

4.2 BIOLOGICAL RESOURCES

This section analyzes the proposed Single-Use Carryout Bag Ordinance's impacts to biological resources. Both direct impacts associated with the proposed Single-Use Carryout Bag Ordinance and indirect impacts to off-site biological resources are addressed.

4.2.1 Setting

a. Huntington Beach Biological Resources. Huntington Beach is located in Orange County's northern coastal area. This area is characterized by broad, sandy beaches backed by low bluffs and mesas, and lowland areas that once held extensive wetlands. There are two mesas within Huntington Beach: Bolsa Chica Mesa to the north and Huntington Beach Mesa to the south. These mesas are separated by the Bolsa Chica Gap, which includes the Bolsa Bay and the Bolsa Chica wetlands. North of the Bolsa Chica Mesa is the Sunset Gap with Anaheim Bay and Huntington Harbour. The following discusses marine waters, plant life, and wildlife for each of the ecological categories of Huntington Beach.

Marine Waters. The open waters of Huntington Harbour and Bolsa Bay provide habitat for a variety of fish and invertebrate species that utilize these sheltered waters either during early growth or throughout their lives. Due to the continued dredging within Huntington Harbour, the number of species using the harbor is smaller than in nearby Anaheim Bay; however, some of the commonly found fish in these waters include the deep body anchovy (*Anchoa compressa*), jacksmelt (*Atherinopsis californiensis*), topsmelt (*Atherinops affinis*), and Pacific staghorn sculpin (*Leptocottus armatus*). In addition, Anaheim Bay is an important nursery area for Pacific halibut (*Hippoglossus stenolepis*) and diamond turbot (*Hypsopsetta guttulata*). Juvenile fish may also live in the harbor area.

Typical aquatic invertebrates found in Huntington Beach would include those found on boat hulls, pilings and floats including bay mussel (*Mytilus trossulus*), acorn barnacles (*Sessilia* sp.), and tunicates (Tunicata).

Plant Life. The beaches, lowlands, bluffs, and mesas support a variety of plants and animals. The plant communities include coastal strand, coastal salt marsh, freshwater marsh and associated riparian habitat, landscaped ornamental and ruderal areas. These are described below.

Coastal Sand Dunes (Coastal Strand). The coastal strand plant communities, found on undisturbed sandy beaches and dunes above the high tide level, are divided into beach and dune communities. Few plants are adapted to survive the harsh conditions of the sandy beaches and dunes due to winds carrying sand and salt, shifting infertile sandy soil, and human disturbance. A few remaining vestiges of the original vegetation remain, consisting of plants such as sea rocket, beach-primrose, and beach morning-glory. Non-native species such as New Zealand spinach, and several species of ice plant, have aggressively pioneered in areas that have been disturbed.

Remnants of dunes along Pacific Coast Highway (PCH) and near the Huntington Beach Wetland support several shrub species. These dune shrubs are a mixture of native and non-



native species. Among the natives are three species of willow (*Salix* sp.), two species of *Baccharis*, and lemonade berry (*Rhus integrifolia*). Non-natives include various species of saltbrush, ice-plant (*Carpobrotus* sp.), castor bean (*Ricinus communis*) and myoporum (*Myoporum laetum*). Typical low growing plants include coastal goldenbush (*Isocoma menziesii*), western goldenrod (*Solidago lepida*), heliotrope (*Phacelia* sp.), beach primrose (*Chamissonia cheiranthifolia*) and saltgrass (*Distichlis spicata*).

Where the dune-salt marsh plant communities meet; spiny rush (*Juncus acutus*) and bulrush (*Scirpus robustus*) from dense stands in some areas (as between Brookhurst Street and Magnolia Street) while coastal goldenbush forms nearly pure stands in others (e.g., Brookhurst Street at PCH). Other plants associated with this transitional zone are western goldenrod (*Solidago lepida*), yerba mansa (*Anemopsis californica*) and saltgrass.

Coastal Salt Marsh. Plants of the coastal salt marsh community grow along the upper reach of the coastal estuarine community where they receive only periodic inundation by sea water. Freshwater streams often flow through this community and serve to dilute the salinity of the seawater. The salt marsh community embodies several distinct components: pickleweed marsh, salt flat, saltwater channel, saltwater pond, and a disturbed component.

The dominant plant is common pickleweed (*Salicornia bigelovii*). Other common plants include fivehook bassia (*Bassia hyssopifolia*), spear saltbush (*Atriplex joaquiniana*), saltgrass, and to a lesser extent, alkali health (*Frankenia salina*). Areas of higher elevation may have been subjected to periodic off-road vehicle traffic and are invaded by ruderal (or non-native weedy) species.

Grassland. The undeveloped portions of the Bolsa Chica Mesa and other upland areas to the west of the Bolsa Chica lowlands support grassland communities. Most of the grassland species are exotic, having been introduced early during the Spanish Colonial period, and favored by grazing activities. Species common to the grasslands here include bromes (*Bromus* sp.), mustard (*Brassica* sp.), filaree (*Erodium* sp.), Russian-thistle (*Salsola tragus*), and cardoon (*Cynara cardunculus*). Few native species persist, but one can still observe needlegrass (*Nassella* sp.), owl's clover (*Castilleja* sp.), and mariposa lily (*Calochortus* sp.).

Freshwater Marsh and Associated Riparian Habitats. Elements of this plant community are found in soil depressions and channels that fill and hold fresh water for at least part of the year, (i.e., Huntington Beach Central Park) and in coastal plains near permanent slow-moving or ponded waters. Some of the plants spring up from the middle of ponds, lakes or streams; others float upon deep water, but most thrive at the margins where the soil is more compact. Typical plants are cattails (*Typha* sp.), rushes (*Juncus* sp.), spike-rushes (*Eleocharis* sp.), duckweed (*Lemna* sp.), Douglas' water hemlock (*Cicuta douglasii*), and water smartweed (*Pesicaria amphibian*).

Growing in low elevation sandy soils along waterways are stands of medium to large trees that mature to form dense stands. In such habitats are Fremont cottonwood (*Populus fremontii*), arroyo willow (*Salix lasiolepis*), sandbar willow (*Salix exigua*), and mulefat (*Baccharis salicifolia*). An example of this habitat is found near Talbert Lake and at the terminus of the Freeman Creek channel.

Landscaped Ornamental. This community includes areas of ornamental and non-native trees, shrubs, and ground cover associated with urban development. These plant associations are artificial, perpetuated by cultural activities. For instance, Eucalyptus groves are located within portions of the Bolsa Chica area and other locations in the City. Also included are mowed lawns comprised of various non-native grasses, ornamental groundcover, shrubs, and trees.

Ruderal. Ruderal vegetation is found in areas frequently disturbed such as oil production areas or along roadsides. Typically, the dominant plant species are highly adaptive and invasive plants, commonly considered to be roadside weeds; however, there are a few native species. Typical native plants are California croton (*Croton californicus*), telegraph weed (*Heterotheca grandiflora*), pineapple weed (*Amblyopappus pusillus*), and tarweeds. Introduced plants are scarlet pimpernel (*Anagalis arvensis*), wild oats (*Avena* sp.), bromes, mustards, filarees, foxtail barley (*Hordeum* sp.), cheeseweed (*Malva* sp.), sweet-clovers (*Melolitus* sp.), Russian-thistle, and tocalote (*Centaurea melitensis*).

Wildlife. Coastal strand, coastal wetlands, and landscaped ornamental and ruderal areas provide habitat for a variety of wildlife, as described below.

Coastal Strand. Coastal strand provides wildlife habitat to reptiles, birds and mammals. Reptiles are limited in both species diversity and abundance in the coastal strand community, and amphibians generally do not occur. The side-blotched lizard (*Uta stansburiana*) is plentiful away from the outer beaches, and the San Diego (southern) alligator lizard (*Elgaria multicarinata*) may be found in small numbers in the remnant dune areas.

Another reptile that may occur within the coastal strand is the silvery (California) legless lizard (*Anniella pulchra*). This species is typically found in sand dunes where it buries itself beneath the sand under shrubs. Although it has not been recorded in the Huntington Beach area, it has been found in similar circumstances farther north at Playa Del Rey in Los Angeles County. This species has become increasingly scarce in recent years with accelerated loss of suitable habitat.

Birds are the only vertebrates within the coastal strand community that are abundant. Many species of shorebirds and gulls use the upper beach as loafing areas and the intertidal zone and inshore waters for foraging. One species, the California least tern (*Sterna antillarum brownii*), nests on exposed beaches where, in populous southern California, it is often placed in direct competition with sunbathers for breeding sites. As a direct result of increased human use of beaches in California, least tern populations have declined significantly. In 1971 it was placed on both the federal and state list of endangered species. Least terns have traditionally nested at the mouth of the Santa Ana River and continue to do so adjacent to the mouth of Talbert Channel and at Bolsa Chica.

A few landbirds such as the rock dove (*Columba livia*), American crow (*Corvus brachyrhynchos*), house finch (*Carpodacus mexicanus*), American kestrel (*Falco sparverius*), and loggerhead shrike (*Lanius ludovicianus*) utilize the upper beach. Where the remnant dunes support a narrow but dense cover of shrubs, numerous species of perching birds may be found, especially during periods of migration. The most abundant resident species are house finch and European starling.



Mammals within the coastal strand are generally restricted to the narrow zone of fragmented dunes along PCH. The Audubon cottontail (*Sylvilagus audubonii*) is plentiful here and several species of nocturnal rodents are also expected to occur. It is likely that the native deer mouse (*Peromyscus maniculatus*), the introduced house mouse (*Mus musculus*), and perhaps the introduced Norway rat (*Rattus norvegicus*) occur.

Coastal Wetland. Salt marsh communities are among the most productive of ecosystems supporting a large wildlife population. Although most amphibians are not adapted to a marine or estuarine existence, a few species may enter brackish portions of the salt marsh from nearby freshwater habitats. The Baja California treefrog (*Psuedacris hypochondriaca*) and California (western) toad (*Anaxyrus boreas halophilus*) may be present in the freshwater marsh west of Beach Boulevard, as may the introduced bullfrog. The garden (Pacific) slender salamander (*Batrachoseps major major*) is a widespread inhabitant of moist soils and can thrive even around well-watered lawns and gardens. Historically, this species occupied in riparian woodland along the Santa Ana River, and has since spread into the landscaped residential areas.

Several species of lizards and snakes are expected to occur in the coastal wetlands, above areas of tidal flux. Species likely to occur include Great Basin fence lizard (*Sceloporus occidentalis longipes*), side-blotched lizard, southern alligator lizard, California kingsnake (*Hypsiglena ochrorhyncha nuchalata*), San Diego gopher snake (*Pituophis catenifer annectens*), and southern Pacific rattlesnake (*Crotalus oreganus helleri*).

Birds are abundant inhabitants of the coastal wetlands. Salt marshes, salt flats, and estuaries nest more species and larger concentrations of birds per unit area than perhaps any other ecosystem in temperate North America. Migrant and wintering waterfowl, waders, shorebirds, gulls and terns constitute the bulk of avian species that utilize estuarine habitats for foraging and resting. Most nesting birds in coastal salt marshes are the smaller, less conspicuous landbirds. One such species, the Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), is a common inhabitant of pickleweed salt marshes. The subspecies of savannah sparrow, however, has been reduced in numbers, due to habitat loss, and is now considered an endangered species by the California Department of Fish and Game. Other birds that nest in the salt marsh are the song sparrow (*Melospiza melodia*) and western meadowlark (*Sturnella neglecta*) in the upper portions, marsh wren (*Cistothorus palustris*) in the reeds and sedges, and killdeer (*Charadrius vociferous*) on the salt flats. In the small freshwater marshes, breeding birds likely include the red-winged blackbird (*Agelaius phoeniceus*), song sparrow and marsh wren. The federal and state endangered California least tern has been observed feeding on mosquito fish in the pond below the SCE power plant and on small marine fish in the Bolsa Chica area. This usually occurs when its chicks are young and small fish may not be readily available elsewhere.

The freshwater wetlands have a different character than do saltwater communities, and support a somewhat different mix of species. Although the freshwater drainages and ponds are degraded and consequently do not support bird populations as rich in diversity or number as would healthy areas, occasionally dabbling ducks (Subfamily Anatidae) or long-legged waders such as the black-crowned night-heron (*Nycticorax nycticorax*) may be found feeding. Additionally, species more typical of other habitats use these areas as a water source for drinking and bathing. Terrestrial species expected around the freshwater wetlands include



black-chinned hummingbird (*Archilochus alexandri*), ash-throated flycatcher (*Myiarchus cinerascens*), house wren (*Troglodytes aedon*), common yellowthroat (*Geothlypis trichas*), brown-headed cowbird (*Molothrus ater*), and house finch (*Carpodacus mexicanus*).

The most conspicuous, and perhaps most abundant, mammal in the salt marsh is the Audubon's cottontail. Other mammals presumed to be plentiful here are the black-tailed hare, California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), and several nocturnal rodents, such as the deer mouse, western harvest mouse (*Reithrodontomys megalotis*), house mouse, and Norway rat. Predators such as the Virginia opossum (*Didelphis virginiana*), coyote (*Canis latrans*), long-tailed weasel (*Mustela frenata*), red fox (*Vulpes vulpes*), and striped skunk (*Mephitis mephitis*) are also likely to be present.

Landscaped Ornamental and Ruderal Areas. Human-induced habitats, such as landscaped and ruderal areas, tend to have limited diversity depending upon the structure of the habitat. Examples of such habitats within the General Plan area are non-native woodlands on the Bolsa Chica Mesa and Central Park. As these areas are typically found in developed and highly disturbed areas, they are frequently home to common, highly adaptable species. Common amphibians and reptiles found in these types of habitats include the garden slender salamander, Baja California tree frog, western fence lizard, and southern alligator lizard. Bird species found human-induced habitat may include Anna's hummingbird (*Calypte anna*), western scrub jay (*Aphelocoma californica*), American robin (*Turdus migratorius*), northern mockingbird (*Mimus polyglottis*), European starling (*Sturnus vulgaris*), and house finch. Where human presence is not as immediate, large eucalyptus trees are often utilized by raptors such as red-tailed hawk (*Buteo jamaicensis*) and red-shouldered hawk (*Buteo lineatus*) for perching and perhaps nesting, while the common barn owl frequently lives in large fan palms.

b. Sensitive Resources. Sensitive natural communities and special status plant and animal species that may inhabit Huntington Beach are listed in Table 4.2-1. The locations of special-status species and critical habitat documented in the vicinity of the City as listed on the California Natural Diversity Database (CNDDDB) are mapped on Figures 4.2-1a and 4.2-1b.



**Table 4.2-1
 Natural Communities and Special Status Plant and Animal Species
 in Huntington Beach**

Species	Status¹ Fed/CA/CNPS	Habitat Requirements and Blooming Period
Natural Communities		
Southern Coastal Salt Marsh	S2.1	n/a
Southern Cottonwood Willow Riparian Forest	S3.2	n/a
Southern Dune Scrub	S1.1	n/a
Southern Foredunes	S2.1	n/a
Plants		
<i>Abronia villosa</i> var. <i>aurita</i> chaparral sand-verbena	--/--/1B.1	Annual herb; chaparral and coastal scrub; sandy areas.
<i>Aphanisma blitoides</i> Aphanisma	--/--/1B.2	Annual herb that blooms from March to June; occurs in sandy soils from 3 to 1000 feet in coastal bluff scrub, coastal dunes and coastal scrub.
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i> Ventura marsh milk-vetch	E/E/1B.1	Perennial herb; coastal salt marsh; within reach of high tide or protected by barrier beaches, more rarely near seeps on sandy bluffs.
<i>Atriplex coulteri</i> Coulter's saltbush	--/--/1B.2	Perennial herb; coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland; on ocean bluffs, ridgetops, as well as alkaline low places.
<i>Atriplex pacifica</i> South Coast saltscale	--/--/1B.2	Annual herb; coastal scrub; coastal bluff scrub; playas; chenopod scrub; on alkali soils.
<i>Atriplex serenana</i> var. <i> davidsonii</i> Davidson's saltscale	--/--/1B.2	Coastal bluff scrub and coastal scrub on alkaline soils; blooms from April to October.
<i>Calystegia sepium</i> ssp. <i>binghamiae</i> Santa Barbara morning-glory	--/--/1A	Perennial rhizomatous herb; coastal marshes.
<i>Centromadia</i> (= <i>Hemizonia</i>) <i>parryi</i> ssp. <i>australis</i> Southern spikeweed	--/--/1B.1	Annual herb; margins of marshes and swamps; vernal mesic areas of valley and foothill grasslands; vernal pools.
<i>Centromadia parryi</i> ssp. <i>australis</i> southern tarplant	--/--/1B.1	Annual herb; blooms May to November; occurs in the margins of marshes and swamps, in vernal pools, and in valley and foothill grasslands; ranges from 0 to 1,394 feet.
<i>Chorizanthe staticoides</i> Turkish rugging	--/--/--	Annual herb; coastal scrub and chaparral; no longer considered sensitive.
<i>Cordylanthus maritimum</i> ssp. <i>maritimum</i> salt marsh bird's beak	E/E/1B.2	Hemiparasitic, annual herb; blooms May through October; occurs in coastal dunes, coastal salt marshes and swamp at elevations ranging from 0 to 98 feet.



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<i>Dudleya multicaulis</i> many-stemmed dudleya	--/--/1B.2	Perennial herb; chaparral; coastal scrub; valley and foothill grassland; in heavy, often clayey soils or grassy slopes.
<i>Helianthus nuttallii</i> ssp. <i>parishii</i> Los Angeles sunflower	--/--/1A	Perennial rhizomatous herb; marshes and swamps (coastal salt and freshwater).
<i>Juncus acutus</i> ssp. <i>Leopoldii</i> (=var. <i>sphaerocarpus</i>) Southwestern spiny rush	--/--/4.2	Perennial rhizomatous herb; coastal dunes (mesic), meadows and seeps (alkaline seeps), and marshes and swamps (coastal salt).
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	--/--/1B.1	Annual herb; blooms February through June; ranges from 3 to 4000 feet in elevation and occurs in playas, vernal pools, and coastal salt marshes and swamps.
<i>Nama stenocarpum</i> mud nama	--/--/2.2	Annual or perennial herb; marshes and swamps; lake shores; river banks; intermittently wet areas.
<i>Nasturtium gambellii</i> Gambel's water cress	E/T/1B.1	Rhizomatous, perennial herb; blooms April through September; ranges from 16 to 1082 feet in elevation and is found in freshwater or brackish marshes and swamps, as well as the margins of lakes and streams.
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	--/--/1B.1	Annual herb; coastal scrub; valley and foothill grassland; vernal pools; alkaline soils in grassland, or in vernal pools; mesic, alkaline sites.
<i>Nemacaulis denudata</i> var. <i>denudata</i> coast woolly-heads	--/--/1B.2	Annual herb; coastal dunes.
<i>Perideridia gairdneri</i> ssp. <i>gairdneri</i> Gardiner's yampah	--/--/4.2	Perennial herb; vernal mesic sites; broadleaved upland forest, chaparral, coastal prairie, valley and foothill grassland, and vernal pools.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	--/--/1B.2	Perennial rhizomatous herb; marshes and swamps; in standing or slow-moving freshwater ponds, marsh, and ditches.
<i>Sidalcea neomexicana</i> Salt Spring checkerbloom	--/--/2.2	Perennial herb; alkali playas, brackish marshes, chaparral, coastal scrub, lower montane conifer forest, Mojavean desert scrub; in alkali springs and marshes.
<i>Suada esteroa</i> estuary seablite	--/--/1B.2	Perennial herb that blooms May through October; found in coastal salt marshes and swamps from 0 to 16 feet.
<i>Symphyotrichum defoliatum</i> San Bernardino aster	--/--/1B.2	Perennial rhizomatous herb; meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, montane conifer forest, grassland; in vernal mesic grassland or near ditches, streams and springs; disturbed areas.
<i>Verbesina dissita</i> Crown-beard	T/T/1B.1	Perennial herb; maritime chaparral and coastal scrub.



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Species	Status ¹ Fed/CA/CNPS	Habitat Requirements and Blooming Period
Mammals		
<i>Eumops perotis californicus</i> western mastiff bat	--/CSC/--	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.
<i>Lasiurus cinereus</i> hoary bat	--/--/--	Roosts in dense foliage of large trees. Requires water. Prefers open habitats or habitat mosaics with access to trees for cover and open areas of habitat edge for feeding.
<i>Lasiurus xanthinus</i> western yellow bat	--/CSC/--	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.
<i>Microtus californicus stephensi</i> south coast marsh vole	--/CSC/--	Tidal marshes.
<i>Sorex ornatus salicornicus</i> southern California saltmarsh shrew	--/CSC/--	Coastal marshes with dense vegetation and woody debris for cover.
Pacific pocket mouse <i>Perognathus longimembris pacificus</i>	E/CSC/--	Narrow coastal plains from the Mexican border north to El Segundo, Los Angeles County. Seems to prefer soils of fine alluvial sands near the ocean, but much remains to be learned.
<i>Taxidea taxus</i> American badger	--/CSC/--	Open grasslands and edge of scrub and woodland habitats. Requires dry, loose soils for burrowing and shelter.
Birds		
<i>Accipiter cooperi</i> Cooper's hawk	--/WL/-- (nesting)	Woodland, chiefly open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms and flood plains; also live oaks.
<i>Agelaius tricolor</i> tricolored blackbird	--/CSC/-- (nesting colony)	Prefers riparian habitat, ponds, and other wetland habitats. Colonial nester in emergent vegetation surrounding open water.
<i>Ardea Herodias</i> great blue heron	--/--/-- (nesting colony)	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also live oaks.
<i>Athene cunicularia</i> burrowing owl	--/CSC/-- (burrow sites, some wintering sites)	Burrow sites in open dry annual or perennial grasslands, deserts and scrublands characterized by low growing vegetation. Also inhabits anthropogenic habitats such as campuses, golf courses, cemeteries, airports, and grazed pastures.
<i>Buteo regalis</i> ferruginous hawk	--/WL/-- (wintering)	Open grasslands, sagebrush flats, desert scrub, low foothills & fringes of pinyon-juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.
<i>Charadrius alexandrinus nivosus</i> western snowy plover	T/CSC/-- (nesting)	Sandy beaches, salt pond levees or shores of large alkali lakes. Sandy, gravelly or friable soils required for nesting.
<i>Circus cyaneus</i> northern harrier	--/CSC/-- (nesting)	Coastal salt and fresh-water marsh. Nests & forages in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge.
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	C/E (nesting)	Dense riparian woodlands of cottonwood and willow abutting slow-moving water, with a thick understory for nesting and foraging.
<i>Cypseloides niger</i> black swift	--/CSC/-- (nesting)	Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf.



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<i>Egretta thula</i> snowy egret	--/--/-- (nesting colony)	Colonial nester, with nest sites situated in protected beds of dense tules. Rookery sites situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes.
<i>Elanus leucurus</i> white-tailed kite	--/FP/-- (nesting)	Rolling foothills and valley margins with scattered oaks; river bottomlands or marshes next to deciduous woodland. Grasslands, meadows, marshes for foraging.
<i>Laterallus jamaicensis coturniculus</i> California black rail	--/T,FP/--	Freshwater marshes, wet meadows, and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that does not fluctuate during the year and dense vegetation for nesting habitat.
<i>Nycticorax nycticorax</i> black-crowned night-heron	--/--/-- (nesting colony)	Colonial nester, usually in trees, occasionally in tule patches. Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots.
<i>Pandion haliaetus</i> osprey	--/WL/-- (nesting)	Ocean shore, bays, fresh-water lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.
<i>Passerculus sandwichensis beldingi</i> Belding's savannah sparrow	--/E/--	Coastal salt marshes from Santa Barbara south through San Diego County. Nests in <i>Salicornia</i> sp. on and about margins of tidal flats.
<i>Pelecanus erythrorhynchos</i> American white pelican	--/CSC/-- (nesting colony)	Colonial nester on large interior lakes. Nests on large lakes, providing safe roosting and breeding places in the form of well-sequestered islets.
<i>Pelecanus occidentalis californicus</i> California brown pelican	D/D,FP--- (nesting colony & communal roosts)	Nests on rocky coastal islands and forages in near shore coastal waters and channels of estuaries and lagoons.
<i>Polioptila californica californica</i> coastal California gnatcatcher	T/CSC/--	Obligate, permanent resident of low coastal sage scrub on flat or gently sloping terrain below 2500 feet.
<i>Rallus longirostris levipes</i> light-footed clapper rail	E/E,FP/--	Coastal salt marshes; nests primarily in cordgrass and salicornia and foarges in higher marsh vegetation and along mudflat interfaces and tidal creeks.
<i>Riparia riparia</i> bank swallow	--/T (nesting)	Colonial nester, primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.
<i>Rynchops niger</i> black skimmer	--/CSC/-- (nesting colony)	Nests on gravel bars, low islets, and sandy beaches, in unvegetated sites. Nesting colonies usually less than 200 pairs.
<i>Sternula antillarum browni</i> California least tern	E/E,FP/-- (nesting colony)	Nests along coast from San Francisco Bay to northern Baja California. Nests on sandy beaches, alkali flats, landfills or paved areas.
<i>Vireo bellii pusillus</i> least Bell's vireo	E/E (nesting)	Summer resident of cottonwood-willow forest, oak woodland, shrubby thickets, and dry washes with willow thickets at the edges. This species prefers dense willow-dominated riparian habitat with lush understory vegetation where they nest in shrubs or small trees and glean insects off vegetation.
Reptiles & Amphibians		
<i>Actinemys marmorata</i> Pacific (=western) pond turtle	--/CSC/--	Rivers, ponds, freshwater marshes; nests in upland areas (sandy banks or grassy open fields) up to 1640 feet from water.



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<i>Anniela pulchra pulchra</i> Silvery (California) legless lizard	--/CSC	Occurs in dune scrub, coastal scrub, chaparral, pine-oak woodland, oak woodland, and riparian woodland. Requires loose soil for burrowing, moisture, warmth, and plant cover. Burrows in washes, dune sand, loose soil near bases of slopes, and near permanent or temporary streams.
<i>Aspidoscelis hyperythra</i> orangethroat whiptail	--/CSC/--	Low-elevation coastal scrub, chaparral, and valley and foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food: termites.
<i>Phrynosoma blainvilli</i> coast horned lizard	--/CSC/--	Clearings in riparian woodlands, lowlands along sandy washes with scattered low bushes; open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.
Fish		
<i>Eucycloglobius newberryi</i> Tidewater goby	E/CSC	Brackish water habitats along the California coast from San Diego county to Del Norte county.
Invertebrates		
<i>Branchinecta sandiegonensis</i> San Diego fairy shrimp	E/--/--	Endemic to San Diego and Orange County mesas. Vernal pools.
<i>Cicindela gabbii</i> western tidal-flat tiger beetle	--/--/--	Estuaries and mudflats along the coast of southern California. Generally found on dark-colored mud in the lower zone. Occasionally found on dry saline flats of estuaries.
<i>Cicindela hirticollis gravida</i> sandy beach tiger beetle	--/--/--	Areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico. Clean, dry, light-colored sand in the upper zone. Subterranean larvae prefer moist sand not affected by wave action.
<i>Cicindela latesignata latesignata</i> western beach tiger beetle	--/--/--	Mudflats and beaches in coastal southern California.
<i>Cicindela senilis frosti</i> senile tiger beetle	--/--/--	Inhabits marine shoreline, from central California coast south to the salt marshes of San Diego. Also found at Lake Elsinore. Inhabits dark-colored mud in the lower zone and dried salt pans in the upper zone.
<i>Coelus globosus</i> globose dune beetle	--/--/--	Coastal sand dune habitat, from Bodega Head in Sonoma County south to Ensenada, Mexico. Inhabits foredunes and sand hummocks. Burrows beneath sand surface and is most common beneath dune vegetation.
<i>Danaus plexippus</i> monarch butterfly	--/--/-- (overwintering)	Roosts in wind-protected tree groves (eucalyptus, Monterey pine, cypress) with nectar and water sources nearby. Species is common in general, but overwintering habitat protected by Santa Barbara County.
<i>Panoquina errans</i> wandering (=saltmarsh) skipper	--/--/--	Southern California coastal salt marshes. Requires moist salt grass for larval development.
<i>Trigonoscuta dorothea dorothea</i> Dorothy's El Segundo dune weevil	--/--/--	Coastal sand dunes in Los Angeles County.
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	--/--/--	Coastal lagoons, estuaries and salt marshes from Sonoma County south to San Diego County. Found only in permanently submerged areas in a variety of sediment types. Able to withstand a wide range of salinities.

¹'E' = Endangered; 'T' = Threatened; 'CSC' = California Species of Special Concern; 'FP' = Fully Protected; 'WL' = Watch List; 'D' = Delisted. Natural Communities include State Rank. Sources: City of Huntington Beach General Plan Environmental Resources/Conservation Element; CDFG 2011a; CDFG 2011b; CDFG 2003.
 n/a = not applicable

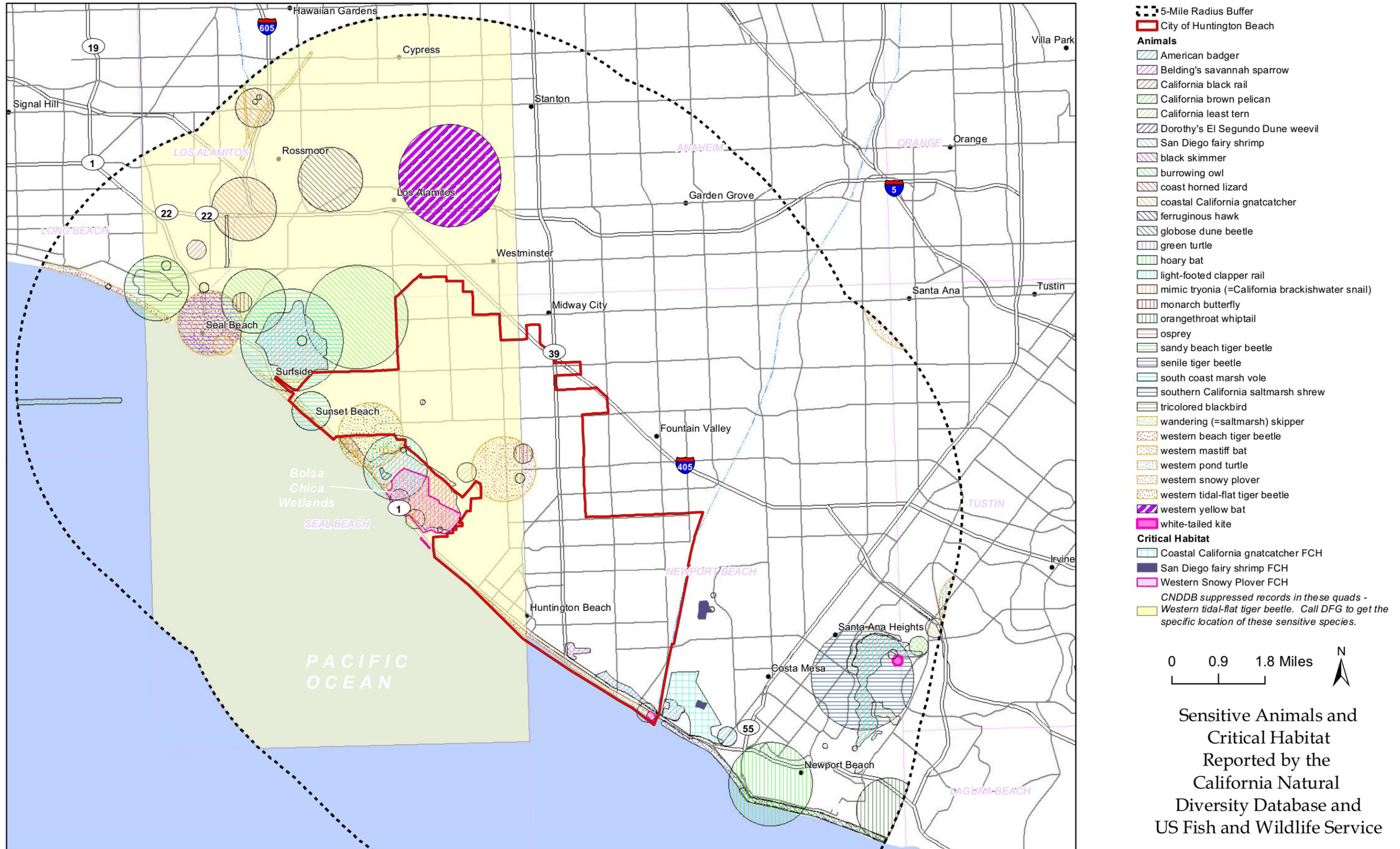




Sources: California Natural Diversity Database, December 2011, U.S. Bureau of the Census TIGER 2000 data, and ESRI, 2011. Note: Markers represent approximate locations where species may be found.

Sensitive Plants and
 Natural Communities
 Reported by the
 California Natural
 Diversity Database

Figure 4.2-1a
 City of Huntington Beach



Sources: California Natural Diversity Database, December 2011, U.S. Bureau of the Census TIGER 2000 data, and ESRI, 2011. Note: Markers represent approximate locations where species may be found. Critical habitat shown is that most recently available from U.S. FWS (October, 2011). Check with U.S. FWS or Federal Register to confirm.

Figure 4.2-1b
 City of Huntington Beach

c. Carryout Bags and Biological Resources. Carryout bags can affect biological resources either as a result of litter that enters the storm drain system and ultimately into coastal and marine environments.

Single-Use plastic carryout bags enter the biological environment primarily as litter. This can adversely affect terrestrial animal species, and marine species that ingest the plastic bags (or the residue of plastic bags) or become tangled in the bag (Green Cities California MEA, 2010). Based on the data collected for the Ocean Conservancy's Report from September 2009 Ocean Conservancy's International Coastal Cleanup Day, approximately 11% of total debris items collected were plastic bags (Ocean Conservancy, April 2010). Over 260 species of wildlife, including invertebrates, turtles, fish, seabirds and mammals, have been reported to ingest or become entangled in plastic debris. Ingestion or entanglement may result in impaired movement and feeding, reduced productivity, lacerations, ulcers, and death (Laist, 1997; Derraik and Gregory, 2009). Ingested plastic bags affect wildlife by clogging animal throats and causing choking, filling animal stomachs so that they cannot consume real food, and infecting animals with toxins from the plastic (Green Cities California MEA, 2010). In addition to affecting wildlife through physical entanglement and ingestion, plastic debris in the marine environment has been known to absorb and transport polychlorinated biphenyls (PCBs), phthalates, and certain classes of persistent organic pollutants (POPs) (Mato, Y., Isobe, T., Takada, H., et al., 2001; and, Moore, C.J.; Lattin, G.L., A.F. Zellers., 2005).

Single-use paper carryout bags are also released into the environment as litter. However, they generally have less impact on wildlife because they are not as resistant to breakdown as is plastic; therefore, they are less likely to cause entanglement. In addition, although not a healthy food source, if single-use paper bags are ingested, they can be chewed effectively and may be digested by many animals.

Reusable bags can also be released into the environment as litter. However, because of the weight and sturdiness of these bags, reusable bags are less likely to be littered or carried from landfills by wind as litter compared to single-use plastic and paper bags (Green Cities California MEA, 2010). In addition, since reusable bags can be used up to 125 times (in accordance with the proposed Ordinance), reusable bags would be disposed of less often than single-use carryout bags. As such, reusable bags are less likely to enter the marine environment as litter. Thus, reusable bags are less likely to enter the environment as litter compared to single-use plastic or paper bags.

d. Regulatory Setting. Regulatory authority over biological resources is shared by federal, state, and local authorities under a variety of statutes and guidelines. Primary authority for general biological resources lies within the land use control and planning authority of local jurisdictions. The California Department of Fish and Game (CDFG) is a trustee agency for biological resources throughout the state under CEQA and also has direct jurisdiction under the California Fish and Game Code (CFGC). Under the State and Federal Endangered Species Acts, the CDFG and the U.S. Fish and Wildlife Service (USFWS) also have direct regulatory authority over species formally listed as Threatened or Endangered. The U.S. Department of Army Corps of Engineers (USACE) has regulatory authority over specific biological resources, namely wetlands and waters of the United States, under Section 404 of the federal Clean Water Act (CWA). The USACE also has jurisdiction over rivers and harbors through Section 10 of the CWA. Waters of the State fall under the jurisdiction of the CDFG



through the CFGC and the Regional Water Quality Control Board (RWQCB) through Section 401 of the CWA. The RWQCB also has jurisdiction over isolated waters and wetlands through the Porter-Cologne Water Quality Control Act.

Plants or animals have “special-status” due to declining populations, vulnerability to habitat change, or restricted distributions. Special-status species are classified in a variety of ways, both formally (e.g. State or Federally Threatened and Endangered Species) and informally (“Special Animals”). The USFWS and the National Marine Fisheries Service (NMFS) share responsibility for implementation of the federal Endangered Species Act, with the USFWS focused on terrestrial and freshwater species and the NMFS focused on marine species. The USFWS is also responsible for regulation of bird species listed under the Migratory Bird Treaty Act (MBTA) (16 United States Code [USC] Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668).

The CDFG protects a wide variety of special status species through the CFGC. Under the CFGC, species may be formally listed and protected as Threatened or Endangered through the California Endangered Species Act (Fish and Game Code Section 2050 *et. seq.*). The CFGC also protects Fully Protected species, California Species of Special Concern (CSC), all native bird species (Fish and Game Code sections 3503, 3503.5, and 3511), and rare plants under the Native Plant Protection Act (Fish and Game Code Section 1900 *et seq.*).

4.2.2 Impact Analysis

a. Methodology and Significance Thresholds. Chapter 1, Section 21001(c) of CEQA states that it is the policy of the state of California to: “Prevent the elimination of fish and wildlife species due to man’s activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities.” Environmental impacts relative to biological resources may be assessed using impact significance criteria encompassing checklist questions from the *CEQA Guidelines* and federal, state, and local plans, regulations, and ordinances. Project impacts to flora and fauna may be determined to be significant even if they do not directly affect rare, threatened, or endangered species.

The proposed Ordinance would create a significant impact to biological resources if it would:

1. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*
2. *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?*
3. *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*
4. *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites?*



5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The Initial Study (see Appendix A) concluded that only the first three criteria could potentially result in a significant impact, while the proposed Single-Use Carryout Bag Ordinance would result in no impact with respect to the fourth through sixth criteria. Hence, only the first three criteria are addressed in this section.

b. Project Impacts and Mitigation Measures.

Impact BIO-1 The proposed Single-Use Carryout Bag Ordinance would incrementally increase the number of paper and reusable bags within Huntington Beach. However, the reduction in the amount of single-use plastic bags would be expected to incrementally reduce the amount of litter entering coastal and marine habitats, thus reducing litter-related impacts to sensitive species, plant communities, and coastal wetland areas. This is a Class IV, beneficial, effect.

All carryout bags, including single-use plastic, paper, and reusable bags, have the potential to affect coastal habitats such as the Pacific Ocean and Bolsa Chica Ecological Preserve when bags are improperly disposed of. These bags can become litter that enters the storm drain system and ultimately enters into coastal and marine environments. As described in the *Setting*, litter that enters coastal habitats can adversely affect sensitive species that inhabit coastal and marine environments, including sea turtles, seals, whales, otters, or bird species as a result of ingestion or entanglement. However, each type of carryout bag's potential to become litter varies and is based on the number of bags disposed of as well as the bag's weight and material.

As described in Section 2.0, *Project Description*, typical single-use plastic bags weigh approximately five to nine grams and are made of thin (less than 2.25 mils thick) high density polyethylene (HDPE) (Hyder Consulting, 2007). Post-use from a retail store, a customer may reuse a single-use plastic bag at home, but eventually the bags are disposed in the landfill or recycling facility or discarded as litter. Although some recycling facilities handle plastic bags, most reject them because they can get caught in the machinery and cause malfunctioning, or are contaminated after use. Only about 5% of the plastic bags in California and nationwide are currently recycled (US EPA, 2005; Green Cities California MEA, 2010; and Boustead, 2007). The majority of single-use plastic bags end up as litter or in the landfill. Even those collected by recycling and solid waste trucks and handled at transfer stations and landfills may blow away as litter due to their light weight (Green Cities California MEA, 2010). Single-use plastic bags that become litter can enter storm drains and watersheds from surface water runoff or may be blown directly into the ocean by the wind.

As described in the *Setting*, when single-use plastic bags enter coastal habitats marine species can ingest them (or the residue of plastic bags) or may become entangled in the bag (Green Cities California MEA, 2010). Ingestion or entanglement in single-use plastic bags can result in choking, reduced productivity, lacerations, ulcers, and death to sensitive species in the marine



environment, including sea turtles, seals, whales, otters, or bird species.

Single-use paper grocery bags also have the potential to enter the marine environment as litter. Paper grocery bags are typically produced from kraft paper and weigh anywhere from 50 to 100 grams, depending on whether or not the bag includes handles (AEA Technology, 2009). A paper bag weighs substantially more (by approximately 40 to 90 grams) than single-use plastic bags. Because of the weight, biodegradability of the materials, and recyclability, single-use paper bags are less likely to become litter compared to single-use plastic bags (Green Cities California MEA, 2010). In addition, because single-use paper bags are not as resistant to breakdown, there would be less risk of entanglement if entering the marine environment compared to single-use plastic bags. In addition, although not a healthy food source, if ingested, a single-use paper bag can be chewed effectively and may be digested by many marine animals (Green Cities California MEA, 2010). Thus, although single-use paper bag litter may enter coastal habitats and affect sensitive species in the marine environment, the impacts would be less than those of single-use plastic bags.

Reusable bags may also become litter and enter the marine environment; however, these bags differ from the single-use bags in their weight and longevity. Reusable bags can be made from plastic or a variety of cloth such as vinyl or cotton. Built to withstand many uses, reusable bags weigh at least ten times what a single-use plastic bag weighs and two times what a single-use paper bag weighs, therefore restricting the movement by wind. Reusable bags are typically reused until worn out through washing or multiple uses, and then typically disposed either in the landfill or recycling facility. Because of the weight and sturdiness of these bags, reusable bags are less likely to be littered or carried from landfills by wind as litter compared to single-use plastic and paper bags (Green Cities California MEA, 2010). In addition, since reusable bags can be used up to 125 times (in accordance with the proposed Ordinance), reusable bags would be disposed of less often than single-use carryout bags. As such, reusable bags are less likely to enter the marine environment as litter. Therefore, reusable bags would generally be expected to result in fewer impacts to sensitive species and habitats than single-use plastic and paper carryout bags.

The proposed Ordinance would reduce plastic bag usage by 95% compared to existing conditions (from 102.2 million to 5.1 million bags annually), and would reduce total bag use by 49% (to 52 million plastic, single-use paper, and reusable bags). This reduction in bags would be expected to generally reduce litter-related impacts to sensitive species, plant communities, and coastal wetland areas. Therefore sensitive species such as sea turtles, mammals, and bird species would benefit from the proposed Ordinance, as would coastal and marine ecosystems, which would reduce the amount of litter that could enter the marine environment. Impacts would be beneficial.

Mitigation Measures. As the impact would be beneficial, mitigation is not required.

Significance After Mitigation. Impacts to sensitive species as a result of the proposed ordinance would be beneficial without mitigation.

c. Cumulative Impacts. Adopted and pending carryout bag ordinances, as described in Table 3-1 in Section 3.0, *Environmental Setting*, would continue to reduce the amount of single-use carryout bags, and promote a shift toward reusable carryout bags. This shift would generally have beneficial effects with respect to sensitive biological resources. At least six other



agencies in Los Angeles region (County of Los Angeles and the cities of Long Beach, Los Angeles, Malibu, Manhattan Beach, and Santa Monica) have either adopted or are considering such ordinances. Similar to the proposed Huntington Beach Ordinance, these other adopted and pending ordinances could incrementally reduce the number of plastic bags entering the environment, including the Pacific Ocean, as litter. These other ordinances would be expected to have similar beneficial effects. Therefore, there would be no cumulative impacts related to biological resources.

