IV

Natural Resources Chapter

GENERAL PLAN

HUNTINGTON BEACH

IV

ENVIRONMENTAL RESOURCES/
CONSERVATION ELEMENT

HUNTINGTON BEACH

STATUTORY REQUIREMENTS

California state law requires the preparation of two elements that address a city's environmental resources: the Conservation and Open Space Elements. The Huntington Beach General Plan combines these elements into the Environmental Resource Conservation Element, thereby fulfilling all state requirements. The pertinent statutory requirements that shape this element include:

> *Government Code Section 65302(d): A conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies which have developed, served, controlled, or conserved water for any purpose for the county or city for which the plan is prepared.*
>
> *Government Code Section 65302 (e): An open space element as provided in Article 10.5 (commencing with Section 65560).*
>
> *Government Code Section 655560: "Open space land" is any parcel or area of land or water which is essentially unimproved and devoted to an open space use as defined in this section, and which is designated on a local, regional or State open space plan as any of the following: (1) Open space for the preservation of natural resources. (2) Open space used for the managed production of resources. (3) Open space for outdoor recreation. (4) Open space for public health and safety, including, but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake faults zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality.*

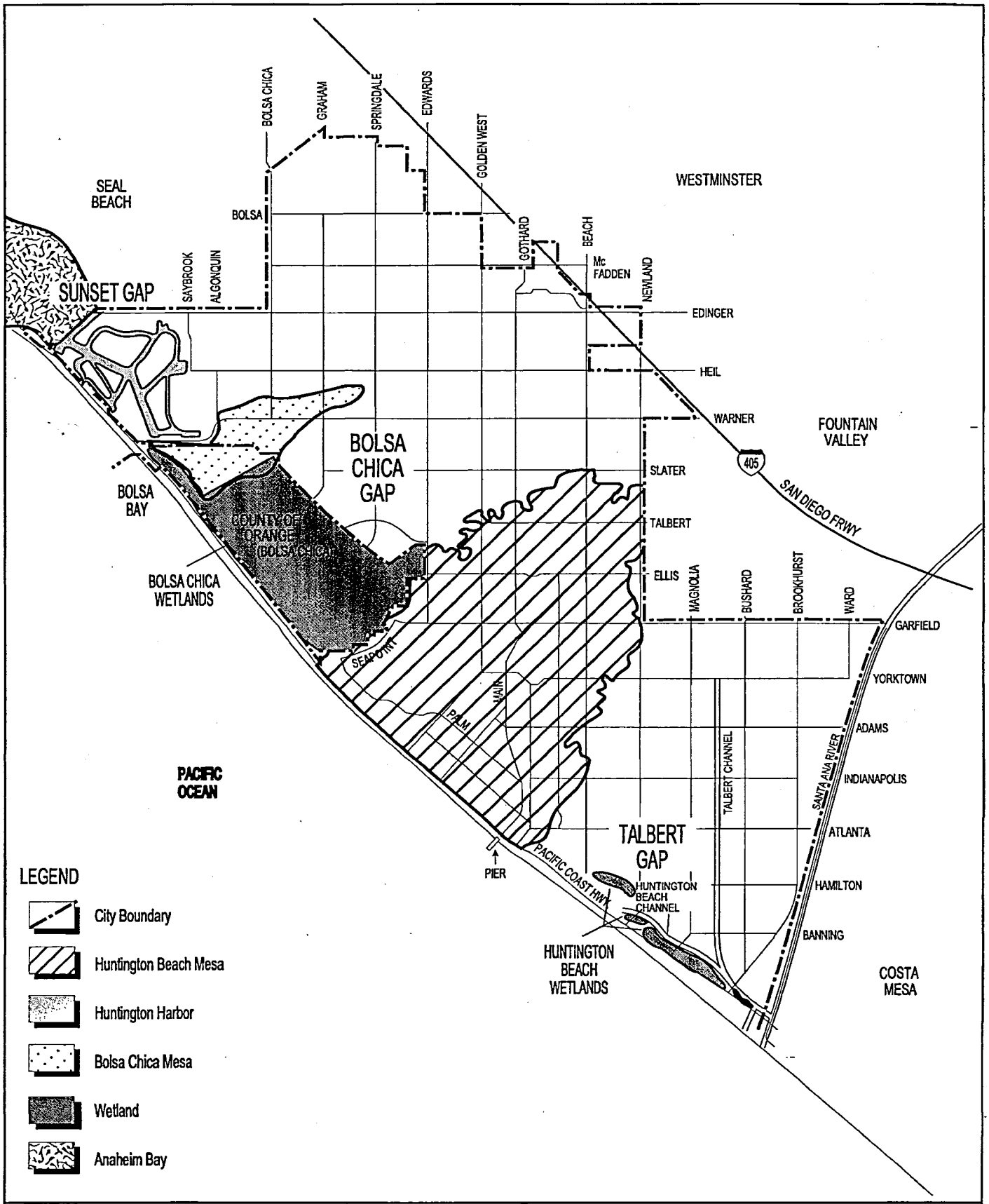
TECHNICAL SYNOPSIS

A. 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 that 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 **(Figure ERC-1)**. The following discusses marine waters, plant life, and wildlife for each of the ecological categories of Huntington Beach.

1. 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.



GEOGRAPHIC FEATURES

CITY OF HUNTINGTON BEACH GENERAL PLAN

MILES 0 0.5 1.0 NORTH

FIGURE ERC-1

Due to the continued dredging within Huntington Harbour, the number of species using the harbor is smaller than the nearby Anaheim Bay; however, some of the commonly found fish in these waters include the deepbody anchovy, both jack and top smelt, Pacific Staghorn Sculpin.

In addition, Anaheim Bay is an important nursery area for Pacific halibut and diamond turbot. Juvenile fish may also live in the harbor area.

Typical invertebrates found in Huntington Beach would include those found on boat hulls, pilings and floats including bay mussel, acorn barnacles, and tunicates.

2. 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 **(Figure ERC-2)**. These are described briefly below.

a. Coastal Sand Dunes (Coastal Strand)

The coastal strand plant communities, found on undisturbed sandy beaches and dunes above the high tide level, is divided into beach and dune communities. Few plants are adapted to the survive harsh conditions of the sandy beaches and dunes due to winds carrying sand and salt, shifting and 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.

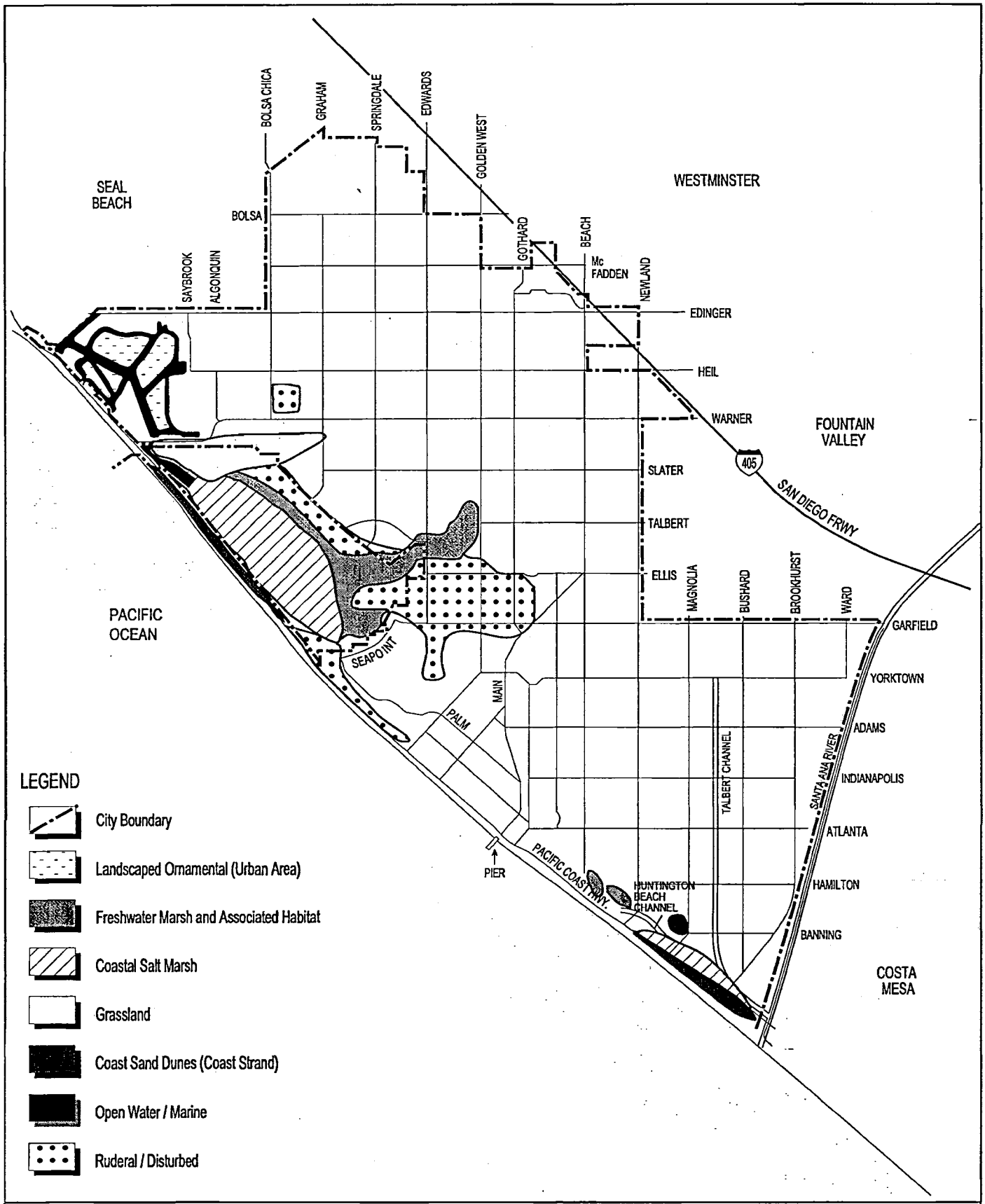
Remnants of dunes along Pacific Coast Highway (PCH) and near the Huntington Beach Wetland support several shrub species. These dune shrubs are a mixture of native and non-native species. Among the natives are three species of willow, two species of *Baccharis*, and lemonadeberry. Non-natives include various species of saltbush, castor-bean and myoporum. Typical low growing plants include ice-plant, coastal goldenbush, western goldenrod, wild-heliotrope, beach primrose and saltgrass.

Where the dune-salt marsh plant communities meet; spiny rush and Pacific coast bulrush form 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, yerba mansa and saltgrass.

b. 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. Other common plants include five-hooked bassia, slender aster, spear saltbush, saltgrass, and to a lesser extent, alkali heath. Areas of higher elevation may have been subjected to periodic off-road vehicle traffic and are invaded by ruderal (or non-native weedy) species.



GENRERALIZED HABITAT AREAS

CITY OF HUNTINGTON BEACH GENERAL PLAN

MILES 0 0.5 1.0

NORTH

FIGURE ERC-2

Most of the wetland system (Bolsa Chica and Huntington Beach) has been cut off from tidal flow for some time and several characteristic salt marsh plants dependent upon daily tidal flushing may have disappeared. Formerly characteristic plants that are now scarce or absent from salt marsh are cordgrass, sea-lavender, shoregrass, annual pickleweed, samphire, and saltwort. Unsuitable soil, hydrologic or physiographic conditions may preclude the presence of some species. Other species are difficult to distinguish from similar common species (annual pickleweed) and may be overlooked. Others are dependent upon periodic inundation with freshwater for germination and may have been adversely affected by the channelization of local freshwater drainages such as the Santa Ana River and the Talbert Valley drainage network.

c. 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 brome grasses, mustard, filaree, Russian-thistle, and cardoon. Few remnants of native grasses persist, but one can still observe species such as needlegrass, and herbs (such as owl's clover, mariposa lily, and golden).

d. 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 cat-tails sedges, rushes, spike-rushes, duckweed, Douglas' water-hemlock, and water smartweed.

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, arroyo willow, sandbar willow, and mulefat. An example of this habitat is found near Talbert Lake and at the terminus of the Freeman Creek channel.

e. 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.

f. 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, telegraph weed, pineapple weed, and tarweeds. Introduced plants are scarlet pimpernel, wild oats, brome grasses, mustards, filarees, foxtail barley, cheeseweed, sweet-clovers, Russian-thistle, and tocalote.

3. Wildlife

a. Coastal Strand as Wildlife Habitat

- *Reptiles* - Reptiles are limited in both species diversity and abundance in the coastal strand community, and amphibians generally do not occur. The side-blotched lizard is plentiful away from the outer beaches, and the San Diego [southern] alligator lizard 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. 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* - 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, 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. This species is discussed in greater detail in the Sensitive Resources section.

  A few landbirds such as the rock dove, American crow, house finch, American kestrel, and loggerhead shrike 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* - Mammals within the coastal strand are generally restricted to the narrow zone of fragmented dunes along PCH. The Audubon cottontail is plentiful here and several species of nocturnal rodents are also expected to occur. It is likely that the native deer mouse, the introduced house mouse, and perhaps the introduced Norway rat occur.

b. Coastal Wetland as Wildlife Habitat

Salt marsh communities are among the most productive of ecosystems supporting a large wildlife population.

- *Amphibians* - 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 Pacific treefrog and California [western] toad may be present in the freshwater marsh west of Beach Boulevard, as may the introduced bullfrog. The garden [Pacific] slender salamander 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 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 [western] fence lizard, side-blotched lizard, southern alligator lizard, California [common] kingsnake, San Diego gopher snake, and southern pacific [western] rattlesnake.

- *Birds* - 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, is a common inhabitant of pickleweed salt marshes. This 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. This endangered songbird is discussed more fully in **Table ERC-1**. Other birds that nest in the salt marsh are the song sparrow and western meadowlark in the upper portions, marsh wren in the reeds and sedges, and killdeer on the salt flats. In the small freshwater marshes, breeding birds likely include the red-winged blackbird, song sparrow and marsh wren.

  The federal and state endangered California least tern has been observed feeding on mosquitofish 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. Presumably, with a tidal connection and a more diverse fish fauna, least terns would utilize the salt marsh channels and ponds of the Huntington Beach Wetland to a greater degree than they do presently.

  The freshwater wetlands have a different character than do saltwater communities, and support somewhat different mixes 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 long-legged waders such as the black-crowned night-heron or dabbling ducks 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, ash-throated flycatcher, house wren, common yellowthroat, orange-crowned warbler, California towhee, brown-headed cowbird, and house finch.

- *Mammals* - 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 [Beechey] ground squirrel, Botta's pocket gopher, deer mouse and several nocturnal rodents, such as the western harvest mouse, house mouse, and Norway rat. Predators such as the Virginia opossum, coyote, long-tailed weasel, red fox, and striped skunk are also likely to be present.

c. Landscaped Ornamental and Ruderal Areas as Wildlife Habitat

- *Amphibians and Reptiles* - The landscaped and ruderal areas may support a number of amphibian and reptile species. Common amphibians and reptiles adaptable to human environments include the garden slender salamander, black-bellied slender salamander, Pacific tree frog, western fence lizard, and southern alligator lizard.

- *Birds* - Non-native woodland areas like the Bolsa Chica Mesa and especially Central Park are utilized by a variety of birds for nesting, foraging, roosting and perching. In association with developed areas, these ornamental plantings are usually frequented by bird species belonging to a diverse order of perching birds such as Anna's hummingbird, scrub jay, bushtit, American robin, northern mockingbird, European starling, hooded oriole, house sparrow and house finch. Where human presence is not as immediate, large eucalyptus trees are often utilized by raptors such as red-tailed hawk and red-shouldered hawk for perching and perhaps nesting, while the common barn owl frequently lives in large fan palms.

  The ruderal annual grassland on Bolsa Mesa is utilized by a variety of species, most conspicuously the large birds of prey, such as the red-tailed hawk, red-shouldered hawk, and American kestrel. Other expected ruderal grassland species include the killdeer, turkey vulture, mourning dove, Say's phoebe loggerhead shrike, water pipit, western meadowlark, and white-crowned sparrow.

4. Biological Sensitivities

Sensitivity generally denotes rarity, limited availability, unusual characteristics, habitat condition, and pending threats: particularly that of urban development. In some instances, the threat to these species, or their habitats warrants official state or federal rare, threatened, or endangered status.

A variety of plant and animal species, and several natural communities that occur in the region are considered to be sensitive by state and federal trustee agencies and organizations.

The following discussion of the biological sensitivities of Huntington Beach is a synopsis of literature on the regional biological resources, data provided by California Department of Fish and Game's Natural Diversity Data Base (CDFG, 1991), the California Native Plant Society's Inventory of Rare and Endangered Plants (Smith and Berg, 1988) and a publication entitled Rare and Endangered Plants of Orange County (Roberts, 1990). There have been specific studies detailing the biological sensitivities of the Bolsa Chica and Huntington Beach Wetlands, the mouth of the Santa Ana River and the Talbert and Huntington Beach Channels. These studies provide for micro-level conditions for these areas, however, studies have not been completed throughout the City, therefore, field investigation of site-specific conditions for individual projects is recommended outside of the areas mentioned.

An overview of the sensitive plant and animal species of the region reveals that there are a substantial number of species which can reasonably be expected to occur within the City, although there are relatively few actual records of these occurrences reported by the California Natural Diversity Data Base (CNDDB) (CDFG, April, 1991). Literature research regarding the distribution and habitat requirements of sensitive species in the region provides evidence to conclude that a number of these elements are currently present or have occurred within the City in the past. This would include birds that may be seasonal, sporadic or are irregularly present.

Table ERC-1 summarizes the status of each sensitive biological element that is known, or potentially occurs within the City. In addition, the elements are ranked as to the level of potential concern to the City. For a discussion of each element, please see Appendix B of the Huntington Beach General Plan Update Technical Background Report, July 1992.

5. Existing Policies Pertaining to the Protection of Biological Resources

a. Federal

The Federal Endangered Species Act of 1973 provides for the designation of threatened and endangered species, and encourages the States and other interested parties to develop and maintain conservation programs to safeguard the nation's wildlife heritage. The Act prohibits any person subject to the jurisdiction of the United States from importing, exporting, selling, taking, or possessing any threatened or endangered species of fish or wildlife. The Act does not provide similar prohibitions on plant species, except where located on Federal lands. Candidate species are not protected under this Act, although some Federal agencies such as the Forest Service, National Park Service, Bureau of Land Management, and the Fish and Wildlife Service do grant some level of security or management consideration to Federal candidate species.

The Migratory Bird Treaty Act prohibits the capture, killing, or possession of any bird species identified by various international conventions. This Act provides the Federal government with authority to establish threshold regulations that govern the hunting and management of listed species. The Act does not provide for acquisition of habitat.

The Water Bank Act authorizes the Secretary of Agriculture to enter into agreements with landowners in migratory waterfowl habitat areas to protect the wetland character of their lands. This program protects some wetlands for waterfowl use but does not exclusively maintain natural habitats.

The National Environmental Policy Act (NEPA) requires all Federal agencies to assess the impacts of proposed actions on the environment, examine alternatives, and propose mitigation measures for significant adverse impacts. An Environmental Impact Statement is commonly prepared to comply with NEPA's requirements. NEPA does not specifically require measures to preserve habitat diversity.

The Clean Water Act (Section 404) regulates discharge of materials into "waters of the U.S." Under this provision, the U.S. Army Corps of Engineers must issue permits for deposit of fill in waterways and wetland areas on both public and private lands. Other Federal agencies provide recommendations concerning whether permits should be issued and under what conditions. The areas of Bolsa Chica delineated as "waters of the U.S." are shown on **Figure ERC-3**. Many of the areas on **Figure ERC-3** designated as wetlands are also habitat for federally-listed endangered species and any action involving a permit from the U.S. Army Corps of Engineers would also require consultation with the U.S. Fish and Wildlife Service pursuant to the Federal Endangered species Act.

TABLE ERC-1

Sensitive Elements of Biological Diversity From the California Natural Diversity Data Base for the City of Huntington Beach

Element Name Common Name/Scientific Name	Occurrence	Level of Concern[1]	Comment
NATURAL COMMUNITIES			
Southern Coastal Salt Marsh	Present at Bolsa Chica and Huntington Beach Wetlands	High	Protection and restoration efforts are on-going in the City.
Southern Mixed Riparian Forest	Extirpated because of channelization	Low	Restoration of this community would require extensive changes to the flood control facilities of the City.
PLANTS			
Los Angeles Sunflower *Helianthus nuttalli parishii*	Last seen in Orange County in 1933	Low	Species likely extinct because of modification of habitat.
Ventura marsh milk vetch *Astragalus pycnostachyus lanosissimus*	Listed in "La Bolsa", not recorded in recent surveys (last seen 1882)	Low	Likely extinct, small possibility that it is on the Seal Beach Weapons Station.
salt marsh bird's-beak *Cordylanthus m. maritimu.*	All known Orange County populations at Newport Bay	Moderate	While surveys have not found this species, the salt marsh habitat restoration project offer the opportunity for its reintroduction.
aphanisma *Aphanisma blitoides*	Not seen in Orange County since 1932	Moderate	While not seen, strong potential for occurrence in the coastal bluffs of the Bolsa Chica Wetlands.
Gambel's bittercress *Cardamine gambelii*	In "swampy sites" of Huntington Beach, last seen 1908	Low	Extirpated from Orange County. Unlikely candidate for reintroduction.
Orange County Turkish rugging *Chorizanthe staticoides chrysacantha*	Known from Newport Beach	Low	Lack of suitable habitat in the City for this species.

[1] Level of concern for the City of Huntington Beach:
High: Policies and actions by the City should be used to preserve the element
Moderate: There are potential occurrences of an element or for its restoration within the Planning Area; policies should support preservation/restoration activities
Low: Unlikely any City action useful in preservation/restoration of the element

TABLE ERC-1 (Con't)

Element Name Common Name/Scientific Name	Occurrence	Level of Concern[1]	Comment
PLANTS (Con't)			
Southern spikeweed *Hemizonia australis*	Known from flood control channels mouth of the Santa Ana River, formerly in Westminster and Garden Grove	Moderate	Although habitat has been destroyed by channelization there is potential for this species to occur in the Bolsa Chica Wetlands. Could also be a restoration candidate.
Southwestern spiny rush *Juncus acutus sphaerocarpus*	Found in Bolsa Chica	High	Threatened by reduction of habitat by urbanization.
Gairdner's yampah, Squaw root *Perideridia g. gairdneri*	Formerly found near the Bolsa Chica Gun Club (1932)	Low	Presumed extirpated from Orange County.
Sanford's arrow-head *Sagittaria sandfordii*	Freshwater areas of Huntington Beach and East Garden Grove-Wintersburg channels	Moderate	Last seen in 1975, chance that with preservation activities of habitat, the plant will be maintained.
estuary sea-blite *Suaeda esteroa*	Present at Bolsa Chica Salt Marsh	High	Threatened by reduction of habitat by urbanization.
crown-beard *Verbesina dissita*	Found near Arch Beach (outside Planning Area)	N.A.	Without further studies as to whether plants are found in the Planning Area unknown as to the level of concern.
ANIMALS			
Monarch butterfly *Danaus plexippus*	Roost trees found in the vicinity of Bolsa Chica	High	Proposed development of Bolsa Chica may threaten roost trees.
Oblivious tiger beetle *Cicindela latesignata obliviosa*	Bolsa Chica	High	Proposed restoration projects may create disruptions during implementation.
Gabb's tiger beetle *Cicindela gabbi*	Bolsa Chica	High	Proposed restoration projects may create disruptions during implementation.
Gravid tiger beetle *Cicindela hirticollis gravida*	Bolsa Chica	High	Proposed restoration projects may create disruptions during implementation.
Frost's tiger beetle *Cicindela senilis frosti*	"Huntington Beach" Salt Marsh (exact location suppressed by Calif. Fish and Game)	High	Proposed restoration projects may create disruptions during implementation.

TABLE ERC-1 (Con't)

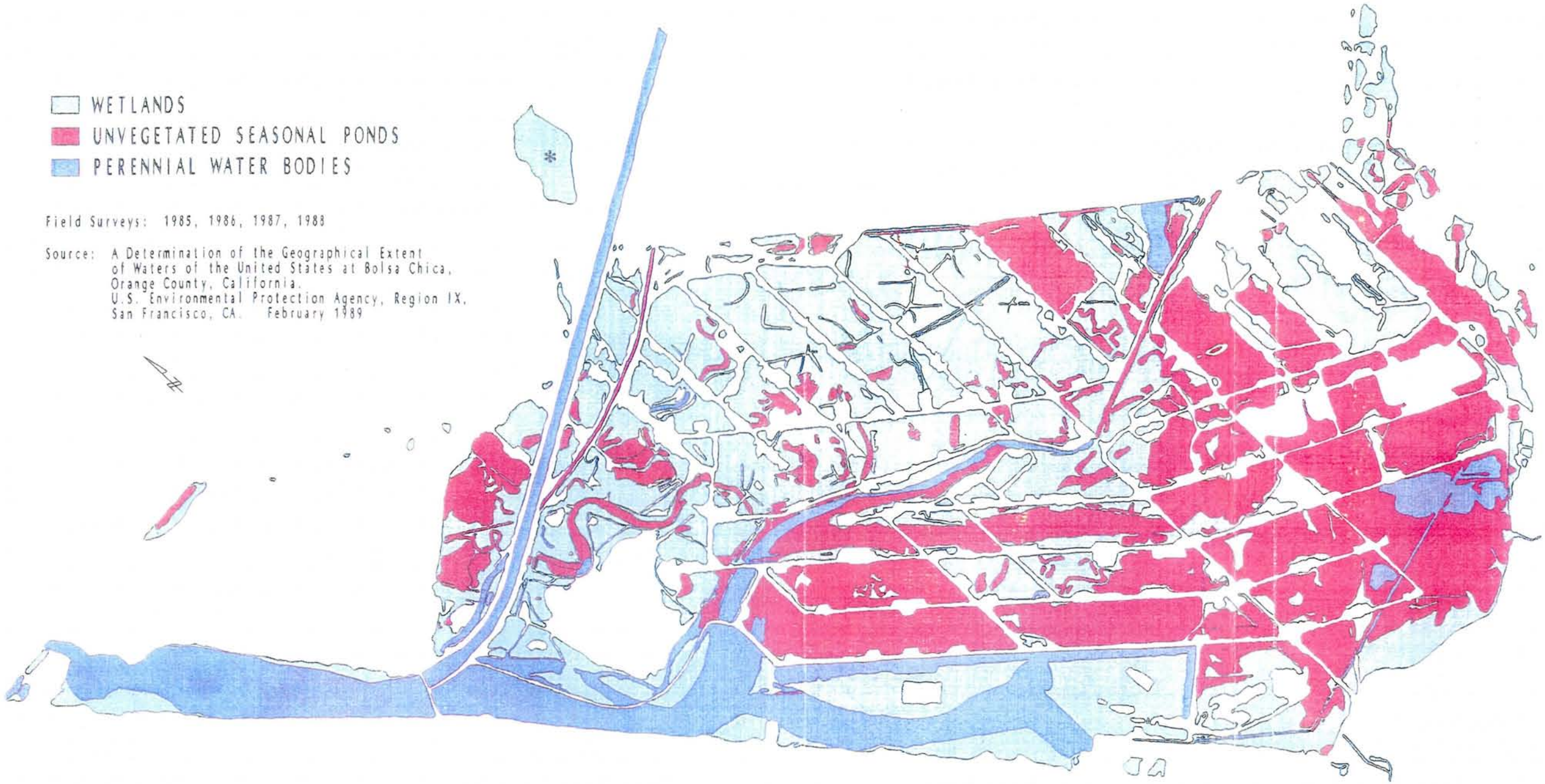
Element Name Common Name/Scientific Name	Occurrence	Level of Concern[1]	Comment
Animals (Con't)			
California brackishwater snail *Tryonia imitator*	Shells collected in Bolsa Chica Wetlands and at Bolsa Chica Beach	High	Threatened by habitat (coastal lagoons and salt marsh) modification either by development or during restoration projects.
tidewater goby *Eucycloglobius newberryi*	Found in shallow areas of bays, lagoons and estuaries. Unknown if populations extirpated or existed in the past	Moderate	Potential candidate for introduction as part of wetland restoration. Whether a population was in the area because of its status, increased populations would serve to protect this species.
San Diego coast horned lizard *Phrynosoma coronatum blainvillei*	No recorded occurrence in the Planning Area, found from Ventura County to lower California	Moderate	Probable resident in the upper mesa areas (Seacliff), Seal Beach and West Seal Beach.
Silvery [California] legless lizard *Anniela p. pulchra*	Not recorded in the Planning Area	Moderate	Because of the existence of suitable habitat (sand dunes) may be a resident.
Great blue heron *Ardea herodias*	Common forager at Bolsa Chica, no known rookery sites in the Planning Area	High	While there are no rookery areas, threats to foraging areas by development are possible.
Snowy egret *Egretta thula*	Foraging at Bolsa Chica and Santa Ana River, Talbert Marsh, and Talbert Lake area.	High	While there are no rookery areas, threats to foraging areas by development are possible.
Black-crowned night-heron *Nycticorax nyctiorax*	Foraging in Talbert Lake area	Moderate	Restoration of the freshwater marsh and riparian areas near Central Park may provide new foraging areas but not nesting.
Cooper's hawk *Accipiter cooperi*	Common fall transient	Moderate	The Planning Area lacks nesting areas but can use the grassland and marsh areas to forage.
northern harrier *Circus cyaneus*	Common winter visitant at Bolsa Chica	Moderate	Preservation of forage area is required if visitation is to continue.

TABLE ERC-1 (Con't)

Element Name Common Name/Scientific Name	Occurrence	Level of Concern[1]	Comment
ANIMALS (Cont.)			
black-shouldered kite *Elanus caeruleus*	Recorded at Bolsa Chica and along the Santa Ana River drainage	High	Possible nest in the Bolsa Chica Mesa area may be threatened by development.
burrowing owl *Athene cunicularia*	Sighted at the Seal Beach Naval Weapon Station, 1988. Uses coastal bluffs	High	The species is likely in the Planning Area especially in bluff areas of Bolsa Chica and Huntington Beach Mesas.
light-footed clapper rail *Rallus longirostris levipes*	Common in Newport Back. Probable former resident of both Bolsa Chica and Huntington Beach Wetlands.	High	Lack of dense growth of pickleweed and cordgrass reduce chances of this species nesting in Huntington Beach wetland areas. Candidate for reintroduction in the wetland restoration project.
California black rail *Laterallus jamaicensis coturniculus*	One sighting in 1974 at Bolsa Chica	Low	Unlikely except as migrant.
Western snowy plover *Charadrius alexandrinus nivosus*	Nesting in the freshwater marsh near Newland Ave. and Beach Blvd.	High	Development along Beach may threaten this marsh area.
California least tern *Sterna antillarum browni*	Nesting on islands in Bolsa Chica Reserve and colony at the mouth of the Santa Ana River. Observed in the Talbert Marsh and Huntington and Talbert Channels.	High	Nesting areas are now protected but changes in the wetland areas either by development or during restoration activities may disrupt foraging.
bank swallow *Riparia riparia*	Last seen in the Seacliff area in 1918	Low	Unlikely except as migrant.
black swift *Cypseloides niger*	Seen regularly in the Planning Area as transient	Moderate	Preservation of foraging habitat.
least Bell's vireo *Vireo bellii pusillus*	No known nesting areas in the Planning Area, rare transient	Low	Without willow riparian habitat unlikely species will use the Planning Area.
California gnatcatcher *Polioptila californica*	No known occurrence in the Planning Area	Low	No suitable habitat (coastal sage scrub) in the Planning Area.

TABLE ERC-1 (Con't)

Element Name Common Name/Scientific Name	Occurrence	Level of Concern[1]	Comment
ANIMALS (Cont.)			
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	No known occurrence in the Planning Area	Low	No suitable habitat in the Planning Area.
Belding's savannah sparrow *Passerculus sandwichensis beldingi*	Nesting areas in pickleweed of both Bolsa Chica and Huntington Beach Wetlands	High	Threatened by changes in tidal regimes in wetland areas from channelization, and flow regulation. Restoration projects may create interim changes in tides that could also be threatening.
California Brown Pelican *Pelecanus occidentalis californicus*	Observed in the Bolsa Chica, Talbert Marsh, Santa Ana River Channel, and the Coastal Flood Channels	High	Concern for this species is mainly for nesting colonies that are found offshore on isolated rocks and islands; mainland occurrences are usually roosting or foraging birds.
White Pelican *Pelecanus erythrorhynchos*	Observed in the Bolsa Chica, Talbert Marsh,	Low	Occurrences along the coast are sporadic as this species if found mainly on large inland water bodies; concern for this species is due to the fact that nesting colonies in California are only found in the Klamath Basin.
Pacific pocket mouse *Perognathus longimembris pacificus*	Believed extirpated north of the San Joaquin Hills in Southern Orange County	Low	Habitat may be present; however large scale restoration would be required to reintroduce this species.



*Designated as Prior Converted Cropland by U.S. Army Corp of Engineers

WATERS OF THE U.S.
BOLSA CHICA

City of Huntington Beach General Plan

MILES 0 .125 .25 .375

NORTH

FIGURE ERC-3

Executive Order 11988 (Floodplain Management) (Federal Register, Vol. 42, No. 101, Wednesday, May 25, 1977) requires that any Federal agency evaluate the potential effects of any actions it may take in a floodplain. The involved agency shall consider alternatives to avoid adverse effects and incompatible development in the floodplains, and may also be required to modify their action to minimize potential harm to or within the floodplain.

Executive Order 11990 (Protection of Wetlands) requires Federal agencies to take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands.

b. State

The California Endangered Species Act (CESA), with revisions enacted by AB 3309 (Costa) and AB 3270 (Campbell), provides for the definition of rare, threatened, and endangered species of plants and animals, and furthermore prohibits the import, take, possession or sale of any such species determined by the Commission to meet these definitions. In addition, certain species in vertebrates or parts thereof are fully protected and may not be taken or possessed at any time. The Act requires that state agencies formally consult with the California Department of Fish and Game on every project that they proposed that is subject to the provisions of the California Environmental Quality Act. Private projects do not require consultation under the Act.

The California Environmental Quality Act (CEQA) requires state and local agencies to evaluate the environmental impacts of proposed projects. Where impacts are significant, agencies must adopt mitigation measures to minimize impacts. Impacts to habitat diversity may be determined to be significant. The environmental impact requirement of CEQA mandates public involvement in the decision-making process. CEQA also provides that agencies can approve or undertake projects which will significantly impact the environment if the agency makes specific findings of overriding social or economic considerations.

The Wildlife Conservation Law establishes a three-member Wildlife Conservation Board to select and acquire lands and facilities for recreational use and for conservation, propagation, and utilization of the state's fish and game. The Wildlife Conservation Law allows the use of eminent domain except for acquisition of agricultural land.

The California Wetlands Preservation Act establishes a state policy of preserving, restoring, and enhancing wetlands; authorizes California Department of Parks and Recreation as well as Department of Fish and Game to acquire wetlands; and encourages state agencies to cooperate with local agencies in wetlands management. The Act does not specify how the wetlands are to be managed or specify what land uses are allowed.

The Native Species Conservation and Enhancement Act establishes a state policy of maintaining the habitat necessary to ensure the continued existence of all native species of wildlife and plants. The Act, which establishes funding mechanisms for acquisition and management of lands, has been used to preserve a considerable amount of habitat in California. The Fish and Game Commission is responsible for implementing this Act.

The Native Plant Protection Act prohibits the taking, import, or sale of rare or endangered plant species subject to several broad exceptions. The exceptions include the possession or sale of real property on which the plant is growing, loss to agricultural practices, including the clearing of land, and loss during authorized timber harvest operations. The exceptions are limited; if the Department of Fish and Game has notified the landowner of the presence of a rare or endangered species, the landowner must give the Department of Fish and Game ten days notice before destroying protected plants to allow an attempt to salvage the species. The only lands on which the Act affords full protection are public lands with uses other than resource development.

The Williamson Act allows landowners to enter restrictive use contracts with local governments in exchange for reduced tax assessments. Generally, the Act is used to protect agricultural and grazing land from urban conversion. Many local governments also enter contract with specific landowners to preserve open space. The contracts are limited to ten-year periods and may be revoked by governments under certain conditions.

B. MINERAL RESOURCES

Huntington Beach has been the site of the extraction of oil and gas, sand and gravel, and peat products over many years. Large scale oil and gas production has occurred since the 1920s and continues to the present time. The extraction of oil from the ground has contributed to subsidence in areas (see **Figure EH-9**) of a maximum of 5 feet. Secondary production of oil which entails water injection into the ground is anticipated to curtail further subsidence.

1. Oil and Gas

Oil wells in Huntington Beach are scattered throughout much of the City. Most of them are concentrated along the coastal areas and mesas of the City. Recently, oil production is decreasing due to the expenses incurred in oil extraction.

The City of Huntington Beach lies over several oil producing areas, comprising the Talbert, Sunset Beach, West Newport and Huntington Beach oil fields. These oil fields and several others associated with the Newport-Inglewood Fault Zone have produced more than five billion barrels of oil (Norris, 1976). Oil fields in Huntington Beach produced 4.8 million barrels of oil in 1989 and an estimated 67.5 million barrels remain in reserve (Wright, 1991).

Natural gas associated with oil extraction is also being mined. Total production of natural gas from the Huntington Beach area totaled over 2,148 million metric cubic feet in 1989. It has been estimated that approximately 35,000,760 million metric cubic feet remain untapped in reserve.

2. Sand and Gravel

The market for sand and gravel in southern California is primarily in residential, commercial and industrial construction. Rapid urbanization has forced zoning changes and restrictions which often have led to the closure of several sand and gravel operations. Currently two companies operate an aggregate processing plant at the intersection of Gothard and Talbert. This joint venture is a recycling plant for asphalt and concrete. The asphalt and concrete are recycled to what is known as a crushed miscellaneous base. This is only a processing plant and no substantial volume of material is being mined.

3. Peat

R.W. McClellan and Sons operated a peat production facility from 1941 to 1954. Their operation ceased when the City of Huntington Beach acquired the property in 1954 (McClellan, 1992). No further mining of peat or other soil conditioners is known to occur at the present time.

C. WATER RESOURCES AND WATER QUALITY MANAGEMENT

The receiving waters in Huntington Beach include the Pacific Ocean, Huntington Harbour, Anaheim Bay, Bolsa Chica wetlands, Huntington Beach Wetlands, Huntington Lake, Talbert Lake, Sully Miller Lake, Greer Park Lake, Blackbird Pond, as well as flood control channels. These receiving waters support numerous beneficial uses for people and wildlife. The beneficial uses include marine habitat; water contact recreation; non-contact water recreation; wildlife habitat; commercial and sportfishing; shellfish harvesting; rare, threatened or endangered species; spawning, reproduction, and development; and estuarine habitat.

Urban runoff consists of both dry and wet weather runoff that may flow untreated from our developed urban areas into our gutters, storm drains, and ultimately into our receiving waters. Runoff from streets, parking lots, residential areas, commercial and industrial businesses, and private yards may contain many harmful pollutants. Pollutants include oil, grease, fertilizers, pesticides and herbicides, heavy metals, paints and household chemicals, construction material, waste from pets and other animals, trash and eroded soil. The pollutants are deposited on the surface of the land and can be carried into the drainage system and ultimately into the receiving waters.

Pollutants degrade water quality and negatively impact wildlife and plants dependent on aquatic habitat. The City is a co-permittee with the County of Orange and other Orange County Cities in the National Pollution Discharge Elimination System (NPDES) municipal stormwater permit issued by the Santa Ana Regional Water Quality Control Board. The permit requires the City to continue to implement ongoing stormwater quality management programs and develop additional programs in order to control pollutants in stormwater discharges. The permit requires "Best Management Practices" associated with legal authority, municipal activities, public education, new development and significant redevelopment, construction, existing development, illegal discharge and illicit connections, and water quality monitoring. Implementing the permit requirements and watershed protection principles are imperative to the protection and enhancement of the beneficial uses of our receiving waters.

ISSUES

The issues for each of the six components of the Environmental Resources/Conservation are derived from the General Plan Update Technical Background Report. Following each issue is an italicized reference to the General Plan policy addressing that issue.

1. Open space is comprised of many resources including parks, natural recreation resources, beaches, lakes, biological resource areas, scenic highways, and other developed land uses such as cemeteries. Since the types of open space uses are so varied, policy needs differ from one use to another. Therefore, the goals, policies, and programs contained under this heading of "open space" serve as an umbrella policy statement for all open space uses. The more specific policies supporting the special needs of a specific open space use are described in a chapter or section directly relating to the use. For example, open space-park policy is contained in the Parks/Recreation chapter, open space-scenic highway policy is discussed in the Circulation chapter, open space-biological resource

policy is discussed in this chapter, etc. (*ERC 1.1.1, ERC 1.1.2, ERC 1.2.1, ERC 1.2.2, and ERC 1.2.3*)

2. The City has many established trees, some of which form groves, such as those in Central and Gibbs Parks. These trees provide nesting and roosting areas for both birds and butterflies, as well as perches for raptor species. The removal of trees could adversely impact these species. The City has not defined "significant" trees or groves, nor has any policy been adopted regarding the protection of the trees or groves as biological habitat resources. (*ERC 2.1.22*)

3. Huntington Harbour, the Bolsa Chica Wetlands, the Huntington Beach Wetlands, the Talbert and Huntington channels, Anaheim Bay, and the Naval Weapons Station wetlands are used as spawning and nursery areas for a number of marine fishes, including important commercial fishes (i.e., turbot and halibut). Past development coupled with the ongoing modifications to the Santa Ana River mouth and Huntington Beach Wetlands outlet have directly impacted areas through filling, dredging and channelization. Urban runoff has also impacted these areas adversely and reduced their biological role. (*ERC 2.1.1, ERC 2.1.3, ERC 2.1.4, ERC 2.1.5, and ERC 2.1.17*)

4. Threatened and endangered birds including least tern, Brown Pelican, and Belding's Savannah sparrow utilize Bolsa Chica, Huntington Beach Wetlands, and beach areas for nesting and/or foraging. Development in these areas may result in changes that could adversely impact these birds. (*ERC 2.1.1, ERC 2.1.3, ERC 2.1.4, ERC 2.1.5, ERC 2.1.8, and ERC 2.1.9*)

5. Stormwater runoff from streets with oil and grease is known to adversely impact marine biological resources. (*ERC 2.1.18*)

6. While important biologically, coastal dunes, beach, the surf zone, and the off-shore areas are recognized as important recreational amenities. The off-shore area is an important foraging area for coastal fishes (surf perch and others) and for marine birds, and is used by a variety of marine mammals, seals and dolphins, including the California Gray Whale. The beach and upper surf zone provides nesting areas for birds (least tern) and fishes (grunion). The coastal dunes, which provide a special habitat, have been reduced by urban development erosion and degradation and the intensification of beach uses.

   Further intensification of coastal uses could adversely impact species either by interruption, increased light, or increased sand degradation and erosion. Processes affecting coastal sand transport could reduce the quantity of sand within and beyond the City. Changes in ocean water quality due to urban runoff, accidental sewage discharges, or oil spills could adversely impact birds, fish and marine mammals. (*ERC 2.1.1, ERC 2.1.3, ERC 2.1.5, ERC 2.1.8, ERC 2.1.9, ERC 2.1.11, ERC 2.1.14, ERC 2.1.15, ERC 2.1.16, ERC 2.1.17, ERC 2.1.18, and ERC 2.1.24*)

7. There are more than 61 parks located within the City. While many of these parks are designed primarily for recreational use, those which have remained undeveloped or have been "naturalized" (e.g., the Nature Center in Central Park) provide habitat for birds and insects. (*ERC 2.1.5, ERC 2.1.6, ERC 2.1.19, ERC 2.1.20, and ERC 2.1.23*)

8. The three freshwater lakes in Central Park are used by a number of songbirds and waterfowl. Mosquito abatement efforts have the potential to create adverse impacts on the aquatic habitat. Efforts are, therefore, required to ensure the preservation of habitat, without having public health impacts.

   Other lakes located in Ocean View High School, Chris Carr Park and Greer Park Annex can provide habitat for a variety of bird species, both resident and migratory. However, these sites are islands surrounded by residential development. Birds using these sites may be subject to predation by cats and subject to intrusions by local residents. (*ERC 2.1.2, ERC 2.1.6, ERC 2.1.9, ERC 2.1.23, and ERC 2.1.25*)

9. Bolsa Chica bluffs and the Santa Ana Gap bluff edge provide climatic conditions, especially up-drafts, which benefit raptor species perching on the trees located in the Bolsa Chica and on the Huntington Beach mesa. These climatic conditions allow the raptors a full use of foraging areas to the northwest, the Naval Weapons Station, the south, and the Huntington Wetlands. The Bolsa Chica bluffs could also be used as roosting areas by burrowing owls. Development in the vicinity of these bluffs may result in changes to the climatic conditions, removal of nearby perch trees, or damage to the bluff face. (*ERC 2.1.5, ERC 2.1.6, ERC 2.1.7, ERC 2.1.9, ERC 2.1.10, LU 5.1.1, LU 5.1.2, and LU 5.1.3*)
10. Development of the Bolsa Chica mesa and bluff areas may create additional runoff and foot-traffic impacts, thereby reducing the effectiveness of the wetland area restoration. In addition, development of the mesa areas could impact bird species that currently forage and nest in these areas. (*LU 5.1.1, LU 5.1.2, LU 5.1.3*)
11. The proposed restoration of Bolsa Chica would impact the existing wetland areas. For example, changes in tidal movements or new tidal flows may create adverse impacts. (*ERC 2.1.13, ERC 2.1.14, ERC 2.1.15, LU 5.1.1, LU 5.1.2, and LU 5.1.3)*
12. Changes to water quality within Huntington Harbour may impact the biological diversity of both Anaheim Bay and Bolsa Chica. Such changes may occur because of dredging, or the use of anti-fouling paints. (*ERC 2.1.16 and ERC 2.1.17*)
13. Development of areas to the northeast of Bolsa Chica, towards Central Park, and the swales located to the south of Central Park could further reduce existing freshwater/riparian habitat. Although currently degraded many bird species use these areas. (*ERC 2.1.7 and ERC 2.1.14*)
14. Increased urban runoff into the Talbert and Huntington Beach channels may adversely impact restoration efforts in the Huntington Beach Wetlands. (*ERC 2.1.4 and ERC 2.1.18*)
15. Mineral resource issues were not identified in the Technical Background Report, however, issues associated with mineral resources include:
    - preserving access to oil reserves;
    - encouraging the use of methods such as slant drilling which promotes consolidation of oil uses;
    - encouraging the most technological advanced recovery methods;
    - ensuring land use and aesthetic compatibility; and
    - maximizing health and safety of persons living or working nearby. (*ERC 3.1.1, ERC 3.1.2, and ERC 3.1.3*)
16. Architectural design and development needs to be sensitive to the community's coastal setting (i.e., ocean views). Other aesthetic issues are discussed as part of the Urban Design Element. (*ERC 4.1.4, ERC 4.1.5, and ERC 4.1.6*)
17. As non-renewable resources have been progressively depleted and as resource costs continue to rise, residents and business persons have become increasingly aware of resource conservation as a means to slow the resource depletion. The resources addressed in this section include water, electricity, and gas. Air resources and air resource conservation are discussed in the Air Quality Element of this General Plan. (*ERC 1.1.1, ERC 5.1.2, ERC 5.1.3, ERC 5.2.1, ERC 5.2.2, and ERC 5.2.3*)

GOALS, OBJECTIVES, AND POLICIES

The following section presents the goals, objectives, and policies for Environmental Resources which consists of these components: Open Space, Biological Resources, Mineral Resources, Aesthetic Resources, and Water, Electricity and Gas Conservation. Listed at the end of each policy is a capital "I" and number(s) in parentheses which refers to the pertinent implementation program(s). Responsible implementation agencies, implementation schedule, and possible funding sources are identified in the Environmental Resources Conservation Matrix.

Open Space

Goal
ERC 1
Improve and enhance the overall aesthetic value and appearance of the City of Huntington Beach through the provision and maintenance of local public and private open space.

Objective
ERC 1.1
Provide a quality open space network that is spatially distributed throughout all areas of the City.

Policies
ERC 1.1.1
Encourage the provision of open space elements within the larger-scale development projects including but not limited to public plazas, entry courts, and planned development common areas. (*I-ERC 1*)

ERC 1.1.2
Review the role and distribution of public facilities including parks, and school sites in the open space network. (*I-ERC 3, I-PR 8*)

Objective
ERC 1.2
Enhance the environmental quality of the City's open spaces (including parkland, beaches, scenic highways, and other open spaces), thereby, improving the quality of life.

Policies
ERC 1.2.1
Identify those areas of the City and the Bolsa Chica that are important to protect through land use regulation or public ownership because of their inherent environmental, ecological and/or aesthetic contribution to the scenic and natural qualities of Huntington Beach. (*I-ERC 3 and I-RCS 5*)

ERC 1.2.2
Provide cooperative leadership between private interests and other public agencies to protect and enhance both land and water resources. (*I-ERC 4*)

ERC 1.2.3
Increase the awareness and responsibility of the private sector and residents to assist with the monitoring and maintenance of open space resources. (*I-ERC 3 and I-RCS 5*)

Biological Resources

Goal
ERC 2
Protect and preserve significant habitats of plant and wildlife species, including wetlands, for their intrinsic values.

Objective
ERC 2.1
Evaluate, enhance, and preserve the City's important habitat areas.

Policies
ERC 2.1.1
Acquire and maintain the most current information available regarding the status and location of sensitive biological elements (species and natural communities) throughout the City. (*I-ERC 2*)

ERC 2.1.2
Identify and protect significant habitats in the Gibbs Park, Bolsa Chica, Huntington Beach Wetlands, and throughout the City, to the extent feasible. (*I-ERC 1 and I-ERC 2*)

ERC 2.1.3
Encourage the county to include environmentally sensitive lands near the mouth of the Santa Ana River, north of Newland Street, Bolsa Chica Wetlands and the Huntington Beach Wetlands (the United States Army Corps of Engineers [US ACOE] mitigation project) for inclusion into a coastal wetlands preserve. (*I-ERC 4*)

ERC 2.1.4
Investigate the possibility of including the lands along the Huntington and Talbert channels into the wetlands preserve. (*I-ERC 2*)

ERC 2.1.5
Identify and determine whether wetlands, coastal dunes, bluffs, or riparian areas, will be given Environmentally Sensitive Habitat Area (ESHA) status under the Coastal Plan. (*I-ERC 4*)

ERC 2.1.6
Preserve the habitat of significant natural open space areas, and provide linkage with other restored areas. (*I-ERC 1 and I-ERC 2*)

ERC 2.1.7
Develop council approved plans that provide natural open space linkages between Central Park, the freshwater riparian habitat to the southwest, and the freshwater marsh areas within Bolsa Chica. These linkages may include the use of open space dedications, development of park/natural reserves, or greenbelts. (*I-ERC 1 and I-ERC 5*)

ERC 2.1.8
Require the restoration of coastal dunes within areas designated for preservation (i.e., within the Bolsa Chica study area and the mouth of the Santa Ana River/Huntington Beach Wetlands). (*I-ERC 1, I-ERC 2, and I-ERC 4*)

ERC 2.1.9
Preserve the habitat of endangered species, including those listed in Table BR-1 of the Technical Background Report and those which may be considered by the City in the future. (*I-ERC 1, I-ERC 2, and I-ERC 4*)

ERC 2.1.10
Conduct construction activities to minimize adverse impacts on existing wildlife resources. (*I-ERC 1*)

ERC 2.1.11
Promote the improvement of tidal circulation in Bolsa Chica, Huntington Harbour, Huntington Beach Wetlands and Anaheim Bay resulting in minimal impacts to sand migration, aesthetics, and usability of the beach area. (*I-ERC 1, I-ERC 2 and I-ERC 4*)

ERC 2.1.12
Promote the preservation and restoration of those sensitive biological areas identified by **Policy 2.1.1.** (*I-ERC 1*)

ERC 2.1.13
Advocate that the County tie any upland development in the Bolsa Chica Local Coastal Plan segment area to a Bolsa Chica Wetland Restoration Plan, approved by the Coastal Commission. (*I-ERC 4*)

ERC 2.1.14
Establish a mitigation monitoring program for all projects, including the Wetlands Restoration Plan and Implementation Program, to insure continued viability of restored wetlands and ESHAs. If feasible, a test program shall be established as a prelude to major restoration efforts. These will document conditions by which various habitats are best established, and define criteria for success in the Wetlands Restoration Plan and Implementation Program. (*I-ERC 1*)

ERC 2.1.15
Monitor wetland restoration efforts within the City, and establish educational/ administrative facilities to be provided by appropriate agencies, and work closely with the county restoration efforts of the Bolsa Chica. (*I-ERC 1 and I-ERC 4*)

ERC 2.1.16
Control the use of anti-fouling chemical treatments on boats moored in the harbor. (*I-ERC 4 and I-ERC 5*)

ERC 2.1.17
Monitor and educate Huntington Harbour residents, boaters, and boat owners on proper boating pollution prevention methods such as anti-fouling chemical use, boat maintenance, vessel discharges (bilge waste, sewage pump-outs, gray water), and fish waste management. *(I-ERC 4 and I-ERC 5)*

ERC 2.1.18
Support efforts such as the Huntington Harbour residents' plan to set up a "Harbour Watch Program" to encourage boaters to be educated and address various water quality issues. *(I-ERC 4 and I-ERC 5)*

ERC 2.1.19
Support efforts to maintain an adequate quantity of boater sewage pump-out facilities in Huntington Harbour and encourage frequent inspections by operators and oversight agencies to ensure pump-outs are properly operating. *(I-ERC 4 and I-ERC 5)*

ERC 2.1.20
Monitor harbor dredging to ensure minimal impacts to water quality, plant, and biological resources. (*I-ERC 4 and I-ERC 5*)

ERC 2.1.21
Require efforts which reduce urban storm water, including the:

a. use of approved and/or best available runoff control management techniques in new development including the National Pollution

Discharge Elimination System Standards (NPDES);

b. adoption of guidelines to reduce runoff from construction sites. These implementation guidelines will be developed with the guidance and approval of the Santa Ana Regional Water Quality Control Board and the State Water Resources Control Board;

c. establishment of runoff controls for soils removed in restoration and/or remediation of oil sites; and

d. development of plans to modify flood control channels that empty into the Bolsa Chica, Huntington Beach Wetlands and beach areas. These modifications should enhance the upstream ability to remove harmful constituents from runoff before entering the wetlands, while not altering the their flood control ability. (*I-ERC 1 and I-ERC 2*)

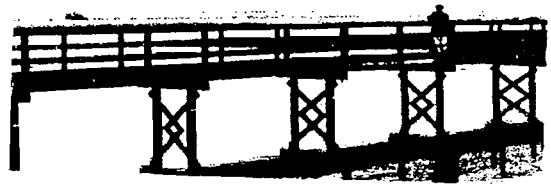
ERC 2.1.22
Participate and enroll in the State's Natural Community Conservation Plan (N.C.C.P.) pursuant to Chapter 10 of AB 2172 (Kelley) Natural Community Conservation Planning Act in forwarding the State's policy to conserve biological diversity through protection of natural communities. (*I-ERC 6*)

ERC 2.1.23
Support efforts such as the California Coastal Conservancy's Fairview and Talbert Regional Park Enhancement Plan. Although the Regional Park is outside of the City, the restoration effort on the Santa Ana River in this area, and throughout its length, could provide possible educational opportunities within the City. (*I-ERC 4*)

ERC 2.1.24
Advocate the development of the Harriett M. Weider Regional Park. (*I-ERC 4*)

ERC 2.1.25
Define the terms "significant" tree or grove and develop specific measures to protect trees/groves that meet said definition. (*I-ERC 5*)

ERC 2.1.26
Develop natural areas in the City's existing parks, where appropriate, and include plans for nature parks in future park development. Nature parks and natural areas should be designed so that habitat values for wildlife are emphasized on a par with recreational values. This would include development of parks such as the Harriett M. Weider Regional Park between Central Park and the beach as a natural space linkage. Also, include links to the riparian and freshwater marsh areas of Bolsa Chica. (*I-ERC 2*)



ERC 2.1.27
Improve infrastructure and implement programs that would prevent sewage system failures which may result in the discharge of untreated sewage, and consequently, in the closure of beaches and Huntington Harbour. (*I-ERC 4*)

ERC 2.1.28
Desilt Talbert Lake, if determined by the City of Huntington Beach Public Works Department to be economically feasible and environmentally responsible. (*I-ERC 2*)

ERC 2.1.29[2]
Development thresholds, as provided in **Policies LU 2.1.4, 2.1.5, and 2.1.6**, shall first be considered to be implemented in areas known to support significant biological resources. Areas identified in **Policies ERC 1.1.2, 2.1.1, and 2.1.2** shall be recognized as priority for the thresholds and thus some level of protection can be afforded to them prior to proposals for development. (*I-ERC 1*)

[2] Mitigation Measure BR-1 as specified in EIR No. 94-1

Mineral Resources

Goal
ERC 3
Designate areas and monitor mineral/oil extraction.

Objective
ERC 3.1
Permit extraction of significant mineral/oil resources in a manner which ensures land use compatibility, and minimizes environmental degradation.

Policies
ERC 3.1.1
Identify appropriate access areas, and permit extraction of significant oil and other mineral resources in designated resource areas. (*I-ERC 1 and I-ERC 5*)

ERC 3.1.2
Require the use of approved and/or "state of the art" drilling and pumping technology, thereby minimizing the quantity of lands used for oil extraction. (*I-ERC 1 and I-ERC 5*)

ERC 3.1.3
Ensure that mineral/oil resources production activities are compatible with adjacent uses by reviewing and applying appropriate conditions which:

a. mitigate noise, odor, and dust impacts and may limit the hours of production activities;
b. provide for visual integration with adjacent uses (e.g., incorporation of on-site landscape buffer and decorative walls);
c. provide for the restoration and reuse of abandoned oil sites subject to the discretionary approval of the appropriate decision making body;
d. require that specific development proposals for mineral/oil extraction be subject to the discretionary approval of the appropriate decision making body;
e. require that access roads to resource extraction areas meet standards for noise, dust control, erosion control and grading, to minimize adverse impacts to adjacent residential and commercial areas;
f. provide for safe and appropriate recovery methods;
g. establish measures to guarantee accurate reporting of production figures, and enforce abandonment regulatory measures; and
h. require annual inspection and monitoring programs. (*I-ERC 1*)

Objective
ERC 3.2
Ensure mineral/oil resource extraction areas are properly reclaimed after resource extraction has been terminated.

Policies
ERC 3.2.1
Review all mineral/oil reclamation projects under the policies and procedures of the California Environmental Quality Act and the Surface Mining and Reclamation Act. (*I-ERC 1 and I-ERC 4*)

ERC 3.2.2
Require that permits for mineral/oil reclamation projects specify compliance with State, Federal and local standards and attainment programs with respect to air quality, protection of rare, threatened or endangered species, conservation of water quality, watersheds and basins, and erosion protection. (*I-ERC 1 and I-ERC 4*)

ERC 3.2.3
Require that the Planning Commission and City Council have discretionary approval of all reclamation plans. (*I-ERC 1*)

Aesthetic Resources

Goal
ERC 4
Maintain the visual quality of the City's natural land forms and water bodies.

Objective
ERC 4.1
Enhance and preserve the aesthetic resources of the City, including natural areas, beaches, bluffs and significant public views.

Policies
ERC 4.1.1
Preserve the undeveloped "natural" and open space areas as determined in the Land Use Element. (*I-ERC 1, I-LU 2, I-LU 4, I-LU 10, I-LU 11, I-LU 20, and I-LU 21*)

ERC 4.1.2
Maintain and expand the Library, Nature Center, passive recreational areas, and lake areas of Central Park as an aesthetic open space amenity. (*I-ERC 3*)

ERC 4.1.3
Provide public sites containing natural features with natural history educational opportunities. (*I-ERC 3*)

ERC 4.1.4
Develop implementation programs that will preserve and maintain the physical features of the wetlands, bluffs, and beaches. (*I-ERC 4 and I-ERC 5*)

ERC 4.1.5
Promote the preservation of public view corridors to the ocean and the waterfront through strict application of local ordinances, design guidelines and related planning efforts, including defined view corridors. (*I-ERC 1*)

ERC 4.1.6
Require that future development be designed and sited to maintain the natural topographic characteristics of the City including the minimization of the area and height of cuts and fills. (*I-ERC 1*)

ERC 4.1.7
Include commercial, residential, industrial, and natural areas in the billboard removal programs. (*I-ERC 7*)

ERC 4.1.8
Include commercial, residential, industrial, and natural areas in the electrical undergrounding program. (*I-ERC 8*)

Water, Electricity, and Gas Conservation

Goal
ERC 5
Conserve the natural environment and resources of the community for the long-term benefit and enjoyment of its residents and visitors.

Objective
ERC 5.1
Create and implement means through which the use and management of the natural environment and resources of the community can be monitored and protected from damage or misuse.

Policies
ERC 5.1.1
Continually monitor the implementation and enforcement of water quality regulations by appropriate County, State and Federal agencies to prevent additional pollution of the City's aquatic and intertidal environments. (*I-ERC 2 and I-ERC 4*)

ERC 5.1.2
Continue to evaluate and mitigate the effects of domestic and industrial wastes on living marine resources, through the conduct of objective biological studies performed by appropriate regulatory agencies and implementation of recommended mitigation measures by property owners or facility operators, to ensure the protection and viability of these biological communities. (*I-ERC 2*)

ERC 5.1.3
Continue to seek viable and environmentally-sensitive alternatives to the present use of automobiles as the primary means of public access to the beach area. Some of the available alternatives include public and private transit services, bikeways, the incorporation of new technology such as electrification, and public walkways to the beach area. (*I-C1*)

Objective
ERC 5.2
Provide ample opportunities for businesses and residents of the community to conserve and reuse natural resources.

Policies
ERC 5.2.1
Require, the use of reclaimed water in common areas and landscape treatments of all proposed developments. (*I-ERC 1*)

ERC 5.2.2
Create standards for landscaping and irrigation which are in compliance with State requirements. (*I-ERC 5*)

ERC 5.2.3
Require that the use of energy saving designs and materials be incorporated into the construction of all public buildings, while encouraging their use City-wide. (*I-ERC 1*)

ERC 5.2.4
Require utility provided conservation evaluations be performed prior to construction of all public buildings and projects. (*I-ERC 1*)

Water Resources and Water Quality Management

Goal
ERC 6
Protect and enhance the beneficial uses of our receiving waters.

Objective
ERC 6.1
Minimize impacts from urban runoff into receiving waters.

Policies
ERC 6.1.1
Create and implement means to reduce the quantity and improve the quality of runoff and discharge of pollutants to the maximum extent practicable by integrating surface runoff controls and Best Management Practices into new development and redevelopment land use decisions.
(I-ERC 2)

ERC 6.1.2
Minimize particulate matter pollution through control over new development and redevelopment (including erosion and sediment controls on grading, quarrying, vegetation removal, construction and demolition), industrial processes, parking lots, and other activities, which pose such a threat to water quality.
(I-ERC 2)

ERC 6.1.3
Establish an educational program to provide information and incentives to local businesses, visitors and residents for the implementation of "Best Management Practices" for pollution prevention and control. *(I-ERC 2)*

ERC 6.1.4
Limit and minimize the disturbance and modifications of natural water bodies, drainage systems and hydrology. *(I-ERC 2)*

ERC 6.1.5
Require incorporation of controls in new development and redevelopment projects, including structural and non-structural Best Management Practices (BMPs), to mitigate the projected increases in pollutant loads and flows. *(I-ERC 2)*

ERC 6.1.6
Ensure that post-development runoff rates and velocities from a site have no significant adverse impact on downstream erosion and stream habitat. *(I-ERC 2)*

ERC 6.1.7
Minimize the quantity of urban runoff directed to impermeable surfaces and maximize the percentage of permeable surfaces to allow more percolation of urban runoff into the ground. *(I-ERC 2)*

ERC 6.1.8
Encourage the use of water quality wetlands, biofiltration swales, watershed scale retrofits, and other natural treatment methods, where such measures are likely to be effective and technically and economically feasible. *(I-ERC 2)*

ERC 6.1.9
Require the use of native, drought-tolerant landscape materials. *(I-ERC 2)*

ERC 6.1.10
Require the use of "smart irrigation controllers" and other innovative means to reduce the quantity of runoff generated. *(I-ERC 2)*

IMPLEMENTATION PROGRAMS

I-ERC 1
Development Review/Environmental Review (CEQA)

Through the development review process and as determined by the City to be required:

a. determine the proposal's conformance with the requirements of local, State, and Federal environmental protection laws, such as but not limited to the California Environmental Quality Act (CEQA);

b. examine each development's potential to provide public plazas, entry courts, or common areas;

c. examine each development's potential to encroach upon Biological Resource Areas. Determine the necessity for Mitigation Agreements or other coordination with the California Department of Fish and Game, and/or federal permits from the US Army Corps of Engineers, or other agencies for developments that appear to affect Biological Resource Areas directly through grading, construction, vegetation removal, or other factors;

d. permit resource dependent and public-service related land uses within Biological Resource Areas if they are consistent with biological resource protection;

e. require improving the natural biological value, integrity and function of coastal wetlands, and dunes through vegetation restoration, control of alien plants and animals, and landscape buffering;

f. require truck routing plan for all proposed mineral/oil extraction operations;

g. require all extraction operations to mitigate noise, odor, and dust impacts, to the maximum extent feasible;

h. require extraction operations to visually buffer extraction facilities and equipment from surrounding land uses;

i. require that open space easements be dedicated to the City, master homeowners association, or other responsible party as a condition of the approval process for all new projects proposed in "natural" open space areas;

j require a reclamation plan pursuant to state and federal statutes;

k. require that all proposals for mineral/oil extraction and reclamation be reviewed by the Planning Commission and City Council; and

l. encourage the use of reclaimed water for the irrigation of all large landscaped areas (i.e., common spaces, parkways, landscape medians, parks, etc.) in all developments.

m. Review any development proposal for the Bolsa Chica area to ensure that no development is permitted in Federally delineated wetlands; and

n. Review any development proposed for non-wetland areas to ensure that appropriate setbacks and buffers are maintained between development and environmentally sensitive areas to protect habitat quality.

I-ERC 2
Studies/Feasibility Analysis

The City will:

a. consider establishing a density bonus or other incentive for the creation of open space on a private development site;

b. obtain a data base report of sensitive biological elements, including plants, animals, and natural communities as identified by the California Department of Fish and Game's Natural Diversity Data Base (CDFG NDDB). The area of coverage required shall include the two 7.5-minute quadrangles (Seal Beach and Newport Beach) encompassing the City Limit and Sphere of Influence. This report can be obtained directly from the CDFG NDDB and should be available during the initial study phase of a project;

c. contract with a consulting biologist and/or other appropriate environmental professionals, as funding permits, to conduct surveys and prepare assessment of areas for inclusion as ESHAs or having the potential of being restored. These areas will be identified in a Biological Resource Area map overlay. The recommendations of the consultant shall be considered during the environmental review process of development applications of identified parcels;

d. retain the services of appropriate consultants to determine levels of stormwater runoff, its pollution load, and develop a Citywide Urban Runoff Management Plan, as funding permits;

e. conduct a flood channel restoration feasibility analysis, as funding permits, and, if necessary, establish a channel restoration fund to finance restoration efforts;

f. contract with a consulting biologist and/or other appropriate biological professional, as funding permits, to conduct grunion usage survey and prepare an assessment of potential impacts of renewed beach usage by people;

g. continue to monitor and analyze local waterfront, receiving water quality and ocean water quality conditions. When contamination sources or pollutants are identified, appropriate, timely, and effective actions shall be taken to clean the source and prevent further pollution and potential damage to aquatic/biological resources, and the intertidal environmental, in accordance with Federal and State law;

h. research energy saving and conservation techniques which can be incorporated into the designs of community structures. A list should be created which identifies incentives for developments which incorporate energy saving design into their projects; and

i. continue to research the feasibility of desilting Talbert Lake. If appropriate to desilt, prepare and implement a desiltation work program, as funding permits.

j. implement urban runoff pollution control measures and programs to reduce and control the discharge of pollutants into the storm drains and other receiving water bodies to the maximum extent practicable.

k. Create and maintain a Sanitary Sewer Management Plan (SSMP) in an effort to reduce sanitary sewer overflows (SSO).

I-ERC 3
Recreation and Community Services Element

a. Implement the Element's policies and programs.

b. The City shall update the Parks and Recreation Master Plan to ensure that existing parks, beaches, and other designated open spaces meet the needs of the City.

c. Utilize park and open space needs contained in the Parks and Recreation Master Plan as a guideline for future acquisition of open space.

I-ERC 4
Interagency Coordination

a. Coordinate with local, state and federal agencies to ensure the proper protection and/or enhancement of the City's open space resources.

b. Meet periodically with the California Coastal Conservancy to review the progress in regional park restoration and to discuss areas within the City for which the Conservancy can provide assistance.

c. Consult with the California Department of Fish and Game and U.S.F.W.S. on any project that could affect a species that is listed or in fact rare, threatened or endangered (CEQA Guideline Section 15380, as identified by the biological survey).

d. Actively encourage and pursue:

- the inclusion of the lands into a coastal wetlands preserve;
- the linking of any upland development in the Bolsa Chica Local Coastal Plan area to the Bolsa Chica Wetland Restoration Plan;
- restoration of Bolsa Chica; and
- the development of the Harriett M. Weider Regional Park.

e. Coordinate with responsible local, County, State, and Federal agencies to establish development compliance criteria, health hazard safeguards, and necessary on-site monitoring programs to assure mitigation of potential environmental impacts (such as approved access, dust, noise, visual).

f. Coordinate with the Orange County Sanitation District in identifying infrastructure requiring maintenance and/or replacement and schedule repairs.

g. Coordinate with the Coast Guard and the local oil spill companies to ensure prompt and thorough clean up.

h. Coordinate with other local agencies including local schools, businesses and neighborhood associations in order to maintain a watershed based approach to land use, flood control, water conservation and pollution prevention.

i. Coordinate with Southern California Association of Governments, League of California Cities, Regional Water Quality Control Board's for San Diego and Los Angeles regions, County of Orange, cities, and other relevant organizations to develop a plan to eliminate dry weather urban runoff and pollutants from storm flows.

I-ERC 5
Ordinances

a. Adopt and enforce:

- a water pollution ordinance to protect the City's surface waters including guidelines for the use of anti-fouling treatments by boat repair services operating in the City of Huntington Beach and the use of such treatments by boat owners that use Huntington Harbour as their home port;
- an ordinance to define, identify, and protect significant **(See ERC 2.1.22)** trees and groves. In addition, the City Council should adopt an ordinance establishing tree maintenance procedures/ practices as recognized by the International Society of Arboriculture. The ordinance shall be developed through input from Arborists, City Officials, and concerned residents which may occur through deliberation of a City Council appointed Board, Committee, or Task Force. The definition and identification of significant trees and groves shall be determined through this process; and

- an oil extraction overlay which maps oil fields and delineates access areas and encourages oil unification and consolidation projects.

b. Revise:

- the landscape and irrigation design standards to comply with State mandated requirements; and
- the municipal code and/or establish pertinent design guidelines to implement aesthetic resource standards and policies.

I-ERC 6
Natural Community Conservation Plan

Once the NCCP's are approved and Recommended Subregional Habitat Conservation Guidelines are developed by the State, the City of Huntington Beach shall participate in said plans for local compliance with the California Endangered Species Act (CESA) and the Federal Endangered Species Act (FESA).

I-ERC 7
Billboard Removal

Continue to pursue the removal of billboards.

I-ERC 8
Electrical Underground Program

Continue to implement the electrical facilities undergrounding program.

No.	Name	ADMINISTRATION																				
		Community Development Department	Community Services Department	Economic Development Department	Fire Department	Library Services Department	Police Department	Public Works	Planning Commission	City Council	School Districts	County of Orange	Other	General Funds	Assessment Districts	Development Fees	Redevelopment Tax Increment Revenue	Grants	Other Approved Fees	State Funds	Federal Funds	
		CITY OF HUNTINGTON BEACH												CITY OF HUNTINGTON BEACH								
PROGRAM		RESPONSIBLE AGENCY												FUNDING SOURCE								SCHEDULE
ERC-1	Design Review / Permitting Process/ Environmental Review	●												●		●						Ongoing *
ERC-2	Studies / Feasibility Analysis	●						●						●		●			●			Ongoing *
ERC-3	Parks and Recreation Element		●											●								Ongoing *
ERC-4	Interagency Coordination	●												●		●						Ongoing *
ERC-5	Ordinances	●						●	●					●					●			Ongoing *
ERC-6	Natural Community Conservation Plan	●											●	●								1 Year Upon State's Action
ERC-7	Billboard Removal	●						●						●								Ongoing *
ERC-8	Electrical Undergrounding Program							●						●								Ongoing *

* As funding permits