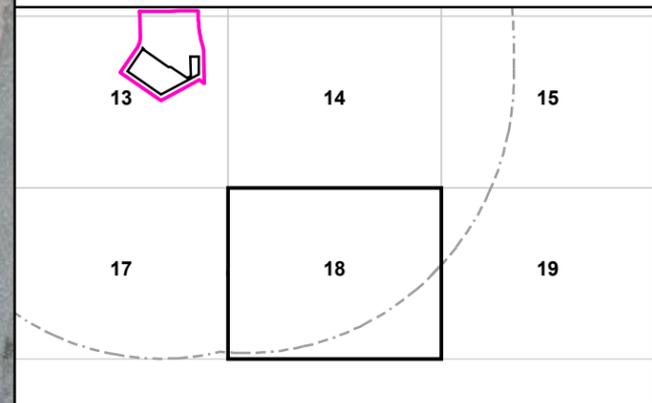
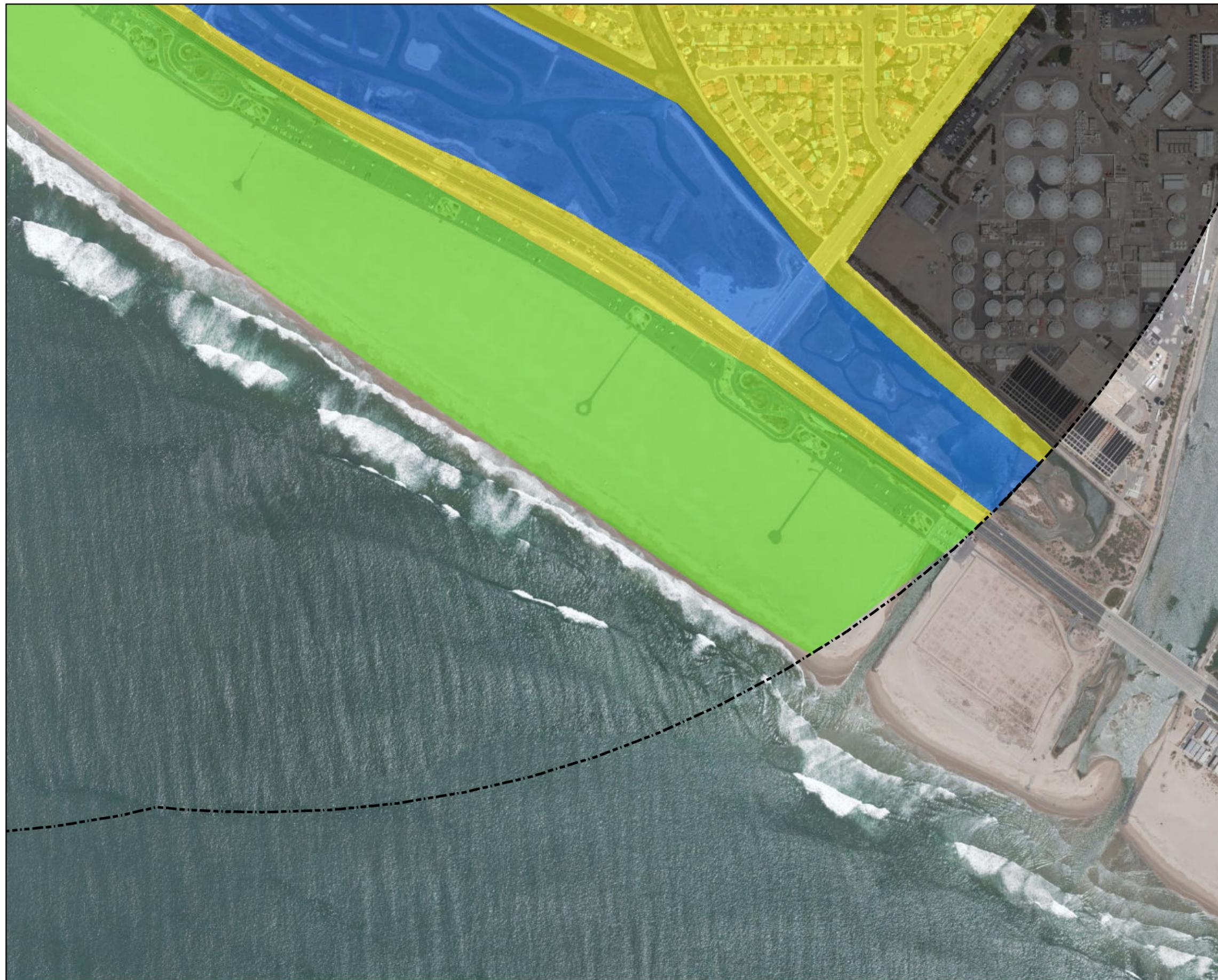


Figure 5.2-5a
HBEP - 17
Land Cover and Natural Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

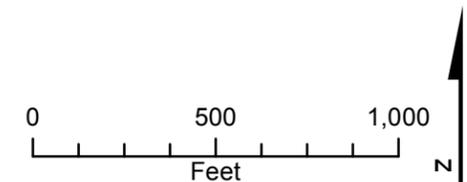
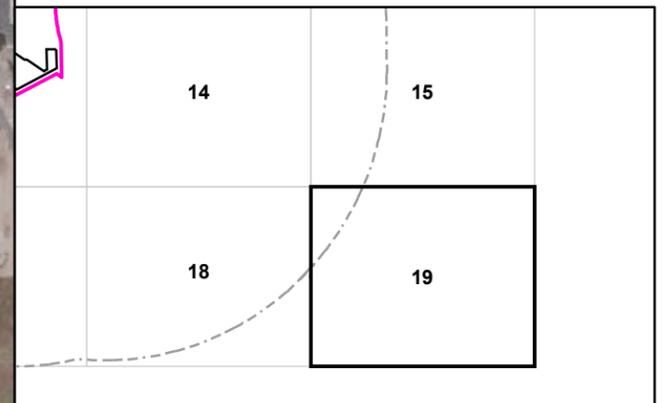
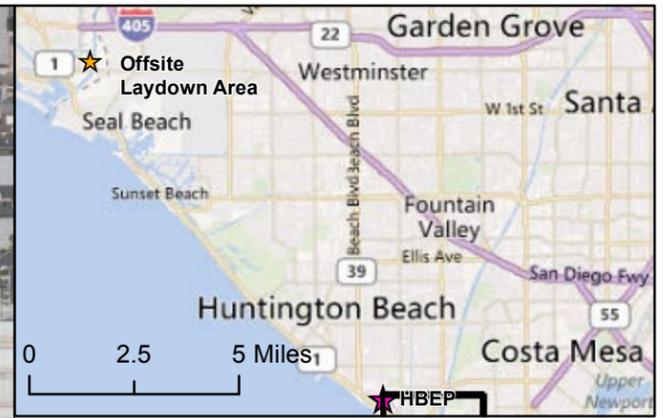


Figure 5.2-5a
HBEP - 18
Land Cover and Natural Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Wetland Preserve

Source: Protected areas from California Protected Areas Database (www.calands.org)

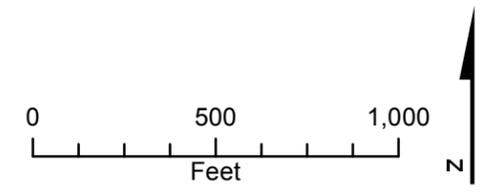
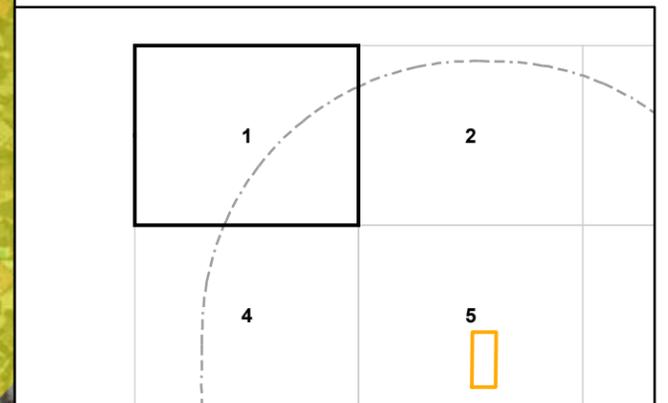
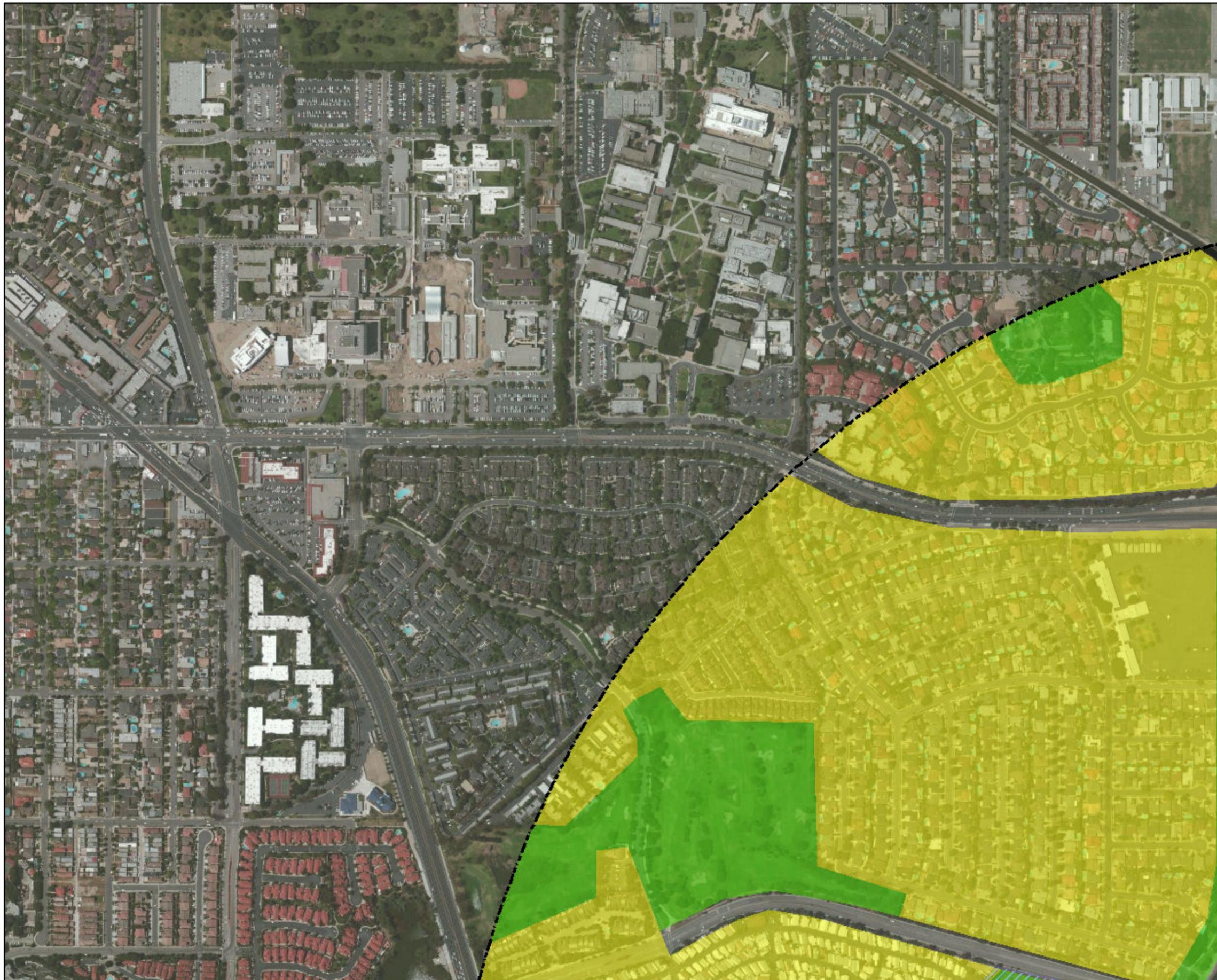


Figure 5.2-5a
HBEP - 19
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Los Cerritos Wetlands Area

Source: Protected areas from California Protected Areas Database (www.calands.org)
Los Cerritos Wetlands Authority (2010).

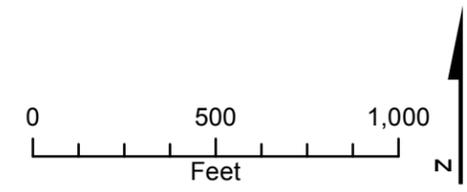
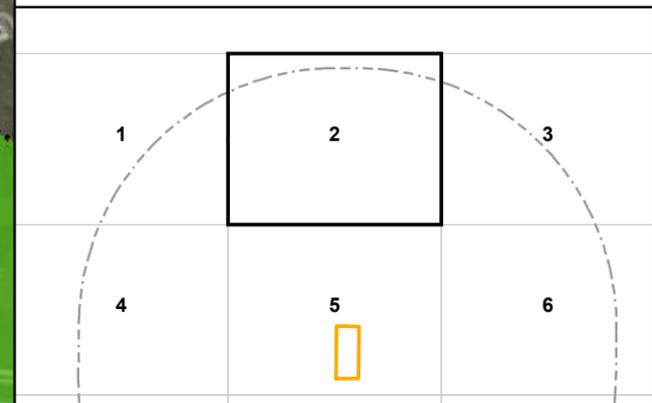
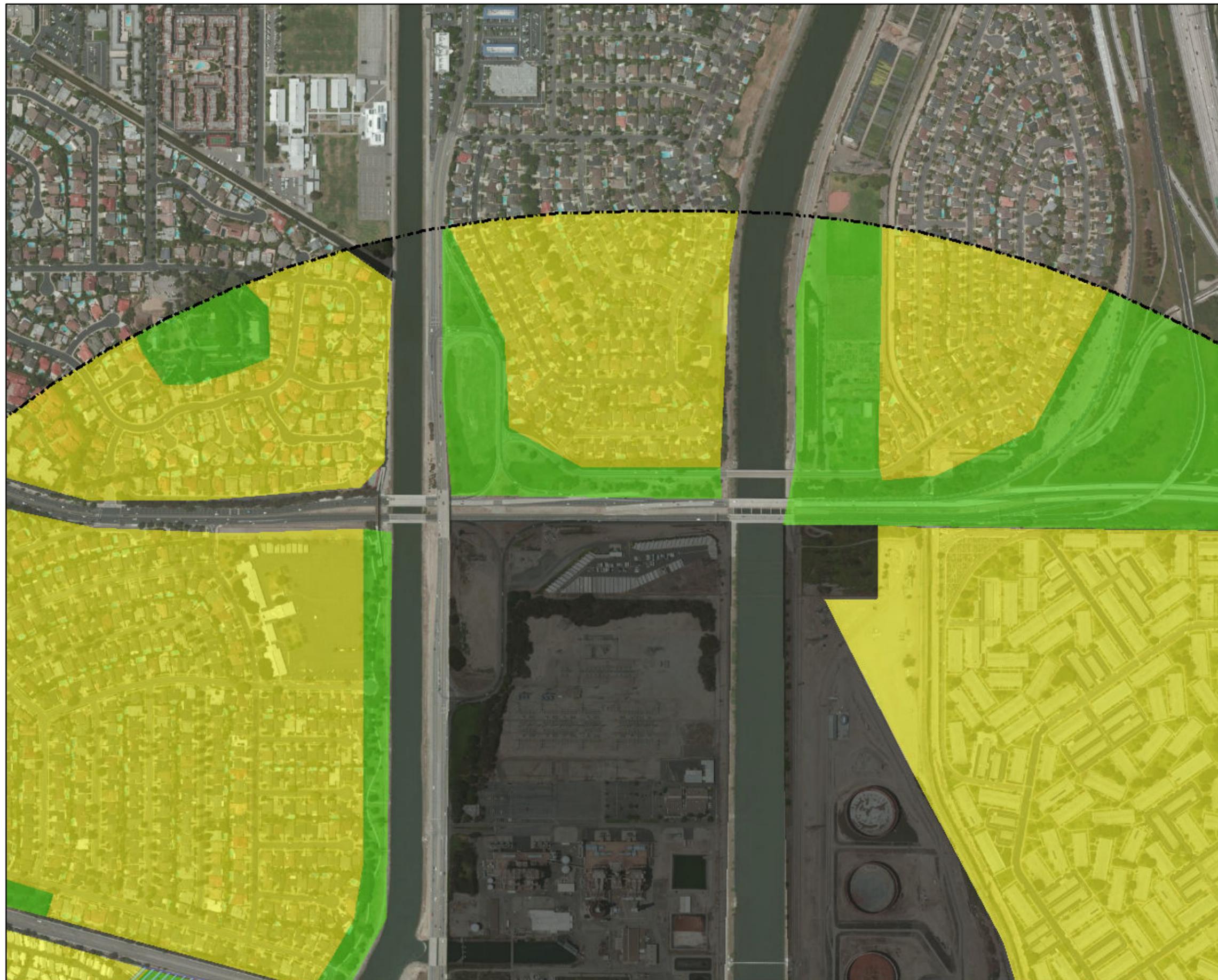


Figure 5.2-5b
Offsite Laydown Area - 01
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Los Cerritos Wetlands Area

Source: Protected areas from California Protected Areas Database (www.calands.org)
Los Cerritos Wetlands Authority (2010).

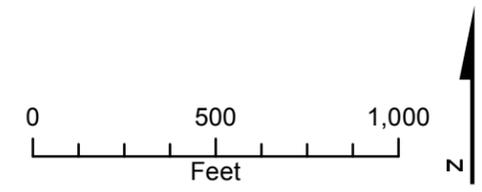
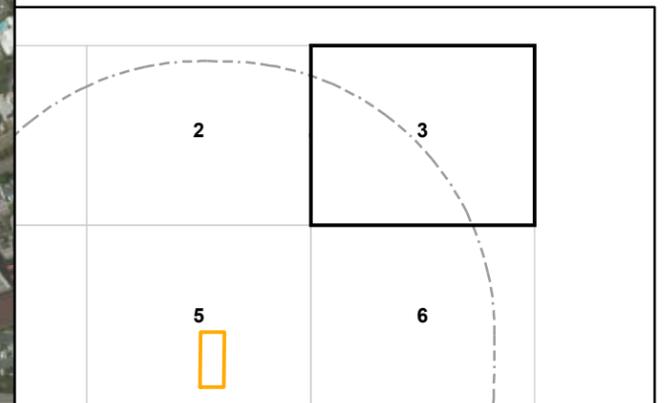
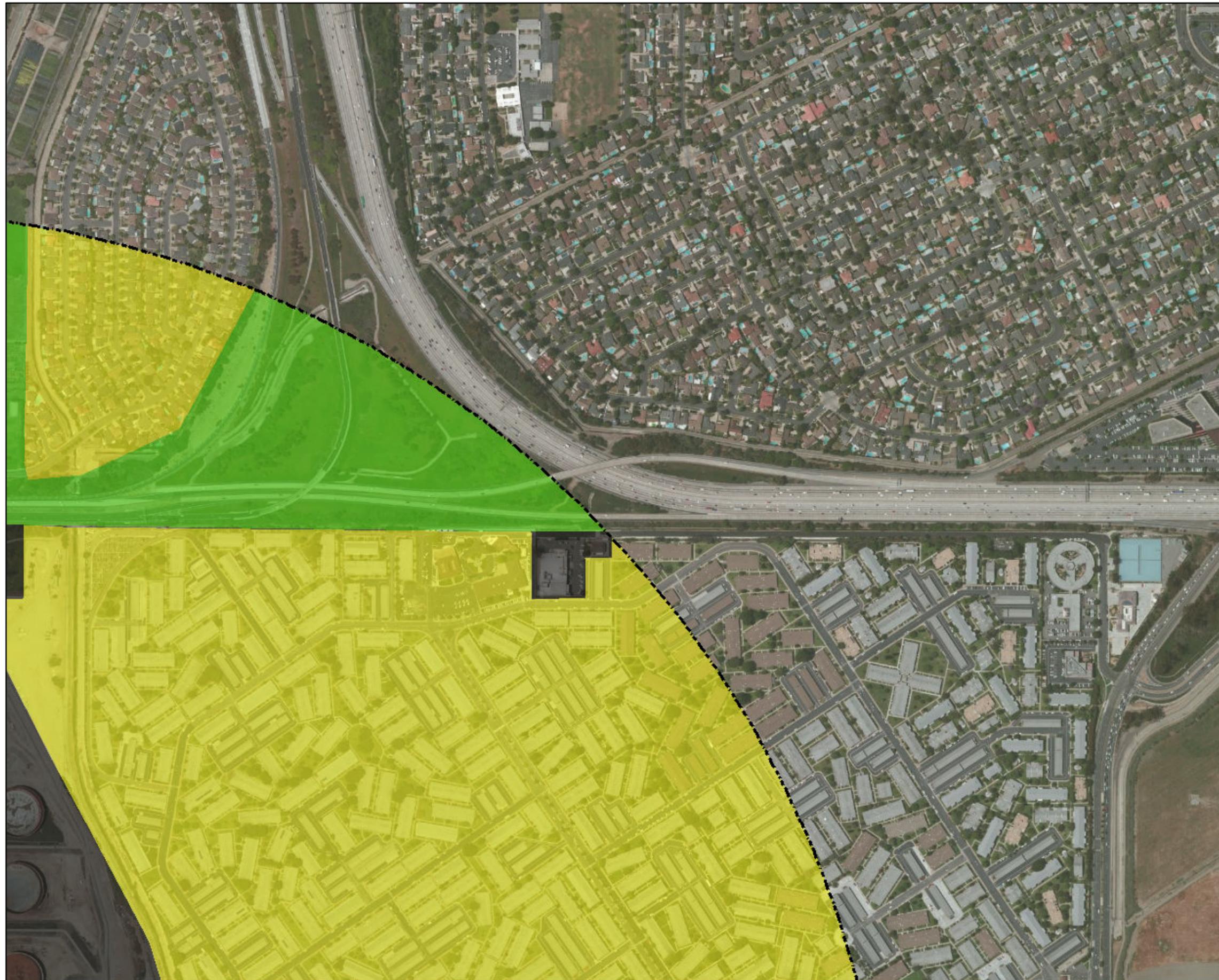


Figure 5.2-5b
Offsite Laydown Area - 02
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Los Cerritos Wetlands Area

Source: Protected areas from California Protected Areas Database (www.calands.org)
 Los Cerritos Wetlands Authority (2010).

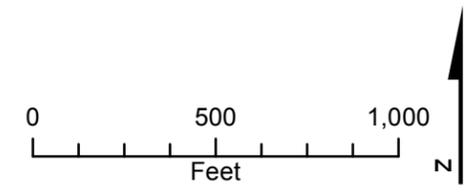
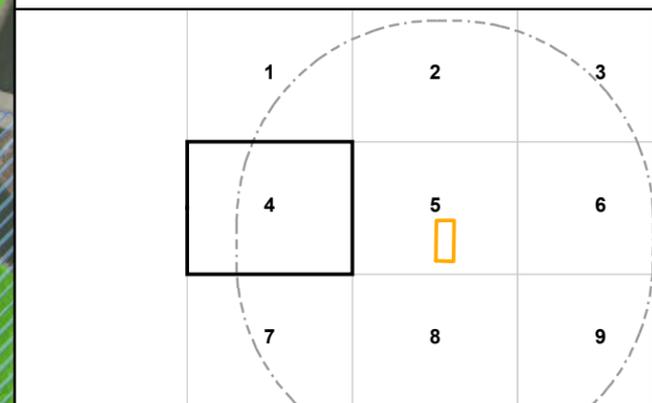
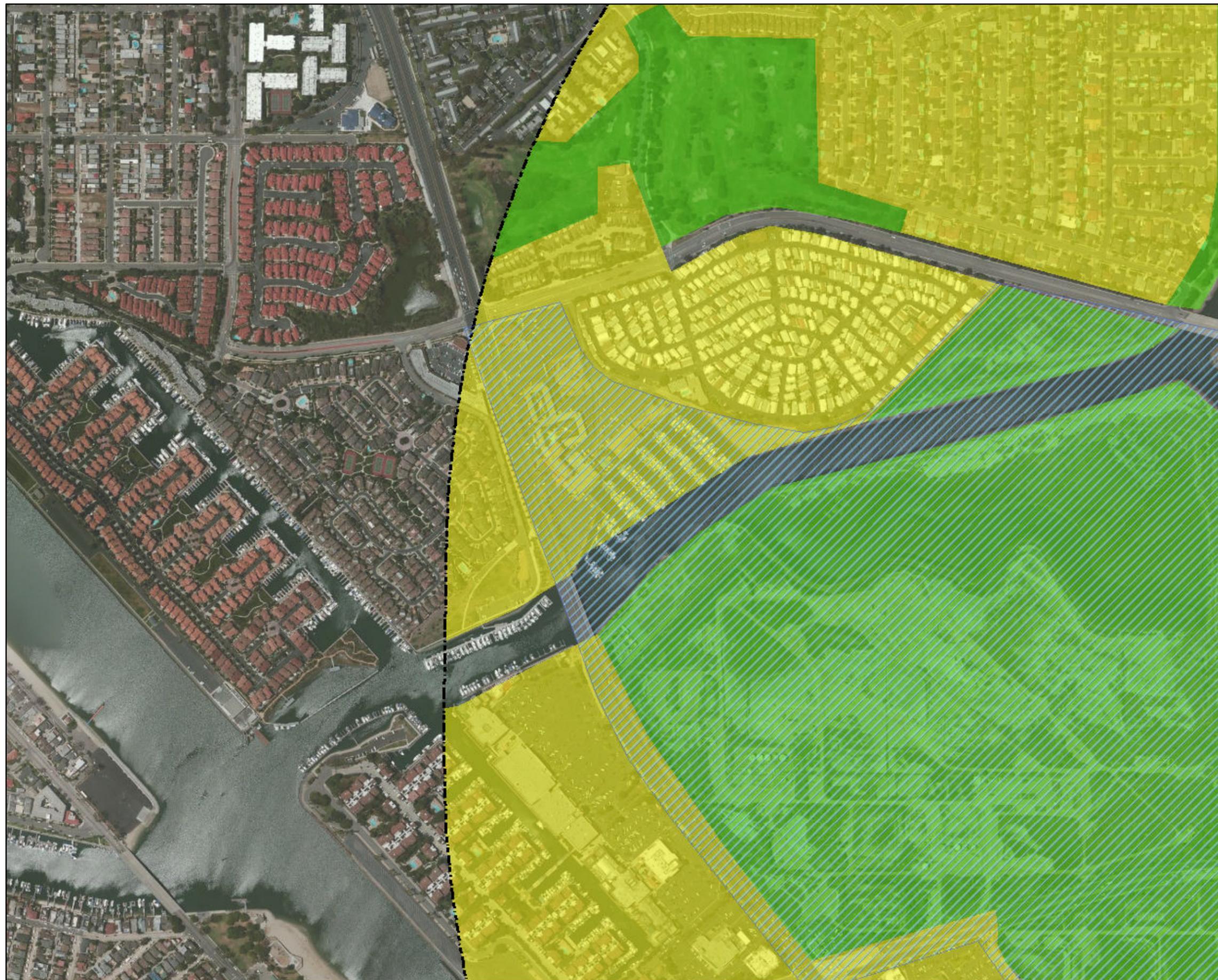


Figure 5.2-5b
Offsite Laydown Area - 03
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Los Cerritos Wetlands Area

Source: Protected areas from California Protected Areas Database (www.calands.org)
Los Cerritos Wetlands Authority (2010).

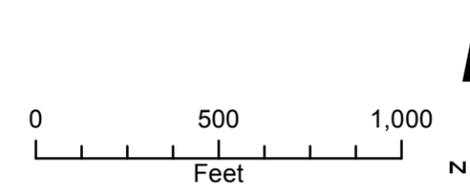
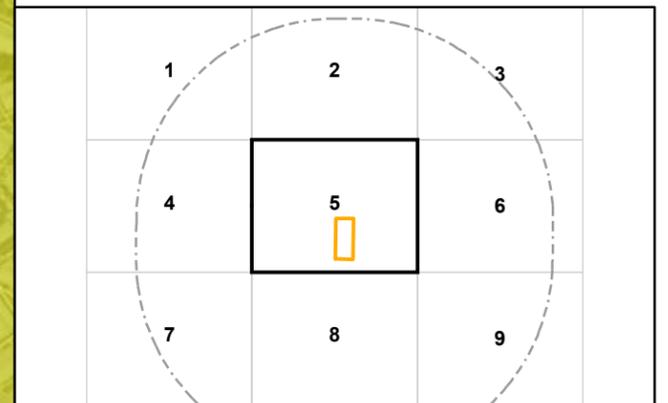


Figure 5.2-5b
Offsite Laydown Area - 04
Land Cover and Natural
Community Types
AES Huntington Beach Energy Project
Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Los Cerritos Wetlands Area

Source: Protected areas from California Protected Areas Database (www.calands.org)
 Los Cerritos Wetlands Authority (2010).

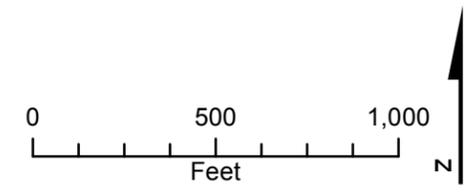
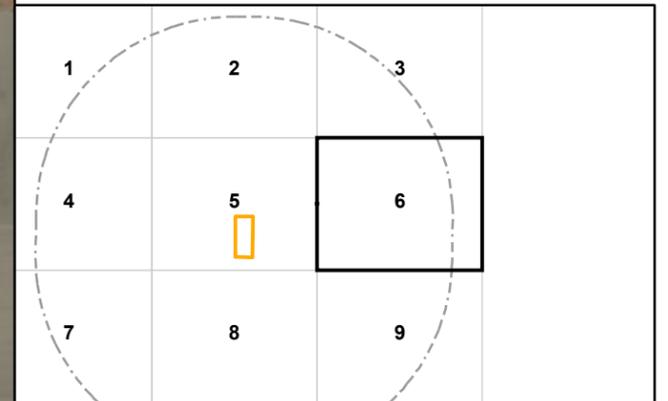


Figure 5.2-5b
Offsite Laydown Area - 05
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Los Cerritos Wetlands Area

Source: Protected areas from California Protected Areas Database (www.calands.org)
Los Cerritos Wetlands Authority (2010).

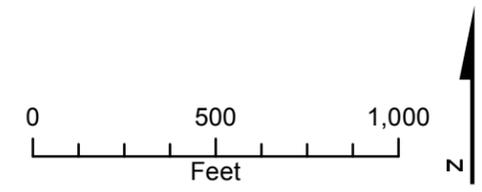
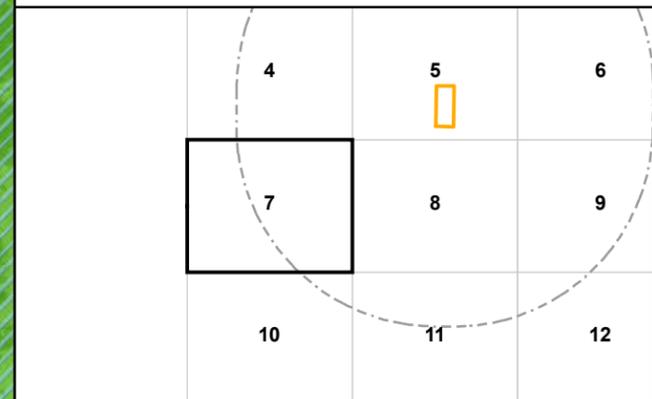
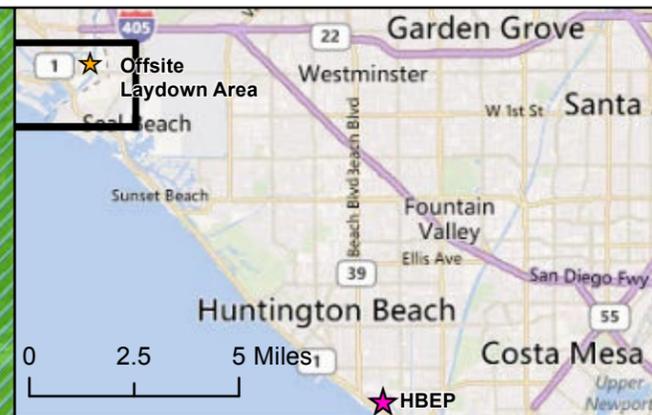
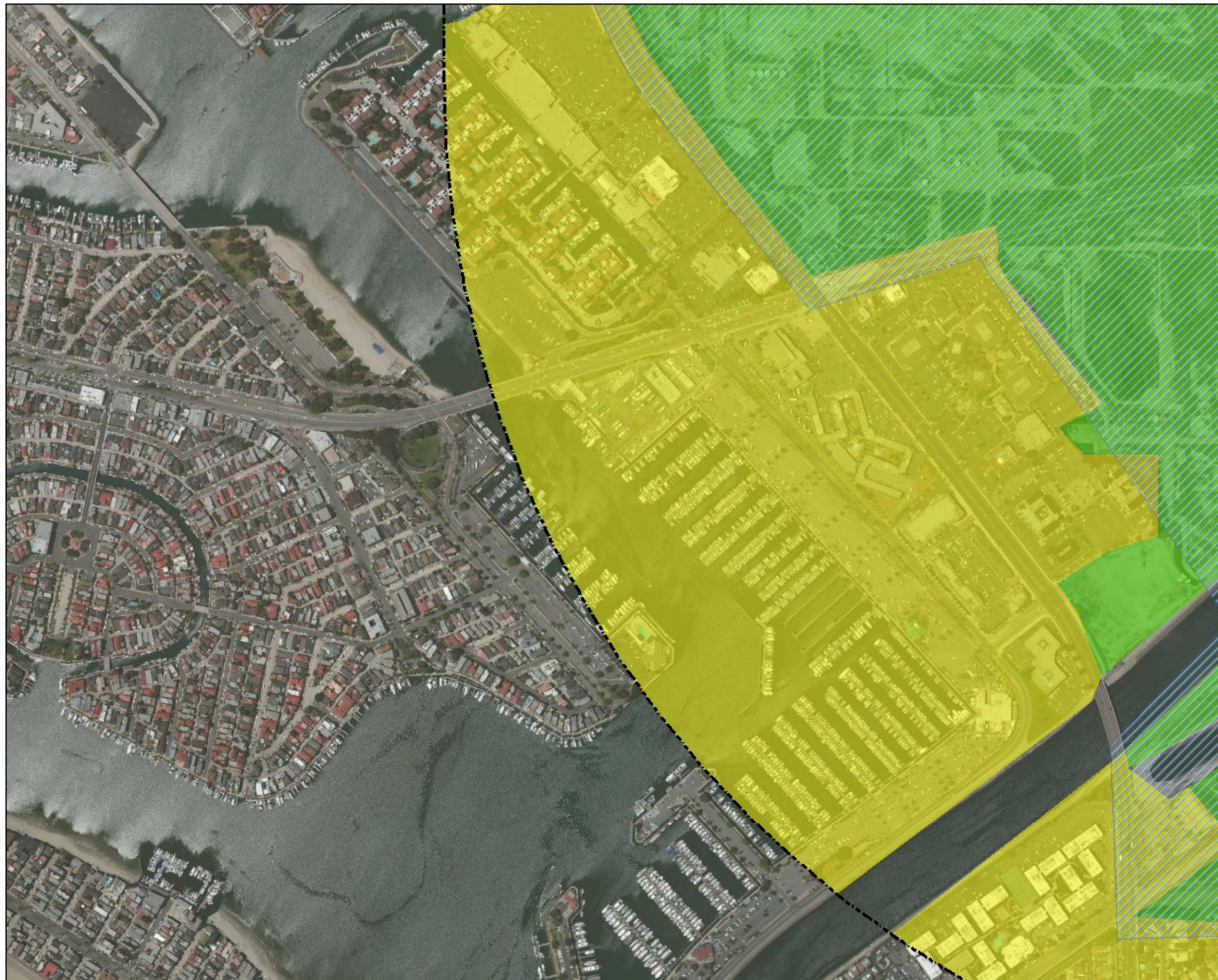


Figure 5.2-5b
Offsite Laydown Area - 06
Land Cover and Natural
Community Types
AES Huntington Beach Energy Project
Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Los Cerritos Wetlands Area

Source: Protected areas from California Protected Areas Database (www.calands.org)
 Los Cerritos Wetlands Authority (2010).

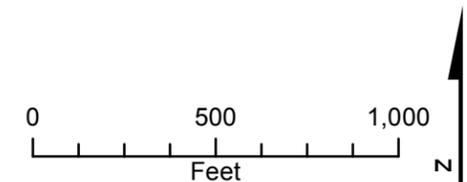
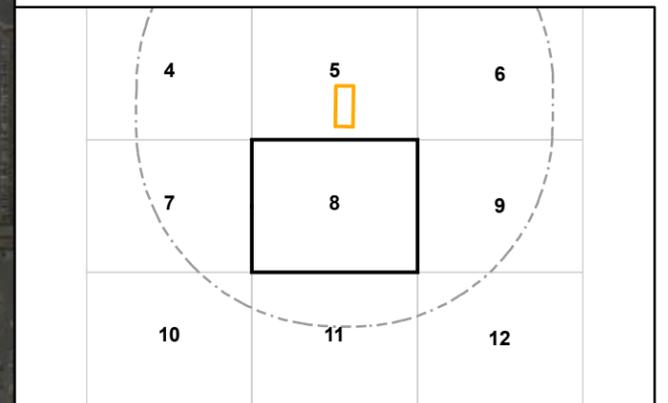


Figure 5.2-5b
Offsite Laydown Area - 07
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Los Cerritos Wetlands Area

Source: Protected areas from California Protected Areas Database (www.calands.org)
Los Cerritos Wetlands Authority (2010).

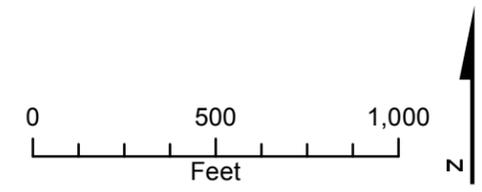
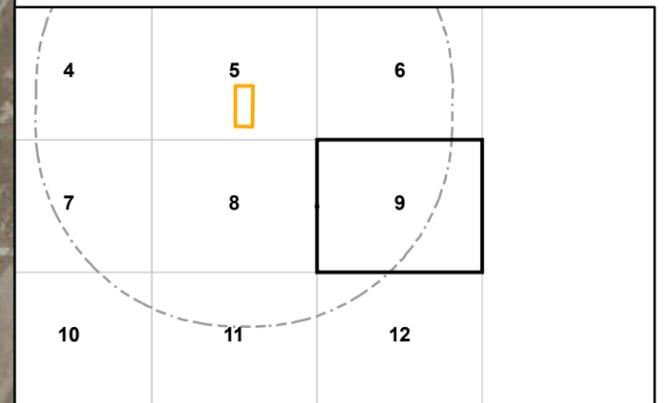
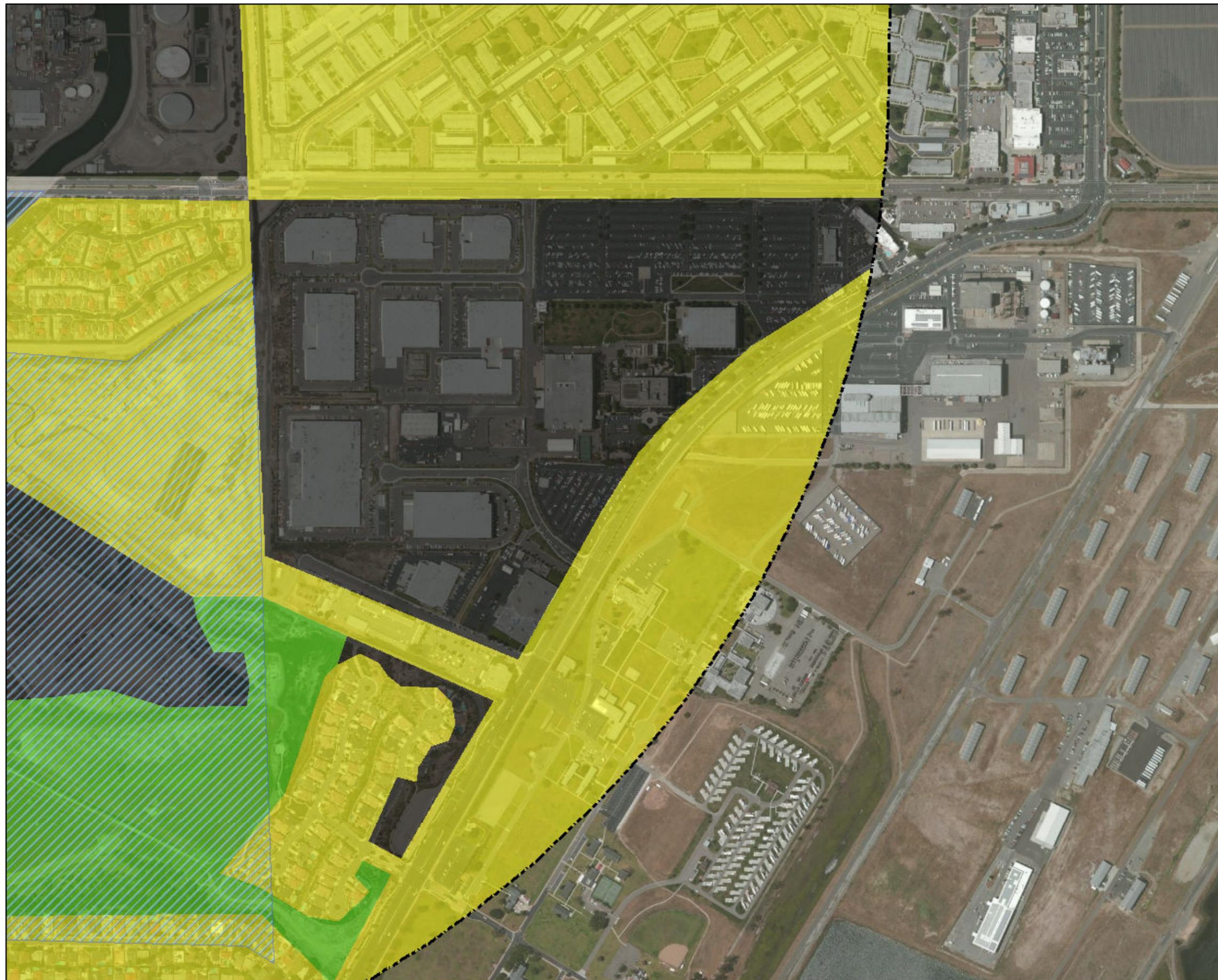


Figure 5.2-5b
Offsite Laydown Area - 08
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Los Cerritos Wetlands Area

Source: Protected areas from California Protected Areas Database (www.calands.org)
 Los Cerritos Wetlands Authority (2010).

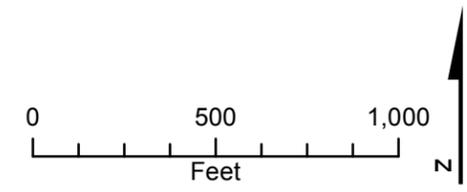
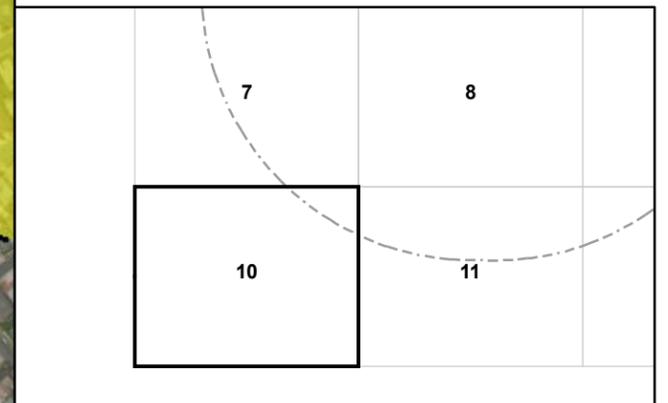


Figure 5.2-5b
Offsite Laydown Area - 09
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Los Cerritos Wetlands Area

Source: Protected areas from California Protected Areas Database (www.calands.org)
 Los Cerritos Wetlands Authority (2010).

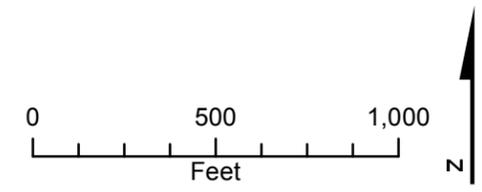
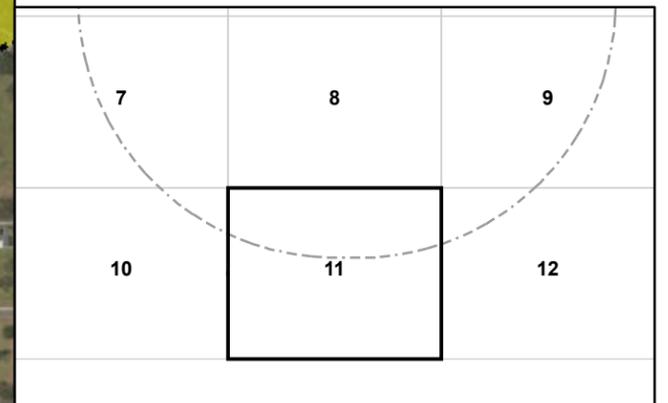
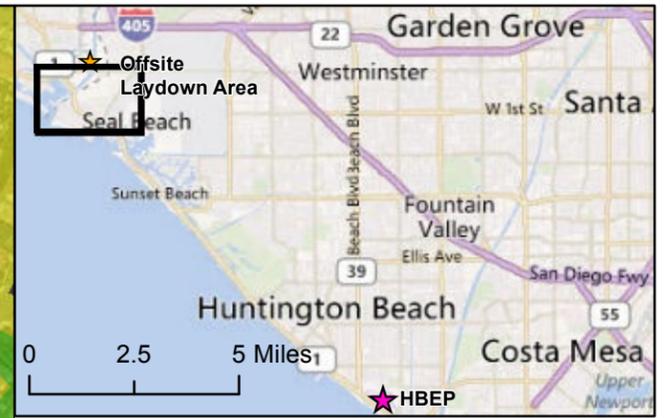


Figure 5.2-5b
Offsite Laydown Area - 10
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Los Cerritos Wetlands Area

Source: Protected areas from California Protected Areas Database (www.calands.org)
 Los Cerritos Wetlands Authority (2010).

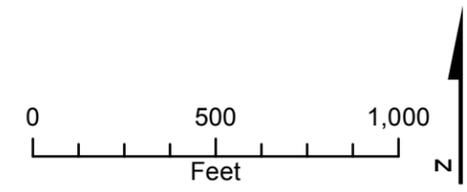
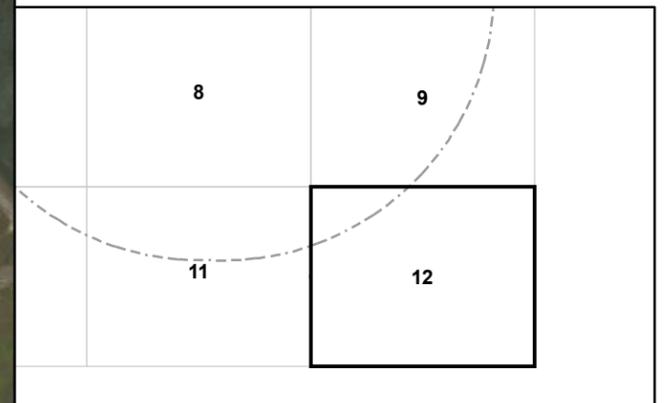
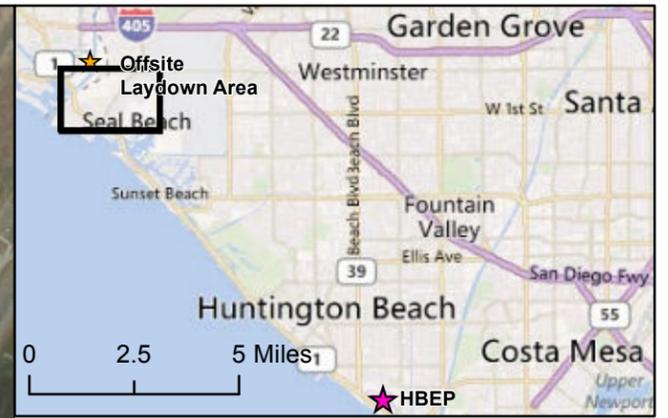


Figure 5.2-5b
Offsite Laydown Area - 11
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California



- Legend**
- AES Huntington Beach Generating Station
 - AES Huntington Beach Energy Project
 - 1-Mile Radius From Project Site
 - ASCON Landfill
 - Industrial
 - Parks and Open Space
 - Urban Development
 - Los Cerritos Wetlands Area

Source: Protected areas from California Protected Areas Database (www.calands.org)
 Los Cerritos Wetlands Authority (2010).

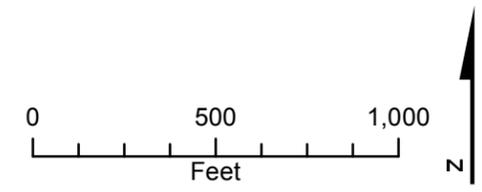


Figure 5.2-5b
Offsite Laydown Area - 12
Land Cover and Natural
Community Types
 AES Huntington Beach Energy Project
 Huntington Beach, California