

NATIONAL CITY
LOCAL COASTAL PROGRAM
LAND USE PLAN

NATIONAL CITY LOCAL COASTAL PROGRAM
LAND USE PLAN

Prepared By

George S. Nolte & Associates, 1981,
and updated by the City of National City, 1988

Adopted by City Council Resolution No. 15,614
May 10, 1988

Amended by:

Resolution No. 91-60, April 2, 1991

Resolution No. 93 -26, March 2, 1993

Resolution No. 96-145, September 10, 1996

Resolution No. 96-177, December 17, 1996

Resolution No. 97-53, May 6, 1997

Certified by the California Coastal Commission

April 14, 1988

July 16, 1991

June 10, 1993

July 10, 1997

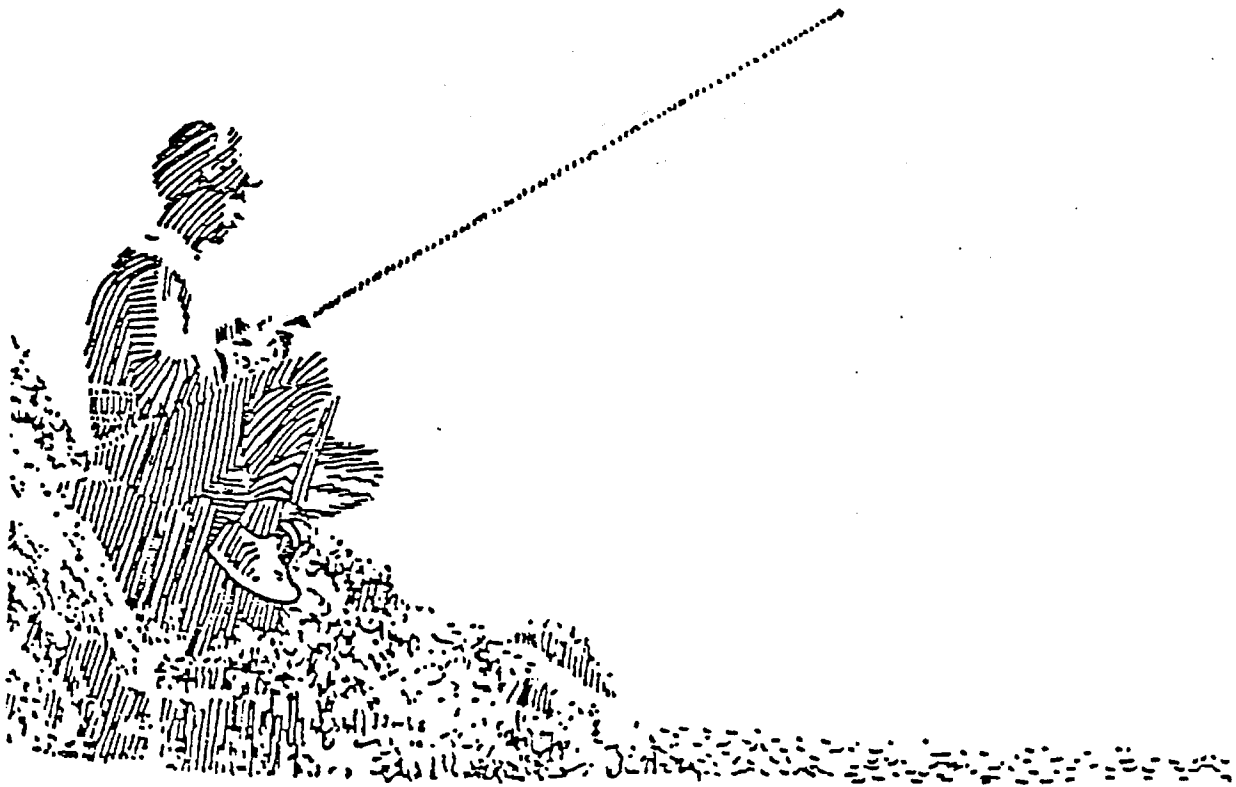
This document was prepared with financial assistance from the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, under the provisions of the Federal Coastal Zone Management Act of 1972, as amended, and from the California Coastal Commission under the provisions of the Coastal Act of 1976.

TABLE OF CONTENTS

	PAGE
Executive Summary I.	i
CHAPTER	
I. The Coastal Act	1
II. National City	6
III. Public Access (Public Access Component)	12
IV. Recreation	20
V. Marsh Preservation	27
VI. Visual Resources	37
VII. Industrial Development	41
VIII. Environmental Hazards	44
REFERENCES	
Appendix I	California Coastal Act - Chapter 3 Policies
Appendix II	Biological Resources of Paradise Marsh (RECON)
Appendix III	Schedule of Parking Requirements
Appendix IV	City Standards for Building Aesthetics and Materials, Height, Signing and Landscaping.

LIST OF FIGURES

	PAGE
1. Land Use Plan	xiii
2. Political Jurisdictions	7
3. Subareas - National City Coastal Zone	11
4. Public Access	19



EXECUTIVE SUMMARY

BACKGROUND

Local control over land use in the coastal zone was significantly modified with the passage of the California Coastal Zone Conservation Act by the voters of California in November, 1972. Proposition 20 set forth a distinct role for the State in coastal land use matters, and created the California Coastal Zone Conservation Commission and six Regional Coastal Commissions. The mandated mission of the Coastal Commission was to prepare a statewide comprehensive plan for the "orderly, long-range conservation and the management of the coast", and to regulate development while the plan was being prepared. Preparation of the Coastal Plan commenced in 1973, and it was submitted to the state legislature in December, 1975. Based upon the Coastal Plan and the Commission's experience of the preceding years, the California legislature passed the California Coastal Act in August, 1976.

The declaration of the state legislature in adopting the Coastal Act of 1976 was that the coastal zone is a distinct and valuable resource of vital and enduring interest to all people. The basic objectives of the Coastal Act are to achieve the following:

"Protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and man-made resources.

"Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state.

"Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resource conservation principles and constitutionally protected rights of private property owners.

"Assure priority for coastal-dependent and coastal related development over other development on the coast. (Amended by Cal. Stats. 1979, Ch. 1090)

"Encourage state and local initiatives and cooperation in preparing procedures to implement coordinated planning and development of mutually beneficial uses, including educational uses, in the coastal zone."

The implementation of the Coastal Act is predicated upon the involvement of local government. The Act declares that "to achieve maximum responsiveness to local conditions, accountability and public accessibility, it is necessary to rely heavily on local government and local land use planning procedures and enforcement." To this end, the Act directs each local government within the coastal zone to prepare a Local Coastal Program (LCP). An LCP consists of a local government's land use plans, zoning ordinances, zoning district maps, and implementing actions which implement the provisions and policies of the Coastal Act at the local level.

During preparation of a Local Coastal program, local governments should coordinate planning with affected local, regional, state, and federal agencies, and provide the maximum opportunity for public participation. Under the Coastal Act, the responsibility for ensuring meaningful public participation rests with both the Coastal Commission and local government; however, the local government retains the primary responsibility for involving the public in the actual planning process.

After the LCP has been reviewed and approved by the local government, it is then submitted to the State Coastal Commission for review. In certifying the land use plan, the Commission must find that the plan conforms with Chapter 3 of the Coastal Act, and contains the required public access component. The zoning and implementing ordinances are then reviewed to determine conformance with the approved land use plan. Once the land use plan and implementing ordinances have been certified, the review authority for new development within the coastal zone will revert from the Coastal Commission to local government. The local government in issuing coastal development permits must then make the finding that the development is in conformity with the approved LCP.

The coastal zone of National City includes all the area west of I-5, and a small area east of I-5 south of 30th Street. However, the coastal zone is controlled by three separate governmental agencies: the San Diego Unified Port District, the United States Navy, and the City of National City. The Port District has jurisdiction over all of the state tidelands bayward of the adjudicated mean high tide line, approximately 250 acres of land area. The Port District's jurisdiction also includes an isolated parcel of tidelands which is located in the salt flats south of Chula Vista that is connected to National City by a 300-foot wide corridor through San Diego Bay. The Port District submitted its Master Plan to the Coastal Commission, and it was conditionally approved in October, 1980. Under the jurisdiction of the United States Navy is approximately 300 acres and 8,300 lineal feet of bay frontage. Federal lands are under the jurisdiction of the Federal Coastal Zone Management Act, which states that military lands shall comply with coastal planning to the extent that national security is not imperiled. The coastal zone area over which National City retains jurisdiction totals approximately 575 acres, and is bounded by the U.S. Navy lands to the north, and the Chula Vista Bayfront to the south.

The Land Use Plan of National City's Local Coastal Program contains technical background information, policy recommendations, and a land use plan map. The substantive areas of discussion, as directed by the work program approved by the Coastal Commission, are public access, recreation, marsh preservation, visual resources, industrial development, and environmental hazards. Each of the above issue areas is evaluated as to existing conditions and existing planning and zoning. This discussion is then followed by a more in-depth analysis of planning issues and their applicability to Coastal Act policies and Coastal Commission guidelines. Each discussion category is concluded with appropriate policy recommendations; a listing of those recommendations is presented below:

POLICY RECOMMENDATION

PUBLIC ACCESS

1. New public shoreline accessways shall be designated to and along Paradise Marsh and the Sweetwater River Channel as generally shown in Figure 4.
2. Public accessways as designated in Condition Number One shall be provided in conjunction with new development and protected through public access easements or other suitable means of conveyance.
3. In the event that new development is not forthcoming, it is the City's policy to seek the assistance of the Coastal Conservancy, or other appropriate agency, to acquire, plan, and finance public shoreline access.
4. The precise location, design and identification of public accessways shall be consistent, to the maximum degree feasible, with the coastal access standards prepared jointly by the Coastal Commission and the Coastal Conservancy.
5. As indicated in the General Plan, it is the City's policy that the Bay Route Bikeway be extended southerly from 24th Street to the Paradise Marsh and boat launching ramp areas and across Sweetwater River Channel to the Chula Vista Bayfront. It is also the City's policy that additional nature trails and bicycle trails be developed adjacent to the Paradise Marsh to connect to the Bay Route Bikeway and Sweetwater River Flood Control Channel Trail System.
6. Alternative modes of access to National City's bayfront shall be actively encouraged. Specifically, the trail systems proposed as a part of the Army Corps' Sweetwater River Flood Control Channel project, which would provide linkage from National City's bayfront to inland areas, are supported.
7. All new development shall incorporate adequate on-site parking to accommodate the parking demand generated. The number of required parking spaces for new development shall be determined during the implementation phase of the Local Coastal Program, but shall be, at a minimum, consistent with the schedule of parking requirements of the Municipal Code (Appendix III).
8. A new access road located westerly and parallel to the Paradise Marsh would extend southerly from the vicinity of Harrison Avenue at 24th Street to the National City Boat Launching Facilities and future marine oriented, commercial and/or recreational uses. A buffer shall be provided between the roadway and the marsh. A Specific Plan shall be prepared to identify desirable buffering between the marsh and roadway, located in the upland area west of Paradise Marsh. It should also propose landscaping or other design elements to provide visual linkage and identity for the Paradise Marsh area and appropriate visual separation from the industrial area to the west and freeway to the east.
9. New development shall not interfere with desirable public access that may exist or be established by public use on or across private property, i.e. prescriptive rights. Desirable

public access shall include access to natural or constructed coastal, recreational resources, except where necessary to protect fragile coastal resources or public safety, or where adequately provided for in another area. Development projects shall be reviewed to determine evidence of public use.

RECREATION

1. The National City bayfront shall be designated for tourist commercial and recreational use, as indicated in the Land Use Plan (Figure 1). Using the SD&AE railroad as a point of demarcation, consistent with the wetland area proposed for acquisition by the Army Corps of Engineers, the area located to the east, including Paradise Marsh and surrounding lands, shall be designated suitable for passive recreational uses only. The areas to the west and to the north of the Marsh shall be designated for tourist commercial and recreational uses. Wetland resources located west of the railroad, which are not proposed for public acquisition, shall be protected from incompatible development, consistent with marsh preservation policies.
2. The passive recreational area would accommodate the preservation of Paradise Marsh, along with the provision of public accessways and landscaped areas. Public access would be provided and managed consistent with the public access component of the LCP and the maintenance of wetland resource values. Beyond this area, a transition to more active uses could begin. Landscaped areas suitable for picnicking and general recreation may be appropriate.
3. In order to meet specific recreational market demand and provide an attraction for secondary uses, overnight uses and boating uses shall be assigned the highest commercial development priority for the commercial recreational areas. For the area west of Paradise Marsh, appropriate uses include marina development, hotel/motel and restaurant facilities, recreational vehicle park/campground, dry-storage and boat service facility, and/or public park areas. For the area north of Paradise marsh, hotel/motel facilities, restaurants and other tourist commercial uses would be appropriate. The intensity of development shall be reviewed for impacts on traffic circulation. A Specific Plan shall be prepared to address traffic circulation and roadway improvements, in conjunction with development plans for the tourist commercial area west of Paradise Marsh. The Specific Plan shall determine the location of roadway improvements, based on resource protection standards, i.e., consistency with marsh preservation policies.

Tourist commercial development in the above referenced areas shall be consistent with existing or currently planned road capacities to the north and south of the proposed tourist commercial area, including the planned extension of Harrison Avenue and the Tidelands Avenue crossing proposed in the City of Chula Vista Bayfront LCP. The intensity of development shall also be reflective of the constraints placed on these roadways by the Marsh Preservation policies of this Plan. Approval of these land uses shall not be considered precedent for increasing the capacity of the roads to the north and south of the tourist commercial area.

4. In order to develop the tourist commercial and recreational area west of Paradise Marsh coordination with the Port District for concurrent development of Port District lands shall be encouraged. A higher quality project and a better design should result from such coordination and a more viable development will likely be attracted to the area.
5. To enhance the recreational potential and attractiveness of the National City waterfront, the restoration of Paradise Marsh is a desirable program. A feasible restoration program shall be determined with the potential assistance of the Coastal Conservancy, or other appropriate agencies, to finance, plan, and implement such a restoration program. The program shall also involve coordination with the Bayfront Conservancy Trust in its efforts to finance, plan and implement a restoration program, including access and recreational features.
6. To ensure that the recreational potential of the area is maximized, development shall take into account the proximity to the MTDB's "San Diego Trolley", the Bay Route Bikeway, and the Sweetwater River Flood Control Channel's recreational areas and trails systems, as well as recreational uses planned for the adjacent Chula Vista Bayfront and other waterfront development on San Diego Bay.

MARSH PRESERVATION

1. The wetlands of the Paradise Creek Marsh as well as the secondary area of Paradise Marsh, east of I-5, including salt marsh, freshwater marsh, salt-pan, channel, and mudflat habitats, are valuable and sensitive biological resources, and shall be preserved. The plan designation for these areas shall be OPEN SPACE/WETLAND PRESERVE. The boundaries of the "Open Space Wetland Preserve" areas include the marsh area required for acquisition by the Army Corps of Engineers for the Sweetwater River flood control improvements, marsh area within Caltrans right-of-way easterly of the SDG&E right-of-way, and the secondary area of Paradise Marsh east of the I-5 freeway. The Sweetwater River area, south of 35th Street, designated for industrial and commercial use, and the wetlands located west of the railroad, which are not proposed for public acquisition, also contain valuable biological resources which shall be preserved under an overlay zone or other appropriate, implementing regulation which shall be defined in the implementation plan. The overlay zone or implementing regulation shall include requirements for mapping all wetlands not included in the "Open Space Wetland Reserve" land use designation, execution of open space easements over identified resources and their buffers in conjunction with new development and a determination of appropriate buffers for any new development.
2. In order to preserve Paradise Marsh; the wetlands located west of the railroad, which are not proposed for public acquisition; the secondary area of Paradise Marsh, east of I-5; and the Sweetwater River south of 35th Street:

- Alteration shall be limited to minor incidental public facilities, restoration measures, and nature study. Consistent with the provisions of Section 30233, the diking, dredging and filling of wetlands, open waters, estuaries and lakes shall be permitted only 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: incidental public service purposes, restoration purposes, and nature study. There shall be no alteration of Paradise Marsh, the wetlands located west of the railroad which are not proposed for public acquisition, as well as of the secondary area of Paradise Marsh, east of I-5, and the Sweetwater River south of 35th Street, except as determined by a marsh restoration program which has been approved by the California Coastal Commission.
 - The dumping of rubbish or commercial waste into the marsh areas shall be prohibited.
 - The intrusion of off-road vehicles and unauthorized pedestrian traffic into the marsh areas shall be discouraged.
 - A buffer area shall be established for new development adjacent to wetlands. A 100 ft. distance from the edge of the wetland shall generally provide an acceptable buffer. The required distance may be increased or decreased based on consultation with the Department of Fish and Game. A buffer area less than 100 feet wide may be permitted, depending upon the analysis of the specific site proposed for development. Examples which may demonstrate that a lesser distance would be acceptable include but are not limited to the type and size of development, proposed buffer improvements such as landscaping or fencing, and existing site characteristics such as a grade differential between a marsh area and adjacent upland area, existing development in the area, and parcel size and configuration. Consistency with buffers required as part of the Sweetwater River Channel/Rt. 54 project shall also be considered in order to determine appropriate buffers less than 100 feet wide. The buffers shall be determined with the concurrence of the state Department of Fish and Game.
3. To enhance the habitat and aesthetic value of Paradise Marsh, the wetlands located west of the railroad, which are not proposed for acquisition, as well as the secondary area of Paradise Marsh, east of I-5, and the Sweetwater River south of 35th Street, feasible restoration activities shall be encouraged. Feasible restoration activities shall be determined with the potential assistance of the Coastal Conservancy, or other public agency or private group, including the Bayfront Conservancy Trust, to finance, plan, implement and manage a restoration program. The recommended elements for a restoration program include:

- A public access and information program that would be designed to allow observation of the marsh, while controlling intrusion into the marsh itself. A component of the access program should be an interpretive nature trail along the western margins of Paradise Marsh, which could connect with an observation platform.
 - The removal of all rubbish and debris from the marsh through a volunteer effort, or the California Conservation Corps.
 - The dredging of Paradise Marsh, consistent with a marsh restoration program, prepared in consultation with the California Department of Fish and Game and approved by the California Coastal Commission, possibly concurrent with the construction of the Sweetwater River Flood Control Channel, to improve tidal flow and flushing. Dredging shall be restricted to existing tidal channels.
 - The encouragement of a scientific research program.
4. Proposed new development, including roadways, located adjacent to the wetlands of Paradise Marsh, the wetlands located west of the railroad which are not proposed for public acquisition, the secondary area of Paradise Marsh, east of I-5, and the Sweetwater River south of 35th Street, shall be designed to discourage the intrusion of pedestrians, vehicles, or domestic animals into the marsh through physical barriers such as fencing and/or landscaping with appropriate non-invasive species. In association with new development or remodeling of existing development contiguous with the wetlands, including roadways, drainage shall be directed off-site toward the Sweetwater River Flood Control Channel, or to existing street drains, whenever possible, or channeled into a settling area before entering the marsh. Potential increase in the rate of storm-water runoff, which may result from new development, including roadways, adjacent to wetlands, shall be controlled by detention basins or other means to avoid impacts of erosion and sedimentation on wetlands. The size, design and placement of such sedimentation control devices shall be developed in consultation with the State Department of Fish and Game prior to or concurrent with the commencement of construction and shall be installed and maintained by the developer, or any successors in interest.
5. Wetlands in private ownership, which may be located in the CT, C and M, as well as OSR designated areas, shall be protected from development through the application of an overlay zone or other appropriate, implementing regulation proposed in Policy #1. Necessary protective measures, including adequate buffers, regulations regarding the design and siting of structures, etc., and open space easements shall be determined during review of proposals for development, by application of criteria to be specified in the LCP Implementation Plan.

6. Landscaping in areas adjacent to wetlands shall include plants only which are not invasive of wetlands.
7. Specific erosion control measures shall be approved, incorporated into development, be in place at the initial phase of work, monitored and maintained in conjunction with all grading activities, consistent with Section X (B)(4)(k) of the Implementation Plan, during the period of November 1 to April 1 of each year for all properties which drain directly to marsh and wetland areas. These properties shall include all properties located in the following areas:

All properties between 35th Street and the southerly City limits;

All properties in the area lying between 33rd Street, Hoover Avenue, 30th Street and the MTDB San Diego Trolley Line;

All properties in the City's jurisdiction located westerly of Highway I-5 and south of 24th Street.

VISUAL RESOURCES

1. To ensure that the Army Corps of Engineer's Sweetwater River Flood Control project improves the scenic resources of the area, National City shall support and encourage the project as proposed with the following mitigations:
 - the restoration of the marsh connections with the Sweetwater River, and
 - the development of shoreline recreational features along the banks of the flood control channel.
2. To ensure that the development of the proposed commercial and recreational area adjacent to Paradise Marsh west of the SD&AE railroad is of the highest aesthetic quality, the City shall require that the development of the site shall be in accordance with development standards and requirements to be determined by a Specific Plan for the area. The Specific Plan shall determine appropriate height limits, landscape elements, signage, and view protection and enhancement, consistent with the policies of the Land Use Plan. Vistas shall be provided from public roadways and public open space areas to Paradise Marsh and the Sweetwater River Flood Control Channel. Height limits shall be established as determined necessary to provide for focal points in key activity areas.
3. To ensure that the new road to provide access to the proposed recreation area adjacent to Paradise Marsh is of high visual quality, its design shall implement and incorporate the General Plan policy proposing the construction of landscaped entryways. Landscaped entryway improvements for 24th Street would be especially appropriate.

4. A Specific Plan shall be prepared to identify design improvements to enhance the visual identity of the Paradise Marsh area, provide a visual linkage between recreational uses near the Sweetwater River Channel and tourist commercial uses west of the Marsh and at 24th Street, and appropriate visual separation or buffering of industrial uses to the west and freeway to the east. The design improvements identified in the Specific Plan shall include landscape elements, signing, and architectural elements or criteria, such as height, scale, bulk, color and building materials. Protection or creation of vistas should also be identified in the Specific Plan.
5. To ensure that new development throughout the coastal zone is visually appropriate, projects shall be reviewed for conformance to City standards for building aesthetics and materials, height, signing and landscaping. See Appendix IV. Project design shall also be reviewed with regard to other appropriate visual elements identified through the development review process.

INDUSTRIAL DEVELOPMENT

1. In the event that different industrial land uses are competing for available industrial land, priority shall be given to marine related industrial uses.

ENVIRONMENTAL HAZARDS

1. Review of new development for potential flood, seismic and geologic hazards shall determine necessary improvements to minimize risk during the site plan review process, or during any applicable, discretionary review process.
2. Geotechnical reports shall be required for new development in areas subject to geologic hazard.
3. Waivers of liability shall be required from applicants for coastal development permits in areas of geologic hazard.
4. Prior to the development of the parcels on both sides of the existing Sweetwater River Channel, south of 35th Street, a flood hazard study shall be conducted, based upon design criteria anticipating the potential flood hazard remaining after the construction of the Sweetwater River Flood Control Channel or from a 100-year flood, whichever is applicable at the time of development. Only development consistent with the recommendations of the study shall be approved for the area. Specific development policies shall be provided in the Implementation Plan. The policies shall stress provision of adequate setbacks to minimize the amount of fill necessary for flood protection, and no armoring or channelization of the existing river channel for flood protection shall be allowed.

LAND USE PLAN SUMMARY

COMMERCIAL/RECREATION/OPEN SPACE

The National City bayfront should be designated for tourist commercial, recreational and open space use. Using the SD&AE railroad spur as a point of demarcation, the area located to the east, including Paradise Marsh and surrounding lands, would be suitable for passive recreational and open space uses only. Areas to the north of the marsh and west of the marsh and railroad spur should be designated for tourist commercial and recreational uses.

The total land area within National City which is developable, west of the railroad spur and SDG&E right-of-way, and designated for tourist commercial and recreational open space use is approximately 23 acres and is owned by the Santa Fe Land Improvement Company and Atchison Topeka & Santa Fe Railway. However, additional vacant land totaling 15 acres, under the jurisdiction of the Port District, lies adjacent to the west, southeast of 32nd Street and Tidelands Avenue, and east and north of the boat launch facilities. The Port's Master Plan designates the area for commercial recreation and public park. It is important to emphasize that the development of this area should be closely coordinated with the Port during the project planning phase. Also, to ensure a well integrated and quality development, the concurrent development of both the National City parcel and the Port District parcel should be encouraged.

Although the tourist commercial designation covers a broad range of uses, one or two anchor uses should be sought for the area. Particularly appropriate for the area would be an overnight use and a boating related use, the two activities with the greatest unmet demand. Desirable forms of overnight use include hotel or motel facilities, and/or a recreational vehicle park/campground complex. Such uses, in a close proximity to the Port's launching ramp and the Army Corps' proposed recreational features, would have apparent possibilities. Development of a marina on adjacent Port District property may also be appropriate. With the proposed extension of the channel for the flood control project, increased boat usage will become even more desirable. Other boating related facilities that would be appropriate include a dry-storage area and a sales/service establishment. Again, available space for boat storage near San Diego Bay is at a premium and the situation is only going to become tighter. A stacked or tiered dry-storage area, similar to that at Perez Cove on Mission Bay, would be a desirable use at the National City location. With an overnight use and boating use serving as anchors, it can be expected that other related uses such as eating establishments and specialty shops will be attracted to the area.

The area to the north of the Paradise Marsh, east of the SD&AE railroad right-of-way and south of 24th Street is also designated for tourist commercial use. A transition from existing industrial uses to future commercial is appropriate to provide a gateway to the Bayfront and Port area.

INDUSTRIAL

National City's portion of the coastal zone includes two separate areas that are characterized by industrial development. The most heavily industrialized area is located west of I-5. It is almost entirely developed with medium industrial uses, and is designated "Medium Industrial" and

“Heavy Industrial” in the General Plan. The area is well served by truck access via I-5, rail access, and ship access through Port District lands. The other industrial area within National City’s coastal zone is the Sweetwater industrial area which is 160 acres in size and located east of I-5. The entire central portion of this area has been reserved for the joint Army Corps/CALTRANS Sweetwater River flood control channel and Highway 54 project and is designated as open space. The areas to the north and south are virtually all developed with light industrial use and some commercial areas fronting on National City Boulevard. As in the General Plan, both areas are designated for industrial and commercial use in the Land Use Plan.

National City’s coastal zone is characterized by industrial development, much of which is related to the proximity of the Port’s container terminal and wharfage. Due, in large part to the attraction of the marine terminal, virtually all of the industrial zoned land in National City’s bayfront has been developed. New industrial development and redevelopment will occur as older residential uses are eliminated; however, the assemblage of parcels large enough to accommodate and attract major industrial uses will be difficult. Taken together with the fact that National City has no direct bay frontage, the imposition of a policy giving preference only to marine related industrial use could be unnecessarily burdensome.

In most situations, the free market should adequately handle the allocation of available industrial land to marine related industrial uses. The reason being that industrial uses that benefit from a coastal oriented location will compete more effectively for such parcels. However, a land use policy which would allow the free market to operate with the minimum regulatory intervention, and would also achieve consistency with the objectives of the Coastal Act for coastal dependent industrial activity would be advisable. Such a policy would only be applicable in situations where different industrial uses are competing for land, and in such instances would assign priority to marine related industry.

OPEN SPACE/WETLAND PRESERVE

The wetlands of the Paradise Creek Marsh, including salt marsh, freshwater marsh, salt-pan, channel, and mudflat habitats, are valuable and sensitive biological resources, and shall be preserved. To that end, the plan designation for these areas is OPEN SPACE/WETLAND PRESERVE.

The value of the Paradise Marsh includes, but is not limited to, the following:

- Through photosynthesis of algal species, the marsh provides an oxygen supply for the waters of San Diego Bay, necessary for survival of fish species and natural pollution impact abatement.
- Flushing of plant and animal detritus from the marsh provides organic matter important for food chains in the bay.

- The marsh acts as a nursery for at least nine fish species, including several important sport fish species.
- The wetland habitats are extremely important wildlife areas, supporting a very high diversity of bird species. These include a number of sensitive species, i.e., Belding's Savannah Sparrow, and potentially the Light-footed Clapper Rail. The wetlands also are an important stop-over point for migratory species along the Pacific Flyway.

Potential uses for wetlands are:

- Basic scientific research, nature study, or educational uses;
- Passive recreation (i.e., bird watching);
- A possible source for applied research into the use of marsh species to introduce salt-tolerant genes into economically important plants (in agriculture), through selective cross-breeding.

One technique of preserving wetlands commonly referred to is the provision of a buffer area between the wetland and development. The Coastal Commission generally recommends that development be set back 100 feet from the landward edge of a wetland. The 100-foot wide buffer may be increased or decreased in consultation with the Department of Fish and Game. The purpose of the 100-foot buffer is to ensure that the type and scale of development will not significantly degrade the adjacent habitat area. The distinction must be made, however, that the application of the 100-foot buffer assumes that the area surrounding the wetland is substantially undeveloped. With respect to Paradise marsh, the wetland is almost entirely surrounded by existing industrial development and transportation corridors including lumber storage yards, slaughter houses, steel fabricating plant, I-5, and rights-of-way for the AT&SF and SD&AE Railroads. In most locations, this existing development lies immediately adjacent to the landward edge of the wetlands. In such situations, the Commission's guidelines recommend that new development observe an appropriate setback based on unique characteristics of the property. It should also be noted that the marsh areas recommended and required for acquisition as mitigation for the Sweetwater River Flood Control Channel/Route 54 freeway project were determined to include necessary buffers.

The essential measure necessary to guarantee the preservation of Paradise Marsh is the maintenance of tidal flushing. As long as the marsh is kept open to tidal flushing, and as long as the major input of freshwater continues to be runoff from the upstream areas rather than industrial discharge, the existing water quality will be maintained at acceptable levels. Other management alternatives, such as implementing increased street sweeping programs or sediment control measures in selected subbasins, do not appear to be necessary on the basis of the data and results presently available.

