

XII. ENVIRONMENTALLY SENSITIVE HABITAT AREAS

A. INTRODUCTION

The City of Morro Bay is fortunate to have many unique environmental habitat areas within and immediately adjacent to the community. Besides providing a unique setting for the City, there are critical habitat areas for several rare and endangered plant and animal species.

The California coastal Act of 1976 requires that the biological productivity and quality of coastal waters, streams, wetlands and estuaries be maintained, and where feasible, restored.

While the Morro Bay area contains a relatively large amount of environmentally sensitive habitat areas, the majority of these are under the jurisdiction of either the State Department of Parks and Recreation, the State Department of Fish and Game, or San Luis Obispo County. Those policies and standards recommended for areas outside the city are advisory only. Environmentally sensitive habitat areas within the city but under State Park and Recreation or Fish and Game jurisdiction must be managed consistent with the city's Local Coastal Plan.

B. COASTAL ACT POLICIES

In its aim to protect, enhance and restore the sensitive habitat areas of the coastal areas, the Coastal Act contains a comprehensive set of policies which recommend guidelines for preservation and restoration of habitat areas. These policies shall act as a guide in the development and implementation phase of the City's Local Coastal Program.

The Coastal Act specifically addresses the marine environment in several of its policies. In an effort to protect the marine environment for the biological activity which occurs and provide a livelihood for commercial activities, the following policies have been established:

Sec. 30230. "Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy population of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes."

Sec. 30231. "The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of groundwater supplies and substantial interference with surface water flow, encouraging wastewater reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams."

In its aim to protect and enhance the marine resources of the coastal areas, the Coastal Act identifies the types of developments which may occur in relation to the coastal waterways. Limitations of such development are also identified.

Sect. 30233. "(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing or restoring previously dredged depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland; provided, however, that in no event shall the size of the wetland area used for such boating facility, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, be greater than 25 percent of the total wetland area to be restored.

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities.

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource-dependent activities.

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable longshore current systems.

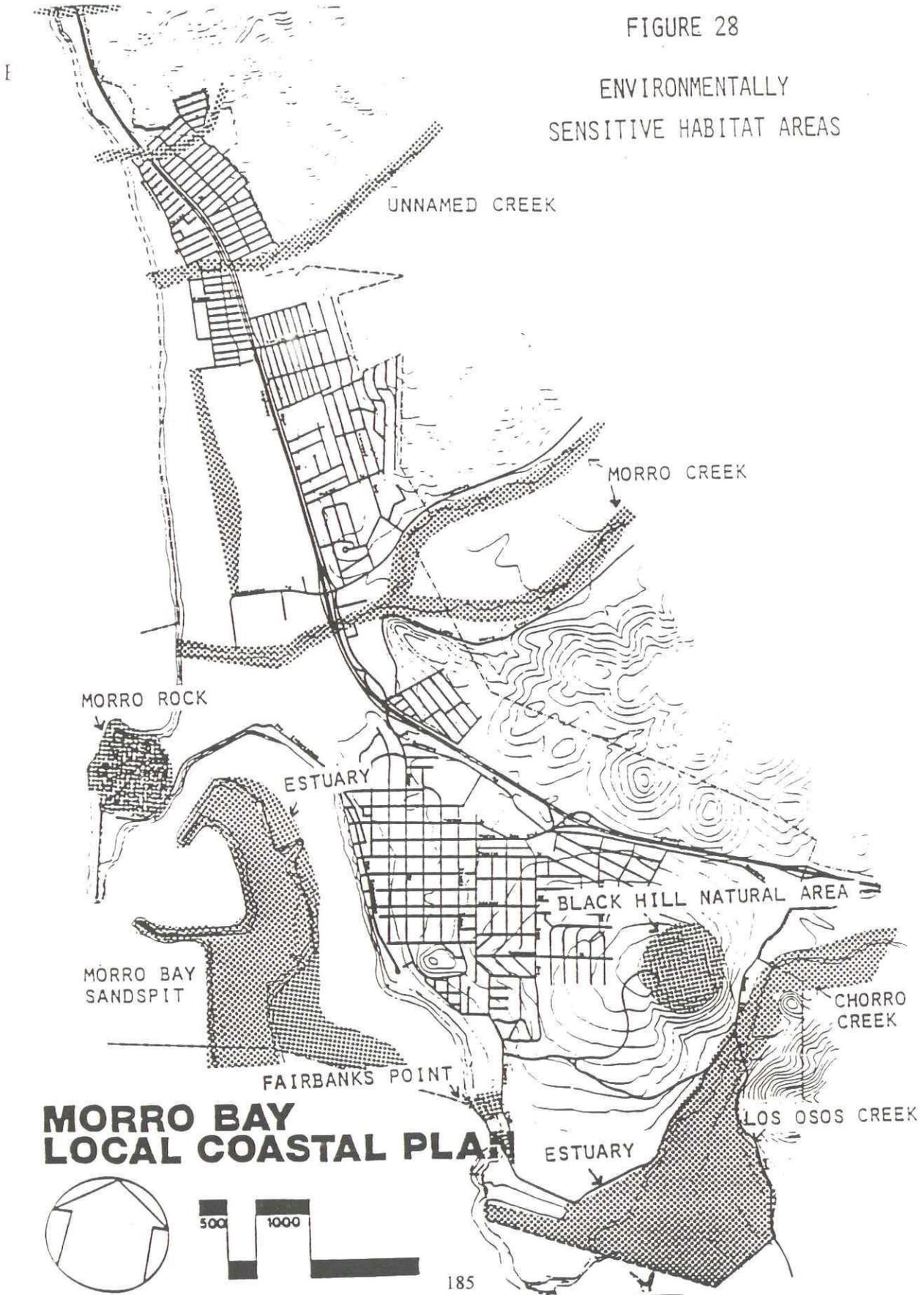
(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including but not limited to, the 10 coastal wetlands identified in its report entitled, "Acquisition Priorities for the coastal Wetlands of California," shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

Sec. 30236. "Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects; (2) flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development; or (3) developments where the primary function is the improvement of fish and wildlife habitat."

Since the marine resources of Morro Bay also include a wide variety of habitat areas, the protection of the environmentally sensitive habitat areas should pay an integral part in the preparation and implementation of the City's Local Coastal Program. The following policy identifies environmentally sensitive habitat areas and allowable uses for such areas.

Sect. 30240. "(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas. (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas."

FIGURE 28
ENVIRONMENTALLY
SENSITIVE HABITAT AREAS



C. SENSITIVE HABITAT AREAS

To ensure the implementation of the Coastal Act Policies addressing environmentally sensitive habitat areas, it is necessary to inventory those resources within the Coastal Zone. The following criteria was used in determining which areas warrant specific protection under the Coastal Act as environmentally sensitive habitats:

- (1) unique, rare or fragile communities which should be preserved to ensure their survival in the future;
- (2) rare and endangered species habitats that are also protected by state and federal laws;
- (3) specialized wildlife habitats which are vital to species survival;
- (4) outstanding representative natural communities which have an unusual variety or diversity of plant and animal species;
- (5) areas with outstanding educational values that should be protected for scientific research and education uses now and in the future.

Those resources that meet one or more of these criteria will be designated as an environmentally sensitive habitat area. The following discussion will review these coastal resources under the appropriate habitat type. These are defined below and shown on Figure 29.

- (1) Coastal wetlands;
 - (a) "Wetland" means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats and fens.
 - (b) An "Estuary" is a coastal water body usually semi-enclosed by land, but which has open, partially obstructed or intermittent exchange with the ocean and in which ocean water is at least occasionally diluted by fresh water runoff from the land. The salinity may be periodically increased above the open ocean by evaporation. In general, the boundary between "wetland" and "estuary" is the line of extreme low water.
 - (c) "Open coastal waters" or "coastal waters" refer to the open ocean overlying the continental shelf and its associated coastline. Salinities exceed 30 parts per thousand with little or no dilution except opposite mouths of estuaries.
- (2) Coastal streams/riparian habitats;
 - (a) A "Stream" or a "River" is a natural watercourse as designated by a solid line or dash and three dots symbol shown on the United States Geological Survey map most recently published, or any well-defined channel with distinguishable

bed and bank that shows evidence of having contained flowing water as indicated by scour or deposit of rock, sand, gravel, soil or debris.

(b) A "Riparian Habitat" is an area of riparian vegetation. This vegetation is an association of plant species which grows adjacent to freshwater watercourses, including perennial and intermittent streams, lakes, and other bodies of fresh water.

(3) Rare or unusual native plant communities.

1. Wetlands - Morro Bay and Its Estuary

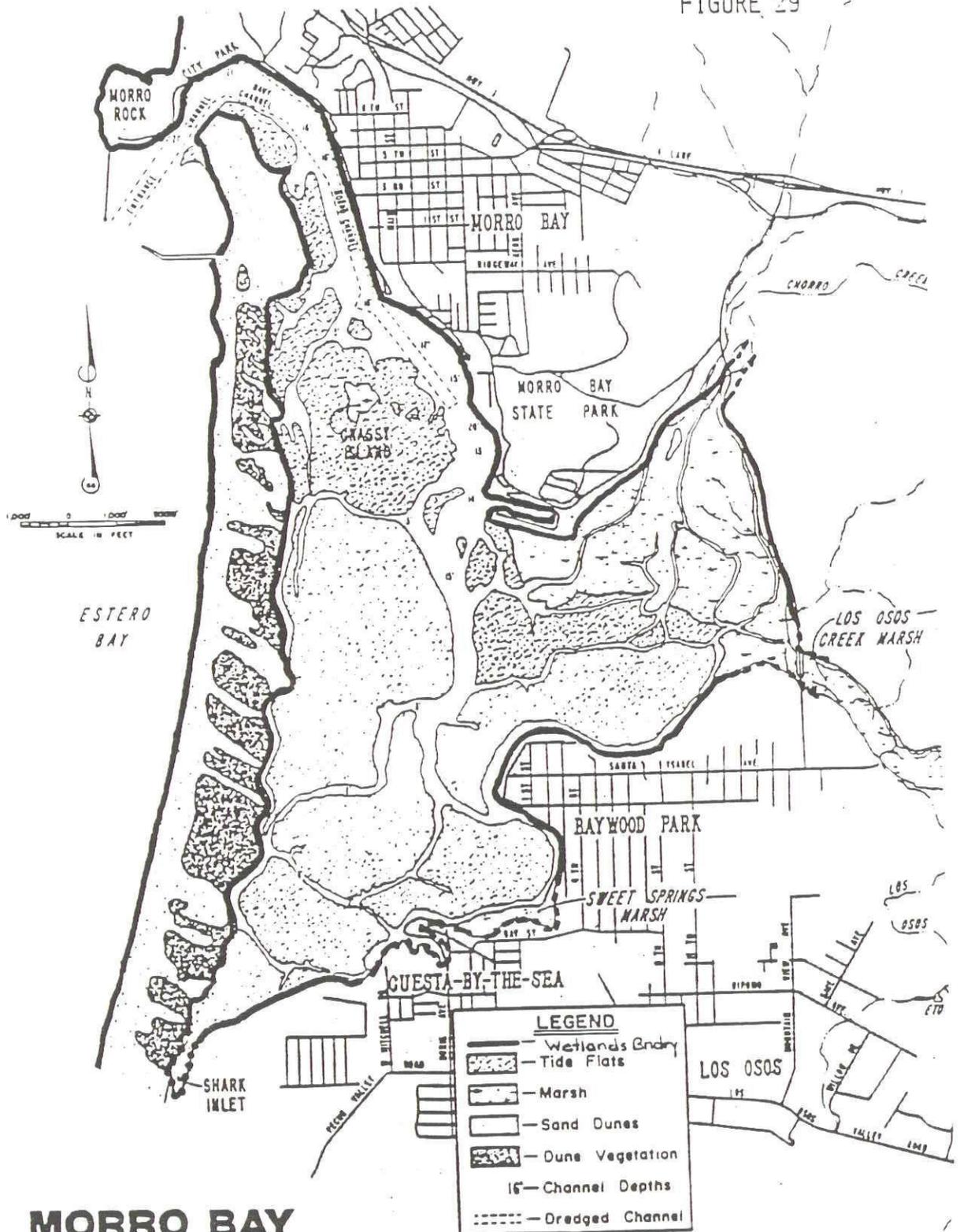
Morro Bay and the Morro Bay Estuary comprise the wetlands area of the City of Morro Bay. The wetlands boundary and Morro Bay habitat are shown on Figure 29. Morro Bay is considered the most important wetland on the Central coast of California. The bay is actually a shallow lagoon with two freshwater creeks (the Chorro and Los Osos) draining into it. Tidal waters also fill the bay flowing through the bay entrance and southward to fill the bay. At high tide, the bay contains 2000 acres of water surface and at low tide, it contains 500 acres. The intertidal area is a saltmarsh and mudflat. The bay is separated from Estero Bay by a 4-mile long sandbar which extends north/northeastward from the Irish Hills to the mouth of the bay at Morro Rock. The bay is owned and administered by three separate entities: the northern third of the bay is controlled by activities of the City of Morro Bay; Morro Rock, located at the entrance of the harbor is State property and designated as a State Park. The middle third of the bay is also State Park land. The southern third of the bay consists of privately owned tidelands which are under the jurisdiction of the county of San Luis Obispo.

Coastal wetlands, tidal marshes, mudflats, freshwater marshes and related bodies of water are an important link between oceanic and terrestrial ecosystems. A sensitive and delicate balance exists between the tidal flushing of the bay and the nutrient-rich freshwater runoff which retains the productivity of these systems. A disruption of this balance could adversely affect the biological communities which rely upon the bay.

The bay supports several biotic communities, including coastal salt marsh, tidal mudflats and coastal scrub. The salt marsh is extensive, covering approximately 472 acres. Pickleweed is the dominant plant species and the rare Pt. Reyes birds' beak is also found here.

MORRO BAY HABITATS

FIGURE 29



**MORRO BAY
 LOCAL COASTAL PLAN**

Morro Bay is a significant stop on the Pacific Flyway for migratory birds. Up to 25,000 waterfowl have been counted on one peak day and Morro Bay is one of the last remaining places on the California Coast where the black brandt still congregate in relatively large numbers. The eel grass of the tidal flats provides a specialized nesting area for the black brandt and covers 483 acres of intertidal area. The rare and endangered Black Rail and the California Clapper Rail have also been observed here, although not in recent years.

The bay also supports a variety of fish species. Sixty-six species of fish have been identified as habitating the bay, eleven of which appear to be residents. Several of the fish species found in the bay are important to the sport fishery as well as the commercial fishery of Morro Bay. Clams and oysters also live in the bay. The state has allotted approximately 960 acres of tidelands for the commercial seeding and growing of oysters.

The basic food producers of the estuary and lagoon are marine and marsh plants such as eel grass, algae and pickleweed. Broken down by bacterial action, the plant material becomes the base for the detritus food chain or which all marine animals (both microscopic and macroscopic), water birds and shore birds depend. Protecting the vitality of the estuary begins with the protection of marine plants and the plants of the saltmarsh.

Fish of the continental shelf are directly or indirectly dependent on the estuaries. The quiet, nutrient-rich waters of the estuaries provide nursery habitats for young fish. Much of the food in the ocean is that which originated in the estuaries and has been carried out to sea by the tides.

A healthy estuary and saltmarsh are of inestimable value for both aesthetic and economic reasons.

Policies are established to ensure the continued productivity of the wetlands.

2. Streams

The Morro, Chorro and Los Osos Creeks and tributaries (Toro Creek, Little Morro Creek and Unnamed Creek) serve as an important coastal resource. Besides providing habitat for fish and other aquatic organisms, the streams provide food and shelter for migratory birds and other animals. The Chorro and Los Osos Creeks drain into Morro Bay Estuary from the upland areas of a large watershed. The combined estuary of these two perennial creeks is a significant habitat in the bay. Morro and other creeks within the City are, unlike the Chorro and Los Osos, ephemeral, that is, they do not run year round. These creeks also drain directly into Estero Bay.

The Morro, Chorro and Los Osos creeks provide habitat for steelhead trout (*salmo gairdneri*), and important commercial and recreational species. This fish is anadromous, that is it spends a portion of its life cycle in the ocean and then returns to the stream where it was spawned to reproduce. The streams then serve as a nursery for the young fish until they are old enough to return to the ocean. The freshwater discharged from the Los Osos and Chorro Creeks into the estuary transports nutrients that serve as an important food source for the whole bay complex. Additionally, this freshwater prevents the bay's salinity from exceeding the tolerance level of many species.

3. Rare and Endangered Wildlife Habitats

a. Morro Rock

The ecological preserve located on Morro Rock serves as a nesting site for Peregrine Falcons. Morro Rock is located at the mouth of the bay and is the northernmost visible volcanic plug in a chain of plugs which extends from Islay Hill in San Luis Obispo to Morro Rock. The rock is connected to the mainland via a strand which is composed of fill materials, much of it dredged from the bay during past operations.

The rare and endangered Peregrine Falcon nests on Morro Rock. The rock is one of the last remaining sites for the falcons and is one of the few known nesting sites on the coast north of the Channel Islands in Santa Barbara County.

b. Fairbanks Point

Located at the southern end of Morro Bay's City limits and adjacent to Morro Bay State Park is Fairbanks Point; the Golden Tee Restaurant and Motel lies to the north. The state of California has acquired the Fairbanks Point property as an addition to Morro Bay State Park.

The grove of eucalyptus trees located at Fairbanks Point serves as a major nesting site for herons. In 1971, 74 active nests of the great heron were counted. A count conducted in 1972 indicated 100 nests of the Black Crowned Night Heron were located here.

c. Black Hill Natural Area

This upland area of Morro Bay State Park is located southeast of the City of Morro Bay. The country club and golf course are located to the southwest of Black Hill. The dominant community is coastal sage scrub.

Within the plant community of coastal sage scrub are such species as California sagebrush, deerweed and buckwheat. This community also contains species characteristic of chaparral and grasslands. As is typical of coastal foothill areas, the grasslands are characterized by pastureland and scattered grass openings of the chaparral. The rare layia jonesii is located here.

D. ISSUES AND CONSTRAINTS

1. Trends in the Habitat Areas

The sensitive habitat areas of Morro Bay may be attributed in part for making Morro Bay a popular recreation site. Recreational use undoubtedly accounts for the highest use of the area's natural assets. This may be reflected in the number of persons coming to Morro Bay each year for activities such as birdwatching, hiking, photography or sightseeing. The bay also serves as a major commercial fishing and recreational boating harbor, as well as a backdrop for the city of Morro Bay and the South Bay communities. Ironically, the aesthetic and recreational appearance of the area create further demands on the development of additional harbor facilities, urbanization of the privately owned shoreline and alteration of the tidelands to serve recreational purposes, all of which pose threats to the environmentally sensitive habitat areas.

Increased agricultural activity and development occurring within the Chorro and Los Osos Creek watersheds have, in turn, increased the amount of sediment reaching the bay.

2. Issues and Constraints

Among some of the problems which will face the preservation and enhancement of habitat areas are the following:

- (1) The increase in the amount of development occurring in the Chorro and Los Osos Creek watersheds has increased the amount of sediment entering the bay;
- (2) The dredging, performed by the U.S. Army Corps of Engineers, which is required to clear the navigable portions of Morro Bay, may have a major impact on the water quality of the bay and disposal of spoils is a problem.
- (3) An increase in boating activities on the bay may result in increased water pollution and the likelihood of habitat disruption if proper measures are not implemented;
- (4) Increased recreational uses in the Morro Bay area will place a further strain on the habitat areas if mitigation measures are not realized and implemented;
- (5) Destabilization of dune vegetation in the City and in the county areas adjacent to the bay caused by off-road vehicle trespass and the dumping of dredge spoils have increased erosion and sediment entering the bay;
- (6) Natural areas containing rare and endangered plant species need to be protected;
- (7) Protection of the Peregrine Falcon habitat is imperative to survival of the species.

a. Increased Development

An increase in the development and intensification of the agriculture located within the Los Osos and Chorro Creek watersheds has increased the amount of sediment entering the creeks. This, in turn, has increased the amount of sediment entering the estuary and accelerated the infilling of the bay. While this process is a natural one, man's activities have accelerated its rate.

Heavy siltation of stream beds may also clog the natural flow of water from the surface into groundwater reserves. Higher flows and an increased flood hazard may also result from increased stream sedimentation. Polluted runoff from upland development or indirect discharge of pollutants into streams may infiltrate into groundwater, thereby polluting underground water sources.

Riparian vegetation is critical to the ecological balance found in the creeks. The trees located along the creek banks can act as a canopy to the creek, thereby providing shade to maintain the low water temperatures necessary to the survival of the young steelhead trout. Excessive evapotranspiration is limited by a canopy of vegetation in the already low water levels of the summer months. Removal of this tree cover could lead to the extinction of fish from the creeks. One of the major sources of sediment entering the bay from the upland areas is from stream bank erosion. Riparian vegetation plays an important role in retarding this erosion.

An extensive pattern of highly erodible, unstable soils exists in the watershed areas outside the city limits making the hillsides vulnerable to natural erosion and to the process of mass wasting or landsliding. This process may be greatly accelerated by development activities. Disturbance of the hillsides by extensive development, overgrazing, or vegetation loss by clearing or wildfire can significantly disrupt the balance of the hillside areas and cause mass wasting to occur. Since streams are sensitive habitats in and of themselves, and also influence a larger sensitive habitat area in the bay, development and land use located adjacent to these areas can have a tremendous impact on such things as stream hydrology, channel geometry and water quality. Protection of these creeks and their influence on other habitats requires regulation of land use within the immediate environment as well as control of land use in the larger watershed.

d. Dredging of the Bay

Every two years, the U.S. Army Corps of Engineers dredges the bay for harbor maintenance. This dredging is necessary to allow continued operation of the harbor and enhancement of habitat areas in the bay. However, adverse impacts may also result from dredging, and an understanding of the problems and benefits associated with dredging are imperative. In order to maintain the natural habitat areas of the bay, harbor development must be carried out with a minimum of adverse impacts.

Dredging does have an adverse impact on the benthic organisms of the bay. Dredging also increase turbidity, thereby disrupting the photosynthetic processes of the bay organisms.

One major problem resulting from the dredging of the bay is the disposal of dredge spoils. In past years, dredge spoils were deposited on the sandspit. This action placed undue stress on a balanced system and "blow-outs" occurred on the sandspit causing infilling in the bay. Vegetative cover is increasing, however, and beginning to stabilize the dunes. The disposal of more sand on the north end of the sandspit would destroy the present vegetation and increase the potential supply of sand to be blown back into the channel by winds. Dredging does play an important role in maintaining Morro Bay as a harbor, however, care must be taken to protect the natural habitat areas of the bay.

e. Pollution

At present, pollution and contamination are not a problem, in fact, Morro Bay is known to have some of the "cleanest" water on the coast. Sewage from Camp San Luis and the California Men's Colony is treated prior to discharge into Chorro Creek, and the City of Morro Bay discharges its treated sewage directly into the ocean. PG&E also discharges its water through an ocean outfall, thus thermal pollution is not a problem. There is very little "living-on-board" use of boats, hence boats are not a significant source of pollution at this time. However, it is reasonable to assume that an increase in the boating activity on the bay would, in turn lead to an increase in water pollution and the likelihood of habitat disruption.

The major issue to deal with at this time is the expected increase in boating activities. Such pollutants which may be expected to increase are:

- (1) Coliform bacteria from sewage disposal--this encourages the growth of algae and speeds the process of eutrophication;

- (2) Increased turbidity--this is caused by a stirring of organic matter. Turbidity inhibits photosynthesis;
- (3) Grease and oil--these substances float on the water acting as a barrier between air and water, thereby preventing oxygen from dissolving;
- (4) Trash--unsightly paper, plastic and food waste generally increases with an increase in usage in an area;
- (5) Changes in odor, color, or taste--this may be influenced by various sources such as oil, gasoline and detergents.

d. Increased Recreational Uses

As development in and around Morro Bay increases, the need for recreational uses around the bay will increase and strain on habitat area will result. The heron rookery at Fairbanks Point is a case in point. The heron nesting here requires seclusion and protection during the nesting period if the process is to be completed. Man's activities in the area could disrupt the process but need not. Through proper recognition of the need for seclusion by the heron, activities in the area may be restricted so as not to endanger the bird's habitat.

e. De-Stabilization of Dune Vegetation

Filling of the bay by sedimentation is a natural process. However, the rate at which the filling occurs may be greatly affected by the activities of man surrounding Morro Bay. A significant part of the sedimentation which enters Morro Bay is placed there by winds blowing over the sandspit and carrying sand with it. This process is inevitable to some extent but in this case is accelerated by man's activities. Trespassing of off-road vehicles onto the dunes and the dumping of dredge spoils have in past years removed or buried the vegetation which is so critical to the stabilization of the dunes. Alternate spoil dump sites should be sought to help alleviate this problem and increased park surveillance and posting of signs prohibiting off-road vehicles will be necessary to protect the dune stabilization process.

f. Rare and Unique Plant Communities

Several areas of Morro Bay contain rare and endangered or unique plant communities. These natural plant communities provide a site for passive and active recreational activities; bird-watching, hiking, etc., and protection and improvement of the areas should be performed as a part of the Local Coastal Program process.

g. Peregrine Falcon Habitat Protection

The Peregrine Falcon has suffered from low reproduction rates resulting in a greatly declining population rate, and the loss of appropriate habitat range. This, in turn, has increased the chances for possible extinction of the species and makes the protection of nesting sites essential to survival of the species. Morro Rock has been known to be the nesting site of Peregrine Falcons and has been designated as an ecological reserve. This area should be protected and maintained in its present status so as to enhance the chances of survival for the falcon.

E. ENVIRONMENTALLY SENSITIVE HABITAT AREA POLICIES

- Policy 11.01 Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas. The City shall either prepare a wetlands/estuarine map or, if funding does not permit such preparation, adopt the National Wetland Inventory by U.S. Fish and Wildlife Service dated 1979, as the mapping illustration of the wetland and estuarine areas contained within City boundaries. If the City adopts the National Wetland Inventory Mapping as their LUP wetlands map, then because that map does not precisely delineate the extent of wetland habitats and types, all proposed development located within 1000 feet of the mapped wetland boundaries shall be required to submit additional mapping based on U.S. Fish and Wildlife and Coastal Commission Statewide Interpretive Guidelines done by a qualified biologist. The additional mapping will be submitted for review and approval from U.S. Fish and Wildlife and the California Department of Fish and Game. After public agency approval has been obtained, the City shall define buffer areas around the wetland areas. The buffer areas shall be 100 feet around all wetland areas except where biologists identify the need for a greater buffer to protect the overall wetland system or a particular resource. Developments permitted within wetland and/or buffer areas are limited to the uses listed in Section 30233(c) of the Coastal Act.
- Policy 11.02 Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall maintain the habitats' functional capacity.
- Policy 11.04 No land division shall be allowed in the environmentally sensitive habitat areas of wetlands, sand dunes, stream beds and endangered wildlife habitats as designated on Figures 6 and 28, unless the land division is for the express and sole purpose of transferring the property to a public management agency or for some other bona-fied conservation purpose.
- Policy 11.05 Prior to the issuance of a coastal development permit, all projects on parcels containing environmentally sensitive habitat as depicted on the Land Use Plan map or habitat map included within the LUP and on the adopted U.S. Fish and Wildlife wetland inventory map, or projects on parcels within 250 feet of all designated areas (except wetlands where projects on parcels within 1000 feet is the criterion), or projects having the potential to affect an environmentally sensitive habitat area must be found to be in conformity with the applicable habitat protection policies of the Land Use Plan. All development plans, grading plans, etc., shall show the precise location of the habitat(s) potentially affected by a proposed project. Projects which could adversely impact an environmentally sensitive habitat area shall be subject to adequate environmental impact assessment by a qualified biologist(s). In areas of the City where sensitive habitats are suspected to exist but are not presently mapped or identified in the city's Land Use Plan, projects shall undergo an initial environmental impact assessment to determine whether or not these habitats exist. Where such habitats are found to exist, they shall be included in the City's environmentally sensitive habitat mapping included within the LUP.

- Policy 11.06 Buffering setback areas a minimum of 100 feet from sensitive habitat areas shall be required. In some habitat areas setbacks of more than 100 feet shall be required if environmental assessment results in information indicating a greater setback area is necessary for protection. No permanent structures shall be permitted within the setback area except for structures of a minor nature such as fences or at-grade improvements for pedestrian or equestrian trails. Such projects shall be subject to review and comment by the Department of Fish and Game prior to commencement of development within a setback area. For other than wetland habitats, if subdivision parcels would render the subdivided parcel unusable for its designated use, the setback area may be adjusted downward only to a point where the designated use is accommodated but in no case is the buffer to be less than 50 feet. The lesser setback shall be established in consultation with the Department of Fish and Game. If a setback area is adjusted downward mitigation measures developed in consultation with the Department of Fish and Game shall be implemented.
- Policy 11.07 Passive recreation activities (i.e. bird-watching, walking, nature studies) shall be permitted with appropriate controls to prevent adverse impacts.
- Policy 11.08 Pollutants such as chemicals, fuels, lubricants, raw sewage and other harmful wastes generated during commercial or recreational boating activities shall be prohibited from being discharged into the bay.
- Policy 11.09 The recreational use of rare or endangered species habitats shall be minimal, i.e. walking, bird-watching. Protective measures for such areas should include fencing and posting so as to restrict, but not exclude, use by people.
- Policy 11.10 Only native vegetation shall be planted in the habitat areas of rare or endangered species. Where feasible, use of drought tolerant plants of a native variety shall be used in coastal zone areas.
- Policy 11.11 (Deleted per revisions of July, 1982.)
- Policy 11.12 Recreational uses allowed on Black Hill and the sandspit shall not disrupt the viability of rare or native plant communities. Passive recreational use of these sensitive habitat areas shall be allowed as long as they are determined to be compatible with preserving the sensitive habitat, following review and comment of the proposed recreational uses by U.S. Fish and Wildlife, the California Department of Fish and Game and the Department of Parks and Recreation.
- Policy 11.13 The dumping of dredge spoils on the sandspit shall be prohibited. Native plants should be planted along the sandspit to aid in dune stabilization.
- Policy 11.14 A minimum buffer strip along all streams shall be required as follows:
- (1) a minimum buffer strip of 100 feet in rural areas;
 - (2) a minimum buffer strip of 50 feet in urban areas.

If the applicant can demonstrate that the implementation of the minimum buffers on previously subdivided parcels would render the subdivided parcel unusable for its designated use, the buffer may be adjusted downward only to a point where the designated use can be accommodated, but in no case shall the buffer be reduced to less than 50 feet for rural areas and 25 feet for urban areas. Only when all other means to project modifications are found inadequate to provide for both the use and the larger minimum buffer. The lesser setback shall be established in consultation with U.S. Fish and Wildlife and the California Department of Fish and Game and shall be accompanied by adequate mitigations. The buffer area shall be measured landward from the landward edge of riparian vegetation or from the top of the bank (e.g., in channelized streams). Maps and supplemental information may be required to determine these boundaries.

Adjustments to the minimum buffer must protect the biological productivity and water quality of the streams. Assessment of impact shall include, but not be limited to the following factors:

- (a) Soil type and stability of stream corridors;
- (b) How surface water filters into the ground;
- (c) Slope of land on either side of the stream; and
- (d) Location of the 100 year flood plain boundary.

Where riparian vegetation has been previously removed, except for stream channelization, the buffer shall allow for the re-establishment of riparian vegetation to its prior extent to the greatest degree possible.

Policy 11.15 No structures shall be located within the stream corridor except: public trails located within a buffer when no alternative location is feasible but outside of riparian habitat; necessary water supply projects; flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development; and development where the primary function is the improvement of fish and wildlife habitat. Bridges (when support structures are located outside the critical habitat areas) may be permitted when no alternative route/location is feasible. All development shall incorporate the most protective mitigations feasible.

Policy 11.16 All permitted development, including dredging, filling, and grading within stream beds and setback buffer areas shall be limited to activities necessary for the construction of uses specified in Policy 11.15. When such activities require removal of riparian plant species, revegetation with local native riparian species shall be required. Projects which would cause the removal of vegetation shall be subject to review and comment by U.S. Fish and Wildlife Service and the Department of Fish and Game.

Policy 11.17 The biological productivity of the City's environmentally sensitive habitat areas shall be maintained and, where feasible, restored through maintenance and

enhancement of the quantity and quality of Morro and Chorro groundwater basins and through prevention of interference with surface water flow. Stream flows adequate to maintain riparian and fisheries habitat shall be protected.

- Policy 11.18 New subdivisions shall be prohibited in areas designated as environmentally sensitive habitat areas. New subdivisions proposed adjacent to wetland areas shall not be approved unless the to-be-created parcels contain building sites entirely outside the maximum applicable buffer (i.e., 100 feet for wetlands and rural streams, and 50 feet for urban streams).
- Policy 11.19 No vehicle traffic shall be permitted in wetlands and pedestrian traffic shall be regulated and incidental to the permitted uses. New development adjacent to wetlands shall not result in adverse impacts due to additional sediment, runoff, noise, and other disturbances.
- Policy 11.20 Coastal dune habitats shall be preserved and protected from all but resource-dependent, scientific, educational and passive recreational use. Disturbance or destruction of any dune vegetation shall be prohibited, unless no feasible alternative exists, and then only if revegetation is made a condition of project approval. Such revegetation shall be with native plants propagated from the disturbed sites or from the same species at adjacent sites.

All non-authorized motor vehicles shall be prohibited in beach and dune areas. A buffer strip, a minimum of 50 feet in width in urban areas and 100 feet in non-urban areas shall be maintained between the dune habitat and adjacent development. All permitted uses shall be regulated and restrictions enforced to protect critical bird habitats during breeding and nesting seasons. Controls may include restriction of access, noise abatement, restriction of hours of operations of public or private facilities. For all permitted uses within dune habitat areas, including recreation, foot traffic on vegetated dunes shall be minimized. Where access through dunes is necessary or established through historical public use, well-defined footpaths or boardwalks shall be developed and used.

- Policy 11.21 The following environmental standards shall apply to development of the large privately owned parcel located between Morro Bay High School and Azure Street on the west side of Highway One referred to herein as Mixed Use Area G and formerly known as the VRM property.

The sand and dunes area between the mean high tide line and the easternmost line of dunes, and the marshy lowland habitat areas shall be adequately identified and mapped as part of the information submitted with any development plans for the area. The sandy beach portion of the parcel shall be designated as open space/recreation. The dunes areas and marshy lowland habitat area shall be designated as environmentally sensitive habitat. A buffer setback of no less than 50 feet, if fenced (or 100 feet if not fenced) shall be established after mapping of the habitat boundaries has taken place. The mapping and proposed buffers shall be subject to review and comment by U.S. Fish and Wildlife and California Department of Fish and Game. Recreational use of this portion of the site shall be limited to passive recreational uses which do not conflict with the habitat values. Dedication of beach and dune area to the state is encouraged for proper management. Prior to commencement of any development, the applicant shall

ensure restoration, enhancement and protection of the dune and marsh habitat areas. The restoration-enhancement-protection program shall be submitted for review and comment by U.S. Fish and Wildlife Service, the California Department of Fish and Game, and the California Coastal Commission, and suggested modifications shall be incorporated into the program after review by these agencies.

- Policy 11.22 The precise location and thus boundary line of Environmentally Sensitive Habitat areas shall be determined based upon a field study paid for by the applicants and performed by the City or City's consultants and approved by City Council and/or their appointed designee prior to the approval of development on the site, including, but not limited to, a division of land, provision of public access, or restoration of the ESH.
- Policy 11.23 As a condition of approval of development prior to commencement of any development, property owners/applicants shall dedicate appropriate permanent easement over portions of the property determined to be sensitive habitat, such as dunes, beach, wetlands, or riparian corridor.