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TERRA CEIA AQUATIC PRESERVE

MANAGEMENT PLAN

DECEMBER 1986

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Department of Natural Resources

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The Bureau of Land and Aquatic Resource Management
Division of Recreation and Parks

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TERRA CEIA AQUATIC PRESERVE

Chapter I

INTRODUCTION

This plan addresses the management of the Terra Ceia Aquatic Preserve, located in Manatee County, Florida. This Aquatic Preserve is one of the 39 officially designated preserves in the statewide system (Figure 1.)

The Terra Ceia Aquatic Preserve (Figure 2) begins just south of the mouth of the Little Redfish Creek and ends at Emerson Point on Snead Island. The boundaries extend northwesterly from these points out to the Intracoastal Waterway or Manatee County line which then cross and form the outer most tip of the preserve. The only incorporated city bordering the preserve in the city of Palmetto.

Of the aquatic preserves in Tampa Bay area (Pinellas County, Cockroach Bay, and Boca Ciega) the Terra Ceia Aquatic Preserve is one of the last pristine areas in Tampa Bay. The preserve is contained completely within Manatee County. This environmentally sensitive and unique preserve, harbors seagrass beds which stabilize bottom sediments, and provide food and shelter to adult, juvenile, and larval vertebrates and invertebrates. Mangrove trees fringe the shoreline of most of the area. Saltmarsh grasses, oyster bars, clam beds, drift algae, coral reefs and tidal flats are also intricate parts of this very dynamic and productive system that comprises approximately 21,376 acres of submerged lands.

The climate in west central Florida is classified as transitional. Seasonal weather patterns are mild enough to allow tropical species to

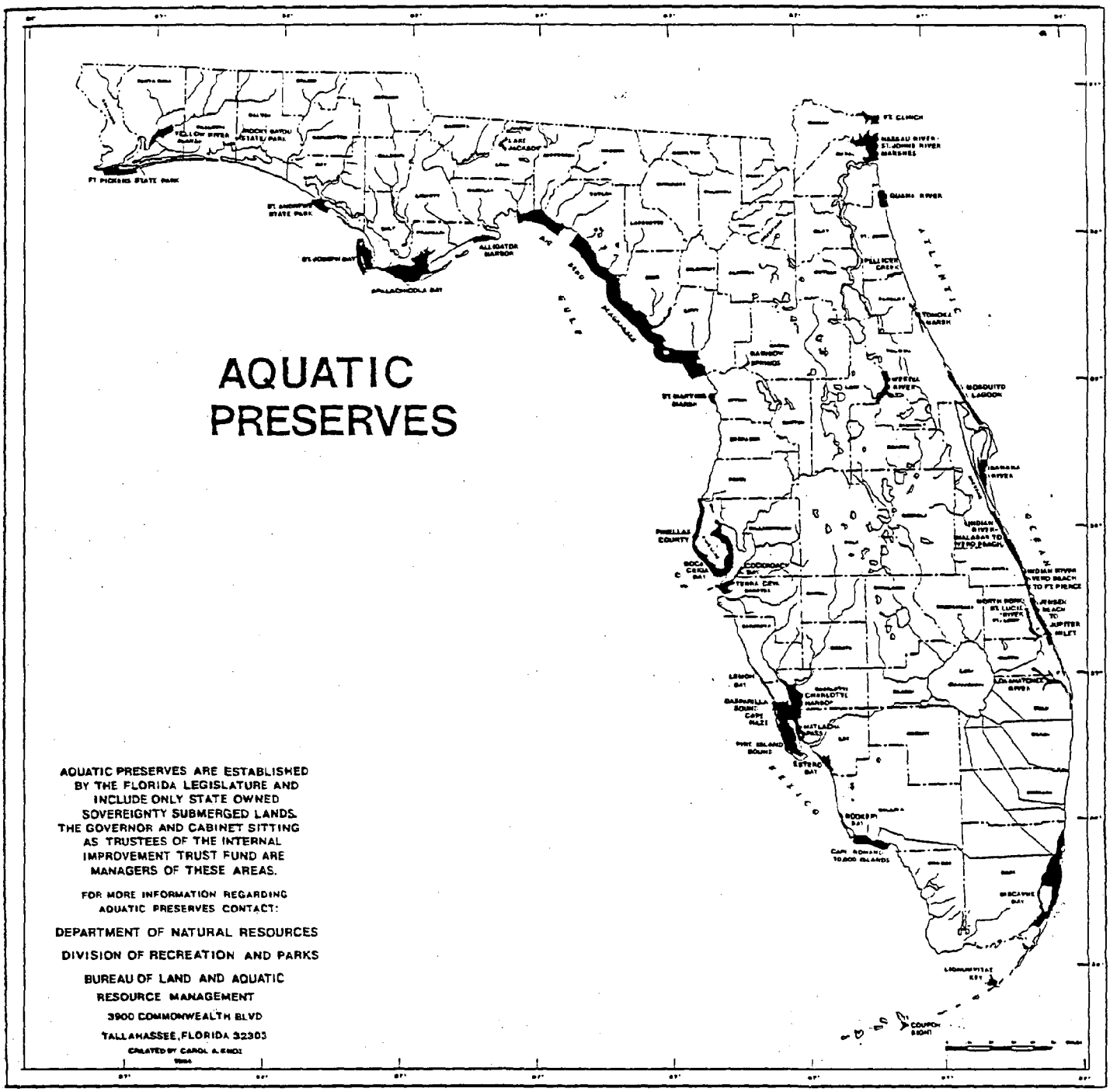
AQUATIC
PRESERVES
AQUATIC PRESERVES ARE ESTABLISHED BY THE FLORIDA LEGISLATURE AND INCLUDE ONLY STATE OWNED SOVEREIGNTY SUBMERGED LANDS. THE GOVERNOR AND CABINET SITTING AS TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND ARE MANAGERS OF THESE AREAS.
FOR MORE INFORMATION REGARDING AQUATIC PRESERVES CONTACT:
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECREATION AND PARKS
BUREAU OF LAND AND AQUATIC RESOURCE MANAGEMENT
3900 COMMONWEALTH BLVD
TALLAHASSEE, FLORIDA 32303
ATLANTIC
GULF
MEXICO

Figure 1.

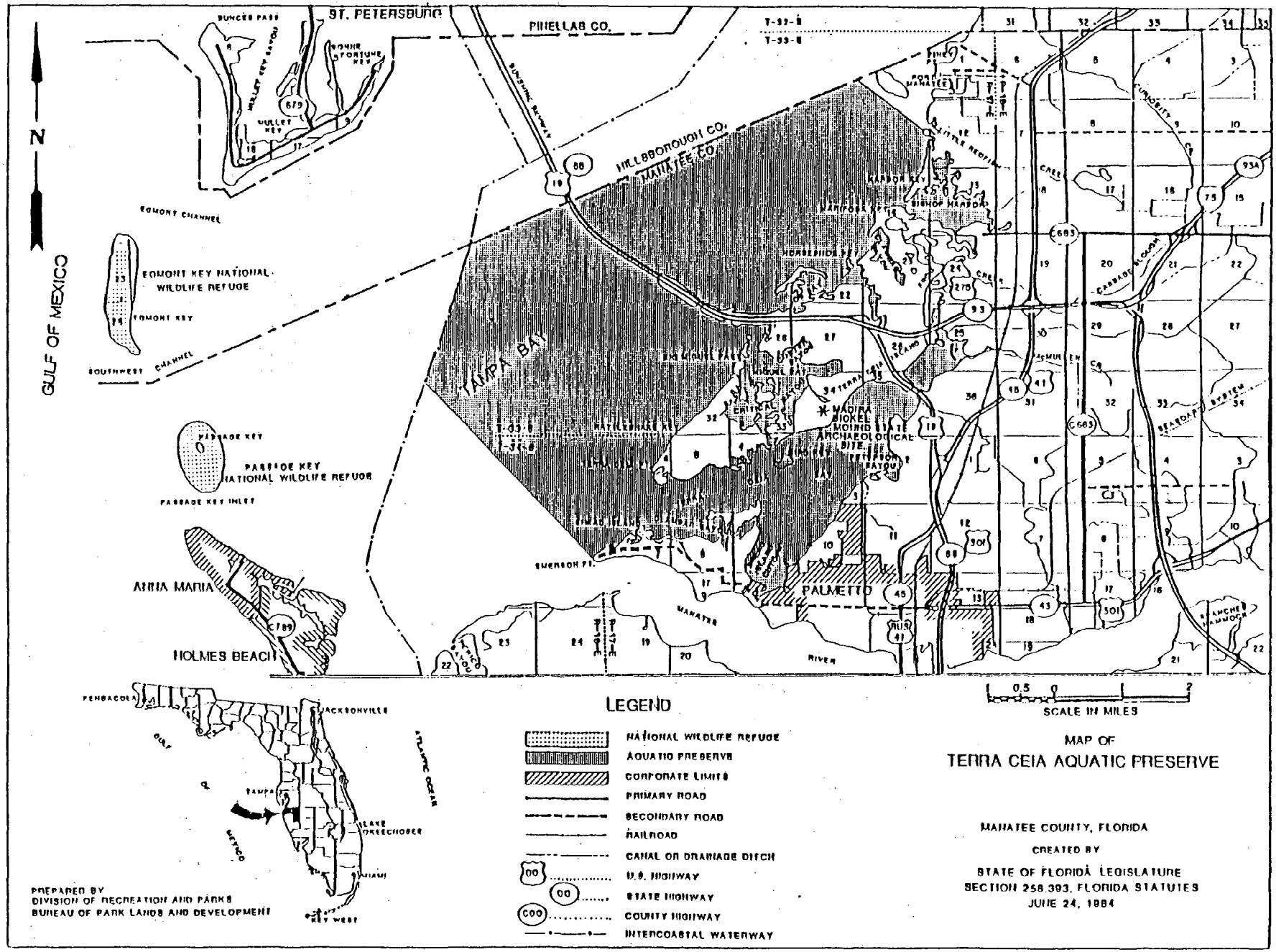
ST. PETERSBURG
PINELLAS CO.
HILLSBOROUGH CO.
MANATEE CO.
GULF OF MEXICO
N
EGMONT CHANNEL
EGMONT KEY NATIONAL WILDLIFE REFUGE
EGMONT KEY
SOUTHWEST CHANNEL
PASSAGE KEY
PASSAGE KEY NATIONAL WILDLIFE REFUGE
PASSAGE KEY INLET
ANNA MARIA
HOLMES BEACH
TAMPA BAY
PALMETTO
MANATEE
RIVER
EMERSON PT.
MADIRA BICKEL MOUND STATE ARCHAEOLOGICAL SITE
PENSACOLA
JACKSONVILLE
TAMPA
LAKE OKEECHOBEE
MIAMI
KEY WEST
ATLANTIC OCEAN
LEGEND
NATIONAL WILDLIFE REFUGE
AQUATIC PRESERVE
CORPORATE LIMITS
PRIMARY ROAD
SECONDARY ROAD
RAILROAD
CANAL OR DRAINAGE DITCH
U.S. HIGHWAY
STATE HIGHWAY
COUNTY HIGHWAY
INTERCOASTAL WATERWAY
SCALE IN MILES
MAP OF
TERRA CEIA AQUATIC PRESERVE
MANATEE COUNTY, FLORIDA
CREATED BY
STATE OF FLORIDA LEGISLATURE
SECTION 258.393, FLORIDA STATUTES
JUNE 24, 1984
PREPARED BY
DIVISION OF RECREATION AND PARKS
BUREAU OF PARK LANDS AND DEVELOPMENT

Figure 2.

survive, yet cool enough so that temperate plants and animals can survive the nine month summer period (Wooten, 1985).

The Terra Ceia Preserve is designated and will be managed as both an Aquatic Preserve and an Outstanding Florida Water. The boundary lines of Figure 2 represent the gross boundaries of the Aquatic Preserve. The actual preserve includes those sovereignty submerged lands located waterward of the mean high water line (mhw) within this boundary area. Outstanding Florida Waters are to be managed emphasizing the maintenance and enhancement of existing water quality conditions. As more site specific information becomes available, essentially natural conditions shall be identified and resources in disturbed areas restored to that condition, where possible.

Until August 1984, management of the preserve was conducted from Tallahassee. At that time, one half-time field biologist was hired and stationed at the DNR Marine Research Laboratory at 100 Eighth Avenue S.E., St. Petersburg, Florida, 33701-5095. This person was responsible for on-site management of Pinellas County, Boca Ciega Bay, Cockroach Bay as well as the Terra Ceia Aquatic Preserve. This original position was expanded to full-time on January 2, 1986 and an additional half-time biologist was hired in December 1985 to begin the management planning process. Currently administrative management involves the Division of Recreation and Parks' personnel (both in the field and in Tallahassee) and the Division of State Lands' personnel. These personnel cooperate in the review of applications for use of state-owned lands and related activities surrounding the preserve and interact with various government and nongovernmental entities, interest groups, and individuals.

The central office coordinates activities with field personnel including project review and evaluation, local contact initiation, contractual services,

conflict resolution and routine support (payroll, operating expenses, etc.) Central office staff also develop administrative rule additions, deletions and revisions.

On-site management includes evaluations of sites applying for use of state-owned lands (i.e. dock permits, dredge and fill, etc.), research and evaluation of preserves, public interaction, emergency response, etc. A major component of the aquatic preserve management is project review and evaluation. Central office staff review all proposed activities requiring the use of state-owned lands within the preserve. These activities are reviews according to requirements established in Sections 258.42 and 258.44, F.S. These sections require that projects be basically water dependent or water enhanced, not contrary to the lawful and traditional uses of the preserve, and not infringing upon the traditional riparian rights of the upland property owner.

Effective management of the Cockroach Bay Aquatic Preserve requires close coordination with many government agencies and programs, nongovernmental entities, interest groups and individuals. Current interagency coordination centers around several larger research and other efforts in the area.

Specific interagency coordination is currently conducted in two main areas: review of dredge and fill project within the aquatic preserves and review of other large projects outside the preserves but that have the potential to impact the preserves. In addition, aquatic preserve personnel assist and request assistance from many other agencies and programs. Two agencies are primarily responsible for dredge and fill permitting: the U.S. Army Corps of Engineers at the federal level and the Florida Department of Environmental Regulation at the state level. Other large projects requiring input by aquatic preserve personnel include developments of regional impact (under the jurisdiction of Florida Department of Community Affairs and the Tampa Bay Regional Planning Council).

Aquatic preserve personnel have coordinated with several research and management efforts within the area. A major program is the Agency of Bay Management organized by the Tampa Bay Regional Planning Council. This advisory agency has conducted a comprehensive review of the Tampa Bay estuarine system, including the roles of various agencies and is now beginning to implement many of its recommendations.

On the local level, the aquatic preserve manager has assisted with the Restoration Advisory Committees of Manatee and Pinellas Counties. These committees have been charged with recommending and implementing specific habitat restoration projects funded by the Organized Fisherman of Florida Gillnet License. This charge directly supports the goals of the aquatic preserve management program and should effect real improvements to Tampa Bay as a whole and thus to the Cockroach Bay Aquatic Preserve.

Development of the resource inventories has depended heavily on LANDSAT satellite imagery, DOT aerial photography, on-site inspection, the Future of Tampa Bay, and the proceedings from the Tampa Bay Scientific Information Symposium (BASIS) (Treat et al. 1985) held in 1982. As the program proceeds and on-site managers become more familiar with the area, additional resource information will become available and modifications to the program and the plan will be made where appropriate.

This plan is divided into chapters according to their management application. Chapter II cites the authorities upon which this management program and plan are built. Chapter III (Major Program Policy Directives) highlights the major description and references the appendices which contain more detailed information of the resources. Chapter IV presents a brief resource description.

Chapter V presents the management objectives of both the on-site managers, who actually work in the preserve, and the administrative staff in Tallahassee.

Chapter VI addresses how this plan will interface with local, regional, state, and federal agencies and programs, as well as its relevance to nongovernmental organizations, interest groups, and individuals.

Chapter VII through IX address the various uses, from public to private to commercial. Chapters X and XI address the use of the aquatic preserve for scientific research and environmental education, respectively.

This plan was written by the Department of Natural Resources (DNR), Division of Recreation and Parks, Bureau of Land and Aquatic Resource Management (BLARM) staff. Funding for the plan was by a coastal management grant (CM-130) through the U.S. Department of Commerce's National Oceanic and Atmospheric Administration, Office of Ocean and Coastal Resource Management, and the Florida Department of Environmental Regulation (DER), Office of Coastal Management.

Chapter II

MANAGEMENT AUTHORITY

The primary management authorities available to the staff for implementing management directives affecting aquatic preserves are found in Chapters 258 and 253, Florida Statutes (F.S.). These authorities clearly establish the proprietary management overview role of the Governor and Cabinet, sitting as the Board of Trustees of the Internal Improvement Trust Fund and are variously referred to as the "Trustees" or the "Board". Furthermore, all management responsibilities assigned to the Trustees by this plan may be fulfilled directly by the Governor and Cabinet or indirectly via staff or agents of the Trustees, pursuant to delegations of authority, management agreements, or other legal mechanisms. All subsequent references to the Board or Trustees should be presumed to potentially include staff and designated agents, in addition to the Governor and Cabinet. The staff of the Bureau of Land and Aquatic Resource Management (BLARM) acting as "agents" for the Trustees, is able to review all requests for uses of, or directly affecting, state-owned sovereignty submerged lands within aquatic preserves. The review and subsequent staff comments are primarily designed to evaluate the environmental consequences of any proposed use of state-owned submerged land. The review is conducted within the confines of the criteria contained in the "maintenance" provisions for aquatic preserves in Chapter 258, F.S.

Formal review comments are provided to the Department of Natural Resources (DNR), Division of State Lands by the Bureau of Land and Aquatic Resource Management for inclusion in the comments and recommendations accompanying agenda items for Trustees consideration. This mechanism allows the Trustees, sitting as owners of the land, to evaluate public interest and project merits within the context of environmental impact upon the preserve.

BACKGROUND

In many respects, the authorities supporting aquatic preserve planning and management are the cumulative results of the public's awareness of the importance of Florida's environment. The establishment of the present system of aquatic preserves is a direct outgrowth of public concern with dredge and fill activities rampant in the late 1960's.

In 1967, the Florida Legislature passed the Randall Act (Chapter 67-393, Laws of Florida), which set up procedures regulating previously unrestricted dredge and fill activities on state-owned submerged lands. That same year the legislature also provided statutory authority (Section 253.03, F.S.) for the Trustees to exercise proprietary control over state-owned lands. In 1967, this governmental focus on protecting Florida's productive estuaries from the impacts of development led to the establishment of a moratorium by the Governor and Cabinet on the sale of submerged lands to private interests. In that same year, this action was followed by the creation of an interagency advisory committee on

submerged land management. In late 1968, that committee issued a report recommending the establishment of a series of aquatic preserves. Twenty-six separate waterbodies were addressed in the original recommendation. Also in 1968, the Florida Constitution was revised, declaring in Article II, Section 7, the State's policy of conserving and protecting the natural resources and scenic beauty of the state. That constitutional provision also established the authority for the legislature to enact measures for abatement of air and water pollution.

It was not until October 21, 1969 that the Governor and Cabinet acted upon the recommendations of the Interagency Advisory Committee and adopted, by resolution, 18 waterbodies as aquatic preserves. Other preserves were similarly adopted at various times through 1971.

Prior to the October 1969 action by the Governor and Cabinet, the Legislature had created the Boca Ciega Aquatic Preserve. Subsequent Legislation action in 1972, 1973, and 1974, created the Pinellas County, Lake Jackson and Biscayne Bay Aquatic Preserves, respectively.

In 1975, the Legislature established a Florida Aquatic Preserve Act (Codified in Chapter 258, F.S.), thereby bringing all existing preserves under a standardized set of maintenance criteria. Additional acts were passed subsequent to the 1975 action, such as the addition of the Cockroach Bay Aquatic Preserve in 1976 and the Gasparilla Sound-Charlotte Harbor Aquatic Preserve to the system in 1978, and the Terra Ceia Preserve in June 1984.

The Charlotte Harbor Aquatic Preserve Management Plan, approved by the Trustees on May 18, 1983, was the first management plan for an aquatic preserve. The following aquatic preserves have approved plans: Estero Bay - September 6, 1983; North Fork-St. Lucie - May 22, 1984; Loxahatchee River-Lake Worth Creek - June 12, 1984; and Indian River Lagoon - January 22, 1985.

In June 1985, the Legislature passed Senate Bill 762 which expanded the boundaries of the Banana River, Malabar to Vero Beach, Loxahatchee River - Lake Worth Creek, Wekiva River, and Rookery Bay Aquatic Preserves; and created Guana River Marsh and Big Bend Seagrasses Aquatic Preserves.

The State Lands Management Plan, adopted on March 17, 1981, by the Trustees, contains specific policies. The Plan also establishes policies concerning spoil islands, submerged land leases, "Outstanding Native Florida Landscapes", unique natural features, submerged grassbeds, archaeological and historical resources, and endangered species. All of these issues provide management guidance to the aquatic preserve program.

ADMINISTRATIVE RULES

Chapters 18-21 and 18-20, Florida Administrative Code (F.A.C.), are two administrative rules directly applicable to the DNR's/Trustee's actions regarding allowable uses of submerged lands, in general, and aquatic preserves specifically. Chapter 18-21, F.A.C. controls activities conducted on sovereignty submerged lands, and is predicated upon the

provisions of Sections 258.03 and 253.12, F.S. The stated intent of this administrative rule is:

"(1) To aid in fulfilling the trust and fiduciary responsibilities of the Board of Trustees of the Internal Improvement Trust Fund for the administration, management and disposition of sovereignty lands;

(2) To insure maximum benefit and use of sovereignty lands for all the citizens of Florida;

(3) To manage, protect, and enhance sovereignty lands so that the public may continue to enjoy traditional uses including, but not limited to, navigation, fishing, and swimming;

(4) To manage and provide maximum protection for all sovereignty shellfish harvesting, public recreation, and fish and wildlife propagation and management;

(5) To insure that all public and private activities on sovereignty lands which generate revenues or exclude traditional public uses provide just compensation for such privileges; and,

(6) To aid in the implementation of the State Lands Management Plan."

Chapter 18-20, F.A.C. addresses the aquatic preserves and derives its authority from Sections 258.35, 258.36, 258.37 and 258.38, F.S. The intent of this rule is contained in Section 18-20.01, F.A.C., which states:

"(1) All sovereignty lands within a preserve shall be managed primarily for the maintenance of essentially natural conditions, the propagation of fish and wildlife, and public recreation, including hunting and fishing where deemed appropriate by the board and the managing agency.

(2) The aquatic preserves which are described in Section 258.39, 258.391, 258.392 and 258.393, F.S.; Chapter 85-345 Laws of Florida; and in Section 16Q-20.02, F.A.C., were established for the purpose of being preserved in an essentially natural or existing condition so that their aesthetic, biological and scientific values may endure for the enjoyment of future generations.

(3) The preserves shall be administered and managed in accordance with the following goals:

(a) Preserve, protect, and enhance these exceptional areas of sovereignty submerged lands by reasonable regulation of human activity within the preserves through the development and implementation of a comprehensive management program;

(b) To protect and enhance the waters of the preserves so that the public may continue to enjoy the traditional recreational uses of those waters such as swimming, boating, and fishing;

(c) To coordinate with federal, state, and local management programs, which are compatible with the intent of the Legislature in creating the preserves;

(d) To use applicable federal, state, and local management programs, which are compatible with the intent and provisions of the act and these rules, to assist in managing the preserves;

(e) To encourage the protection, enhancement or restoration of the biological , aesthetic, or scientific values of the preserves, including but not limited to the modification of existing man-made conditions toward their natural condition, and discourage activities which would degrade the aesthetic, biological, or scientific values, or the quality, or utility of a preserve, when reviewing applications, or when developing and implementing management plans for the preserve;

(f) To preserve, promote, and utilize indigenous life forms and habitats , including but not limited to: sponges, soft coral, hard coral, submerged grasses, mangroves, salt water marshes, fresh water marshes, mud flats, estuarine, aquatic and marine reptiles, game and nongame fish species, estuarine, aquatic and marine invertebrates, estuarine, aquatic and marine mammals, birds, shellfish and molluscs;

(g) To acquire additional title interests in lands wherever such acquisitions would serve to protect or enhance the biological, aesthetic, or scientific values of the preserves.

(h) To maintain those beneficial hydrologic and biologic functions, the benefits of which accrue to the public at large."

OTHER MANAGEMENT AUTHORITIES

Other Department of Natural Resources management authorities applicable to aquatic preserves include fisheries and marine mammal management and protection, and beach and shore preservation programs outlined in Chapters 370 and 161 , F.S., respectively and land acquisitions programs conducted under the Environmentally Endangered Lands authorities of Chapter 259, F.S. or the Conservation and Recreation Lands Program

authorized by 253, F.S., will enhance the protection of the natural resources within the aquatic preserves.

Chapter 403, F.S., is an important adjunct to Chapter's 253 and 259, F.S. This governs, in part, the State's regulatory programs affecting water quality and biological resources. The Department of Environmental Regulation (DER), through a permitting and certification process, administers this program. Section 253.77, F.S., as amended by the Warren S. Henderson Wetlands Protection Act of 1984, requires that any person requesting use of state-owned land shall have approval of the proposed use from the Trustees before commencing the activity. An interagency agreement between DNR and DER provides an avenue for staff comments on potential environmental impacts of projects in aquatic preserves through the DER permitting process. Additionally, the DER has designated, by administrative rule, a series of waterbodies with stringent use criteria called "Outstanding Florida Waters" (OFW). The inclusion of all aquatic preserve waters within this classification greatly enhances the protective provisions of Chapter 253, F.S. As the designated "306" Coastal Zone Management Agency, the DER also provides a source of funding for data collection and planning in areas such as the Terra Ceia area, as well as being the state agency responsible for implementing "federal consistency" provisions of the federal Coastal Zone Management Act.

The DER's administrative rules of primary significance to the aquatic preserve management program are in Chapters 17-3, 17-4 and 17-12, F.A.C. These rules are based upon the authorities contained in Chapter 403, F.S. Chapter 17-3, F.A.C. addresses water quality standards and establishes

the category of "Outstanding Florida waters", while Chapters 17-4 and 17-12, F.A.C. address permit requirements and dredge and fill activities, respectively.

In December, 1982 a Memorandum of Understanding (MOU) between the DER, DNR, and the U.S. Army Corps of Engineers (COE) was executed. This MOU clearly establishes a process whereby the proprietary concerns of the Trustees, stated in Chapter 253, F.S. can be integrated into the DER/COE joint permit processing system.

Other opportunities for environmental review and input into activities potentially affecting aquatic preserves are afforded by the Department of Community Affairs (DCA), Tampa Bay Regional Planning Commission (TBRPC), and the Department of State, Division of Archives, History, and Records Management (DAHRM). The Executive Office of the Governor also provides a mechanism for public input into federal projects via the State clearinghouse process.

The DCA and TBRPC are statutorily responsible for administering the "Development of Regional Impact" (DRI). The DRI program, authorized by Section 380.06, F.S. was established by the Legislature to provide a review and monitoring procedure for those development projects potentially affecting more than one county. To understand the maze of authorities involved in authorizing, permitting or reviewing development plans in Tampa Bay, the agency prepared an Existing Authorities Matrix (Appendix). This matrix identifies the types of activities for which

each agency is responsible. Aquatic preserve personnel must not only coordinate with but be conversant of these agencies policies in order to facilitate comprehensive and consistent review input.

Chapter 267, F.S. establishes the state policy regarding preservation and management of Florida's archaeological and historical resources. This responsibility is legislatively assigned to the DAHRM, which holds title to those cultural resources located on state-owned lands. This also applies to sovereignty submerged lands, including aquatic preserves.

The Manatee County Department of Health and Rehabilitative Services, under their public mandate, administers two programs directly affecting the aquatic preserve management program. These programs are (1) septic tank regulation, usually administered by county health departments and (2) arthropod (mosquito) control programs, usually implemented through local mosquito control districts. Each of these programs holds the potential for creating significant impacts upon the aquatic preserves. Establishment of close working relationships between the aquatic preserve staff and the Department of Health and Rehabilitative Services will be a necessary element of the aquatic preserves management program.

Each of the above referenced programs may provide an effective means of protecting aquatic preserves and their ecologically sensitive resources. Appendix __ contains a compendium of the appropriate statutes and administrative rules.

Chapter III

MAJOR PROGRAM POLICY DIRECTIVES

This plan contains a number of management policy issues that are discussed either generally or definitively. This section highlights those major policy areas that comprise the basic thrust of this management effort. Adoption of these policies will provide specific staff direction for implementing the day-to-day aquatic preserve management program. Major program policy directives are:

(A) Manage all submerged lands within the aquatic preserve to ensure the maintenance of essentially natural conditions to ensure the propagation of fish and wildlife, and public recreation opportunities;

(B) Prohibit the disturbance of archaeological and historical sites within the aquatic preserve, unless prior authorization has been obtained from the Trustees and DAHRM, and such disturbance is part of an approved research design or authorized project;

(C) Develop a resource inventory and map natural habitat types within the aquatic preserve, with an emphasis on those habitat types utilized by threatened and/or endangered species;

(D) Protect and, where possible, enhance threatened and endangered species habitat within the aquatic preserve;

(E) Prohibit development activities within the aquatic preserve that adversely impact saltmarshes and valuable submerged habitat, unless a prior determination has been made by the Board of overriding public importance with no reasonable alternatives, and adequate pre-set mitigation measures are included;

(F) Prohibit the trimming and/or removal of saltmarsh or mangrove vegetation and other natural shoreline vegetation within the aquatic preserve, except when necessitated by the pursuit of legally authorized projects and local protection ordinances;

(G) Provide and actively encourage research and educational opportunities for scientists and other interested researchers within the framework of a planned research program in the aquatic preserve;

(H) Acquire, where feasible, privately owned submerged lands located within the boundaries of the aquatic preserve pursuant to the authorities contained in Section 253.03(4), F.S. Of great interest are the mangrove islands within the preserve and the tidal creek north of the preserve;

(I) Prohibit the drilling of oil and gas wells, the mining of minerals, and dredging for the primary purpose of obtaining upland fill within the aquatic preserve;

(J) Prohibit non-water dependent uses of submerged lands within the aquatic preserve except in those cases where the Board has determined

that the project is overwhelmingly in the public interest and no reasonable alternatives exist. This prohibition shall include floating residential units, as defined in Section 125.0106(2), F.S.;

(K) Prohibit storage of toxic, radioactive, or other hazardous materials within the aquatic preserve. Any hazardous waste dumps now located within the aquatic preserve should be closed and eliminated;

(L) Prohibit mosquito control practices within the aquatic preserve that require habitat modification or manipulation (i.e. diking, ditching) unless there are no reasonable alternatives and failure to conduct such practices would result in a threat to public health;

(M) Limit pesticide and biocide use within the aquatic preserve to those that are approved by the Environmental Protection Agency (EPA) for wetland and aquatic application;

(N) Prohibit the construction of new deep water ports within the aquatic preserve boundaries;

(O) Prohibit any activity commercial or recreational that might impact the integraty of hard-bottom communities within the aquatic preserve;

(P) Insure that artificial reef construction does not adversely impact environmentally fragile areas within the aquatic preserve and that the construction will maintain the essentially natural condition while enhancing the quality and utility of the preserve;

(Q) Manage state-owned spoil islands within the aquatic preserve as bird rookeries and wildlife habitat areas;

(R) Encourage public utilization of the aquatic preserve, consistent with the continued maintenance of its natural values and functions;

(S) Develop a well coordinated aquatic preserve management mechanism that recognizes and utilizes local government programs and authorities;

(T) Require, through the efforts of DER and the South West Florida Water Management District (SWFWMD), the maintenance and upgrading of the water quality of the estuary and ensure the natural seasonal flow fluctuations of freshwater into the estuary;

(U) Apply the management criteria contained in the adopted Terra Ceia Aquatic Preserve Plan to all subsequent legislative additions of land to the aquatic preserve;

(V) Encourage the assistance of federal, state, and local government agencies in implementing the aquatic preserve management plans, especially in areas of protection of natural resources and the enforcement of applicable resource laws and ordinances;

(W) Prohibit marina location in Class 1 or 2 Resource Protection Areas as defined in 16Q-20.__, F.A.C.;

(X) Identify and document any problems caused by fishing activities and report them to the Marine Fisheries Commission;

(Y) Insure that the aquatic preserve management plans are consistent with all other state and local planning processes and completed plans that may impact aquatic preserves;

(Z) Recognize that successful shellfish culture and harvesting efforts in the aquatic preserve are dependent upon pollution prevention and abatement programs and careful comprehensive planning;

Chapter IV

RESOURCE DESCRIPTION

A. Profile of the Tampa Bay Area

Tampa Bay is the largest estuary in Florida. It is a complex network of creeks, rivers, and bays that drain some 2,200 square miles of Florida's west central peninsular coast. Lining the shore are Florida's third and fourth largest cities, Tampa and St. Petersburg, their suburbs, and the seventh busiest port in the nation. Stresses caused by channel dredging (for commercial and private navigational purposes), large scale urban alterations to the natural shoreline, and discharges of thermal, biological, and chemical pollutants have had a negative impact on the bay. The primary impact has been the loss of marine habitat and the reduction in the overall productivity of Tampa Bay.

Concern about Tampa Bay's ecosystem resulted in a number of landmark studies, including the Tampa Bay Area Scientific Information Symposium held in 1982 (Treat et al. 1985), and the Future of Tampa Bay (Tampa Bay Regional Planning Council 1985), which constitutes a comprehensive overview of 42 management issues relating to the Bay area. These two studies, augmented by local land use information, the Florida Statistical Abstract(Shoemyen 1985), and other studies more particularly oriented to the lower Tampa Bay area, are the basis for most of the material found in this chapter.

Despite its overall urban context, the shoreline of Tampa Bay includes

some relatively undeveloped areas, the most extensive of which lies between the mouth of the Little Manatee River near Ruskin and the south shore of Terra Ceia Bay adjoining the city of Palmetto. The offshore waters of this stretch include the Terra Ceia Aquatic Preserve and the Cockroach Bay Aquatic Preserve, the former of which is the subject of this management plan.

Bay management at this time is conducted by the federal, state and local governments, often in a totally independent manner. These overlaping and sometimes conflicting interests and jurisdictions have contributed to a number of growth and land management problems that affect all of Tampa Bay. These concerns stated in the Tampa Bay Area Scientific Symposium Information (Treat et al. 1985), were the basis for the formation of a Tampa Bay Management Study Committee. These groups, and the resulting Agency on Bay Management, have recommended that Tampa Bay can and should be managed in a comprehensive manner as a single ecological system. The boundaries were recognized as the uplands and freshwaters contained within the combined watersheds of all rivers and tributaries which flow to Tampa Bay. Because of this overall acceptance of the importance of Tampa Bay and its watershed to the health of all areas within its influence, this management plan, with its goals and objectives, can make a significant contribution to Bay management. Also, the management plan for Terra Ceia Aquatic Preserve incorporates many of the issues and concerns of the various governing bodies in an attempt to provide consistent and equitable management policies for all the aquatic preserves in the Tampa Bay area (these include: Pinellas County, Boca Ciega Bay, Cockroach Bay, and Terra Ceia Aquatic Preserves).

In the remainder of this chapter a profile of the coastal area is provided with historical notes, population characteristics, and a land and water use overview, and those sections are followed by more particular discussions

of the various marine and emergent habitats and other resources to be found in the Terra Ceia Aquatic Preserve.

B. Historic Notes

When Panfilo de Narvaez and the first Spanish explorers arrived on the shore of Tampa Bay in 1528, they found the area already settled by the Calusa Indians whose sustenance was provided by the abundant fish and shellfish resources which were so readily harvested from the Bay. Before these Spaniards moved on, they angered the Indians so that three subsequent attempts during the 1500's at missionary activity or colorization resulted in resistance by the Indians. European explorers left a grim legacy in the form of smallpox and other diseases to which the indians had no resistance, and by the early 1600's the area was almost devoid of human inhabitants. The only lasting remains of the Calusa Indians are the shell mounds and other archaeological sites found throughout the Tampa Bay area, including the Maderia Bickel Mound State Archaeological Site in Terra Ceia and the Big Cockroach Mound in Cockroach Bay, as well as the local place names such as "Tampa", originally given to a native village in the vicinity.

Various explorations and visitations occurred throughout the 17th and 18th centuries. Cuban fishermen maintained limited settlements in the Tampa Bay area for use as a base for their Gulf coast operations. These fishermen planted the first citrus groves in the area. Permanent settlements, however, awaited the coming of an American named Robert Hackley in 1823. Hackley's initial settlement was preempted by the Army which built Fort Brooke on the site. The garrison which was established, stimulated further settlement both in the immediate Tampa Bay area and along the lower Gulf Coast in general. In 1834 Hillsborough County was created by the Florida Legislature, and the 1840 census revealed a total of 452 inhabitants.

Tampa Bay was important to the early settlers primarily as a source of food and secondarily as a harbor. This situation began to change shortly after settlement. The Bay was the scene for numerous skirmishes between Union forces and Confederate blockade runners who were running local agricultural goods, hides, and lumber during the Civil War. During the 1880's, a much more significant natural resource, phosphate, was discovered in the interior of Florida, west of Tampa, and its extraction and shipment has been a major economic focus in the area ever since.

In particular, the bulk tonnage of phosphate ore was an incentive for construction of both railroad lines and port facilities. It was recognized that the natural shallow basin of Tampa Bay would present a continual obstacle. Therefore, the 1871 survey done by the Army Corps of Engineers recommended that a channel be dredged in upper Hillsborough Bay. That initial dredging has initiated excavations throughout the Tampa Bay area ever since. Competition between the initial harbor facilities at the mouth of the Hillsborough River and the subsequent development of Port Tampa on the eastern shore of Old Tampa Bay was later augmented by the creation of shipping channels to serve the Big Bend and Bartow electric plants. In 1969, a 40 foot channel to Port Manatee was built. This channel now separates the Terra Ceia and Cockroach Bay Aquatic Preserves.

The complex of shipping channels in Tampa Bay has always presented environmental problems, because the great effort involved in creating and maintaining what is now a 43-foot channel has resulted in major disruptions of the bottom contours of the Bay. Spoil disposal, which in the past was responsible for burying extensive acreages of seagrass beds and oyster bars, remains one of the most intractable problems of overall bay management.

Development within the three counties adjoining Tampa Bay has had different economic roots. Hillsborough County in the Tampa area has emerged as a leading business and industrial center, while Pinellas County, the most densely settled county in Florida, has long been famous as a retirement community. Manatee County's growth has been more recent and more mixed in type. The north coast of Manatee County and the southwestern coastline of Hillsborough County are still largely agricultural. Although they differ in magnitude, both urban and rural areas impact the environmental integrity of Tampa Bay. Stormwater runoff, wastewater treatment effluent, and concentrations of fertilizers and pesticides all contribute to the pollution of Bay waters.

The challenge of resource management in Tampa Bay entails the maintenance of the historic assets (industrial shipping, commercial and recreational fishing, and aesthetic and recreational use) as well as the upgrading and maintenance of the Bay's present environmental condition. Since both the Terra Ceia and Cockroach Bay Aquatic Preserves are located in some of the least disturbed areas of Tampa Bay, it is extremely important that they be carefully maintained.

C. Population and Economic Considerations

The growth management concerns of Floida are readily reflected in the tri-county area encompassing Tampa Bay. The 1.67 million people who dwell in Pinellas, Hillsborough, and Manatee Counties represent approximately one-sixth of the state's population and have an overall growth rate that closely parallels that of the states's 4.35% annual growth (as averaged from 1970 to 1984). In Manatee County, the least populous of the three counties, the growth rate has been even greater, averaging over 5.0% per year. Projections suggest that although the growth rate will trail that of the state, the

difference will not be very great. By the turn of the century the Tampa Bay region is expected to be home to 2.1 million people, or roughly one-seventh of the projected 14.67 million in Florida.

The provision of housing for these additional 431,000 people will be a major developmental issue throughout the region, for the above mentioned population increase will translate into approximately 172,000 dwelling units. Substantial areas exist in all three counties where development could occur that would not directly affect Tampa Bay, but virtually all of it would have an indirect impact. The Tampa Bay watershed includes about 90% of the land area of the three surrounding counties. Even those residents living well away from the waterfront have an indirect impact in a number of ways: their sewage is treated and pumped into the bay or its tributaries, they drive across the Bay area bridges, they launch boats in the Bay on weekends, and they use electricity from power plants situated near the water. Viewed from this perspective it is clear that the overall impacts on the Bay will continue to increase even if all growth is directed away from the waterfront.

The actual economic importance of Tampa Bay is a composite of several separate functions. Some economic values are in partial or total conflict with each other, as for example, the value of a pristine seagrass bed as a fishery resource verses its value as part of a navigational channel, or the use of a waterfront site as a public access point for boat launching versus its development as a residential waterfront community.

The waterborne commerce utilizing Tampa Bay is substantial. The Port of Tampa in 1984 handled 47.9 million short tons of export and import goods, while Port Manatee in 1983-84 handled another 5.5 million short tons. Not only does the direct and indirect value of this commerce total several hundred

million dollars annually, but the Tampa Bay Regional Planning Council in their study, Documenting the Economic Importance of Tampa Bay, calculates that the savings in transportation costs alone total $281 million.

Bay waters also are used extensively for receiving wastewater effluent from several sewage treatment plants and for providing cooling water for the production of electrical energy. These uses of the Bay result in the savings of hundreds of millions of dollars above alternative strategies. Commercial fishing, despite its reduction in relative value from earlier years, is still worth some $20 million annually, while recreational fishing represents several times that figure. Other recreational pursuits in the waterfront areas, such as waterfront residential development, and the sale of boats and marine accessories, contribute significantly to the overall economic benefits provided by the bay.

Finally, the Bay serves an important economic function by providing habitat, nursery areas, and food for the various biological communities found in the Bay. The value of these functions were recognized by the Florida Legislature when it established the aquatic preserve program.

D. Land Use and Infrastructure Overview

An aerial view of the Manatee County shoreline from Port Manatee to the Manatee River provides some visual evidence that this section of the county continues to be in transition. The older developed communities, including Terra Ceia, Rubonia, and central Palmetto are readily distinguished from the more recent developments, such as those in west Palmetto and Palmetto Point, all of which have notably higher densities and have dredged finger canals with an armored shore extending into Terra Ceia Bay. Elsewhere, most notably on Terra Ceia Island, other residential development of lower density is occurring.

The land use pattern from the Manatee River to Rubonia is indicative of an overall urban area with large patches of undeveloped and agricultural land interspersed. In particular, the land between Palmetto and Palmetto Point is extensively planted in citrus groves, running close to the shore for much of that stretch. Although the Terra Ceia Bay shore on either side of the Snead Island Cutoff is characterized by an armored shore, much of the shore north of the sewage treatment facility is relatively undisturbed, including about a mile and a half of mangroves south of Palmetto Point. The mixed land uses found east of US-19 and to the north of Rubonia have experienced limited development in part due to incomplete sewage and water availability. This situation, however, is likely to change in the near future.

The land north of Terra Ceia Bay and south of Port Manatee includes some of the most pristine remaining shoreline along Tampa Bay, and in the waters to the north of Rattlesnake Key and Terra Ceia Island are some of the last remaining open shellfishing waters in Tampa Bay. This area features an array of mangrove lined embayments and sinkholes, although numerous mosquito control channels cut through the area. The existing development on Terra Ceia Island is mostly low density residential. The area is served only by septic tanks and individual wells of sulfurous water.

A proposed major development which would include most of the Terra Ceia area, including land north to Bishop Harbor, could change the nature of this area drastically. The development, Terra Ceia Isles, is located on 1,645 acres between US-19 and I-75. Although 8,801 units plus some associated commercial and medical facilities were initially proposed, a scaled down plan for 4,997 dwelling units, 19.44 acres of commercial development, a 300 unit resort center, and a golf course is now proposed. The nature of the area requires careful project planning, for the entire land area surrounding the

Terra Ceia Aquatic Preserve is flood prone. Additionally, the Manatee County Comprehensive Plan calls for low density residential development in the area, subject to several specific provisions of the coastal zone protection element.

The reconstruction of the Sunshire Skyway Bridge between Terra Ceia and St. Petersburg will include some alterations to the land alignment on the Terra Ceia causeway by 1989. Although the initial construction of this bridge has had an impact on the circulation in the area, the proposed alterations are not likely to be as significant. Local monitoring of the plans as to possible impacts upon the aquatic preserve is recommended.

The north end of the aquatic preserve is not as developed as the section in Terra Ceia Bay, but the land in the vicinity of Bishop Harbor represents problems of its own. The AMAX Piney Point phosphate processing plant has in the past periodically released trophic levels of ammonia waste into drainage ditches which lead into Bishop Harbor. Agricultural operation in the same area have also contributed heavy nutrient loads into the Cabbage Slough--Frog Creek drainage system. Addressing these issues will be a function of the stormwater management section of the forthcoming revisions to the Manatee County Comprehensive Plan. Along the north edge of the Terra Ceia Aquatic Preserve is another problem area initially caused by filling in connection with the creation of Port Manatee. DER has hired an employee to research the feasibility of a restoration project at the site.

In summary, the Terra Ceia Aquatic Preserve is located in one of the most pristine remaining sections of Tampa Bay and includes open shellfish harvesting waters, mangrove shorelines and relatively clear tidal tributaries. Adjacent land uses are highly mixed and range from heavy industry to open lands, from armored shoreline to mangroves, and from agriculture to residential. While most of the area is relatively limited in its current

development, at least partly due to limitations on existing support services infrastructure, there are major proposals for development in the greater Terra Ceia area, and it seems likely that the future of the area will be continued growth and development. All of this must be weighed against the existing water quality, resource base, and traditional uses of the aquatic preserve.

E. General Overview

The Terra Ceia Aquatic Preserve comprises approximately 21,376 acres and is located in the lower southeastern portion of the Tampa Bay estuarine system. Due to the fresh and salt water influence and the subtropical climate, this estuary supports a wide variety of plant and animal communities. The Terra Ceia preserve is composed of open water, including a portion of the mouth of Tampa Bay, several inlet bays and tidally influenced creeks and rivers. Much of the area along Tampa Bay contains extensive mosquito ditching and in Terra Ceia Bay there are several areas of residential canals. The rest of the preserve remains relatively unspoiled.

The major problems facing this area include development on the mangrove islands and shoreline, sewage and industrial effluents entering the system and agricultural and urban runoff.

1. Archaeological and Historical Sites

The earliest known inhabitants of Florida were from the Paleo-Indian Period which existed prior to 8,000 B.C. As large Pleistocene animals became extinct, the Indians became more dependent on small game. Freshwater shellfish became an important part of the Indian diet and semipermanent villages developed. The discarded shellfish resulted in large middens, and Warren (1966) has shown that portions of the middens left in now sunken river channels in Tampa Bay were left by Archaic period peoples.

Early Archaic period projectile points were found in spoil material in Terra Ceia Bay (Warren 1965) and Preceramic Archaic period points were found at the Southeast Head of Bishop Harbor (Burger 1979). Also, the Madira Bickel Mound State Archaeological Site is located on Terra Ceia Island within the preserve. In all, 81 sites have been identified and listed with the Division of Historical Resources. There are many sites that have not yet been registered and probably many more sites are undiscovered due to the undisturbed nature of the preserve. Many archaeological sites have already been disturbed or destroyed in the Tampa Bay region due to rapid growth, and the preservation of any remaining sites is critical.

2. Geologic Features and Land Forms

Like most estuaries, Tampa Bay is a product of the fluctuations in sea level caused by Pleistocene and earlier glaciation. During times of lowered sea level, the river valley of Tampa Bay was cut into underlying limestones by the paleo-Hillsborough, Manatee, and Alafia rivers. As sea level rose during glacial retreat, the area was flooded and became Tampa Bay (Doyle 1985).

Underlying Tampa Bay are limestones and dolomites of Oligocene age and older. The early Miocene St. Marks formation, which consists of dolomitic limestones interbedded with terrigenous clastics, directly underlies the unconsolidated surface sediments in the northern portion of the Bay. The Hawthorn formation is absent in the northern portions of Tampa Bay but is present at the surface throughout the entire southern two-thirds of the Bay, including the Terra Ceia Aquatic Preserve. The Hawthorn Formation also outcrops along portions of eastern Tampa Bay. In the deeper portions of Tampa Bay, the Pleistocene river valley has down cut as much as 90 feet into the underlying limestones. This archaic bed has filled in with unconsolidated estuarine and fluvial sediments (Doyle 1985).

Surface sediments are composed of fine to very fine quartz sand with varying amounts of organic muds and coarse carbonates, mostly in the form of mollusc shells. A band of phosphate-bearing sand occurs just west of the Interbay Peninsula and runs south to the eastern shore of the Bay, then southwest to the entrance off Bradenton. This band runs parallel to the shore of the Terra Ceia Aquatic Preserve (Doyle 1985).

The sand size sediments in Tampa Bay were probably derived from the major rivers during the last rise in sea level. At the present time, essentially no sand size material is being added to the system from the rivers but input from the Gulf of Mexico may occur in the Terra Ceia area. Streams carry only small loads of fine sediments, but it is probable that considerable amounts of fine materials are added through surface runoff (Doyle 1985).

Surface sediments within the Bay are constantly being reworked by benthic organisms by tidal currents and wind generated waves, as well as by dredging. When the sand veneer is dredged from the surface, mud deposits irregularly located beneath may be mobilized. Dredging may be a process which selectively removes sand size materials and results in increased proportions of silt and clay sized muds. When spoil is impounded in the physical process of dredging, coarser material is selectively removed but the fine fraction tends to leak back into the system (Doyle 1985).

Depending on the amount of runoff at any one time, Tampa Bay can be classified as a moderately stratified to a vertically homogenous estuary. It has been postulated that these types of estuaries serve as fine sediments sinks, that little fine sediment escapes them and that bottom water movement tends to bring sediment into the system from offshore (Doyle 1985).

Estuaries serve as "filters" for suspended sediment received from the land. Salinity distributions, circulation patterns and other factors control

the distribution and transportation of suspended sediment and the deposition of fine particles within the estuary. In turn, the distribution of silt and fine suspended matter affects the distribution of many constituents such as nutrients, radionuclides, and some metals. The rate and occurrence of sediment deposition is also greatly influenced by the biological component of the estuary (Doyle 1985).

3. Community Associations

The plant communities of the Terra Ceia Aquatic Preserve are a major factor in the continued health and productivity of the natural systems of the preserve. The major plant associations recognized in the preserve include mangrove forests, marine grassbeds, salt marshes, drift and benthic marine algae, live bottoms, and oyster beds. Each community is presented separately although the communities are often intermixed and are energetically interdependent. Subsections address animal life, particularly endangered species, associated with communities of the aquatic preserve.

a. Mangrove Forest

Three species of mangrove trees dominate the mangrove community. These trees extend from the shoreline inward to the extent of tidal influence. Tampa Bay is generally recognized as the northern limit for extensive mangrove forests on the west coast of Florida. Although mangroves may extend further northward in the state, the annual occurrence of freezes gives the mangroves a stunted growth pattern and limits their distribution. In Tampa Bay, 17,514 acres of mangroves have been reported (McNulty 1972) and Terra Ceia is recognized as a mangrove dominated community (Estevez and Mosura 1985).

The three species of mangroves occurring are the red mangrove (Rhizophora mangle), both in or near the water at low tide level; the black mangrove (Avicennia germinans) generally inland of, but sometimes mixed with the reds;

and the white mangrove (Laguncularia racemosa) generally upland of, but also mixed with the blacks. The zonation of the mangrove association is a result of tidal inundation and saline conditions of the soil. In Tampa Bay, due to freeze damage and rising tide levels,in some areas these zonation patterns may become indistinct and a general mixing occurs (Estevez and Mosura 1985).

The dominant mangrove forest type in Terra Ceia is the "fringe" forest type (Lugo and Snedaker 1974). This forest type is characterized by: growth on mainland shorelines of gradual slope; exposure to tides but not daily overwashed; having sluggish internal water flow on high tides, and minor to no scouring; and exporting particulate as well as labile organic matter. Also present in the preserve is the "overwash" forest in which the island is completely inundated by daily tides.

The mangrove community is a highly productive system. The prop and drop roots of the red mangrove along with the pneumatophores of the black mangrove trap sediments and nutrients thus providing a rich food source for benthic, planktonic, and fish communities. The leaf fall from the mangrove community also adds another detrital food source to the system. Mangrove communities filter land runoff and the above ground submerged root system acts as a substrate for algal attachment. Because of the high nutritive content in mangrove communities, they act as a habitat for small fish, invertebrates, and birds. They also act as a food base for much of the shellfish and fish communities. Mangroves provide buffer against erosion and storm damage to inland areas.

Within the Terra Ceia Aquatic Preserve, the primary influence on mangrove communities is through human changing of drainage patterns in upland areas, indirect destruction through increased wave action associated with increased boating activity, and direct destruction through excess pruning and tree uprooting for building or water access. Since mangroves serve to stabilize

shore bottom sediment, disturbances to mangrove forests increases turbidity in adjacent waters which in turn affects seagrass and other benthic communities.

b. Marine Seagrasses

Five species of seagrass are found in the Terra Ceia Aquatic Preserve. These marine flowering plants occur on both sandy and organic sediments in depths down to two feet below mean spring low. In Tampa Bay 14,203 acres of seagrasses have been reported. An 81% loss of seagrasses has occurred in Tampa Bay from human impact. Most of the seagrass beds are now limited to inshore areas due to human increased turbidity and decreased water quality in the Bay (Lewis et al. 1985).

The five species found in Terra Ceia preserve include turtle grass (Thalassia testudinum), manatee grass (Syringodium filiforme), shoal grass (Halodule wrightii), star grass (Halophilia englimanii) and widgeon grass (Ruppia maritima). The seagrass communities in Terra Ceia are mainly classified as fringe perennial, and occur mostly along shallow shore areas outward into the Bay until increased depth or turbidity limit light penetration and therefore, growth. The zonation of seagrasses in general starts with widgeon grass occurring closest to the shore then shoal grass, followed by turtle grass and manatee grass. Seagrasses may be found intermixed or in monospecific stands.

Seagrass communities play an integral part in the cycling of nutrients in an estuarine environment. They are eaten directly by urchins, conchs, fishes, as well as endangered species such as the West Indian manatee (Trichechus manatus) (Zeiman 1982). Also, decomposition of seagrasses serve as the primary food source for detrital feeders, which in turn are consumed by fish and other marine life higher up the food chain. Seagrasses serve as an

attachment site for many forms of epiphytic algae that may be consumed by small fish and juvenile shrimp. (Zeiman and Wetzel 1980, Dawes 1981).

Seagrass blades provide a baffling effect that slows the water current trapping nutrients and sediments. The roots and rhizomes of the seagrasses bind the sediment thus promoting the building of an organic substrate which encourages a diverse meiofauna (Zieman and Wetzel 1950). The forest-like density of the grassblades provides shelter for many small fish and invertebrates. Due to this sheltering effect and the high nutrient level, seagrass beds provide nursery areas for many fishes. When the loss of seagrass beds occurs, the effect causes a reduction in water quality, a reduction in the survival of many larval and juvenile fishes and intertebrates, and a reduction in the availability of food throughout the food chain which ultimately affects humans.

The most destruction done on seagrass beds is caused by dredge and fill activities. In Florida 25,000 acres of submerged land have been filled. The majority of fill occurred in the creation of land for residential and industrial development (Zieman 1982). Even if the fill is not deposited directly on top of seagrass beds, they are often affected through increased water turbidity. The unconsolidated particles of the fill are continually resuspended into the water columnm so recolonization of seagrasses is inhibited. Sewage outfall, although providing nutrients, often causes a phytoplankton bloom or a dramatic epiphytic alga growth which shade the seagrasses causing a loss in productivity. Propeller cuts also cause damage to seagrass beds. Since few of the grasses in Tampa Bay set seed, the recolonization of the damaged areas is quite slow or nonexistant.

c. Benthic and Drift Algae

In Tampa Bay 217 species of algae have been identified (Dawes, 1985). Most of these species of algae potentially occur in the Terra Ceia Aquatic Preserve since all varieties of their habitat are present, from deep to shallow water and from sandy to hard substrate. These species vary from benthic macroalgae to microscopic algae. The highest diversity and abundance is found in lower Tampa Bay (Dawes, 1985), which would include the Terra Ceia Aquatic Preserve.

The benthic algae present may either be attached to the sand or to hard surfaces depending upon the species. Some rhizomatous algae such as Calurpa sp. help bind the sand in much the same way as do seagrass beds. Algae may become detached from the substrate by wave action or because of the grazing activity of organisms. In these ways much of the drift algae of the preserve is generated. Algae need to settle on a substrate to begin growth, but once growth has been initiated, attachment is often unnecessary for further growth. Because of this ability, large quantities of algae can be found along the shoreline during periods of high growth. These algae provide a shelter and food source for small invertebrates and fish.

Dredge and fill activities affect algae in much the same way as they affect seagrass beds. The algae community is damaged by direct deposition of fill or by low light penetration when the turbidity increases through such activities. Since the algae are able to quickly assimilate nutrients, poorly treated sewage outfall may cause extensive alga growth which hinders fishing activities and causes odor problems for shore residents when the algae wash ashore and decompose.

d. Live Bottom

Live bottom communities are present in the Terra Ceia Aquatic Preserve. These communities represent "areas containing biological assemblages of such sessile invertebrates as sea fans, sea whips, hydroids, anemones, ascidians, sponges, bryozoans, and hard corals living upon and attached to naturally occurring hard and rocky formations" (Harris 1981). Live bottom communities are an important habitat and food source for a range of vertebrates and invertebrates (Derrenbacker and Lewis 1985). The rarity of these communities in the Tampa Bay area makes the preservation of this community especially important.

Man can destroy live bottom communities by depositing fill material directly on the site or by depositing the fill nearby thereby clogging the filter feeders in the community. Destruction may also occur when nets are hauled across the site, by excessive collecting by divers or by a reduction in water quality.

e. Salt Marsh

Salt marshes can be defined as grass dominated communities that grow intertidally along protected shorelines and backwaters that are periodically flooded by salt or brackish water. The predominant salt marshes in Tampa Bay are needle rush (Juncus roemerianus) marshes. The salt marshes serve as a transition zone between mangroves and freshwater marshes (McNulty 1972). In Tampa Bay 1,728 acres of salt marsh have been reported (McNulty 1972).

The zonation of the salt marsh normally starts with smooth cordgrass (Spartina alterniflora) occurring at the shoreline or behind a fringe of red mangrove (Estevez and Mosura 1985). Landward of the smooth cordgrass, needle rush is usually present. Landward of this band the salt flats are present

with vegetation such as seashore saltgrass (Distichlis spicata), glasswort (Salicornia perennias), and saltwort (Batis marifimana). The salt flats are areas of highly saline soil which experience occasional flooding.

The salt marsh community is also important in detrital production for export into the estuarine food web. Along the shore where there is tidal inundation, epiphytic algae grow attached to the base of the salt marsh grasses. Salt marshes filter land runoff, thereby maintaining the water quality of the area.

Dredge and fill activities can destroy or reduce salt marsh communities. Air boat traffic can also severely damage the salt marsh plants. Some success has been achieved in replanting salt marshes in Tampa Bay, but the new marshes take years to grow and may never reach the productivity of a natural marsh.

f. Oyster Beds

The primary oyster indigenous to Tampa Bay is the American oyster (Crassostrea virginica). Oysters tend to form aggregations of varing sizes commonly attached to dead oyster shells or mangrove roots. Oyster beds and bars are usually limited to the mid-intertidal zone where minimum inundation and heat determine the upper limit and predation determines the lower limit of the oyster bed. Oysters serve as attachment sites for other invertebrates and algae and also provide a feeding area for crabs, raccoons, and wading birds (Bahr 1982).

Since oysters filter feed directly on suspended particulate matter in the water column, they tend to concentrate pollutants present in the water. Because of this characteristic shellfish harvesting is only permitted in areas that pass stringent water quality tests. Terra Ceia is one of the few areas left in Tampa Bay still open to shellfish harvesting. Scallops and clams are also present in the preserve.

Dredge and fill activities can damage oyster beds through direct removal, deposition or through clogging of the filtering mechanisms of the oyster.

4. Animal Life

The combination of subtropical climate, diverse vegetation and habitat provides ideal conditions for the survival of an abundant and wide variety of wildlife species in the aquatic preserve. The mangroves, seagrass beds and salt marshes also provide a refuge for animal species visiting this area during migrations, for daily feeding purposes and during times of environmental stress (i.e., drought and storms). These visitors form an extensive species list including marine fishes, colonial water birds, migratory waterfowl, marine mammals, reptiles and amphibians, various shellfish and other marine invertebrates and several endangered species. Many water and shore birds use the mangrove islands as nesting sites. However, mosquito impoundments, dredge and fill projects, causeways, road and bridge construction have modified much of the original habitat. These man-made modifications have caused a variety of changes to the animal life of the estuary.

a. Fisheries

Two hundred three species of fish are found in the Tampa Bay area. The commercial fishing industry in Tampa Bay area accounts for 12.8% of the total landings in Florida. Manatee County landings alone account for 44.8% of the total of Tampa Bay landings (Comp 1985).

A majority of marine species important to man are inextricably linked to the estuarine environment (Lindall 1981). It has been estimated that up to 97.5% by weight of the commercial fishery resources in the Gulf of Mexico and over 90% of the sport or recreational species in the United States depend upon estuarines during all or part of their life cycle (Comp 1985). In Florida, at

least 72% of the 89 commercially-landed species of finfish and shellfish and 74% of the 84 recreational species are estuarine dependent (Durato et al. 1985). Estuaries serve as nursery grounds for invertebrate and fish species by providing food, shelter, and refuge from predators.

Species of special concern in Florida that are found in the preserve include the snook (Centropomus sp.) and red drum (Sciaenops ocellata). The snook has been classified as a gamefish, which prohibits the commercial harvesting of the species, but allows for limited sports fishing with set size and bag limits and season of the year. The recent rise in popularity of Cajun food and particularly of blackened redfish (red drum) has increased the pressure on this species and has markedly reduced its population. The Fisheries Service as an agency of the Commerce Department's National Oceanic and Atmospheric Administration has implemented an emergency regulation for the management of the directed net fisheries in Federal waters. This action is seen as a first step in the regulation of commercial use of this species.

Other species of economic importance include: black drum (Pogonias cromis), flounder (Paralichthys albigutta), black muller (Mugil trichodon), spotted sea trout (Cynoscion nebulosres), and sheepshead (Archosargus probatocephalus).

b. Amphibians and Reptiles

Information on amphibians and reptiles is scarce. Species known to occur in the coastal areas of Tampa include nine species of frogs and 27 species of reptiles including the alligator (Alligator mississippiensis), two tortoises, four terrapins, five lizards and 18 snakes (Long 1975). Most amphibians and reptiles cannot tolerate the saline enviornments within and immediately adjacent to the aquatic preserve and their numbers are reduced because of this. The loggerhead sea turtle (Caretta caretta--a threatened species),

green sea turtle (Chelonia mydas--an endangered species), and leatherback sea turtle (Demochelys coriacea--an endanagaered species) are known to nest along the coastal beaches and may occasionally nest within the preserve. Sitings and nestings of these species should be carefully monitored and documented.

The indigo snake (Drymarchon corais) and the American alligator are both designated as species of special concern by the State of Florida, and their abundance, although low, should be monitored within the preserve.

c. Bird Populations

Climate, vegetation and habitat combined with the geographic location of Florida and Tampa Bay adjacent to a major migratory path contribute to the wide variety of bird species found either as permanent, winter or summer residents or as transients to the area. Eighty-nine species are found in the vicinity of Terra Ceia Aquatic Preserve (Long, 1975). Of those species found in the area two are classified by the Federal Fish and Wildlife Service[1] and/or the Florida Game and Fresh Water Fish Commission[2] as endangered species (southern bald eagle[1], and wood stork[1,2]), one species as threatened (southern bald eagle[2]), and five as species of special concern (brown pelican [2], roseate spoonbill[2], little blue heron[2], snowy egret[2] and tri-colored heron[2]).

Mangrove areas and scattered openings within the mangrove forests provide excellent foraging and resting habitat for herons, ibis, wood storks and waterfowl (Long 1975). The mangrove fringe and mangrove islands are used as nesting habitats by both the larger wading birds (herons, ibis, egrets, etc.) and also by vireos, warblers and mangrove cuckoos. There are two active colonies in the Terra Ceia Aquatic Preserve. Terra Ceia Bird Key is managed by National Audubon Society as the Washburn Sanctuary. This seven and one half acres mangrove island is the second largest mixed colony in the Tampa Bay area and is the breeding site for 15 species of herons, ibis, pelicans and and

egrets. There are also yellow-crowned night herons nesting within Frog Creek in the upper portion of Terra Ceia Bay.

d. Mammals

Twenty species of marine mammals are reported in the greater Tampa Bay area (Reynolds and Patton 1985). Most of these species are rarely seen in the Bay area, only the bottlenose dolphin (Tursiops truncatus) and the West Indian manatee (Trichechus manatus) are considered year round residents. In 1872 Maynard described the manatee as being "remarkably abundant" in Tampa Bay. The peak population in Tampa Bay now is estimated as being between 50 and 60 individuals.

Manatee are known to use Terra Ceia as a migratory path from Upper Tampa Bay to the Gulf of Mexico. There are currently no protected areas, under Chapter 16N-22 of the Florida Manatee Sanctuary Act, within this preserve. As suggested by the Manatee Protection Plan, multi-family and single family docks will be limited to one boat slip for every 100 ft. of natural shoreline. Multi-slip docks will also be required to be clumped to minimize the disturbance to the shoreline. New marinas in high manatee use areas will be prohibited. Activities within the preserve should be managed to guarantee the health and safety of manatees and all other endangered species.

All other mammals within the preserve are fairly common with the exception of the river otter (Lutra canadensis) and the bob cat (Lynx rufus). Both of these species are uncommon. Species common to the coastal scrub and managrove area include the nine-banded armadillo (Dasypus novemcinctus), the cotton rat (Sigmodon hispidus), the raccoon (Procyon lotor), common opossum (Didelphis virginiana) and marsh rabbit (Sylvilagus palustris).

Chapter V

RESOURCE MANAGEMENT

A. Introduction

The main objective of the resource management plan in the aquatic preserve is to protect the resources of the aquatic preserves for the benefit of future generations (Section 258.35, F.S.). The Terra Ceia Aquatic Preserve is designated as an Outstanding Florida Water and contains both Class I and II Resource Protection Areas. The management of this preserve will be directed toward the maintenance of the existing essentially natural conditions and the restoration of degraded areas. This part of the management plan addresses the policies and procedures which the onsite and administrative personnel will pursue. The onsite management will involve DNR's field personnel assigned to the aquatic preserve. The administrative management will involve Division of Recreation and Park's personnel (both in the field and in Tallahassee) and the Division of State Lands' personnel, cooperating in the review of applications for use of state-owned lands and related activities surrounding the preserve. These personnel will be interacting with various government and non-governmental entities, interested groups and individuals.

3. Onsite Management Objectives

Onsite management objectives will be reflected by activities that protect and enhance the resources within the aquatic preserve. Field personnel will become involved in activities which will aid in the understanding and management of the preserve (i.e., observation, research, public interaction, emergency responses, etc.). Other activities, such as the interaction with other government and non-governmental entities, are covered in more detail in Chapter VI (Management Implementation Network). The field personnel's duties are, with respect to management of the various uses of the aquatic preserve, addressed in more detail in Chapters VII through XI. The field personnel will generally be involved in all management activities concerning the Terra Ceia area.

1. Plant Communities

The communities of aquatic and wetland plants within the Preserve perform five major functions vital to the health and productivity of the estuarine system. They provide the following functions:

a. stabilize geologic features such as dunes and beaches in the face of dynamic forces (i.e., currents, tides, winds, and waves), which often act in concert to both erode and deposit;

b. create, from recycled nutrients and solar energy, the organic material that fuels the estuarine food web which supports the area's fisheries, endangered species, migratory waterfowl,

colonial waterbird nesting colonies, raptors, marine mammals, and marine and estuarine invertebrates;

c. provide protected fisheries habitat for spawning and juvenile development, many of which are of economic importance to the commercial fisheries of the state and the nation;

d. provide roosting and nesting habitat for water birds; and,

e. physically buffer estuarine and riverine waters from contaminated and channelized runoff from uplands within the estuarine watershed and, in some cases, buffer the uplands from storm waves and winds.

The management objectives for plant communities will be to maintain and enhance these functions. Because these plant communities are critically important to the well-being of the preserve, a program to work toward the protection and restoration of those communities now impaired or destroyed by human activities should be developed.

Management Policy

a. Field Familiarization and Documentation. Field personnel will become familiar with the plant species and communities present in the aquatic preserve, and locations of their occurrences. Field maps will be updated on a bi-yearly basis.

b. Literature Familiarization. Field personnel will continue to assemble a working library of existing pertinent literature concerning the species and communities present in the aquatic preserve. Staff will become familiar with the ranges, life histories, ecological requirements, productivity, importance to water quality, contribution to landform stabilization, wildlife habitat provision, fisheries habitat provision, and fisheries food production of the plant communities within the aquatic preserve.

c. Preparation of Guidelines for Management of Endangered Species. Field personnel, with the help of the scientific community, personal field observations and literature reviews, will develop maps (using 7.5 minute quadrangles) showing the locations of threatened and endangered plant species within the aquatic preserve. A set of management guidelines for each species, outlining the habitat requirements and the methods to sustain and/or restore these habitats will be developed. Field personnel, in the course of documenting the occurrence of threatened and endangered animals, will develop maps showing the locations and types of plant communities used by these animals for nesting, roosting, feeding, resting, spawning, etc. Guidelines for maintaining or restoring "critical habitat" required by each species will then be developed using all appropriate scientific resources available.

d. Monitoring of Plant Communities for Natural Changes. Field personnel will become familiar with the use of aerial photography and LANDSAT imagery, for the study and monitoring of plant communities (historical

and present) and will use this remote sensing in conjunction with field observations to monitor and document natural changes such as:

1. freeze damage to, and recovery of, mangrove communities;
2. wind and wave damage to mangrove communities from storms and hurricanes;
3. accretion-related seaward extension of mangrove communities;
4. erosion-related landward retraction of mangrove communities;
5. depositional burying of marine grassbeds communities;
6. invasions of exotic plant species and revegetation by native species after exotic plant removal projects;
7. pathogen damage to and recovery of plant communities.

e. Identification of Areas and Communities in Need of Restoration. Field personnel will, in conjunction with their resource mapping, systematically survey the aquatic preserve to determine the location, nature, and extent of environmental damages from human activities and assess the possibility of restoring each site according to whether the site is publicly or privately owned, and the cost and effort required.

f. Protection of Plant Communities. Field personnel shall protect the plant communities from the various uses of sovereign lands within the aquatic preserve according to the following guidelines.

1. Field personnel in their biological reports shall not recommend for approval any proposed use of sovereignty submerged lands when the plant communities in the proposed use area appear to be jeopardized.

i. Pruning of mangroves shall only be permitted for minimum access from the mean high water line to a dock or pier. The destructive clearing of mangroves in sovereignty lands shall be strictly prohibited.

ii. Marine grassbed communities shall not be removed or shaded to such an extent as to cause the death of a significant area of the community. They shall not be subjected to unacceptable turbidity, decreased light penetration, propeller or net damage.

2. Field personnel shall be notified of applications for uses of submerged lands within the aquatic preserve by the Bureau of Land and Aquatic Resource Management (BLARM) central office. No applications will be approved within any Resource Protection areas (see section B(6) of this chapter) without a thorough review by the field personnel. The field personnel will inspect the site, assess the potential impacts to the plant communities, and then convey their recommendations to the central office as required.

3. Field personnel will initiate various educational programs and supplement existing educational programs designed to increase public awareness of the damage that recreational, private and commercial uses (i.e., propeller damage) can inflict on marine grassbed communities. Educational programs can also be undertaken with other federal, state or local groups (i.e.,

Florida Sea Grant, Agency on Bay Management, and school boards, etc.).

4. Field personnel will develop an exotic plant control and removal plan after monitoring the rate and extent of invasion by exotic species, such as Brazilian pepper, Australian pine, and melaleuca.

5. Field personnel in cooperation with other State and Federal agencies, will moniter all activities within the Aquatic Preserve and investigate and document and activities that appear illegal. If these activities are deemed illegal, personnel will provide pertainent governmental agencies any assistance necessary to have said activity ended and liable individual charged accordingly.

6. In cooperation with the Manatee County Planning Council, and the Tampa Bay Regional Planning Commission, field personnel will familiarize themselves with 'The Future of Tampa Bay', 'The Future of the Region', 'BASIS' and the federal 'Coastal Zone Management Act' so as to assess the potential impacts of oil spills or natural catastrophe on the natural resources of Terra Ceia.

g. Restoration of Plant Communities. Field personnel will consult with professionals in the wetlands restoration/revegetation field to determine the advisability of using healthy beds of marine grasses as a stock

source to restore damaged grassbeds. They will develop guidelines for restoring marine grassbeds in the aquatic preserve.

Field personnel will identify easily accessible mangrove communities within the aquatic preserve where a high density of mangrove seedlings could serve as a nursery stock source for transplanting to restoration sites. Guidelines for restoring mangrove communities within the aquatic preserved will be developed after consultations with professionals in the wetlands restoration/revegetation field concerning proven procedures for transplanting and nurturing mangroves.

Because restoration/mitigation projects have had variable results, developments that require restoration or mitigation will be discouraged. If, after careful consideration, a development is found to be overwhelmingly in the public good or no alternative plan can be devised, restoration/mitigation will be considered. In the event that restoration/mitigation is required as the result of a permit application with DER, DNR, or any other process, the applicant will be responsible for monitoring and documenting all restoration activity which will be confirmed by the field staff. This might include advising the individuals involved in the actual restoration work on the best techniques under the available restoration guidelines. All restoration/mitigation plans will be reviewed prior to the commencement of the proposed development, and assessed as to its feasibility. Field personnel will monitor the success of all restoration projects and document their success/failure, so as to provice more precise guidelines

for future projects or more strigent requirements of attempts are unsuccessful.

h. Identification of Research Needs. Field personnel will identify research needs concerning plant communities within the aquatic preserve. Special emphasis will be given to research which will provide data that increases the capability of field personnel to manage plant communities. Immediate research needs include how plant communities respond to environmental stress and a determination of how threshold tolerances of plant community health and diversity are related to degraded environmental conditions.

i. Coordination with Other Researchers. Field personnel will become familiar with research projects being conducted within the aquatic preserve by state and federal agency biologists and non-government researchers. Personnel will coordinate, assist and encourage research projects by the facility, graduate, or undergraduate students at the four universities and the research lab in the area (University of South Florida, University of Tampa, Eckerd College, New College in Sarasota and Mote Marine Lab). Water quality research issues , as they affect plant communities, should also be closely followed. This familiarization should lead to a better understanding of agencies' personnel and a better awareness of tne data findings and uses. The research liaison will also be addressed in Chapter X (Scientific Research).

2. ANIMAL LIFE

The richness of the animal life in the Terra Ceia area was an important factor in its designation as an aquatic preserve. The fish , shrimp, and crabs within the aquatic preserve, both in the estuary and offshore, are valuable resources on which recreational and commercial fisheries depend. Large areas of undisturbed wetlands are excellent habitat for many types of wildlife. These wildlife include an extensive list of endangered species, migratory waterfowl, colonial waterbirds, invertebrates and vertebrates.

Management objectives for the fauna within the aquatic preserve will be focused on the protection through preservation or restoration of habitats within the preserve.

MANAGEMENT POLICY

a. Field Familiarization and Documentation. Field personnel will become familiar with the major animal species in each habitat in the aquatic preserve. This identification process will include the location, number, season of sighting, weather conditions and any other factors which may be necessary to build a working knowledge of the species, and their interaction and occurrence in the aquatic preserve.

b. Literature Familiarization. The field personnel will continue to assemble a working library of existing pertinent literature concerning the animal species and communities present in the aquatic preserve. Staff will become familiar with the ranges, life histories, ecological

requirements, position in the community, habitat and other factors necessary for sound management.

c. Preparation of Guidelines for Management of Endangered Species. Field personnel will become familiar with the guidelines of the Florida Game and Fresh Water Fish Commission, U.S. Fish and Wildlife Service, Department of Natural Resources' Division of Marine Resources, National Marine Fisheries Service, Marine Fisheries Commission, and any other applicable agencies and non-governmental organizations involved in the management of endangered species. These guidelines will be used in conjunction with the field familiarization, documentation, and mapping to develop management guidelines for each species, outlining their habitat requirements. Field personnel, in the course of documenting the occurrence of threatened and endangered animals, will develop maps showing the locations and types of plant communities used by these animals for nesting, roosting, feeding, resting, spawning, etc. Literature information and personal observations will then be used to develop guidelines for maintaining (or restoring if necessary) the "critical habitat" required by each species.

d. Manatee Management. When applications for the use of submerged lands within the aquatic preserve or adjacent upland activities will affect a manatee sanctuary, critical manatee habitat, or manatees known to use an area (see Chap. IV-37), field personnel will notify the State Manatee Coordinator. These applications or activities will require the coordinator's authorization and approval before they can be recommended

by BLARM. Field personnel will also work with the coordinator in the practice and procedures of the following activities:

i. Monitor the preserve for manatee activities and maintain a manatee sighting map for the preserve. This mapping will take special note of large seasonal aggregations. A manatee reporting and data collection system will be established and will make use of other governmental personnel and private individuals where possible.

ii. Identify and map shallow water and narrow areas where manatee boat/barge collisions are more likely.

iii. Identify any other areas for additional manatee sanctuaries, special channel marking, and slow speed zones.

iv. Applications for use of submerged lands will be reviewed for design and operation that are least dangerous and disruptive to manatees. Approved uses within manatee areas should require manatee caution signs and any other requirements that will aid manatee health and safety.

v. The creation of new marinas and multiple slip residential docking facilities should be prohibited in manatee sanctuaries and severely limited in identified manatee use areas.

vi. The creation of canals and basins within or contiguous to manatee sanctuaries shall be prohibited.

vii. Assist local governments in the incorporation of manatee issues into their marina siting elements.

viii. Schedule and monitor activities within manatee use areas during seasons of lowest use.

ix. Assist in public awareness education efforts.

e. Monitoring Changes in Animal Populations. Field personnel will study and monitor changes in animal species that are caused by natural phenomena, such as:

i. freezes;

ii. storms and hurricanes;

iii. changes in habitat due to changes in plant types;

iv. changes in habitat due to water quality changes; and

v. geologic or hydrologic changes including erosion, estuarine current flow changes, and any other physical changes.

f. Protection of Animal Life from Human Uses of the Aquatic Preserve. The protection of animal species shall be considered when reviewing applications in or affecting the preserve. The reviewer shall also consider the potential effects of the proposed use on plant communities that function as habitat for the animal life. Disturbances that alter or hinder the natural activities and functions of the animal species living within the preserve (e.g., air pollution, excessive noise or bright lights affecting a bird rookery), shall also be analyzed and concerns addressed in the permitting process. Field personnel will be notified of any proposed activities (e.g., seismic testing, mammal capture by permit) within the aquatic preserve that might affect the well-being of animal

life and should be involved in planning the activity so as to cause the least amount of stress on animal life.

g. Identification of Research Needs. Field personnel in the course of their duties shall identify research needs required to improve the management of animal life in the aquatic preserve. This identification process is more fully described in Chapter XII (Identified Program Needs).

h. Coordination with Other Researchers. Field personnel will become familiar with research projects being conducted within the aquatic preserve by state and federal agency biologists and non-government researchers. Personnel will coordinate, assist and encourage research projects by the facility, graduate, or undergraduate students at the four universities and the research lab in the area (University of South Florida, University of Tampa, Eckerd College, New College in Sarasota and Mote Marine Lab). Water quality research issues, as they affect animal communities, should also be closely followed. This familiarization should lead to a better understanding of agencies' personnel and a better awareness of the data findings and uses. The research liaison will also be addressed in Chapter X (Scientific Research).

3. GEOLOGIC FEATURES

The management of geologic features will require that the field personnel become aware of the natural geologic formation and the changes, both human and natural, which affect these features within the aquatic preserve. This knowledge should strengthen the review process for

applications on state-owned land as they might affect these formation. These geologic features will include inlets, islands, shoals, shorelines, embayments, and channels. The overall objective of the management of geologic features is to allow the naturally dynamic system to operate without man's influence or interference. Active management in this area shall include the review of proposed uses that might affect the geologic features within the aquatic preserve. The majority of these reviews will probably concern bulkheads, revetments, groins, dredge and fill, bridges and channels as they might affect state-owned lands. Bulkheads are not allowed within the preserve, except as stated in Sections 258.42(2), and 258.44 F.S. and in accordance with the management objectives of the preserve. Bulkheads placed upland of the aquatic preserve shall be constructed following the natural contour of the shore. Drainage patterns will be maintained or shall only be minimally altered. The use of rip-rap with mangroves or other suitable native plantings are always preferable to bulkheads. Management will make every effort to educate the public about the economic and environmental advantages of vegetated shorelines.

Existing bridges and causeways throughout the state have resulted in losses of grassbeds, mangroves and the degradation of the water quality. Causeways restrict natural flushing and create unnatural circulation patterns. Proposals for bridge and causeway construction within the preserve will be reviewed in light of these potential impacts.

Maintenance dredging of existing channels will be carefully studied to remove conditions that require perennial maintenance and chronic

environmental disturbances. Channel dredging has adversely impacted other waterways, with varying influences, depending on channel location and current. Proposed channel dredging will be reviewed in light of these past experiences.

Field personnel shall also be involved in the review of project proposals submitted to other agencies, such as the U.S. Army Corps of Engineers, Department of Environmental Regulation, the Department of Transportation, the Southwest Florida Water Management District or the Tampa Port Authority, and shall formally review and comment on any permit application that impacts the aquatic preserve. These projects shall be reviewed jointly with those agencies' personnel whenever possible. Field personnel will review these projects and act as advocates on behalf of the aquatic preserve and its resources.

4. ARCHAEOLOGICAL AND HISTORICAL SITES

Archaeological and historical sites have several characteristics which must be recognized in a resource management program.

i. They are a finite and non-renewable resource.

ii. Each site is unique because individually it represents the tangible remains of events which occurred at a specific time and place.

iii. While these sites uniquely reflect localized events, these events and the origin of particular sites are related to conditions and events in other times and places. They also preserve traces of past biotic communities, climate, and other elements of the environment that are of interest to both the scientific community and the general public.

iv. These sites, particularly archaeological sites, are very fragile because their significance is derived not only from the individual artifacts within them, but especially from the spatial arrangement of those artifacts in both horizontal and vertical planes.

Administering Agency.

The management of the archaeological and historical sites is authorized and administered by the Division of Archives, History and Records Management (DAHRM) in the Florida Department of State. The management authority for this area of management is presented in Chapter II (Management Authority).

Management Policy.

The management policy presented here is on of conservation, as recommended by the DAHRM and subject to the agency's changes. Their policy is as follows:

1. The field personnel and all other agencies planning activities within the aquatic preserve shall coordinate closely with DAHRM in order to prevent any unauthorized disturbance of archaeological and historical sites that may exist on the affected tract. DAHRM is vested with the title to archaeological and historical resources abandoned on state lands and is responsible for administration and protection of such resources (Section 267.061(1)(b), F.S.). It is illegal to destroy or otherwise alter sites on state lands without a permit from DAHRM (Section 267.13, F.S.). Therefore, agencies planning activities should coordinate their plans with DAHRM at a sufficiently early stage to preclude inadvertent damage or destruction to these resources.

2. The nature of these sites' fragility and vulnerability to looting other destructive forces requires that the location of these sites not be widely known, if the location is known at all. In many instances DAHRM will have knowledge of the known and expected site distribution in an area. Special field surveys for unknown areas may be required by DAHRM to identify potential endangerment of a proposed activity to these archaeological and historical sites. This will be especially necessary in the case of activities contemplating ground disturbance over large areas.

3. In the case of known sites, activities that are expected to alter or damage these sites shall alter their management or

development plans as necessary, or make special provisions so as not to disturb or damage such sites prior to professionally acceptable and authorized mitigation.

4. If in the course of a management activity, or as a result of development of the permitting of dredge/fill activities, it is determined that valuable historic or archaeological sites will be damaged or destroyed, DAHRM reserves the right to require salvage measures to mitigate the destructive impact of such activities on such sites (Section 267.061(1)(b), F.S.). Such salvage measures shall be accomplished before DAHRM would grant permission for site destruction.

5. Excavation of archaeological sites in the near future is discouraged. Archaeological sites within the aquatic preserve should be left undisturbed for the present, with particular attention devoted to preventing site looting by "treasure hunters".

6. Field personnel will note suspected sites for future surveys by DAHRM. Cooperation with other agencies in this activity is also encouraged by DAHRM. The DAHRM will help inform the field personnel about the characteristics and appearance of these sites.

7. Any discovery of instances of looting or unauthorized destruction of these sites will be reported to the DAHRM so that

appropriate action may be initiated. The Florida Marine Patrol and other enforcement personnel of DNR shall provide enforcement assistance to DAHRM and make arrests or investigate cases of looting or other unauthorized destruction of archaeological sites. The field personnel will follow the above management policy and become familiar with the personnel involved with this task in DAHRM and their procedures for identifying suspected sites.

5. WATER RESOURCES

Responsible management of water resources for the protection of human health and recreational enjoyment of aquatic preserve water, as well as for the protection and enhancement of the preserve's plant and animal communities is the most critical aspect of aquatic preserve management. Research to understand how human activity can alter or detrimentally affect the dynamic characteristics of the preserve's various habitats can be approached confidently after monitoring data has been used to model the effects of naturally occurring variations on the same habitat. A single toxic substance may be all that is necessary to initiate irreparable ecological damage and change in the water resources of the aquatic preserve estuarine ecosystem.

Management Policy

The successful management of the water resources of the aquatic preserve depends heavily on other government agencies (i.e., DER and the Southwest

Florida Water Management District) charged with regulating water quality and quantity. Water resource management shall have as its major objective the maintenance of water quality and natural seasonal fluctuations of fresh water into the estuary. Water resource data is available from non-governmental agencies, among them colleges, universities, scientific foundations and private consultants working in the Tampa Bay area. These various entities have interests at many different levels and areas within the riverine and estuarine system. The aquatic preserve management program will manage the water resources through coordination with these various entities. The field personnel will not conduct water sampling, but through the review of data from other entities and from field observations, they will identify water resource problems in the aquatic preserve. Efforts will be made to ensure consistency in project design and sampling techniques so that data from various studies can be used for integrated analysis.

a. Familiarization with the Jurisdiction, Personnel, and Monitoring Programs of Government Agencies and Other Entities. Field personnel will become thoroughly familiar with the jurisdiction, personnel and monitoring programs of other agencies, institutions, and corporations involved in studying, monitoring, regulating and managing water resources within the aquatic preserve and the drainage basins which provide fresh water to this preserve. Those agencies known to be working or having potential activities affecting the preserve are listed below; others may be added as they are identified.

1. Florida Department of Environmental Regulation
2. Manatee County Health Department

3. Manatee County Environmental Services
4. Southwest Florida Water Management District
5. Marine Fisheries Commission
6. U. S. Geological Survey
7. U. S. Fish and Wildlife Service
8. Tampa Bay Regional Planning Department
9. Agency on Bay Management
10. Florida Game and Fresh Water Fish Commission
11. Florida Department of Natural Resources Marine Research Laboratory
12. University of Tampa
13. University of South Florida
14. Manatee Community College
15. U.S. Environmental Protection Agency
16. Eckerd College
17. Mote Marine Lab
18. Tampa Electric Company
19. Tampa Port Authority
20. Department of Natural Resources-Shellfish Sanitation Section

b. Monitoring of Water Resources by Cooperative Data Collection and Review. Field personnel will: 1. promote coordination among involved agencies in planning monitoring programs and in evaluating monitoring data; and 2. monitor water resources within the preserve by reviewing the data collected and compiled by those agencies as it applies to the aquatic preserve and its resources.

c. Review of Permit and Lease Application for Aquatic Preserve Uses and Watershed Activities that would affect the Preserve Water Resources. Field personnel will review sovereign land lease applications, development of regional impact reviews, and DER/COE permit applications in cooperation with other agencies as necessary, and as outlined in Chapter V (C) for their potential impact on the water resources of the aquatic preserve.

d. Familiarization with and Monitoring of Activities and Users which Regularly Contribute Pollutants to Preserve Waters. Field personnel will become familiar with the activities and users which regularly or potentially contribute pollutants to the waters of the aquatic preserve. This monitoring will be accomplished directly by field observations and indirectly by review of other entities' water resource data. Field personnel will encourage and coordinate with other agencies involved with water resource monitoring to consider more detailed field monitoring in areas of the preserve where the incidence of polluting activities is found to be high. These monitoring activities will also include the monitoring of freshwater releases into the preserve and their effect on the environment.

These activities will also be applicable to Chapter X (Scientific Research), and the coordination through Chapter VI (Management Implementation Network). By onsite inspection the field personnel will be able to monitor environmental impacts as and before they occur. Interaction with other federal, state and local agencies will facilitate this regulation.

6. CUMULATIVE IMPACT ANALYSIS

Cumulative impacts are the sum total of major and minor changes or effects upon the natural system. Taken singularly these effects may not constitute a notable change in the condition of the natural system, but as these single changes or uses accumulate, their combined impact may result in a substantive environmental disturbance or degradation of the natural system.

The review of proposed uses in the aquatic preserve from the perspective of cumulative impact analysis requires a thorough knowledge of the natural system and the various interactions and dynamics within the system. This aquatic preserve management program will initiate development of a cumulative impact analysis program. The evaluation of cumulative impacts shall include the following criteria from Chapter 18-20 F.A.C.:

"(1) The number and extent of similar human actions within the preserve which have previously affected or are likely to affect the preserve, whether considered by the Department under its current authority or which existed prior to or since the enactment of the Act; and,

(2) The similar activities within the preserve which are currently under consideration by the department; and

(3) Direct and indirect effects upon the preserve and adjacent preserve, if applicable, which may reasonably be expected to result from the activity; and

(4) The extent to which the activity is consistent with management plans for the preserve, when developed; and

(5) The extent to which the activity is permissible within the preserve in accordance with comprehensive plans adopted by affected local governments, pursuant to Section 163.3161, F.S., and other applicable plans adopted by local, state and federal agencies.

(6) The extent to which loss of beneficial hydrologic and biologic functions would adversely impact the quality or utility of the preserve; and

(7) The extent to which mitigation measures may compensate for adverse impacts."

The availability of onsite reserve staff who are familiar with the distinctive characteristics of this system, coupled with their ability to access LANDSAT imagery and mapping, and other data sources, is the key to development of a successful cumulative impact analysis program. As cumulative impacts are identified for specific areas and/or resources, they will become an integral part of the project analysis and decision-making process.

7. MANAGEMENT OF ENCROACHMENTS

The management of encroachments in the preserve will concern the unauthorized placement of structures, unauthorized dredging or filling, or other illegal uses in the aquatic preserve. These encroachments might also include illegal activities associated with an approved use (e.g.,

extension of a dock, construction of boat houses, extension of an approved channel).

The management policy for the field personnel, after identification of a suspected illegal encroachment, will involve a reporting procedure and the monitoring of the remedial action. After a field identification of a suspected encroachments, field personnel will notify the central office to verify the title of the property and research the possibility of the use being an approved activity. The potential for unauthorized activities in such an extensive area is tremendous. A progressive system of mapping and recording will be initiated to assist the field personnel in their monitoring of the preserve. Aerial surveys will be done to facilitate reconnaissance of illegal activities and mapping.

The management action for verified illegal encroachment will be developed by the agencies specifically involved (i.e., DNP, DER). Field personnel will assist, as necessary, with field evaluations or other support activities. Final actions will be monitored by field personnel, at the direction of the Trustees to the central office. The procedures followed in these applications will be decided on a case by case basis.

C. RESOURCE MAPPING AND RESOURCE PROTECTION AREAS

The preliminary description and location of resources within the area (approximately 3,600 acres of submerged land), will require the use of remote sensing techniques. This work will be done in conjunction with

DNR's Marine Research Laboratory's Assessment of Fishery Habitat Loss Study in the Tampa Bay area. Marine Research Laboratory personnel have developed resource and habitat identification mapping through the use of LANDSAT (satellite) imagery and aerial photography. The vegetation and land use mapping done in this study will become the basis for the development of a Resource Protection Area management system in the aquatic preserves. This mapping system will identify and classify various resources within the aquatic preserves that require protection by the management program. Acreage totals for each land use and vegetation classification in the preserve will be provided. The onsite managers will supplement the vegetative portion of the mapping with wildlife and fisheries information (endangered species, bird rookeries, etc.), archaeological and historical site information and other resource factors deemed crucial to the continued health and viability of the aquatic preserve.

These maps will then provide the information needed to develop and update a Resource Protection Area (RPA) mapping program. The RPA mapping system is based on three levels of resource classification. The Class 1 level will contain resources of the highest quality. Uses proposed for these areas will receive the most rigorous review. The Class 1 level will include one or more of the following: marine grassbed; mangrove swamp; saltwater marsh; oyster bars; archaeological and historical sites (upland and submerged); endangered species habitat; colonial waterbird nesting sites; and other appropriate factors.

The Class 2 areas will be defined as those areas containing the resources of Class 1, but in a transitional condition compared to Class 1. These resources will either be building toward Class 1 status or declining to Class 3 status. Class 2 areas will require careful field review as to the specific areas's sensitivity to each proposed use. In some respects, these areas may be as sensitive as or more sensitive to disturbances then Class 1 areas. The resources of Class 2 will include: marine grassbeds; mangroves in scrub condition or colonizing new lands; beaches undergoing restoration; saltwater marsh colonizing new lands; and other resources of Class 1 type that fit in the Class 2 condition.

Class 3 areas will be characterized by the general absence of the attributes of the above two classes. Class 3 areas may have small localized Class 1 or 2 areas within them. Class 3 will generally have deep water areas or areas with no significant vegetation or wildlife attributes. Nearshore and bottom areas significantly modified by man will be designated Class 3.

These RPA maps will require periodic revisions as the onsite managers learn more about the resource's reactions to man's use. Scientific research and other data additions may also require modification of this system. Natural changes will also require modification of this classification system. Periodic checking by LANDSAT satellite imagery will become useful for remote sensing monitoring as its use is more fully developed.

The RPA maps will become a planning tool for both onsite and central office staff. More detailed field review will still be required to supplement this information on a case by case basis, as necessary.

The initial development, as well as periodic review, will require the support and assistance of the many other resource regulating and managing agencies, as well as local and regional government entities. Support will also be requested from the colleges, universities, foundations and other interested groups and individuals.

The RPA mapping will use the USGS 7.5 quadrangle map format for vegetation and these maps, after public notice and opportunity for public review and comment, will be placed in Appendix ___ of the aquatic preserve management plan. It is recognized that mapping at this scale may not adequately define small areas which do not qualify for the RPA class level assigned to a general area.

D. ADMINISTRATIVE MANAGEMENT OBJECTIVES

This section of the chapter addresses the role of the central office, in the aquatic preserve management planning and implementation process. The central offices's role is generally interpreted within the context of coordinating activities with the field personnel. This coordination linkage is important to many program aspects, including project review evaluation, local contact initiation, administrative rule development, contractual services and conflict resolution, not to mention the routine support (payroll, operating expenses, etc.) usually extended by the

central office to the onsite managers. All program activities identified within this context are designed to protect and enhance the environmental, educational, scientific, and aesthetic qualities of the natural systems of the aquatic preserve.

1. Objectives

Specifically, the following administrative objectives are an essential part of the aquatic preserve management program:

a. To ensure a comprehensive, coordinated review and evaluation of proposed activities potentially affecting the environmental integrity of the aquatic preserve;
b. To serve as the link between aquatic preserve field personnel and state agencies and programs which originate in Tallahassee;
c. To serve as the primary staff in the development of administrative rule additions, deletions, and revisions;
d. To serve as the administrative staff for contractual agreements and services;
e. To establish and maintain a conflict resolution process and,
f. To review all existing and past activities as to their affect on the environmental integrity of the aquatic preserve.

A major element in the administration of an aquatic preserve management system is the establishment of a thorough project review process. It is the program intent that the central office staff review all proposed activities requiring the use of state-owned lands within the preserve. Sections 258.42 through 258.44, F.S., establish the legal context within

which all proposed uses of the aquatic preserve must be evaluated. Essentially, these sections require that projects be basically water dependent or water-enhanced, not contrary to the lawful and traditional uses of the preserve, and not infringing upon the traditional uses of the preserve, and not infringing upon the traditional riparian rights of the upland property owner.

The primary mechanism through which proposed uses are reviewed is accomplished by participation in the state lands management process as established by Chapter 253, F.S., and modified by Chapter 258, F.S. The central office was administratively designated, on October 4, 1982, as an agent of the Trustees, for the purposes of evaluating the environmental consequences of proposed uses of state-owned lands within aquatic preserves.

In conducting the environmental evaluations, the central office staff will rely heavily upon the most current, readily available data such as Department of Transportation (DOT) aerial photography, LANDSAT imagery, DER biological reports, and other data resources (see Appendices __ and __). If a proposed activity is legally consistent with the maintenance criteria outlined in Section 258.42 F.S. and Chapter 16Q-20, F.A.C., and is generally of negligible environmental concern, then the project review will likely be conducted in its entirety by the central office staff, utilizing the generalized environmental data.

The field personnel will be requested to conduct a more detailed environmental assessment of the project if the central office staff,

during the course of the preliminary application review, determines that the requested use of state-owned lands may have a significant effect upon the environmental integrity of the preserve. Copies of all applications received will be provided to the field personnel for project monitoring and assessment of the possible cumulative impacts.

Field personnel will be encouraged to establish direct communication links with the various regulatory and management agencies for purposes of obtaining advance notification of projects potentially affecting the preserve. All environmental review and assessment, however, will be channeled through the central office unless other arrangements have been previously cleared with the central office.

While the State Lands Management Program authorized by Chapters 253 and 258, F.S. and Chapters 18-20 and 18-21, F.A.C., is expected to be the primary management implementation vehicle for the aquatic preserve, it is by no means the only vehicle. Section 253.77, F.S., as amended, and the December, 1982 Memorandum of Understanding between the COE, DER, and DNR provide direct access to DER's permitting process for DNR. The Development of Regional Impact (DRI) and other regional or state level review processes represent other implementation mechanisms. The basic review approach and the evaluation relationship between the field personnel and the central office staff will be the same as the case involving the State Lands Management program.

One aspect of the aquatic preserve review and evaluation program is the identification of proposed activities that are either generally or

specifically prohibited. Immediately upon review, of such project applications, the central office staff will notify the Division of State Lands (or other program managers) that the proposed activity is legally unapprovable for the stated reasons. For those proposals which are subject to denial due to their adverse environmental impacts, even though the activity may be permissible, Section 258.42, F.S., specifically provides that:

"(1) No further sale, lease, or transfer of sovereignty submerged lands shall be approved or consummated by the trustees except when such sale, lease, or transfer is in the public interest.

(2) The trustees shall not approve the waterward relocation or setting of bulkhead lines waterward of the line of mean high water within the preserve except when public road and bridge construction projects have no reasonable alternative and it is shown to be not contrary to the public interest.

(3) (a) No further dredging or filling of submerged lands shall be approved by the trustees except the following activities may be authorized pursuant to a permit:

1. Such minimum dredging and spoiling as may be authorized for public navigation projects.

2. Such minimum dredging and spoiling as may be authorized for creation and maintenance of marinas, piers, and docks and their attendant navigation channels.

3. Such other alteration of physical conditions as may, in the opinion of the trustees, be necessary to enhance the quality or utility of the preserve or the public health generally.

4. Such other maintenance dredging as may be required for existing navigation channels.

5. Such restoration of land as authorized by S. 253.124(3).

6. Such reasonable improvements as may be necessary for public utility installation or expansion.

7. Installation and maintenance of oil and gas transportation facilities, provided such facilities are properly marked with marine aids to navigation as prescribed by federal law.

(b) There shall, in no case, be any dredging seaward of a bulkhead line for the sole or primary purpose of providing fill for any area landward of a bulkhead line.

(c) There shall be no drilling of gas or oil wells. However, this will not prohibit the state from leasing the oil and gas rights and permitting drilling from outside the preserve to explore for oil and gas if approved by the board.

(d) There shall be no excavation of minerals, except the dredging of dead oyster shells as approved by the Department of Natural Resources.

(e) There shall be no erection of structures within the preserve, except:

1. Private docks for reasonable ingress or egress of riparian owners;

2. Commercial docking facilities shown to be consistent with the use or management criteria of the preserve; and

3. Structures for shore protection, approved navigational aids, or public utility crossings authorized under subsection (3)(a).

(f) No wastes or effluents shall be discharged into the preserve which substantially inhibit the accomplishment of the purposes of this act.

(g) No non-permitted wastes or effluents shall be directly discharged into the preserve which substantially inhibit the accomplishment of the purposes of this act."

Generally, applicants desirous of appealing staff recommendations will have to follow those appellate procedures outlined in the appropriate authorizing statutes. In the case where applications requesting the use of state-owned lands are denied, three appellate procedures are available to the applicant. Depending upon the type of application submitted, an applicant may:

a. Ask the Governor and Cabinet to overturn an application decision rendered by the Executive Director or Department of the Natural Resources (or his designee) under a delegation of authority;
b. Request an Administrative Hearing under the procedures outlined in Chapter 120, F.S.; or
c. Appeal the action of the Board of Trustees of the Internal Improvement Trust Fund to the District Court of Appeals.

3. Liaison between Field Personnel and Other Interested Parties

One of the most important aspects of the field personnel's job is to establish a mutually beneficial communication link with pertinent interest groups. The central office staff will assist in initially identifying and contacting governmental bodies, special interest groups and interested individuals requiring aquatic preserve program coordination.

When requested by the onsite managers, the central office staff will assist in arranging for specialized management expertise not generally available locally. This many include, for example, such things as arranging for DAHRM to conduct a detailed cultural resource assessment for certain areas of the preserve.

Chapter VI

MANAGEMENT IMPLEMENTATION NETWORK

This chapter of the management plan will address the various relationships of aquatic preserve management to the different governmental agencies and programs, non-governmental entities, interest groups, and individuals within the aquatic preserve area. The activities of both field personnel and central office staff as they relate to these other organizations will be presented.

A. FEDERAL

Many federal agencies have property interests, land and wildlife management programs, research activities, construction activities, and regulation programs existing or potentially existing within the aquatic preserves. The objective of the aquatic preserve management program will be to complement the various activities wherever possible. The field personnel will assist those federal agencies in areas where they have common goals. The field personnel and central office staff will also review the federal activities as to their effect on the objectives of the aquatic preserve management. This review shall be coordinated through the DER's Office of Coastal Management for the purposes of enforcing the provisions of the Federal Coastal Zone Management Act of 1972, as amended.

1. United States Fish and Wildlife Service. The aquatic preserve program will be involve in the review of proposed preserve uses in conjunction with the Fish and Wildlife's Division of Ecological Services at 1323 21st street vero Beach, Florida 32960. This division reviews dredge and fill requests and other federal level permitting under the Fish and Wildlife Coordination Act.

Another management program in which the field personnel could possibly interact with the Fish and Wildlife Service is the protection and recovery of endangered species and bird rookeries within the aquatic preserve. Field personnel will become involved in using available recovery techniques for this purpose, as necessary.

2. U.S. Army Corps of Engineers. The U.S. Army Corps of Engineers (COE) is charged with providing technical guidance and planning assistance for the nation's water resources development. The COE also provides supervision and direction to many engineering works such as harbors, waterways and many other types of structures. Their major responsibility, as it applies to the aquatic preserve, is the protection of navigable waters, pollution abatement and maintaining water quality and the enhancement of fish and wildlife.

The COE activities in the Tampa Bay area include their involvement with the DER in the dredge and fill permitting process, technical oversight of channel, inlet and canal maintenance, and evaluation requests for new channels, canals and other such public works projects. The field

personnel will become familiar with the various programs, policies and procedures as they apply to the aquatic preserve.

Field personnel and central office staff will also review activities proposed by the COE for conformance to the objectives of the aquatic preserve management plan. This involvement should begin in the early stages of project planning in order to facilitate the best protection of the aquatic preserve possible.

3. U.S. Geological Survey. The U.S. Geological Survey (USGS) under the Department of the Interior has the responsibility to perform surveys, investigations, and research pertaining to topography, geology, and the mineral and water resources of the United States. USGS also publishes and disseminates data relative to those preceding activities. In the past the USGS has conducted many studies on various resources in the region.

The field personnel and central office staff will become familiar with these studies and the data results as they apply to their management activities.

4. U.S. Environmental Protection Agency. The U.S. Environmental Protection Agency (EPA), in cooperation with state and local governments, is the federal agency responsible for the control and abatement of environmental pollution. The six areas of pollution within which the EPA is concerned are air, water, solid waste, noise, radiation and toxic substances. The DER is the state agency responsible for handling most of

these programs on the state level in lieu of a federal program. Within the aquatic preserve, the field personnel will assist the EPA in planning field activities and where there are common goals.

5. U.S. Coast Guard. The U.S. Coast Guard is the federal agency involved in boating safety, including search and rescue when necessary. The Coast Guard is also charged with the permitting of structures which affect navigation and boating safety. These structures include bridges, causeways, aerial utilities and other structures which may be in conflict with navigational uses. The field personnel, in conjunction with the central office staff, will also review projects which the Coast Guard may be evaluating for permits.

6. National Marine Fisheries Service. The National Marine Fisheries Service (NMFS) under the U.S. Department of Commerce is active in the Tampa Bay area in recording commercial fish landings. The NMFS also has enforcement officers in the area checking for illegal fishery activities. Field personnel will work with these personnel whenever they have common goals within the aquatic preserve.

B. STATE

Many state agencies have programs which affect the resources or regulate activities within the aquatic preserve. There are also other DNR programs that are within or affect the Terra Ceia Aquatic Preserve. This section will describe the interactions and relationships of these various agency programs and how they relate to aquatic preserve management.

1. Department of Environmental Regulation. The Department of Environmental Regulation (DER) is responsible for regulation of air and water quality and, in some cases, water quantity (through the water management district) within the Tampa Bay area. The DER is also the local contact for the initiation of dredge and fill applications in conjunction with the COE and DNR. With respect to water quality and dredge and fill regulation, the DER is possibly one of the most important agencies to the management of the aquatic preserve. The water quality of the preserve is the most important factor to the health of the estuarine complex, and dredge and fill activities are one of the most potentially destructive activities within the preserve. The DER also regulates other forms of pollution, such as air, noise, wastewater and hazardous waste, which may be important in the future to the preserve.

Field personnel will become familiar with the water quality, dredge and fill, and other regulatory programs that are important to the aquatic preserve. The field personnel should develop a close working relationship with DER staff and become familiar with DER field activities and programs that are in common with the objectives of the aquatic preserve management program. Field personnel should open the most efficient line of communication with the local offices to receive the permit applications from DER as soon as possible to improve the response time within the review process.

The DER, Office of Coastal Management is charged with coordinating activities related to coastal management in the state and reviewing federal actions for consistency with the State Coastal Management

Program, Section 380.20, F.S. The central office staff will maintain a close relationship with the Office of Coastal Management for assistance in the review of federal actions, data and research needs, and other program support.

2. Department of Community Affairs. The Department of Community Affairs (DCA) is responsible for reviewing Developments of Regional Impact (DRI) and for designating Areas of Critical State Concern (ACSC). DRI's are major developments that have impacts on a scale which is greater that county level and require a regional review from neighboring local governments and state agencies. Both the central office staff and field personnel of the aquatic preserve program will be involved in reviewing DRI's. Field personnel should receive notice of a DRI through the central office staff and will proceed with the field review. The central office staff will coordinate field review findings and work with the other state agencies in Tallahassee in the review of DRI.

The ACSC program is intended to protect the areas of the state where unsuitable land development has endangered or may potentially endanger resources of regional or statewide significance. The RPMP evaluates the resources, and the local government's land development practices. After this evaluation is complete, the RPMP committee makes recommendations to the local governments on how their land development practices could be improved to ensure an orderly and well-planned growth that would protect the critical resources. The local governments, counties and cities, are now in the process of making these land development modifications, based on the RPMP recommendations. If these modifications are not made to the

RPMP Committee's approval, those areas of local government that are not in conformance could be designated as ACSC or the entire area may be designated an ACSC by the Legislature. Under the ACSC designation, the local governments are required to notify DCA of any application for a development permit. The entire land development process will require the state's oversight until that local government modifies its land development practices to conform to the SCSC requirements.

3. Department of Natural Resources. The aquatic preserve management program is associated with several other Department of Natural Resource (DNR) programs in the Tampa Bay area.

DNR's Marine Research Laboratory in St. Petersburg, under the Division of Marine Resources, has several programs and projects within this area which will benefit the aquatic preserve program. The Marine Lab is presently involved in numerous studies on fishery habitat losses in the Tampa Bay area. The Resource Protection Area mapping, which will be used in the management of the aquatic preserves, was created as a product of that fishery habitat loss study. The data from this project, when it is completed, will be incorporated into this management plan. The Marine Lab staff are also involved in manatee protection programs and the lab is the headquarters of the State Manatee Coordinator. Field personnel will become familiar with these studies and programs, and will consult the Marine Lab for their data needs whenever possible.

The Division of Marine Resources also handles the permitting for the collection of certain marine species and use of certain chemicals. The

field and central office staff will become familiar with this permitting process and request notification of these permits within the aquatic preserve.

The Florida Marine Patrol, under DNR's Division of Law Enforcement, also operates in Tampa Bay. The field personnel will become familiar with their programs and operation, and will call on the Marine Patrol for law enforcement support as required.

The Division of State Lands within the DNR is charged with overseeing uses, sales, leases or transfers of state-owned lands. The aquatic preserve staff will interact with State Lands in all transactions concerning submerged lands within the aquatic preserve. These would include the potential acquisition of privately titled submerged lands or contiguous uplands important to the integrity of the preserve. This relationship is more fully described in Chapter V(C).

The Division of Resource Management, through the Bureau of Geology and Aquatic Plant Research and Development, is responsible for various programs potentially affecting the aquatic preserve. Staff will establish communication links with this Division to ensure that adequate consideration is given to potential impacts upon the preserve that may result from the conduct of their various programs.

The Division of Recreation and Parks, in addition to the work related to aquatic preserves by BMELM and The Florida Park Service, is also involved in the management of State Parks and Recreation Areas nearby. The

aquatic preserve programs will work closely with these programs as they relate to aquatic preserve management objectives.

4. Marine Fisheries Commission (MFC).

The MFC was established as a rulemaking authority pursuant to Section 370.027, F.S. The seven members are appointed by the governor and are delegated full rulemaking authority over marine life (subject to approval by the Governor and Cabinet), with the exception of endangered species. This authority covers the following area: a) gear specifications, b) prohibited gear, c) bag limits, d) size limits, e) species that may not be sold, f) protected species, g) closed areas, h) quality control codes, i) season, and j) special considerations related to eggbearing females and oyster and clam relaying. Field personnel and central office staff will become familiar with and enforce the rules of the MFC.

The MFC is also instructed to make annual recommendations to the Governor and Cabinet regarding marine fisheries research priorities. The field and central office staff will use these recommendations to direct research efforts within the aquatic preserve.

5. Florida Game and Fresh Water Fish Commission (GFWFC). The GFWFC's Environmental Services office in Vero Beach sends biologist into the preserve to review projects which may have potential impacts on local fish and wildlife habitat as necessary. The central office will use the GFWFC's assistance in their review process, when possible, and in developing fish and wildlife management for the aquatic preserve.

The GFWFC is also the state coordinator of the Endangered Species in Florida. The field personnel and central office staff will work with GFWFC personnel in developing program needs in this area.

6. Department of Transportation (DOT). The DOT has an office in Tampa and the field personnel and the central office will work with the resident engineer on anticipated projects having possible impacts on the aquatic preserve. The field personnel and administrative staff will review any major highway or bridge projects that may be proposed in the future.

7. Department of State. The Division of Archives, History and Records Management (DAHRM) in the Department of State will have a close working relationship with the field personnel and central office staff in the protection of archaeological and historical sites. The field personnel will be directed by DAHRM, through the central office, in any activities or management policy needs for these sites.

8. Health and Rehabilitative Services (HRS). Both the central office staff and field personnel will establish communication and coordination linkages with HRS and their locally conducted programs of septic tank regulation and mosquito control. Although mosquito control serves a useful public function, the effects of pesticides (adulticides and larvacides) in the waters of the preserve are a primary concern. Additionally, the central office staff will become involved in future meetings and management programs developed by the Governor's Working Group on mosquito control. Subsequent policy recommendations coming out

of this group will be evaluated for applicability to the ongoing aquatic preserve management program.

C. REGIONAL

The regional level of the management implementation network as it applies to the Terra Ceia Aquatic Preserve will include the Southwest Florida Water Management District and the Tampa Bay Regional Planning Council. These organizations have activities that are broader than the local government, but are on a smaller scale than the state level.

1. Southwest Florida Water Management District (SWFWMD). SWFWMD includes Manatee, Hillsborough, Pinellas and 13 other counties. The water management district administers permitting programs for the local consumable use of water, storm water discharges, and dredge and fill type activities. This includes the withdrawal and use of water from rivers, streams, and wells. The types of water uses they permit in the preserve area include irrigation and public water supply. Field personnel will become familiar with the review and permitting procedures as they apply to water supply in this area. The water management district is also involved in various studies on water supply and management, and other related research that may be of use to aquatic preserve management.

2. Tampa Bay Regional Planning Council (TBRPC). The TBRPC serves as a regional planning body for the local governments of Manatee, Pinellas, Hillsborough and Pasco Counties, while the Manatee County City County

Planning Commission serves Manatee County. The Agency on Bay Management acts as an advisory board for the TBRPC. Among their duties, the TBRPC and MCCCPC:

a. aid local governments with planning expertise;

b. are the regional representatives for the Development of Regional Impact (DRI) review process;

c. serve as regional clearinghouses for state and federal projects and programs; and

d. convey information from the local governments to the state and federal levels.

Field personnel will become familiar with the various projects, programs, and data sources that the TBRPC, ABM, and MCCCPC, have within their administration that may affect or prove useful to the aquatic preserve program.

The DRI review of projects which affect the aquatic preserves will be reviewed by the central office staff, with the field personnel's field review, when necessary. DRI's for large marinas, large subdivisions on the uplands above the preserve, and commercial or industrial developments will require a field review by the field personnel as to their effect on the aquatic preserve.

D. Local Governments and Special Districts.

This section will address the relationship of the aquatic preserve management program to the various local government agencies, special districts and their programs. The Terra Ceia Aquatic Preserve is entirely contained within Manatee County and Palmetto is the only incorporated city within its boundaries. The various special districts (drainage, inlet and mosquito control) and their relationship to aquatic preserve management, are also presented.

Field personnel will be the local liaison for the aquatic preserve to these local government entities to assist them in modifying their policies and practices to conform to the objectives of the aquatic preserve's management plan, and to exchange information and expertise for mutual benefits.

1. Relationship to Local Management Plans. The local governments are required by the Local Government Comprehensive Planning Act of 1975 (LGCPA), (Section 163.3161, F.S.) to have a comprehensive management plan with elements relating to the different governmental functions (i.e. housing, physical facilities, conservation, land use, and coastal zone protection). These plans, in effect, are long-range plans for the orderly and balanced development of the city or county. The comprehensive plans guide local zoning policies and practices toward a future as set out in the plan. No development is permitted that does not conform to the local government's comprehensive plan.

The aim of the aquatic preserve, with respect to these local government comprehensive plans, is to have their plans be consistent with the aquatic preserve management plans. Field personnel will become familiar with the above plans and how they support or are in conflict with the objective of the aquatic preserve management. Field personnel will assist local planning officials in having their plans meet these objectives. The field personnel and central office staff will assist these officials in the preparation of their Marina Element, as required in Chapter IX. It is hoped that local governments will join in the spirit of aquatic preserve management and be willing to work for these changes.

2. Relation to Local Development Codes. The local zoning and development codes (e.g., building codes) provide the major local regulation that defines what an owner can do on a particular parcel of property. The zoning prescribes the allowable uses and the intensity of those uses. Certain uses along an aquatic preserve can potentially have a profound effect on the preserve.

This section will operate in conjunction with the preceding section on local management plans. The field personnel will become familiar with the local zoning, development codes and their potential effects on the nearby aquatic preserve. Field personnel will assist local planning and zoning officials in identifying areas where changes in zoning would better conform to the objectives of the aquatic preserve management. Field personnel might also offer to assist local planning and zoning officials in the review of proposed subdivisions upland of the preserve.

3. Suggested policies and practices in support of Aquatic Preserve Management. This section will address any other policy or practice not covered in the two preceding sections. These policies and practices might include local government mangrove ordinances; recreation problems where a park is in or near an aquatic preserve, or any other problems as they might relate to local governments. The field personnel will offer assistance or information to local officials or will coordinate with other agencies to help solve these problems as they occur. Field personnel will work with county personnel on enforcement of ordinances such as a Mangrove Protection Ordinance. Field personnel will also comment, through the central office, on any local practice that is identified as endangering the well-being of the aquatic preserve.

4. Special Districts (Drainage, Inlet and Mosquito Control). Special districts were established for taxing purposes. The funds are used to correct drainage and mosquito control problems. There is one drainage district that directly affects the preserve. Manatee County has only one mosquito control district.

This district may not have its own official comprehensive management plan, but it does have a management policy and program statement that is similar to such a plan. Field personnel will become familiar with these policies and the activities of this district and will monitor its effect on the aquatic preserve. For example, field personnel might recommend identifying areas that should not receive mosquito spraying or other alternative management because of the remoteness to inhabited areas and possible, but unnecessary damage to the resources of the aquatic

preserve; or drainage districts might be asked not to use certain types of herbicides or to use them only at certain times of the year.

E. Other Entities

This section will apply to the numerous entities that have an interest in the aquatic preserve but are non-governmental agencies. This will include, but not be limited to, the environmental interest groups (i.e., Audubon Society, Sierra Club and Native Plant Society), the scientific organizations, the fishing and sports interest groups (i.e., Florida League of Anglers, Organized Fishermen of Florida), the universities that may have research or educational activities in the preserve (i.e., University of South Florida, University of Tampa, University of Florida, Manatee Community College) and any other interest groups or individuals. The relationship of these entities to aquatic preserve management might include the coordination of activities, such as scientific research, environmental education, management of rookeries or other natural areas, or numerous other possible activities. A worthwhile aquatic preserve management process will depend on the continued support and help of these interest groups in the preserve. Field personnel will be active in communicating the aquatic preserve management process and activities to the various groups and consulting with them for their help in their areas of expertise.

Chapter VII

Public Uses

This chapter addresses the public use of the preserve. The public in this case shall refer to the general public or those persons without riparian rights. The "Florida Aquatic Preserve Act of 1975" (Section 258.35, F.S.) allows for the lawful and traditional public uses of the aquatic preserve, such as sport fishing, boating and swimming (as adapted from Section 258.43(1), F.S.). These and other traditional uses that do not involve a commercial intent or the use of a riparian right to place a structure in the preserve, and do not degrade or otherwise destroy the preserve will be considered public uses. This section will be further divided into consumptive and non-consumptive uses as applicable to each resource.

A. Consumptive Uses

Consumptive uses involves the removal of resources from the preserve. These uses include fishing, hunting, shellfishing, and other related activities. They also include the unintentional removal of

resources by propeller damage to seagrass beds and air boat damage to salt marshes. The management of these uses (see Chapter V. Resource Management, Section B: Onsite Management Objectives) will include the observation and monitoring of the effects of these uses on the resources. The field personnel will periodically assess the impacts through the use of the Marine Research Laboratory's LANDSAT capabilities, aerial photography, boat surveys and current studies or data sources for identifying habitat losses or disturbances in the Terra Ceia area. This management will also include the protection of the resources from unlawful or excessive practices of these uses. Field personnel will, for example, become familiar with and will enforce rules adopted by the Marine Fisheries Commission. These will include regulations on fishing gear, bag and size limits, closed areas, seasons, etc.

These consumptive uses will also be monitored for their effect on other resources (e.g. bird rookeries, marine grassbeds, live bottom communities, archaeological and historical sites). The field personnel will also be sensitive to additional enforcement needs (i.e., the need for added enforcement staff during nesting seasons).

B. Non-consumptive Uses

These uses are those which do not generally remove resources from the preserve. Examples of these include swimming, SCUBA diving, boating, bird-watching, and other related activities. Although boating and diving are usually considered non-consumptive uses, they can become consumptive

when boat operators carelessly place anchors in seagrass beds, navigate into waters that are too shallow for their boats, or divers remove components of a live bottom community. Also air boat traffic across sensitive salt marsh or other wetland communities will be considered a consumptive use (i.e. destruction of plants, disturbance of rookeries). The management practices involved with these uses will be the same as those previously described under Section 4., except that these uses are not generally controlled by law. The guiding principle in these cases will be whether or not the activity causes a disruption of the preserve's resources (e.g. destroys marine grassbeds or salt marshes, disturbs rookeries). Only in the event of these disruptions will the field personnel become involved. Some of these uses may possibly be involved in environmental educational (Chapter XI) programs.

Chapter VIII

PRIVATE NON-COMMERCIAL USES

This section will apply to those private, non-commercial uses which are derived from riparian land ownership. The management of the aquatic preserve recognizes the traditional riparian rights of the upland property owners. The right of ingress, egress, boating, swimming, fishing, and other incidental uses of sovereignty lands historically allowed for the placement of certain structures, such as docks, within the preserve. This right to make any preemptive use of sovereign lands is a qualified one and can only be exercised with the prior consent of the Board after a finding that such uses will not impair public uses or destroy or damage areas of environmental significance. The review of these will require the interaction of the Resource Protection Area mapping with administrative and--possible field review and later monitoring by field personnel as projected by Chapter V., Section B.

Private non-commercial uses shall be designed to avoid critical Resource Protection Areas (Class 1 and 2) and shall be designed to reduce

the uses's impact to the preserve in general. Individual applications for these private non-commercial uses shall be reviewed by the applicable Resource Protection Area Map and criteria. In addition, private dock proposals will be reviewed by the criteria described in Section 16Q-20.04(5),F.A.C) of the revised General Aquatic Preserve Rule.

Bulkheads should be placed, when allowed, in such a way as to be the least destructive and disruptive to the vegetation and other resource factors in each area. Approved uses which do disrupt or destroy resources on state-owed lands will require mitigation. This mitigation will include a minimum of 4:1(restored:damaged) restoration by the applicant to compensate for the loss of the affected resource to the aquatic preserve. In Tampa Bay there has not been a successful case of seagrass restoration. This fact will be taken into account in any proposed project which will affect seagrass beds. All restoration mitigation will include follow up analysis provided by the applicant and confirmed by field personnel of the success of the restoration.

Dredging within the aquatic preserve shall be held to a minimum. Dredging proposals shall be reviewed according to the procedures in Chapter V depending on the proposed activities location within the RPA. Proposals within Class 1 areas (Chapter V (B)) will be scrutinized to the maximum extent in order to find the best practical method of development and location if that use is deemed acceptable in that particular area of the preserve. The mitigation of lost or disturbed resources shall be required and shall meet the above mentioned criteria. There shall be no dredging

allowed in Class 1 or 2 areas or in nearby areas if it will adversely impact these areas.

The location of proposed multiple docking facilities, such as condominium developments, shall be based on the marina siting criteria described in Section 16-20.04(5) F.A.C. of the revised General Aquatic Preserve Rule. Authorization of such facilities will be conditioned upon receipt of documentation evidencing the subordination of the riparian rights of ingress and egress for the remainder of the applicant's shoreline for the life of the proposed docking facility. Boat ramps and travel lift platforms or other similar launching facilities, with associated temporary mooring facilities built with minimal damage to wetlands, will be encouraged over permanent wet storage facilities. Non-residential docking facilities (commercial) are addressed in Chapter IX.

The use of seaplanes within this preserve is seen as a non-traditional use. Applications for seaplane use within the preserve will be reviewed on a case by case basis. These uses will only be recommended where such use will not affect resource protection areas or natural values of the preserve, not effect endangered species habitat, can be utilized in a safe manner, and will not preempt traditional uses within the proposed use area.

Chapter IX

Commercial Uses

This section addresses the variety of traditional and non-traditional (i.e. new uses of this area) commercial uses which might occur within the aquatic preserve. Among the traditional uses in the Terra Ceia area are utility crossings, marinas and yacht clubs, commercial fishing, shellfishing, and other types of boats for hire (e.g. sportfishing, diving). Non-traditional uses in this area include oil and gas transportation facilities, phosphate transportation, and other commercial uses.

A. Traditional commercial uses

1. Utilities crossings. There are at present time both aerial and underwater utility crossings in the aquatic preserve. Future proposals should be designed so that the preserve is crossed by the least destructive method in the least vulnerable areas according to the RPA maps (see Chapter V[5]). Increased or additional use of any existing utility crossings is preferable, if their condition at the time of the proposal is acceptable. The field personnel should eventually develop a

utility crossing plan for all areas with anticipated utility crossing needs to allow for clear advanced planning, for placement of these crossing in areas that would cause the least disturbance to the environment. The utility crossing plans, when completed, will become a part of this management plan. Crossings should be limited to open water areas where live bottom communities are not present, to minimize disturbance to marine grassbeds, mangroves or other critical habitat areas.

2. Commercial Fishing. The management of the aquatic preserve shall not include the direct management of commercial fishing activities. Field personnel will monitor these activities and assess their effects on the preserve only in conjunction with the Division of Marine Resources, the Florida Marine Patrol and the Marine Fisheries Commission, and as a cooperative effort with these agencies. The field personnel will also notify the requisite authority in the event of illegal activities (Chapter 370, F.S. or by special act). The field personnel, along with other agencies and division's programs and studies, will monitor fishing activities within the aquatic preserve. Monitoring will concentrate on boat access into certain areas, prevention of marine grassbed destruction and other needs of the aquatic preserve as they are associated with commercial fishing activities. After problems with commercial fishing activities are identified and documented, the finding will be presented to the Marine Fishing Commission. It is the authority of the Commission and the Florida Legislature to regulate commercial fishing within the preserve.

3. Marinas. The locating of marinas and their related uses will be a major concern of the Terra Ceia Aquatic Preserve management. Marinas represent a use with many potential impacts on the preserve's resources. The siting policy of Section 16-20.04(5) F.A.C. of the revised General Aquatic Preserve Rule shall be used for siting marinas in the aquatic preserve.

4. Deep Water Port Facilities. There are no major deep water port facilities within the boundaries of the preserve but Port of Manatee is located immediately north of the preserve. Therefore maintenance dredging and potential pollution from accidental cargo leakage would adversely affect the preserve. New activities and maintenance work will be reviewed as to their affect on the preserve. New port facilities within the preserve shall be prohibited.

5. Other Docking. Any other type of commercial docking, not mentioned in the preceding sections, will follow the marina siting policy as stated in Section 16-20.04(5), F.A.C. of the revised General Aquatic Preserve Rule.

b. Non-traditional Commercial Uses

1. Power plants. Power plants have the potential for causing major changes in the air quality, water quality, and plant and animal life of the aquatic preserve. For these reasons, power plants are incompatible with the purposes of this aquatic preserve. The location of proposed power plants upstream of a preserve should be evaluated as to the effects on the downstream preserve.

2. Aquaculture. The Terra Ceia area could potentially have proposals for aquacultural development in the future. These may include floating structures or other new techniques now being used in aquaculture. The location and type of impacts to the resources will require careful examination. If there is not sufficient data available for a valid evaluation, a small scale test of the use might be possible in a selected area.

3. Other Uses. Any other use that qualifies as a commercial use of state-owned submerged lands not mentioned above will require a review for its anticipated impact on the aquatic preserve and the best location for the activity compatible to the resource protection areas within the preserve.

Chapter X

Scientific Research

The field personnel attached to the Terra Ceia Aquatic Preserve should serve as the area coordinators of the scientific research in the preserve. Scientific research, and any other type of research or testing within the aquatic preserve, should require the clearance of both the field personnel and the central office staff before these activities can proceed. Certain activities could be detrimental to the resources of the preserve and should be carefully reviewed before allowing them to occur. Factors including location, species selection, time of year, and life history, should be carefully reviewed for the possible disturbance or effect of the research on the other resources of the aquatic preserve. The field personnel will be aware of the possibility of working with other government agencies, colleges, universities, research foundations and government programs to fill the data needs of the aquatic preserve (see Chapter V and XII). The field personnel will assist in the selection of possible tests sites and other research needs within the preserve.

Chapter XI

Environmental Education

The aquatic preserve should be used to enhance environmental education programs at every opportunity. The goal of maintaining the aquatic preserve for the benefit of future generations can begin to be realized through the use of aquatic preserves for environmental education. Through education, the people of Manatee County can acquire a knowledge of the natural systems and an appreciation for the aquatic preserve program. Such appreciation helps to ensure the future protection and support of the aquatic preserve.

The field personnel will, through their normal activities in the aquatic preserve, select good examples of habitats and resources within these aquatic environments for use during educational group tours. This might include the development of environmental educational boat or canoe tours through the preserve. Other educational activities might also include prepared presentations for specific interest or user groups such as sport (boating, diving, fishing, etc.), civic and conservation groups and the development of a brochure outlining the major points of management within the preserve. These brochures could then be circulated to the various user groups.

The field personnel would also prepare slide programs on the value of management activities of the aquatic preserve for presentation to interested groups of all ages. Educating the public about aquatic preserve management is the key to the success and future of the preserve.

Chapter XII

Identified Program Needs

This chapter of the management plan will address the various program needs that are expected to be identified during management activities. Meeting these needs will correct or generally relieve some stress on the preserve or the personnel involved in the management of the preserve. These needs may, in some cases, require legislative or administrative rule changes or aquisition of critical areas by the state. The need to identify problem areas and adjust the management plan in a manner that will positively address these problems and management needs is an essential element of any effective management program. Both field personnel and central office staff will continually monitor the management plan implementation process and specifically identify observed program needs and problems. The areas to be included are but will not limited to:

A. acquisition of additional property,

B. boundaries problems,

C. legislative needs,

D. administrative rule changes,

E. data needs,

F. resource protection capabilities, and

G. funding and staffing needs

Staff will annually develop an implementation status report that will contain a summary of identified management needs and suggested measures to be taken in meeting these needs.

A. Acquisition of Additional Property

There are areas both within and upland of the aquatic preserve that are in public ownership under the jurisdiction of various local, state and federal agencies. Many of these lands contain important resources, such as bird rookeries, archaeological or historical sites, endangered species habitat, and freshwater source wetlands. Formal management agreements, memoranda of understanding etc., that will ensure the compatible management of these areas will be developed. Other areas within or adjacent to the preserve that are within private ownership should be closely examined to determine the advisability of bringing them into public ownership. The aquisition of these lands might act as a buffer to critical resources, prevent development of sensitive areas, allow restoration of areas adversely affected by previous development or allow removal of disrupting uses within the preserve. The field personnel, during normal management activities, should be aware of

significant upland areas and sovereign land conveyances which, if developed, would compromise the integrity of the aquatic preserve. The field personnel will keep a running record of these areas and will prioritize these areas for possible public acquisition.

B. Boundary Problems and Systems Insufficiencies

The boundaries of the aquatic preserve are often artifical delineations of the natural systems within and surrounding the preserve. A variety of scientific studies are presently being conducted both within and outside the preserve boundaries, and their results could conceivably suggest a change in these boundaries. These changes may include the extension of the present boundaries in some areas or the exclusion of other areas, The field personnel, in their normal management activities, will be sensitive to the possible need for boundary modifications. Potential boundaries changes and acquistion projects might include areas upstream of the present boundary in the streams flowing into the preserve, previously conveyed sovereign lands, or other areas not presently within the preserve. Any boundary change will require legislative approval. An additional boundary consideration would be to include the tidally influenced Little Redfish Creek that is located along the northern boundaries of the preserve and the mangrove islands within the preserve.

C. Legislative Needs

Management needs could conceivably involve changes in the legislature pertaining to the aquatic preserve or changes in the other statutes upon which the aquatic preserve is based. These changes may include boundary realignments or the strengthening of certain management authorities.

D. Administrative Rule Changes

Administrative rules are statements addressing the organization, procedures and practices used in the implementation of aquatic preserve management plans and policies. This process includes identifying problems within the Department of Natural Resources, as well as other agencies, that will affect the management of the preserve.

E. Data (Information) Needs

The field personnel and central office staff will note data needs and promote research or other means to obtain them. Data needs in the

near future could possibly be supplied by such ongoing projects as the U.S. Geological Survey's and the Southwest Water Management Districts's studies, Department of Environmental Regulation water quality monitoring or by the research of other agencies. The field personnel will be aware of the data needs as they interact with the various levels of government and with other entities. These data needs might include additional mapping, ownership information, water quality data or any other data. The major suppliers of data will probably be other public agencies that are conducting programs in and around the preserve. Other potential sources of data are the colleges and universities that have ,in the past or are currently, conducting research projects in the area.

F. Resource Protection and Enforcement Capabilities

The protection of the preserve's resources depends on the Florida Marine Patrol in addition to field personnel. These protection needs might also include additional enforcement support from local government or state agencies. The need for additional manpower, authority, equipment or vehicles for this task will be identified.

Since many of the inlets of this preserve are extremely shallow, bottom damage due to boat groundings or propeller damage are common. To eliminate this problem, boat markers should be placed in the channels of these inlets.

The field personnel will become familiar with the staff capabilities of both the Department of Natural Resources and other agencies with enforcement responsibilities in the preserve. Annually, staff should fully assess the effectiveness of the protection and enforcement capabilities of these combined agencies.

G. Funding and Staffing Needs

The present aquatic preserve management program has been minimally implemented with funds from a variety of sources and programs. The writing of this management plan was funded through a grant from the U.S. Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, and through the "Coastal Zone Management Act of 1972"", as amended.

In order for the management program proposed in this plan to function and succeed, the program must have its own funding and staffing. The workload required by this program is too much for an interim staff from other agencies to handle in addition to their own obligations. Funding and Staffing needs are critically important to the implementation of the aquatic preserve program.

The management of Terra Ceia Aquatic Preserve will be integrated with the management program and needs of other **BHARM** management programs in the area. This preserve's management will be combined with two other

aquatic preserves in the Tampa Bay area (Cockroach Bay, Boca Ciega Bay and Pinellas County Preserves). A proposed staff would include two full-time Environmental Specialists II and a ranger. The actual budget for the 1986-87 fiscal year is shown below.

1986-87 Fiscal Year Budget for the
Terra Ceia Aquatic Preserve Management

Salary (ESII and overhead)	$27,290
(OPS employment)	7,280
Operating Capital Outlay	14,000
Expenses	7,000
Total	$55,570

REFERENCES CITED

Bahr, L.M.; Lanier, W.P. The ecology of intertidal oyster reefs of the South Atlantic Coast: A community profile. U.S. Fish and Wildlife Service. Office of Biological Services, Washington, D.C. FWS/OBS-81/15. 1-105; 1981.

Burger, B.W.; Man in the coastal zone: Bishop Harbor/Terra Ceia Island Manatee County, Florida. Baccalaureate thesis on file, New College library, Sarasota; 1979.

Comp, G.S. A survey of the distribution and migration of fishes in Tampa Bay. Treat, S.F.; Simon, J.L.; Lewis, R.R.III; Whitman, R.L.Jr., eds. Tampa Bay Area Scientific Information Symposium: Proceedings of Conference; 1982 May 3-6; Tampa. USA: Bellwether Press; 1985:393-425.

Dawes, C.J. Macroalgae of the Tampa Bay estuarine system. Treat, S.F.; Simon, J.L.; Lewis, R.R.III; Whitman, R.L. Jr., eds. Tampa Bay Area Scientific Information Symposium: Proceedings of Conference; 1982 May 3-6; Tampa. USA: Bellwether Press; 1985:184-209.

Dawes, C.J. Marine Botany. New York: John Wiley and Sons; 1981.

Derrenbacker, J.A.Jr.; Lewis, R.R.III. Live bottom comunities of Tampa Bay. Treat, S.F.; Simon, J.L.; Lewis, R.R.III; Whitman, R.L.Jr., eds. Tampa Bay Area Scientific Information Symposium: Proceedings of Conference 1982 May 3-6; Tampa. USA: Bellwether Press; 1985;385-392.

Doyle, L.J. A short summary of the geology of Tampa Bay. Treat, S.F.; Simon, J.L.; Lewis, R.R.III; Whitman, R.L. Jr., eds. Tampa Bay Area Scientific Information Symposium: Proceedings of Conference; 1982 May 3-6; Tampa. USA: Bellwether Press; 1985:27-32.

Durako, M.J.; Browder, J.A.; Kruczynski, W.L.; Subrahmanyam, C.B.; Turner, R.E. Salt marsh habitat and fishery resources of Florida. In: Seaman, W.Jr., ed. Florida Aquatic Habitat and Fishery Resources; 1985:189-280.

Estevez, E.D.; Mosura, E.L. Emergent vegetation. Treat, S.F.; Simon, J.L.; Lewis, R.R.III; Whitman, R.L.Jr., eds. Tampa Bay Area Scientific Informations Symposium: Proceedings of conference; 1982 May 3-6; Tampa. USA: Bellwether Press; 1985:248-278.

Harris, D. South Atlantic live bottom reefs. Coastal Society Bull. 4(4):11-12; 1981.

Lewis, R.R.; Durako, M.J. Moffler, M.D., Phillips, R.C. Seagrass meadows of Tampa Bay--A review. Treat, S.F.; Simon, J.L.; Lewis, R.R.III; Whitman, R.L.Jr., eds. Tampa Bay Area Scientific Information Symposium: Proceedings of Conference; 1982 May 3-6; Tampa. USA: Bellwether Press; 1985:210-246.

Lindall, Jr.; William N.; Saloman, C.H. Alteration and destruction of estuaries affecting fishery resources of the Gulf of Mexico. Mar. Fish. Rev. 39(9):1-7; 1981.

Long, R.W. Beacon Key: a biological assessment. Final report prepared for Tampa Electric Company. Unpub. 94p; 1975.

Lugo, A.E.; Snedaker, S.C. The ecology of mangroves. Annu. Rev. Ecol. Sys. 5:39-64; 1974.

McNulty, W.N.; Lindall, Jr.; Sykes, J.E. Cooperative Gulf of Mexico estuarine inventory and study, Florida: Phase I, Area Description. NOAA Tech. Rep. NMFS Cir-368:1-126; 1972.

Reynolds, J.E.; Geoffry, W.P. Marine mammals, reptiles, and amphibians of Tampa Bay and adjacent coastal waters of the Gulf of Mexico. Treat, S.F.; Simon, J.L.; Lewis, R.R.III; Whitman, R.L.Jr., eds. Tampa Bay Area Scientific Information Symposium: Proceedings of Conference; 1982 May 3-6; Tampa. USA: Bellwether Press; 1985 448-459.

Shoemyen, A.H.; (ed.) Florida Statistical Abstract. 19th edition. Gainesville: Univ. Presses of Florida. 1985.

Tampa Bay Regional Planning Council. The future of Tampa Bay. 1985. Available from: TBRPC, 9455 Koger Blvd, Suite 219, St. Petersburg, Fl. 33702.

Treat, S.F.; Simon, J.L.; Lewis, R.R.III; Whitman, R.L.Jr., eds. Tampa Bay Area Scientific Information Symposium: Proceedings of Conference; 1982 May 3-6; Tampa. USA: Bellwether Press; 1985.

Warren, L.O. A Dalton Complex from Florida. Flor. Anthrop. 18(1):29-32; 1965.

Warren, L.O. A possible Paleo-Indian site in Pinellas County. Flor. Anthrop. 19(1):39-41; 1966.

Zeiman, J.C. The ecology of the seagrasses of south Florida: A community profile. National Coastal Ecosystems Team. Office of Biological Services. Washington, D.C. FWS/OBS-82/25. 1-123; 1982.

Zeiman, J.C.; Wetzel, R.G. Productivity in seagrasses: methods and rates. In: Phillips, R.C.; McRoy, C.P., eds. Handbook of Seagrass Biology. New York: Garland STPM Press; 1980:_____.

CONTENTS OF APPENDICES

A. Florida Aquatic Preserve Act of 1975 (§ 258.35-258.46, F.S.)

B. Administrative Rules for Florida's Aquatic Preserve (§ 18-20, F.A.C.)

C. Administrative Rules for Florida Sovereignty Submerged Lands Management (§ 18-21. F.A.C.)

D. Legal Description of Terra Ceia Aquatic Preserve

use of such areas.
History.—s. 12, ch. 70-355; s. 1, ch. 70-439; s. 8, ch. 77-126; s. 1, ch. 82-46; s. 2, ch. 83-265.
[1]Note.—Repealed effective October 1, 1989, by s. 1, ch. 82-46, as amended by s. 2, ch. 83-265, and scheduled for review pursuant to s. 11.611 in advance of that date.

258.29 Atlas of areas.—The Department of Natural Resources shall maintain an atlas of wilderness areas, on maps of suitable scale.
History.—s. 13, ch. 70-355; s. 1, ch. 70-439; s. 9, ch. 77-126.

258.30 Rules and regulations.—The Department of Natural Resources shall adopt rules and regulations prescribing a uniform set of general management criteria covering all wilderness areas.

(1) No alteration of physical conditions within a wilderness area shall be permitted except to provide:

(a) Minimal use facilities, such as hiking trails, pit toilets, manually operated water pumps, and primitive camp sites; and

(b) Minimum management facilities, which may include boundary fences and unimproved vehicle trails for control purposes and emergency access.

(2) The following are specifically prohibited activities or uses:

(a) Dredging and dredge spoil dumping;
(b) Artificial drainage or impoundments;
(c) Farming;
(d) Clearing of land;
(e) Dumping of wastes;
(f) Mining;
(g) Pesticide spraying, except emergency measures required to protect public health and spraying for forestry disease control;
(h) The use of motorized vehicles on land or water, except for emergencies or valid management purposes; and
(i) Removal of timber, except to restore original plant communities.

(3) All human activity within each wilderness area shall be subject to special rules and regulations for implementing the intent and purpose of ss. 258.17-258.32 for the particular area involved.

(4) Other uses of a wilderness area, or human activity within the area, although not originally contemplated, may be permitted by the department, but only after a formal finding of compatibility made by the department, and subject to regulation.
History.—s. 14, ch. 70-355; s. 1, ch. 70-439; s. 10, ch. 77-126; s. 115, ch. 79-400.

258.31 Signs and markers.—Wilderness areas shall be identified by appropriate signs and boundary markers.
History.—s. 15, ch. 70-355.

258.32 Withdrawal of lands from system.—Except pursuant to s. 258.23(2)(b), no part of any wilderness area may be withdrawn from the state wilderness system except by resolution of the Department of Natural Resources and only after notice of such proposed withdrawal is published in each county in which the area affected is located, in the manner prescribed by law and after a public meeting is held, if requested.
History.—s. 16, ch. 70-355; s. 2, ch. 72-309; s. 11, ch. 77-126.

258.331 Penalty for violation of ss. 258.17-258.32.—Any violation by any person, natural or corporate, of the provisions of this act or any rule or regulation issued hereunder shall be punishable by a fine not to exceed $500 per violation.
History.—s. 12, ch. 77-126.

258.332 Construction of ch. 77-126, Laws of Florida.—Nothing in this act shall be construed so as to prevent the lawful management of water resources by any water management district created pursuant to chapter 373, or so as to divest any lawful rights acquired prior to the effective date of this act.
History.—s. 13, ch. 77-126.

PART III

AQUATIC PRESERVES

258.35 Short title; ss. 258.35-258.394 and 258.40-258.46.
258.36 Legislative intent.
258.37 *Definitions.*
258.38 Types of aquatic preserves.
258.39 Boundaries of preserves.
258.391 Cockroach Bay Aquatic Preserve.
258.392 Gasparilla Sound-Charlotte Harbor Aquatic Preserve.
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258.394 Guana River Marsh Aquatic Preserve.
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258.396 Boca Ciega Bay Aquatic Preserve.
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258.40 Scope of preserves.
258.41 Establishment of aquatic preserves.
258.42 Maintenance of preserves.
258.43 Rules and regulations.
258.44 Effect of preserves.
258.45 Provisions not superseded.
258.46 Enforcement; violations; penalty.

258.35 Short title; ss. 258.35-258.394 and 258.40-258.46.—Sections 258.35-258.394 and 258.40-258.46 shall be known and may be cited as the "Florida Aquatic Preserve Act of 1975."
History.—s. 1, ch. 75-172.

258.36 Legislative intent.—It is the intent of the Legislature that the state-owned submerged lands in areas which have exceptional biological, aesthetic, and scientific value, as hereinafter described, be set aside forever as aquatic preserves or sanctuaries for the benefit of future generations.
History.—s. 1, ch. 75-172.

258.37 Definitions.—As used in ss. 258.35 through 258.46:

(1) "Aquatic preserve" means an exceptional area of submerged lands and its associated waters set aside for being maintained essentially in its natural or existing condition.

(2) "Biological type" means an area set aside to promote certain forms of animal or plant life or their supporting habitat.

(3) "Aesthetic type" means an area set aside to maintain certain scenic qualities or amenities.

(4) "Scientific type" means an area set aside to maintain certain qualities or features which have scientific value or significance.

(5) "Board" means the Board of Trustees of the Internal Improvement Trust Fund.

History.—s. 1, ch. 75-172.

258.38 Types of aquatic preserves.—Each aquatic preserve shall be characterized as being one or more of the following principal types:

(1) Biological.

(2) Aesthetic.

(3) Scientific.

History.—s. 1, ch. 75-172.

258.39 Boundaries of preserves.—The submerged lands included within the boundaries of Nassau, Duval, St. Johns, Flagler, Volusia, Brevard, Indian River, St. Lucie, Charlotte, Pinellas, Martin, Palm Beach, Dade, Monroe, Collier, Lee, Citrus, Franklin, Gulf, Bay, Okaloosa, Santa Rosa, Hernando, and Escambia Counties, as hereinafter described, with the exception of privately held submerged lands lying landward of established bulkheads and of privately held submerged lands within Monroe County where the establishment of bulkhead lines is not required, are hereby declared to be aquatic preserves. Such aquatic preserve areas include:

(1) The Fort Clinch State Park Aquatic Preserve, as described in the Official Records of Nassau County in Book 108, pages 343-346, and in Book 111, page 409.

(2) Nassau River-St. Johns River Marshes Aquatic Preserve, as described in the Official Records of Duval County in Volume 3183, pages 547-552, and in the Official Records of Nassau County in Book 108, pages 232-237.

(3) Pellicer Creek Aquatic Preserve, as described in the Official Records of St. Johns County in Book 181, pages 363-366, and in the Official Records of Flagler County in Book 33, pages 131-134.

(4) Tomoka Marsh Aquatic Preserve, as described in the Official Records of Flagler County in Book 33, pages 135-138, and in the Official Records of Volusia County in Book 1244, pages 615-618.

(5) Mosquito Lagoon Aquatic Preserve, as described in the Official Records of Volusia County in Book 1244, pages 619-623, and in the Official Records of Brevard County in Book 1143, pages 190-194.

(6) Banana River Aquatic Preserve, as described in the Official Records of Brevard County in Book 1143, pages 195-198, and the sovereignty submerged lands lying within the following described boundaries: BEGIN at the intersection of the westerly ordinary high water line of Newfound Harbor with the North line of Section 12, Township 25 South, Range 36 East, Brevard County: Thence proceed northeasterly crossing Newfound Harbor to the intersection of the South line of Section 31, Township 24 South, Range 37 East, with the easterly ordinary high water line of said Newfound Harbor; thence proceed northerly along the easterly ordinary high water line of Newfound Harbor to its intersection with the easterly ordinary high water line of Sykes Creek; thence proceed northerly along the easterly ordinary high water line of said creek to its intersection with the southerly right-of-way of Hall Road; thence proceed westerly along said right-of-way to the westerly ordinary high water line of Sykes Creek; thence southerly along said ordinary high water line to its intersection with the ordinary high water line of Newfound Harbor; thence proceed southerly along the westerly ordinary high water line of Newfound Harbor to the POINT OF BEGINNING.

(7)(a) Indian River-Malabar to Vero Beach Aquatic Preserve, as described in the Official Records of Brevard County in Book 1143, pages 199-202, and in the Official Records of Indian River County in Book 368, pages 5-8 and the sovereignty submerged lands lying within the following described boundaries, excluding those lands contained within the corporate boundary of the City of Vero Beach as of the effective date of this act: Commence at the intersection of the north line of Section 31, Township 28 South, Range 38 East, and the westerly mean high water line of Indian River for a point of beginning; thence from the said point of beginning proceed northerly, westerly, and easterly along the mean high water line of Indian River and its navigable tributaries to an intersection with the north line of Section 24, Township 28 South, Range 37 East; thence proceed easterly, to a point on the easterly mean high water line of Indian River at its intersection with the north line of Section 20, Township 28 South, Range 38 East; thence proceed southerly, along the easterly mean high water line of Indian River to the most westerly tip of Blue Fish Point in said Section 20, thence proceed southwesterly to the intersection of the westerly mean high water line of Indian River with the north line of Section 31, Township 28 South, Range 38 East and the point of beginning: And also commence at the intersection of the northern Vero Beach city limits line in Section 25, Township 32 South, Range 39 East, and the westerly mean high water line of Indian River for the point of beginning: Thence from the said point of beginning proceed northerly, along the westerly mean high water line of Indian River and its navigable tributaries to an intersection with the south line of Section 14, Township 30 South, Range 38 East; thence proceed easterly, along the easterly projection of the south line of said Section 14, to an intersection with the easterly right-of-way line of the Intracoastal Waterway; thence proceed southerly, along the easterly right-of-way line of the Intracoastal Waterway, to an intersection with the northerly line of the Pelican Island National Wildlife Refuge; thence proceed easterly, along the northerly line of the Pelican Island National Wildlife Refuge, to an intersection with the easterly mean high water line of Indian River; thence proceed southerly along the easterly mean high water line of Indian River and its tributaries, to an intersection with the northern Vero Beach city limits line in Section 30, Township 32 South, Range 40 East; thence proceed westerly and southerly, along the northern Vero Beach city limits line to an intersection with the easterly mean high water line of Indian River and the point of beginning.

(b) For purposes of the Indian River-Malabar to Vero Beach Aquatic Preserve, a lease of sovereign submerged lands for a noncommercial dock may be deemed to be in the public interest when the noncommercial dock constitutes a reasonable exercise of ripari-

an rights and is consistent with the preservation of the exceptional biological, aesthetic, or scientific values which the aquatic preserve was created to protect.

(8) Indian River-Vero Beach to Fort Pierce Aquatic Preserve, as described in the Official Records of Indian River County in Book 368, pages 9-12, and in the Official Records of St. Lucie County in Book 187, pages 1083-1086.

(9) Jensen Beach to Jupiter Inlet Aquatic Preserve, as described in the Official Records of St. Lucie County in Book 218, pages 2865-2869.

(10) Loxahatchee River-Lake Worth Creek Aquatic Preserve, as described in the Official Records of Martin County in Book 320, pages 193-196, and in the Official Records of Palm Beach County in Volume 1860, pages 806-809, and the sovereignty submerged lands lying within the following described boundaries: Begin at the intersection of the easterly mean high water line of the North Fork of the Loxahatchee River with the northerly mean high water line of the Loxahatchee River, being in Section 36, Township 40 South, Range 43 East, Palm Beach County: Thence proceed easterly along the northerly mean high water line of the Loxahatchee River to the westerly right-of-way of U.S. Highway 1; thence proceed southerly along said right-of-way to the southerly mean high water line of said river; thence proceed easterly along the southerly mean high water line of said river to its intersection with the easterly mean high water line of the Lake Worth Creek; thence proceed northwesterly crossing the Loxahatchee River to the point of beginning: And also: Commence at the southwest corner of Section 16, Township 40 South, Range 42 East Martin County; thence proceed north along the west line of Section 16 to the mean high water line of the Loxahatchee River being the point of beginning: Thence proceed southerly along the easterly mean high water line of said river and its tributaries to a point of nonnavigability; thence proceed westerly to the westerly mean high water line of said river; thence proceed northerly along the westerly mean high water line of said river and its tributaries to its intersection with the westerly line of Section 16, Township 40 South, Range 42 East; thence proceed southerly along the said westerly section line to the point of beginning: And also begin where the southerly mean high water line of the Southwest Fork of the Loxahatchee River intersects the westerly line of Section 35, Township 40 South, Range 42 East: Thence proceed southwesterly along the southerly mean high water line of the Southwest Fork to the northeasterly face of structure #46; thence proceed northwesterly along the face of said structure to the northerly mean high water line of the Southwest Fork; thence proceed northeasterly along said mean high water line to its intersection with the westerly line of Section 35, Township 40 South, Range 42 East; thence proceed southerly along westerly line of said section to the point of beginning.

(11) Biscayne Bay-Cape Florida to Monroe County Line Aquatic Preserve, as described in the Official Records of Dade County in Book 7055, pages 852-856, less, however, those lands and waters as described in s. 258.165.

(12) North Fork, St. Lucie Aquatic Preserve, as described in the Official Records of Martin County in Book 337, pages 2159-2162, and in the Official Records of St. Lucie County in Book 201, pages 1676-1679.

(13) Yellow River Marsh Aquatic Preserve, as described in the Official Records of Santa Rosa County in Book 206, pages 568-571.

(14) Fort Pickens State Park Aquatic Preserve, as described in the Official Records of Santa Rosa County in Book 220, pages 60-63, and in the Official Records of Escambia County in Book 518, pages 659-662.

(15) Rocky Bayou State Park Aquatic Preserve, as described in the Official Records of Okaloosa County in Book 593, pages 742-745.

(16) St. Andrews State Park Aquatic Preserve, as described in the Official Records of Bay County in Book 379, pages 547-550.

(17) St. Joseph Bay Aquatic Preserve, as described in the Official Records of Gulf County in Book 46, pages 73-76.

(18) Apalachicola Bay Aquatic Preserve, as described in the Official Records of Gulf County in Book 46, pages 77-81, and in the Official Records of Franklin County in Volume 98, pages 102-106.

(19) Alligator Harbor Aquatic Preserve, as described in the Official Records of Franklin County in Volume 98, pages 82-85.

(20) St. Martins Marsh Aquatic Preserve, as described in the Official Records of Citrus County in Book 276, pages 238-241.

(21) Matlacha Pass Aquatic Preserve, as described in the Official Records of Lee County in Book 800, pages 725-728.

(22) Pine Island Sound Aquatic Preserve, as described in the Official Records of Lee County in Book 648, pages 732-736.

(23) Cape Romano-Ten Thousand Islands Aquatic Preserve, as described in the Official Records of Collier County in Book 381, pages 298-301.

(24) Lignumvitae Key Aquatic Preserve, as described in the Official Records of Monroe County in Book 502, pages 139-142.

(25) Coupon Bight Aquatic Preserve, as described in the Official Records of Monroe County in Book 502, pages 143-146.

(26) Lake Jackson Aquatic Preserve, as established by chapter 73-534, Laws of Florida, and defined as authorized by s. 253.151 or as otherwise authorized by law.

(27) Pinellas County Aquatic Preserve, as established by chapter 72-663, Laws of Florida; Boca Ciega Aquatic Preserve, as established by s. 258.16; and the Biscayne Bay Aquatic Preserve, as established by s. 258.165. If any provision of this act is in conflict with an aquatic preserve established by s. 258.396, chapter 72-663, Laws of Florida, or s. 258.397, the stronger provision for the maintenance of the aquatic preserve shall prevail.

(28) Estero Bay Aquatic Preserve, the boundaries of which are generally: All of those sovereignty submerged lands located bayward of the mean high-water line being in Sections 13, 14, 15, 16, 17, 18, 21, 22, 23, 24, 25, 26, 27, 35, and 36, Township 46 South, Range 24 East; and in Sections 19, 20, 28, 29, and 34, Township 46 South, Range 24 East, lying north and east of Matanzas Pass

Channel; and in Sections 19, 30, and 31, Township 46 South, Range 25 East; and in Sections 6, 7, 17, 18, 19, 20, 29, 30, 31, and 32, Township 47 South, Range 25 East; and in Sections 1, 2, 3, 11, 12, 13, 14, 24, and 25, Township 47 South, Range 24 East, in Lee County, Florida. Any and all submerged lands conveyed by the Trustees of the Internal Improvement Trust Fund prior to October 12, 1966, and any and all uplands now in private ownership are specifically exempted from this preserve.

(29) Cape Haze Aquatic Preserve, the boundaries of which are generally: That part of Gasparilla Sound, Catfish Creek, Whiddon Creek, "The Cutoff," Turtle Bay, and Charlotte Harbor lying within the following described limits: Northerly limits: Commence at the northwest corner of Section 18, Township 42 South, Range 21 East, thence south along the west line of said Section 18 to its intersection with the Government Meander Line of 1843-1844, and the point of beginning, thence southeasterly along said meander line to the northwesterly shoreline of Catfish Creek, thence northeasterly along said shoreline to the north line of said Section 18, thence east along said north line to the easterly shoreline of Catfish Creek, thence southeasterly along said shoreline to the east line of said Section 18, thence south along said east line, crossing an arm of said Catfish Creek to the southerly shoreline of said creek, thence westerly along said southerly shoreline and southerly along the easterly shoreline of Catfish Creek to said Government Meander Line, thence easterly and southeasterly along said meander line to the northerly shoreline of Gasparilla Sound in Section 21, Township 42 South, Range 21 East, thence easterly along said northerly shoreline and northeasterly along the westerly shoreline of Whiddon Creek to the east west quarter line in Section 16, Township 42 South, Range 21 East, thence east along said quarter line and the quarter Section line of Section 15, Township 42 South, Range 21 East to the easterly shoreline of Whiddon Creek, thence southerly along said shoreline to the northerly shoreline of "The Cutoff," thence easterly along said shoreline to the westerly shoreline of Turtle Bay, thence northeasterly along said shoreline to its intersection with said Government Meander Line in Section 23, Township 42 South, Range 21 East, thence northeasterly along said meander line to the east line of Section 12, Township 42 South, Range 21 East, thence north along the east line of said Section 12, and the east line of Section 1, Township 42 South, Range 21 East to the northwest corner of Section 6, Township 42 South, Range 22 East, thence east along the north line and extension thereof of said Section 6 to a point 2,640 feet east of the westerly shoreline of Charlotte Harbor and the end of the northerly limits. Easterly limits: Commence at the northwest corner of Section 6, Township 42 South, Range 22 East, thence east along the north line of said Section 6 and extension thereof to a point 2,640 feet east of the westerly shoreline of Charlotte Harbor and the point of beginning, thence southerly along a line 2,640 feet easterly of and parallel with the westerly shoreline of Charlotte Harbor and along a southerly extension of said line to the line dividing Charlotte and Lee Counties and the end of the easterly limits. Southerly limits: Begin at the point of ending of the easterly limits, above described, said point being in the line dividing Charlotte and Lee Counties, thence southwesterly along a straight line to the most southerly point of Devil Fish Key, thence continue along said line to the easterly right-of-way of the Intracoastal Waterway and the end of the southerly limits. Westerly limits: Begin at the point of ending of the southerly limits as described above, thence northerly along the easterly right-of-way line of the Intracoastal Waterway to its intersection with a southerly extension of the west line of Section 18, Township 42 South, Range 21 East, thence north along said line to point of beginning.

(30) Wekiva River Aquatic Preserve, the boundaries of which are generally: All the state-owned sovereignty lands lying waterward of the ordinary high-water mark of the Wekiva River and the Little Wekiva River and their tributaries lying and being in Lake, Seminole, and Orange counties and more particularly described as follows:

(a) In Sections 15, 16, 17, 20, 21, 22, 27, 28, 29, and 30, Township 20 South, Range 29 East. These sections are also depicted on the Forest City Quadrangle (U.S.G.S. 7.5 minute series-topographic) 1959 (70PR); and

(b) In Sections 3, 4, 8, 9, and 10, Township 20 South, Range 29 East and in Sections 21, 28, and 33, Township 19 South, Range 29 East lying north of the right-of-way for the Atlantic Coast Line Railroad and that part of Section 33, Township 19 South, Range 29 East lying between the Lake and Orange County lines and the right-of-way of the Atlantic Coast Line Railroad. These sections are also depicted on the Sanford SW Quadrangle (U.S.G.S. 7.5 minute series-topographic) 1965 (70-1); and

(c) All state-owned sovereignty lands, public lands, and lands whether public or private below the ordinary high-water mark of the Wekiva River and the Little Wekiva and their tributaries within the Peter Miranda Grant in Lake County lying below the 10 foot m.s.l. contour line nearest the meander line of the Wekiva River and all state-owned sovereignty lands, public lands, and lands whether public or private below the ordinary high-water mark of the Wekiva River and the Little Wekiva and their tributaries within the Moses E. Levy Grant in Lake County below the 10 foot m.s.l. contour line nearest the meander lines of the Wekiva River and Black Water Creek as depicted on the PINE LAKES 1962 (70-1), ORANGE CITY 1964 (70PR), SANFORD 1965 (70-1), and SANFORD S.W. 1965 (70-1) QUADRANGLES (U.S.G.S. 7.5 minute topographic); and

(d) All state-owned sovereignty lands, public lands, and lands whether public or private below the ordinary high-water mark of the Wekiva River and the Little Wekiva River and their tributaries lying below the 10 foot m.s.l. contour line nearest the meander line of the Wekiva and St. John's Rivers as shown on the ORANGE CITY 1964 (70PR), SANFORD 1965 (70-1), and SANFORD S.W. 1965 (70-1) QUADRANGLES (U.S.G.S. 7.5 minute topographic) within the following described property: Beginning at a point on the south boundary of the Moses E. Levy Grant, Township 19 South, Range 29 East, at its intersection with the meander line of the Wekiva River; thence south 60½ degrees east along said boundary line 4,915.68 feet; thence north 29½ de-

grees east 15,516.5 feet to the meander line of the St. John's River; thence northerly along the meander line of the St. John's River to the mouth of the Wekiva River; thence southerly along the meander line of the Wekiva River to the beginning; and

(e) All state-owned sovereignty lands, public lands, and lands whether public or private below the ordinary high-water mark of the Wekiva River and the Little Wekiva River and their tributaries within the Peter Miranda Grant lying east of the Wekiva River, less the following:

1. State Road 46 and all land lying south of said State Road No. 46.

2. Beginning 15.56 chains West of the Southeast corner of the SW 1/4 of the NE 1/4 of Section 21, Township 19 South, Range 29 East, run east 600 feet; thence north 960 feet; thence west 340 feet to the Wekiva River; thence southwesterly along said Wekiva River to point of beginning.

3. That part of the east 1/4 of the SW 1/4 of Section 22, Township 19 South, Range 29 East, lying within the Peter Miranda Grant east of the Wekiva River.

(f) All the sovereignty submerged lands lying within the following described boundaries: Begin at the intersection of State Road 44 and the westerly ordinary high water line of the St. Johns River, Section 22, Township 17 South, Range 29 East, Lake County. Thence proceed southerly along the westerly ordinary high water line of said river and its tributaries to the intersection of the northerly right-of-way of State Road 400; thence proceed northeasterly along said right-of-way to the easterly ordinary high water line of the St. Johns River; thence proceed northerly along said ordinary high water line of the St. Johns River and its tributaries to its intersection with the easterly ordinary high water line of Lake Beresford; thence proceed northerly along the ordinary high water line of said lake to its intersection with the westerly line of Section 24, Township 17 South, Range 29 East; thence proceed northerly to the southerly right-of-way of West New York Avenue; thence proceed westerly along the southerly right-of-way of said avenue to its intersection with the southerly right-of-way line of State Road 44; thence proceed southwesterly along said right-of-way to the point of beginning.

(31) Rookery Bay Aquatic Preserve, the boundaries of which are generally: All of the state-owned sovereignty lands lying waterward of the mean high-water line in Rookery Bay and in Henderson Creek and the tributaries thereto in Collier County, Florida. Said lands are more particularly described as lying and being in Sections 27, 34, 35, and 36, Township 50 South, Range 25 East; in Section 31, Township 50 South, Range 26 East; in Sections 1, 2, 3, 10, 11, 12, 13, 14, 23, 24, and 25, Township 51 South, Range 25 East; and in Sections 5, 6, 7, 8, 9, 10, 15, 16, 17, 18, 19, 20, 30, and 31, Township 51 South, Range 26 East, Collier County, Florida, and all the sovereignty submerged lands lying within the following described boundaries: Begin at the southwest corner of Section 30, Township 52 South, Range 27 East, Collier County: Thence proceed easterly along the southerly line of said Section 30 to the southwest corner of Section 29, Township 52 South, Range 27 East; proceed thence northerly along the westerly lines of Sections 29, 20 and 17 to the northwest corner of said Section 17; thence proceed westerly along the northerly line of Section 18 to the southeast corner of Section 12, Township 52 South, Range 26 East; thence proceed northerly along the easterly lines of Sections 12, 1, 36 and 25 to the northeast corner of said Section 25, Township 51 South, Range 26 East; thence proceed westerly along the northerly lines of Sections 25 and 26 to the northwest corner of said Section 26; thence proceed northerly to northeast corner of said Section 22; thence proceed westerly along the northerly lines of Sections 22 and 21 to the northwest corner of said Section 21; thence proceed southerly to the southwest corner of said Section 21; thence proceed westerly along the northerly line of Section 29 to the northwest corner thereof; thence proceed southerly along the westerly lines of Sections 29 and 32 to the southwest corner of said Section 32; thence proceed westerly to the northwest corner of Section 6, Township 52 South, Range 26 East; thence proceed southerly along a projection of Range line 25 East to its intersection with a line which runs westerly from the southwest corner of Cape Romano - Ten Thousand Islands Aquatic Preserve; thence proceed easterly to the southwest corner of Cape Romano - Ten Thousand Islands Aquatic Preserve; thence proceed northerly to the point of beginning. Less and except: Begin at the southeast corner of Section 21, Township 52 South, Range 25 East; thence proceed northerly along the easterly lines of Sections 21 and 16 to the northeast corner of said Section 16, thence proceed northerly to the thread of John Stevens Creek; thence proceed northwesterly along the thread of said creek to its intersection with the thread of Marco River; thence proceed northwesterly and westerly along the thread of said river to its intersection with the thread of Big Marco Pass; thence proceed southwesterly along the thread of Big Marco Pass to its intersection with Range line 25 East; thence proceed southerly along Range line 25 East to a point which is west from the point of beginning: Thence proceed easterly to the point of beginning.

Any and all submerged lands theretofore conveyed by the Trustees of the Internal Improvement Trust Fund and any and all uplands now in private ownership are specifically exempted from this dedication.

History.—s. 1, ch. 75-172; s. 1, ch. 76-109; s. 1, ch. 76-211; s. 84, ch. 77-104; s. 1, ch. 83-62; s. 2, ch. 84-312; s. 1, ch. 85-345.

[1]**Note.**—See former s. 253.151, F.S. '81.

258.391 Cockroach Bay Aquatic Preserve.—The designation by the Board of Trustees of the Internal Improvement Trust Fund on May 18, 1976, of the following described area in Hillsborough County for inclusion in the aquatic preserve system under the Florida Aquatic Preserve Act of 1975 is hereby confirmed. Such area, to be known as the Cockroach Bay Aquatic Preserve, shall be included in the aquatic preserve system for the period of a 40-year lease of such area by the board from the Tampa Port Authority and shall include the following described real property: Begin at the northeast corner of Section 1, Township 33 South, Range 17 East, Manatee County, thence west along the north line of said Section 1 to its intersection with the mean high-water line of Tampa Bay, said point being the point of beginning;

from said point of beginning continue west 500 feet into the waters of Tampa Bay, thence northeasterly along a line 500 feet westerly of the mean high-water line of Tampa Bay, said line also being 500 feet westerly of the mean high-water line on Beacon Key, Snake Key, Camp Key, Big Pass Key, Little Cockroach Island, and Sand Key, to a point due west from Bird Key, thence east to the most southwesterly point of Bird Key, thence easterly along a channel along the northerly side of Tropical Island and of Goat Island to the most easterly point of said Goat Island, thence south to the intersection of the mean high-water line of the southerly shore of the Little Manatee River, thence in a northwesterly, westerly, and southwesterly direction along the mean high-water line of Tampa Bay and Cockroach Bay to the point of beginning. Less any islands, submerged lands, or uplands not owned by the Tampa Port Authority.

History.—s. 1, ch. 76-197.

258.392 Gasparilla Sound-Charlotte Harbor Aquatic Preserve.—The following described area in Lee and Charlotte Counties is designated by the Legislature for inclusion in the aquatic preserve system under the Florida Aquatic Preserve Act of 1975. Such area, to be known as the Gasparilla Sound-Charlotte Harbor Aquatic Preserve, shall be included in the aquatic preserve system and shall include the following described real property: Commence at the northwest corner of Section 18, Township 42 South, Range 21 East; thence northerly along the line of mean high water to the intersection of State Road 776 with said mean high-water line; thence south-southwesterly along said road to the intersection of said road with the mean high-water line of Gasparilla Island; thence southerly along said mean high-water line to the most southerly point of Gasparilla Island; thence southeasterly to the northernmost point at the mean high-water line on Lacosta Island; thence southeasterly along said mean high-water line to the northwest corner of Section 6, Township 44 South, Range 21 East; thence east to a northerly extension of the east line of Section 25, Township 44 South, Range 21 East; thence southeasterly along the mean high-water line of Pine Island to the intersection of the east line of Section 28, Township 43 South, Range 22 East, with said mean high-water line; thence northeasterly to the intersection of the north line of Section 23, Township 43 South, Range 22 East with the mean high-water line; thence northerly along said mean high-water line to the intersection of State Road 45 (U.S. Highway 41) with said mean high-water line; thence northwesterly along said road to the intersection of said road with the mean high-water line at Live Oak Point; thence westerly along the mean high-water line to the intersection of State Road 771 with said mean high-water line; thence south-southwesterly along said road to the intersection of said road with the mean high-water line, on the southern shore of the Myakka River; thence southerly along the mean high-water line of the westerly shore of Charlotte Harbor to the northwest corner of Section 6, Township 42 South, Range 22 East; thence east along the north line and extension thereof of said Section 6 to a point 2,640 feet east of the westerly shoreline of Charlotte Harbor; thence southerly along a line 2,640 feet easterly of and parallel with the westerly shoreline of Charlotte Harbor and along a southerly extension of said line to the line dividing Charlotte and Lee Counties; thence southwesterly along a straight line to the most southerly point of Devil Fish Key; thence along said line to the easterly right-of-way of the Intracoastal Waterway; thence northerly along the easterly right-of-way of the Intracoastal Waterway to its intersection with a southerly extension of the west line of Section 18, Township 42 South, Range 21 East; thence north along said line to the point of beginning. Said boundary extends across the mouths of all artificial waterways, but includes all tidally connected natural waterways.

History.—s. 1, ch. 79-115.

258.393 Terra Ceia Aquatic Preserve wastewater or effluent discharge activities.—

(1) The following described area in Manatee County is hereby designated by the Legislature for inclusion in the aquatic preserve system under the Florida Aquatic Preserve Act of 1975. Such area, to be known as the Terra Ceia Aquatic Preserve, shall be included in the aquatic preserve system and shall include the following described real property: Begin at a point 165 feet north of the southwest corner of the northwest quarter of Section 12, Township 33 South, Range 17 East, Manatee County, thence run west to the mean high-water line of Tampa Bay, said point being the point of beginning. From said point of beginning, run northwesterly into the waters of Tampa Bay and parallel to the Port Manatee ship channel to the Manatee-Hillsborough county line; thence run southwest along the Manatee-Hillsborough county line to its intersection with the Intracoastal Waterway; thence run south-southwesterly along the Intracoastal Waterway to a point on a line connecting the westernmost tip of Snead Island (Manatee County) to the southernmost tip of Mullet Key (Pinellas County); thence run southeasterly along said line to the westernmost tip of Snead Island (also known as Emerson Point); thence run in a northeasterly direction along the mean high-water line of Tampa Bay, Terra Ceia Bay, where the mean high water line intersects the north line of U.S. Government Lot 4, Section 16, Township 34 South, Range 17 East; thence east along the said north line of U.S. Government Lot 4 and the easterly extension thereof a distance of 1,111 feet more or less to the mean high water line at a seawall; thence meander in a northwesterly, westerly, northerly direction along the seawall of a canal; thence in a northeasterly direction along the mean high water line of Miguel Bay, Joe Bay, and Bishop Harbor to the point of beginning, including tidal waters of all tributaries; less all privately titled submerged lands and uplands.

(2) Wastewater or effluent discharge activities from an existing stationary facility or existing stationary installation which has been approved pursuant to state law or federal law or for which facility or installation an application has been filed before June 24, 1984, are exempt from the requirements of this chapter.

History.—s. 1, ch. 84-312; s. 4, ch. 85-345.

258.394 Guana River Marsh Aquatic Preserve.—The following described area in St. Johns County is hereby designated by the Legislature for inclusion in the aquatic preserve system under the Florida Aquatic Pre-

serve Act of 1975. Such area, to be known as the Guana River Marsh Aquatic Preserve, shall be included in the aquatic preserve system and shall include all the sovereignty submerged lands and other state-owned lands lying within the following described boundaries: Begin at the intersection of the westerly projection of the south line of Section 18, Township 6 South, Range 30 East, with the westerly mean high water line of Tolomato River: Thence proceed easterly along the south line of Section 18 to the mean high water line of the Atlantic Ocean; thence proceed east three geographic miles into said ocean; thence proceed northerly running parallel with said mean high water line to a point east of the intersection of the southerly right-of-way of Micklers Road and the westerly right-of-way of U.S. A1A; thence proceed west to said intersection; thence proceed southwesterly along the southerly right-of-way of Micklers Road to its intersection with the westerly mean high water line of the Tolomato River; thence proceed southerly along the westerly mean high water line of said river and its tributaries to the point of beginning.

History.—s. 2, ch. 85-345.

258.395 Big Bend Seagrasses Aquatic Preserve.—The following described area in Wakulla, Jefferson, Taylor, Dixie, and Levy Counties is hereby designated by the Legislature for inclusion in the aquatic preserve system under the Florida Aquatic Preserve Act of 1975. Such area, to be known as the Big Bend Seagrasses Aquatic Preserve, shall be included in the aquatic preserve system and shall include all the sovereignty submerged lands lying within the following described boundaries: Begin where the northerly mean high water line of Withlacoochee River meets the mean high water line of the Gulf of Mexico, Township 17 South, Range 15 East, Levy County: Thence from the said point of beginning proceed northwesterly along the mean high water line of the coast and its navigable tributaries to the intersection of the westerly mean high water line of St. Marks River with the mean high water line of the Gulf of Mexico, in Township 4 South, Range 1 East, Wakulla County; thence proceed south three marine leagues into the Gulf of Mexico; thence proceed southeasterly along a line three marine leagues from and parallel to the line of mean high water previously described to an intersection with a line projected west from the point of beginning; thence proceed east to the point of beginning. Less and except all those sovereignty submerged lands within 500 feet of any incorporated or unincorporated municipality within the above described lands. Less and except: Begin at the intersection of the southerly projection of the east line of Range line 4 East with the mean high water line of the Gulf of Mexico; thence proceed southwest to a point on the three marine league line; thence proceed southeasterly three marine leagues from and parallel to the mean high water line to a point which is southwest of the intersection of the southerly line of Section 22, Township 6 South, Range 6 East, Taylor County, with the mean high water line of the Gulf of Mexico; thence proceed Northeast to the foresaid point of intersection; thence proceed northwesterly along the mean high water line of the Gulf of Mexico and its tributaries to the point of beginning. Less and except all those local access channels adjacent to Keaton Beach and a proposed navigational channel more particularly described as follows: Begin at State Plane Coordinate: X=2,288,032; Y=298,365: Thence proceed West 11,608 feet; thence proceed south 1,440 feet; thence proceed east 11,608 feet; thence proceed north 1,440 feet to the point of beginning; less and except all those sovereign submerged lands lying northerly and easterly of U.S. Highway 19.

History.—s. 3, ch. 85-345.

258.396 Boca Ciega Bay Aquatic Preserve.—

(1) Boca Ciega Bay, in Pinellas County, as hereinafter described, is designated and established as an aquatic preserve under the provisions of this section. It is the intent of the Legislature that Boca Ciega Bay be preserved, insofar as possible, in an essentially natural condition so that its biological and aesthetic values may endure for the enjoyment of future generations.

(2)(a) For the purposes of this section, Boca Ciega Bay, sometimes referred to in this section as "the preserve," shall be comprised of that body of water in Pinellas County which lies south of the State Road 688 bridge at, or near, Indian Rocks Beach and within the area enclosed by a line as follows: Beginning at a point where the east end of said bridge crosses the western shoreline of mainland Pinellas County and extending in a generally southerly direction along the western shoreline of mainland Pinellas County to the west end of the Seminole Bridge following the bridge easterly to exclude Long Bayou and Cross Bayou, thence in a southerly direction including the western shoreline of the Sunshine Skyway Causeway and extending to the southern boundary of Pinellas County, thence westerly along the Pinellas County line and around Mullet Key along a line 100 yards seaward of the shoreline of Mullet Key and northerly along a line passing 100 yards to the west of the shorelines of Summer Resort Key, Cabbage Key and Shell Key to the southernmost point of Long Key, thence in a generally northerly direction along the inner shoreline of Long Key, Treasure Island and Sand Key to a point where the west end of the State Road 688 bridge crosses the inner shoreline of Sand Key, thence easterly along the south side of said bridge to the point of beginning. The boundary of the preserve designated as the shoreline shall mean the line of mean high water along such shoreline.

(b) The preserve established by this section shall include the submerged bottom lands, the water column upon such lands, and the islands owned by the state within the boundaries of the preserve. Any privately held land or submerged land within the established bulkhead lines or privately held islands within the preserve shall be deemed to be excluded therefrom. The Board of Trustees of the Internal Improvement Trust Fund may negotiate an arrangement with any such private owner whereby such lands or water bottoms may be included within the preserve.

(3) The Board of Trustees of the Internal Improvement Trust Fund are hereby directed to maintain Boca Ciega Bay as an aquatic preserve subject to the following provisions:

(a) No further sale, transfer, or lease of sovereignty submerged lands within the preserve shall be approved or consummated by the board of trustees except upon a showing of extreme hardship on the part of the applicant or when the overwhelming public interest so demands.

(b) No further dredging or filling of submerged lands within the preserve shall be approved or tolerated by the board of trustees except:

1. Such minimum dredging and spoiling as may be authorized for public navigation projects;

2. Such other alteration of physical conditions as may be necessary to enhance the quality or utility of the preserve as determined by the Pinellas County Water and Navigation Control Authority in a public hearing; and

3. Such dredging as is necessary for the purpose of eliminating conditions hazardous to the public health or for the purpose of eliminating stagnant waters, unsightly mud flats, islands, and spoil banks the dredging of which would enhance the aesthetic quality and utility of the preserve and is clearly in the public interest as determined by the Pinellas County Water and Navigation Control Authority in a public hearing.

There shall be no dredging beyond the bulkhead line for the sole purpose of providing fill for upland or submerged land within the bulkhead line. In addition there shall be no drilling of wells, excavation for shell or minerals, and no erection of structures (other than docks) within the preserve, unless such activity is associated with activity authorized by this section.

[1](c) The board of trustees shall not approve any seaward relocation of bulkhead lines or further establishment of bulkhead lines except when a proposed bulkhead line is located at the line of mean high water along the shoreline.

(4)(a) The board of trustees shall adopt and enforce reasonable rules and regulations to carry out the provisions of this section and specifically to provide:

1. Additional preserve management criteria as may be necessary to accommodate special circumstances; and

2. Regulation of human activity within the preserve in such a manner as not to interfere unreasonably with such lawful and traditional public uses of the preserve as fishing (both sport and commercial), boating, and swimming.

(b) Other uses of the preserve, or human activity within the preserve, although not originally contemplated, may be permitted by the board of trustees, but only subsequent to a formal finding of compatibility with the purposes of this section.

(5) Neither the establishment nor the management of the Boca Ciega Bay Aquatic Preserve shall operate to infringe upon the riparian rights of upland property owners adjacent to or within the preserve. Reasonable improvement for ingress and egress, mosquito control, shore protection, bridges, causeways, and similar purposes may be permitted by the board of trustees, subject to the provisions of any other applicable laws under the jurisdiction of other agencies.

(6) Nothing herein shall be construed to deprive the Pinellas County Water and Navigation Control Authority of its jurisdiction, powers, and duties.

History.—ss. 1, 2, 3, 4, 5, 6, ch. 69-342; ss. 27, 35, ch. 69-106.

[1]Note.—See s. 26, ch. 75-22, which repealed s. 253.122, relating to the power to fix bulkhead lines, and s. 7(3), ch. 75-22 (s. 253.1221), which reestablished all previously established bulkhead lines at the line of mean high water or ordinary high water.

Note.—Former s. 258.16.

258.397 Biscayne Bay Aquatic Preserve.—

(1) DESIGNATION.—Biscayne Bay in Dade and Monroe Counties, as hereinafter described to include Card Sound, is designated and established as an aquatic preserve under the provisions of this section. It is the intent of the Legislature that Biscayne Bay be preserved in an essentially natural condition so that its biological and aesthetic values may endure for the enjoyment of future generations.

(2) BOUNDARIES.—

(a) For the purposes of this section, Biscayne Bay, sometimes referred to in this section as "the preserve," shall be comprised of the body of water in Dade and Monroe Counties known as Biscayne Bay whose boundaries are generally defined as follows:

Begin at the southwest intersection of the right-of-way of State Road 826 and the mean high-water line of Biscayne Bay (Township 52 South, Range 42 East, Dade County); thence southerly along the westerly mean high-water line of Biscayne Bay to its intersection with the right-of-way of State Road 905A (Township 59 South, Range 40 East, Monroe County); thence easterly along such right-of-way to the easterly mean high-water line of Biscayne Bay; thence northerly along the easterly mean high-water line of Biscayne Bay following the westerly shores of the most easterly islands and Keys with connecting lines drawn between the closest points of adjacent islands to the southeasterly intersection of the right-of-way of State Road 826 and the mean high-water line of Biscayne Bay; thence westerly to the point of beginning. Said boundary extends across the mouths of all artificial waterways, but includes all natural waterways tidally connected to Biscayne Bay. Excluded from the preserve are those submerged lands conveyed to the United States for the establishment of the Biscayne National Monument as defined by Pub. L. No. 90-606 of the United States.

(b) The preserve established by this section shall include the submerged bottom lands and the water column upon such lands, as well as all publicly owned islands, within the boundaries of the preserve. Any privately held upland within the boundaries of the preserve shall be deemed to be excluded therefrom. However, the Board of Trustees of the Internal Improvement Trust Fund may negotiate an arrangement with any such private upland owner by which such land may be included in the preserve.

(c) The board of trustees may transfer to the United States any interest in lands, title to which is vested in the board of trustees, which are presently within the boundaries of the preserve for inclusion in the Biscayne National Monument or its successor should the area be designated a national park. Transfers of interest under this paragraph shall be subject to the following conditions:

1. All interests in oil, gas, or other mineral rights held by the board of trustees shall be retained and not transferred to the United States.

Biscayne Bay A.P.

2. All rights to fish on the waters shall be retained and not transferred to the United States.

3. All rights to impose and collect state excise taxes on the sales of alcohol or tobacco shall be retained and not transferred to the United States.

4. Transfers of interest shall be subject to outstanding easements, reservations, or other interests appearing of record.

(3) AUTHORITY OF TRUSTEES.—The Board of Trustees of the Internal Improvement Trust Fund is authorized and directed to maintain the aquatic preserve hereby created pursuant and subject to the following provisions:

(a) No further sale, transfer, or lease of sovereignty submerged lands in the preserve shall be approved or consummated by the board of trustees, except upon a showing of extreme hardship on the part of the applicant and a determination by the board of trustees that such sale, transfer, or lease is in the public interest.

(b) No further dredging or filling of submerged lands of the preserve shall be approved or tolerated by the board of trustees except:

1. Such minimum dredging and spoiling as may be authorized for public navigation projects or for such minimum dredging and spoiling as may be constituted as a public necessity or for preservation of the bay according to the expressed intent of this section.

2. Such other alteration of physical conditions as may be necessary to enhance the quality or utility of the preserve.

3. Such minimum dredging and filling as may be authorized for the creation and maintenance of marinas, piers, and docks and their attendant navigation channels and access roads. Such projects may only be authorized upon a specific finding by the board of trustees that there is assurance that the project will be constructed and operated in a manner that will not adversely affect the water quality of the preserve. This subparagraph shall not approve the connection of upland canals to the waters of the preserve.

4. Such dredging as is necessary for the purpose of eliminating conditions hazardous to the public health or for the purpose of eliminating stagnant waters, unsightly mud flats, islands, and spoil banks, the dredging of which would enhance the aesthetic quality and utility of the preserve and be clearly in the public interest as determined by the board of trustees.

Any dredging or filling under this subsection or improvements under subsection (5) shall be approved only after public notice and hearings in the area affected, pursuant to chapter 120.

(c) There shall be no drilling of wells, excavation for shell or minerals, or erection of structures other than docks within the preserve unless such activity is associated with activity authorized by this section.

[1](d) The board of trustees shall not approve any seaward relocation of bulkhead lines or further establishment of bulkhead lines except when a proposed bulkhead line is located at the line of mean high water along the shoreline. Construction, replacement, or relocation of seawalls shall be prohibited without the approval of the board of trustees, which approval may be granted only if riprap construction is used in the seawall.

(e) Notwithstanding other provisions of this section, the board of trustees may, respecting lands lying within Biscayne Bay:

1. Enter into agreements for and establish lines delineating sovereignty and privately owned lands.

2. Enter into agreements for the exchange of, and exchange, sovereignty lands for privately owned lands.

3. Accept gifts of land within or contiguous to the preserve.

4. Negotiate for, and enter into agreements with owners of lands contiguous to sovereignty lands for, any public and private use of any of such lands.

5. Take any and all actions convenient for, or necessary to, the accomplishment of any and all of the acts and matters authorized by this paragraph.

(4) RULES.—

(a) The board of trustees shall adopt and enforce reasonable rules and regulations to carry out the provisions of this section and specifically to provide:

1. Additional preserve management criteria as may be necessary to accommodate special circumstances.

2. Regulation of human activity within the preserve in such a manner as not to interfere unreasonably with lawful and traditional public uses of the preserve, such as fishing (both sport and commercial), boating, and swimming.

(b) Other uses of the preserve, or human activity within the preserve, although not originally contemplated, may be permitted by the board of trustees, but only subsequent to a formal finding of compatibility with the purposes of this section.

(c) Fishing involving the use of seines or nets is prohibited in the preserve, except when the fishing is for shrimp or mullet and such fishing is otherwise permitted by state law or rules promulgated by the Department of Natural Resources.

(5) RIPARIAN RIGHTS.—Neither the establishment nor the management of the Biscayne Bay Aquatic Preserve shall operate to infringe upon the riparian rights of upland property owners adjacent to or within the preserve. Reasonable improvement for ingress and egress, mosquito control, shore protection, public utility expansion, and similar purposes may be permitted by the board of trustees or Department of Environmental Regulation, subject to the provisions of any other applicable laws under the jurisdiction of other agencies.

(6) DISCHARGE OF WASTES PROHIBITED.—No wastes or effluents which substantially inhibit the accomplishment of the purposes of this section shall be discharged into the preserve.

(7) ENFORCEMENT.—The provisions of this section may be enforced in accordance with the provisions of s. 403.412. In addition, the Department of Legal Affairs is authorized to bring an action for civil penalties of $5,000 per day against any person, natural or corporate, who violates the provisions of this section or any rule or regulation issued hereunder.

(8) SECTIONS 403.501-403.515 APPLICABLE.—The provisions of this section shall be subject to the provisions of ss. 403.501-403.515.

History.—ss. 1, 2, 3, 4, 5, 6, 7, 8, ch. 74-171; s. 2, ch. 76-109; s. 1, ch. 77-174; s.

1, ch. 78-628; s. 12, ch. 79-65; s. 1, ch. 80-204.
[1]Note.—Section 26, ch. 75-22, repealed s. 253.122, relating to the power to fix bulkhead lines.
Note.—Former s. 258.165.

258.40 Scope of preserves.—

(1) The aquatic preserves established under this act shall include only lands or water bottoms owned by the state as set forth in s. 253.03 and such lands or water bottoms owned by other governmental agencies as may be specifically authorized for inclusion by appropriate instrument in writing from such agency. Any privately owned lands or water bottoms shall be deemed to be excluded therefrom; however, the board may negotiate an arrangement with any such private owner by which such land may be included in the preserves.

(2) Any publicly owned and maintained navigation channel or other public works project authorized by the United States Congress designed to improve or maintain commerce and navigation shall be deemed excluded from the aquatic preserves established under this act.

(3) All lands lost by avulsion or by artificially induced erosion shall be deemed excluded from the provisions of this act.

History.—s. 1, ch. 75-172.

258.41 Establishment of aquatic preserves.—

(1) The board may establish additional areas to be included in the aquatic preserve system, subject to confirmation by the Legislature.

(2) The board may, after public notice and public hearing in the county or counties in which the proposed preserve is to be located, adopt a resolution formally setting aside such areas to be included in the aquatic preserve system.

(3) The resolution setting aside an aquatic preserve area shall include:

(a) A legal description of the area to be included.

(b) The designation of the type of aquatic preserve being set aside.

(c) A general statement of what is sought to be preserved.

(d) A clear statement of the management responsibilities for the area.

(4) Lands and water bottoms owned by other governmental agencies may be included in an aquatic preserve upon specific authorization for inclusion by an appropriate instrument in writing from the governmental agency.

(5) Lands and water bottoms in private ownership may be included in an aquatic preserve upon specific authorization for inclusion by an appropriate instrument in writing from the owner. The appropriate instrument shall be either a dedication in perpetuity or a lease. Such lease shall contain the following conditions:

(a) Term of the lease shall be for a minimum period of 10 years.

(b) The board shall have the power and duty to enforce the provisions of each lease agreement and shall additionally have the power to terminate any lease if the termination is in the best interest of the aquatic preserve system.

(c) The board shall pay no more than $1 per year for any such lease.

(6) Except as provided in subsection (5) no aquatic preserve or any part thereof shall be withdrawn from the state aquatic preserve system except by an act of the Legislature. Notice of such proposed legislation shall be published in each county in which the affected area is located, in the manner prescribed by law relating to local legislation.

(7) Within 30 days of the designation and establishment of an aquatic preserve, the Board of Trustees of the Internal Improvement Trust Fund shall record in the public records of the county or counties in which the aquatic preserve is located a legal description of the aquatic preserve.

History.—s. 1, ch. 75-172.

258.42 Maintenance of preserves.—The Board of Trustees of the Internal Improvement Trust Fund shall maintain such aquatic preserves subject to the following provisions:

(1) No further sale, lease, or transfer of sovereignty submerged lands shall be approved or consummated by the trustees except when such sale, lease, or transfer is in the public interest.

[1](2) The trustees shall not approve the waterward relocation or setting of bulkhead lines waterward of the line of mean high water within the preserve except when public road and bridge construction projects have no reasonable alternative and it is shown to be not contrary to the public interest.

(3)(a) No further dredging or filling of submerged lands shall be approved by the trustees except the following activities may be authorized pursuant to a permit:

1. Such minimum dredging and spoiling as may be authorized for public navigation projects.

2. Such minimum dredging and spoiling as may be authorized for the creation and maintenance of marinas, piers, and docks and their attendant navigation channels.

3. Such other alteration of physical conditions as may, in the opinion of the trustees, be necessary to enhance the quality or utility of the preserve or the public health generally.

4. Such other maintenance dredging as may be required for existing navigation channels.

5. Such restoration of land as authorized by s. 253.124(8).

6. Such reasonable improvements as may be necessary for public utility installation or expansion.

7. Installation and maintenance of oil and gas transportation facilities, provided such facilities are properly marked with marine aids to navigation as prescribed by federal law.

(b) There shall, in no case, be any dredging seaward of a bulkhead line for the sole or primary purpose of providing fill for any area landward of a bulkhead line.

(c) There shall be no drilling of gas or oil wells. However, this will not prohibit the state from leasing the oil and gas rights and permitting drilling from outside the preserve to explore for oil and gas if approved by the board.

(d) There shall be no excavation of minerals, except the dredging of dead oyster shells as approved by the Department of Natural Resources.

(e) There shall be no erection of structures within the preserve, except:

1. Private docks for reasonable ingress or egress of riparian owners;

2. Commercial docking facilities shown to be consistent with the use or management criteria of the preserve; and

3. Structures for shore protection, approved navigational aids, or public utility crossings authorized under subsection (3)(a).

(f) No wastes or effluents shall be discharged into the preserve which substantially inhibit the accomplishment of the purposes of this act.

(g) No nonpermitted wastes or effluents shall be directly discharged into the preserve which substantially inhibit the accomplishment of the purposes of this act.

History.—ss. 1, 2, 4, ch. 75-172; s. 1, ch. 77-174.

[1]Note.—See s. 26, ch. 75-22, which repealed s. 253.122, relating to the power to fix bulkhead lines, and s. 7(3), ch. 75-22 (s. 253.1221), which reestablished all previously established bulkhead lines at the line of mean high water or ordinary high water.

258.43 Rules and regulations.—

(1) The Board of Trustees of the Internal Improvement Trust Fund shall adopt and enforce reasonable rules and regulations to carry out the provisions of this act and specifically to provide regulation of human activity within the preserve in such a manner as not to unreasonably interfere with lawful and traditional public uses of the preserve, such as sport and commercial fishing, boating, and swimming.

(2) Other uses of the preserve, or human activity within the preserve, although not originally contemplated, may be permitted by the trustees, but only subsequent to a formal finding of compatibility with the purposes of this act.

History.—s. 1, ch. 75-172.

258.44 Effect of preserves.—Neither the establishment nor the management of the aquatic preserves under the provisions of this act shall operate to infringe upon the traditional riparian rights of upland property owners adjacent to or within the preserves. Reasonable improvement for ingress and egress, mosquito control, shore protection, public utility expansion, surface water drainage, installation and maintenance of oil and gas transportation facilities, and similar purposes may be permitted by the trustees subject to the provisions of any other applicable laws under the jurisdiction of other agencies.

History.—s. 1, ch. 75-172.

258.45 Provisions not superseded.—The provisions of this act shall not supersede, but shall be subject to, the provisions of ss. 403.501 through 403.515.

History.—ss. 3, 6, ch. 75-172.

258.46 Enforcement; violations; penalty.—The provisions of this act may be enforced by the Board of Trustees of the Internal Improvement Trust Fund or in accordance with the provisions of s. 403.412. However, any violation by any person, natural or corporate, of the provisions of this act or any rule or regulation issued hereunder shall be further punishable by a civil penalty of not less than $500 per day or more than $5,000 per day of such violation.

History.—s. 5, ch. 75-172.

PART IV

WILD AND SCENIC RIVERS

258.501 Myakka River; wild and scenic segment.

[1]258.501 Myakka River; wild and scenic segment.—

(1) SHORT TITLE.—This act may be cited as the "Myakka River Wild and Scenic Designation and Preservation Act."

(2) LEGISLATIVE DECLARATION.—The Legislature finds and declares that a certain segment of the Myakka River in Manatee, Sarasota, and Charlotte Counties possesses outstandingly remarkable ecological, fish and wildlife, and recreational values which are unique in the State of Florida. These values give significance to the river as one which should be permanently preserved and enhanced for the citizens of the State of Florida, both present and future. The permanent management and administration of the river involves a complex interaction of state, regional, and local interests which require balancing and coordination of purpose. It is the intention of the Legislature to provide for the permanent preservation of the designated segment of the Myakka River by way of development of a plan for permanent administration by agencies of state and local government which will ensure the protection necessary but retain that degree of flexibility, responsiveness, and expertise which will accommodate all of the diverse interests involved in a manner best calculated to be in the public interest.

(3) DEFINITIONS.—As used in this act:

(a) "Activity" means the doing of any act or the failing to do any act, whether by a natural person or a corporation.

(b) "Coordinating council" means the council created by subsection (6).

(c) "Department" means the Department of Natural Resources.

(d) "Division" means the Division of Recreation and Parks of the Department of Natural Resources.

(e) "Executive board" means the Governor and Cabinet sitting as the head of the Department of Natural Resources.

(f) "Resource value" means any one or more of the specific economic, scenic, recreational, geologic, fish and wildlife, historic, cultural, or ecological features associated with the river area as determined by the coordinating council.

(g) "River area" means that corridor of land beneath and surrounding the Myakka River from river mile 7.5 to river mile 41.5, together with a corridor extending from the center of the river to the maximum upland extent of wetlands vegetation.

(4) DESIGNATION OF WILD AND SCENIC RIVER.—The corridor of land surrounding and beneath the Myakka River between river mile 7.5 and river mile 41.5 is hereby designated as a Florida wild and scenic river for the purposes of this act and is subject to all of the provi-

RULES
OF THE
DEPARTMENT OF NATURAL
RESOURCES

DIVISION OF STATE LANDS

18-20
CHAPTER ~~16Q-20~~
FLORIDA AQUATIC PRESERVES

18-20.001 ~~16Q-20.01~~ Intent.
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18-20.016 ~~16Q-20.16~~ Coordination with Other Governmental Agencies.
18-20.017 LAKE JACKSON AQUATIC PRESERVE

18-20.001 ~~16Q-20.01~~ Intent.

(1) All sovereignty lands within a preserve shall be managed primarily for the maintenance of essentially natural conditions, the propagation of fish and wildlife, and public recreation, including hunting and fishing where deemed appropriate by the board, and the managing agency.

(2) The aquatic preserves which are described in 73-534, Laws of Florida, Sections 258.39, 258.391, 258.392 and 258.393, Florida Statutes, future aquatic preserves established pursuant to general or special acts of the legislature, and in Rule 18-~~16~~-20.00A Florida Administrative Code, were established for the purpose of being preserved in an essentially natural or existing condition so that their aesthetic, biological and scientific values may endure for the enjoyment of future generations.

Specific Authority 120.53, 258.43(1) FS. Law Implemented 258.35, 258.36, 258.37, 258.39, 258.393 FS. Chapter 80-280 Laws of Florida. History—New 2-23-81. Amended 8-7-85.

(3) The preserves shall be administered and managed in accordance with the following goals:

(a) To preserve, protect, and enhance these exceptional areas of sovereignty submerged lands by reasonable regulation of human activity within the preserves through the development and implementation of a comprehensive management program;

(b) To protect and enhance the waters of the preserves so that the public may continue to enjoy the traditional recreational uses of those waters such as swimming, boating, and fishing;

(c) To coordinate with federal, state, and local agencies to aid in carrying out the intent of the Legislature in creating the preserves;

(d) To use applicable federal, state, and local management programs, which are compatible with the intent and provisions of the act and these rules, and to assist in managing the preserves;

(e) To encourage the protection, enhancement or restoration of the biological, aesthetic, or scientific values of the preserves, including but not limited to the modification of existing manmade conditions toward their natural condition, and discourage activities which would degrade the aesthetic, biological, or scientific values, or the quality, or utility of a preserve, when reviewing applications, or when developing and implementing management plans for the preserves;

(f) To preserve, promote, and utilize indigenous life forms and habitats, including but not limited to: sponges, soft coral, hard corals, submerged grasses, mangroves, salt water marshes, fresh water marshes, mud flats, estuarine, aquatic, and marine reptiles, game and non-game fish species, estuarine, aquatic and marine invertebrates, estuarine, aquatic and marine mammals, birds, shellfish and molluscs;

(g) To acquire additional title interests in lands wherever such acquisitions would serve to protect or enhance the biological, aesthetic, or scientific values of the preserves;

(h) To maintain those beneficial hydrologic and biologic functions, the benefits of which accrue to the public at large.

(4) Nothing in these rules shall serve to eliminate or alter the requirements or authority of other governmental agencies, including counties and municipalities, to protect or enhance the preserves provided that such requirements or authority are not inconsistent with the act and this chapter.

Specific Authority 120.53, 258.43(1) Law Implemented 258.35, 258.36, 258.37, 258.38, Ch. 80-280, Laws of Florida. History—New 2-23-81.

18-20.08 Boundaries and Scope of the Preserves.

(1) These rules shall only apply to those sovereignty lands within a preserve, title to which is vested in the board, and those other lands for which the board has an appropriate instrument in writing, executed by the owner, authorizing the inclusion of specific lands in an aquatic preserve pursuant to Section 2(2) of Chapter 73-534, Laws of Florida, Sections 258.40(1) and 258.41(5), Florida Statutes, future aquatic preserves established through general or special acts of the legislature, and pursuant to Rule 18-20.008, Florida Administrative Code. Any publicly owned and maintained navigation channel authorized by the United States Congress, or other public works project authorized by the United States Congress, designed to improve or maintain commerce and navigation shall be deemed to be excluded from the provisions of this chapter, pursuant to Subsection 258.40(2), Florida Statutes. Furthermore, all lands lost by avulsion or by artificially induced erosion shall be deemed excluded from the provisions of this chapter pursuant to Subsection 258.40(3), Florida Statutes.

(2) These rules do not apply to Boca Ciega Bay, Pinellas County or Biscayne Bay Aquatic Preserves.

(3) These rules are promulgated to clarify the responsibilities of the board in carrying out its land management functions as those functions apply within the preserves. Implementation and responsibility for environmental permitting of activities and water quality protection within the preserves are vested in the Department of Environmental Regulation. Since these rules are considered cumulative with other rules, a person planning an activity within the preserves should also consult the other applicable department rules (Chapter 16-21, Florida Administrative Code, for example) as well as the rules of the Department of Environmental Regulation.

(4) These rules shall not affect previous actions of the board concerning the issuance of any easement or lease; or any disclaimer concerning sovereignty lands.

(5) The intent and specific provisions expressed in 18-20.004(e) and (f) apply generally to all existing or future aquatic preserves within the scope of this chapter. Upon completion of a resource inventory and approval of a management plan for a preserve, pursuant to 18-20.004(3), the type designation and the resource sought to be preserved may be readdressed by the Board.

(6) For the purpose of clarification and interpretation, the legal description set forth as follows do not include any land which is expressly recognized as privately owned upland in a pre-existing recorded mean high water line settlement agreement between the board and a private owner or owners. Provided, however, in those instances wherein a settlement agreement was executed subsequent to the passage of the Florida Coastal Mapping Act, the determination of the mean high water line shall be in accordance with the provisions of such act.

(7) Persons interested in obtaining details of particular preserves should contact the Bureau of State Lands Management, Department of Natural Resources, 3900 Commonwealth Blvd., Tallahassee, FL 32303 (telephone 904-488-2297).

(a) The preserves are described as follows:

1. Fort Clinch State Park Aquatic Preserve, as described in the Official Records of Nassau County in Book 108, pages 345-346, and in Book 111, page 409.

2. Nassau River — St. Johns River Marshes Aquatic Preserve, as described in the Official Records of Duval County in Volume 3183, pages 547-552, and in the Official Records of Nassau County in Book 108, pages 232-237.

3. Pellicer Creek Aquatic Preserve, as described in the Official Records of St. Johns County in Book 181, pages 363-366, and in the Official Records of Flagler County in Book 33, pages 131-134.

4. Tomoka Marsh Aquatic Preserve, as described in the Official Records of Flagler County in Book 33, pages 135-138, and in the Official Records of Volusia County in Book 1244, pages 615-618.

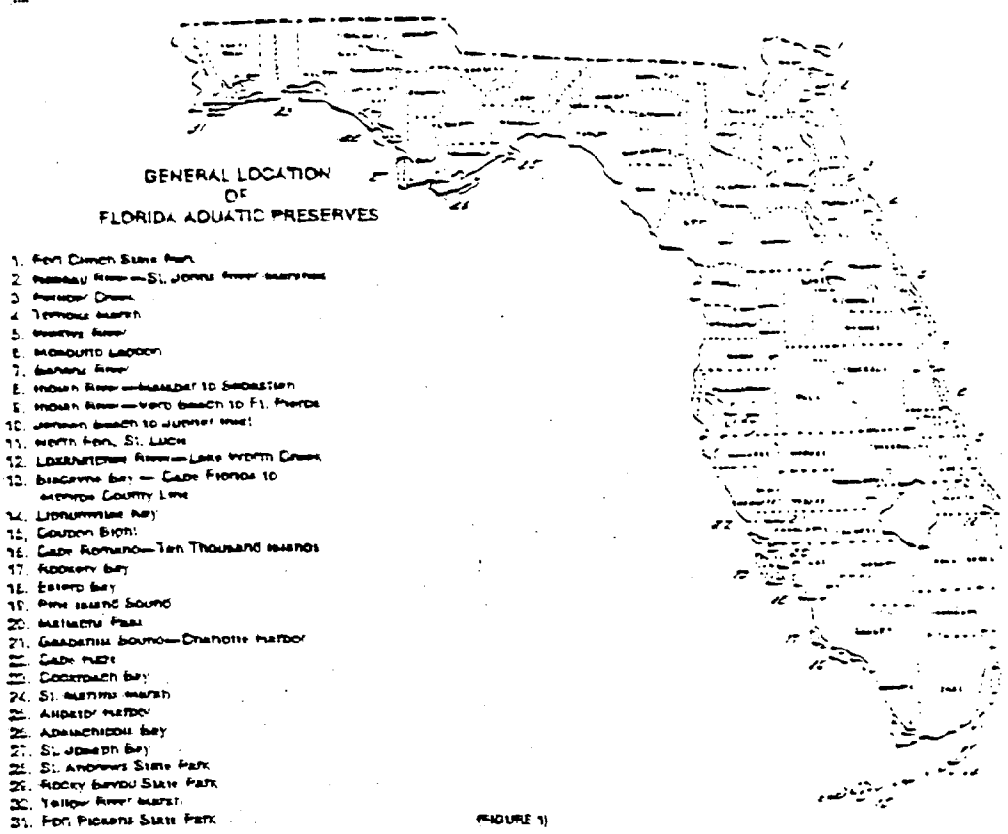

FIGURE 1)

5. Wekiva River Aquatic Preserve, as described in Section 258.39(30), F.S.

6. Mosquito Lagoon Aquatic Preserve, as described in the Official Records of Volusia County in Book 1244, pages 619-623, and in the Official Records of Brevard County in Book 1143, pages 190-194.

7. Banana River Aquatic Preserve, as described in the Official Records of Brevard County in Book 1143, pages 195-198, less those lands dedicated to the U. S. A. prior to the enactment of the act, until such time as the U. S. A. no longer wishes to maintain such lands for the purpose for which they were dedicated, at which time such lands would revert to the board, and be managed as part of the preserve.

8. Indian River — Malabar to Sebastain Aquatic Preserve, as described in the Official Records of Brevard County in Book 1143, pages 199-202, and in the Official Records of Indian River County in Book 368, pages 5-8.

9. Indian River — Vero Beach to Fort Pierce Aquatic Preserve, as described in the Official Records of Indian River County in Book 368, pages 9-12, and in the Official Records of St. Lucie County in Book 167, pages 1083-1086.

10. Jensen Beach to Jupiter Inlet Aquatic Preserve, as described in the Official Records of St. Lucie County in Book 218, pages 2865-2869.

11. North Fork, St. Lucie Aquatic

Preserve, as described in the Official Records of Martin County in Book 337, pages 2159-2162, and in the Official Records of St. Lucie County in Book 201, pages 1676-1679.

12. Loxahatchee River — Lake Worth Creek Aquatic Preserve, as described in the Official Records of Martin County in Book 320, pages 193-196, and in the Official Records of Palm Beach County in Volume 1860, pages 806-809.

13. Biscayne Bay — Cape Florida to Monroe County Line Aquatic Preserve, as described in the Official Records of Dade County in Book 7055, pages 852-856, less, however, those lands and waters as described in Section 258.165, F. S., (Biscayne Bay Aquatic Preserve Act of 1974), and those lands and waters within the Biscayne National Park.

14. Lignumvitae Key Aquatic Preserve, as described in the Official Records of Monroe County in Book 502, pages 139-142.

15. Coupon Bight Aquatic Preserve, as described in the Official Records of Monroe County in Book 502, pages 143-146.

16. Cape Romano — Ten Thousand Islands Aquatic Preserve, as described in the Official Records of Collier County in Book 381, pages 298-301.

17. Rookery Bay Aquatic Preserve, as described in Section 258.39(31), FS.

18. Estero Bay Aquatic Preserve as described in Section 258.39(28), Florida Statutes.

19. Pine Island Sound Aquatic Preserve, as described in the Official Records of Lee County in Book 648, pages 732-736.

20. Matlacha Pass Aquatic Preserve, as described in the Official Records of Lee County in Book 800, pages 725-728.

21. Gasparilla Sound — Charlotte Harbor Aquatic Preserve, as described in Section 258.392, F.S.

22. Cape Haze Aquatic Preserve, as described in Section 258.39(29), F.S.

23. Cockroach Bay Aquatic Preserve, as described in Section 258.391, F.S.

24. St. Martins Marsh Aquatic Preserve, as described in the Official Records of Citrus County in Book 276, pages 238-241.

25. Alligator Harbor Aquatic Preserve, as described in the Official Records of Franklin County in Volume 98, pages 82-85.

26. Apalachicola Bay Aquatic Preserve, as described in the Official Records of Gulf County in Book 46, pages 77-81, and in the Official Records of Franklin County in Volume 98, pages 102-106.

27. St. Joseph Bay Aquatic Preserve, as described in the Official Records of Gulf County in Book 46, pages 75-76.

28. St. Andrews State Park Aquatic Preserve, as described in the Official Records of Bay County in Book 379, pages 547-550.

29. Rocky Bayou State Park Aquatic Preserve, as described in the Official Records of Okaloosa County in Book 593, pages 742-745.

30. Yellow River Marsh Aquatic Preserve, as described in the Official Records of Santa Rosa County in Book 206, pages 568-571.

31. Fort Pickens State Park Aquatic Preserve, as described in the Official Records of Santa Rosa County in Book 220, pages 60-63, in the Official Records of Escambia County in Book 518, pages 659-662, less the lands dedicated to the U. S. A. for the establishment of the Gulf Islands National Seashore prior to the enactment of the act, until such time as the U. S. A. no longer wishes to maintain such lands for the purpose for which they were dedicated, at which time such lands would revert to the board and be managed as part of the preserve.

Specific Authority 120.53, 258.43(1) FS. Law Implemented 258.39, 258.40, 258.41, 258.42, 258.43, 258.44, 258.45 FS. History—New 2-23-81.

32. For the purpose of this section the boundaries of the Lake Jackson Aquatic Preserve, shall be the body of water in Leon County known as Lake Jackson in Sections 1, 2, 3, 5, 10, 11 and 14, Township 1 North, Range 1 West and Sections 11, 12, 13, 14, 15, 21, 22, 23, 26, 27, 28, 29, 32, 33, 34, and 35, Township 2 North, Range 1 West lying below the ordinary high water line. Such lands shall include the submerged bottom lands and the water column upon such lands, as well as all publicly owned islands, within the boundaries of the preserve. Any privately held upland within the boundaries of the preserve shall be deemed to be excluded therefrom; provided that the Board may negotiate an arrangement with any such private upland owner by which such land may be included in the preserve.

33. Terra Ceia Aquatic Preserve, as described in Section 258.393, Florida Statutes.

34. Future aquatic preserves established pursuant to general or special acts of the legislature.

Specific Authority 120.53, 258.43(1) FS. Law Implemented 258.39, 258.391, 258.392, 258.393, 258.40, 258.41, 258.42, 258.43, 258.44, 258.45 FS. History—New 2-23-81, Amended 6-7-85.

~~160-20.02~~ Definitions. When used in these rules, the following words shall have the indicated meaning unless the context clearly indicates otherwise:

(1) "Act" means the provisions of Section 258.35 through 258.46, F.S., the Florida Aquatic Preserve Act.

(2) "Activity" means any project and such other human action within the preserve requiring board approval for the use, sale, lease or transfer of interest in sovereignty lands or materials, or which may require a license from the Department of Environmental Regulation.

(3) "Aesthetic values" means scenic characteristics or amenities of the preserve in its essentially natural state or condition, and the maintenance thereof.

(4) "Applicant" means any person making application for a permit, license, conveyance of an interest in state owned lands or any other necessary form of governmental approval in order to perform an activity within the preserve.

(5) "Beneficial biological functions" means interactions between flora, fauna and physical or chemical attributes of the environment, which provide benefits that accrue to the public at large, including, but not limited to: nutrient, pesticide and heavy metal uptake; sediment retention; nutrient conversion to biomass; nutrient recycling and oxygenation.

(6) "Beneficial hydrological functions" means interactions between flora, fauna and physical geological or geographical attributes of the environment, which provide benefits that accrue to the public at large, including, but not limited to: retardation of storm water flow; storm water retention; and water storage, and periodical release;

(7) "Biological values" means the preservation and promotion of indigenous life forms and habitats including, but not limited to: sponges, soft corals, hard corals, submerged grasses, mangroves, saltwater marshes, fresh water marshes, mud flats, marine, estuarine, and aquatic reptiles, games and non-games fish species, marine, estuarine, and aquatic mammals, marine, estuarine, and aquatic invertebrates, birds and shellfish.

(8) "Board" means the Governor and Cabinet sitting as the Board of Trustees of the Internal Improvement Trust Fund.

(9) "Channel" means a trench, the bottom of which is normally covered entirely by water, with the upper edges of its sides normally below water.

(10) "Commercial, industrial and other revenue generating/income related docks" means docking facilities for an activity which produces income, through rental or any other means, or which serves as an accessory facility to other rental, commercial or industrial operations. It shall include, but not be limited to docking for: marinas, restaurants, hotels, motels, commercial fishing, shipping, boat or ship construction, repair, and sales.

(11) "Department" means the State of Florida Department of Natural Resources, as administrator for the board.

(12) "Division" means the Division of State Lands, which performs all staff duties and functions related to the administration of lands title to which is, or will be, vested in the board, pursuant to section 253.002, F.S.

(13) "Dock" means a fixed or floating structure, including moorings, used for the purpose of berthing buoyant vessels either temporarily or indefinitely.

(14) "Essentially natural condition" means those functions which support the continued existence or encourage the restoration of the diverse population of indigenous life forms and habitats to the extent they existed prior to the significant development adjacent to and within the preserve.

(15) "Extreme hardship" means a significant burden, unique to the applicant and not shared by property owners in the area. Self-imposed circumstances caused to any degree by actions of any person subsequent to the enactment of the Act shall not be construed as an extreme hardship. Extreme hardship under this act shall not be construed to include any hardship which arises in whole or in part from the effect of other federal, state or local laws, ordinances, rules or regulations. The term may be inherent in public projects which are shown to be a public necessity.

(16) "Fill" means materials from any source, deposited by any means onto sovereignty lands, either for the purpose of creating new uplands or for any other purpose, including spoiling of dredged materials. For the purpose of this rule, the placement of pilings or riprap shall not be considered to be filling.

(17) ~~(16)~~ "Lease" means a conveyance of interest in lands, title to which is vested in the board, granted in accordance with specific terms set forth in writing.

(18) ~~(17)~~ "Marina" means a small craft harbor complex used primarily for recreation.

(19) ~~(18)~~ "Oil and gas transportation facilities" means those structures necessary for the movement of oil and gas from the production site to the consumer.

(20) ~~(19)~~ "Person" means individuals, minors, partnerships, corporations, joint ventures, estates, trusts, syndicates, fiduciaries, firms, and all other associations and combinations, whether public or private, including governmental entities.

(21) ~~(20)~~ "Pier" means a structure in, on, or over sovereignty lands, which is used by the public primarily for fishing, swimming, or viewing the preserve. A pier shall not include a dock.

(22)(27) "Preserve" means any and all of those areas which are exceptional areas of sovereignty lands and the associated water body so designated in Section 258.39, 258.391, and 258.392, F.S., including all sovereignty lands, title to which is vested in the board, and such other lands as the board may acquire or approve for inclusion, and the water column over such lands, which have been set aside to be maintained in an essentially natural or existing condition of indigenous flora and fauna and their supporting habitat and the natural scenic qualities and amenities thereof.

(23) "Private residential single dock" means a dock which is used for private, recreational or leisure purposes for a single family residence, cottage or other such single dwelling unit and which is designed to moor no more than two boats.

(24) "Private residential multi-slip dock" means a docking facility which is used for private recreational or leisure purposes for multi-unit residential dwellings which shall include but is not limited to condominiums, townhouses, subdivisions and other such dwellings or residential areas and which is designed to moor three or more boats. Yacht clubs associated with residential developments, whose memberships or utilization of the docking facility requires some real property interest in the residential area, shall also be included.

(25)(25) "Public interest" means demonstrable environmental, social, and economic benefits which would accrue to the public at large as a result of a proposed action, and which would clearly exceed all demonstrable environmental, social, and economic costs of the proposed action. In determining the public interest in a request for use, sale, lease, or transfer of interest in sovereignty lands or severance of materials from sovereignty lands, the board shall consider the ultimate project and purpose to be served by said use, sale, lease, or transfer of lands or materials.

(26)(24) "Public navigation project" means a project primarily for the purpose of navigation which is authorized and funded by the United States Congress or by port authorities as defined by Section 315.02(2), F.S.

(27)(25) "Public necessity" means the works or improvements required for the protection of the health and safety of the public, consistent with the Act and these rules, for which no other reasonable alternative exists.

(28)(26) "Public utilities" means those services, provided by persons regulated by the Public Service Commission, or which are provided by rural cooperatives, municipalities, or other governmental agencies, including electricity, telephone, public water and wastewater services, and structures necessary for the provision of these services.

(29)(27) "Quality of the preserve" means the degree of the biological, aesthetic and scientific values of the preserve necessary for present and future enjoyment of it in an essentially natural condition.

(30)(28) "Resource management agreement" means a contractual agreement between the board and one or more parties which does not create an interest in real property but merely authorizes conduct of certain management activities on lands held by the board.

(31) "Resource Protection Area (RPA) 1" — Areas within the aquatic preserves which have resources of the highest quality and condition for that area. These resources may include, but are not limited to corals; marine grassbeds; mangrove swamps; salt-water marsh; oyster bars; archaeological and historical sites; endangered or threatened species habitat; and, colonial water bird nesting sites.

(32) "Resource Protection Area 2" — Areas within the aquatic preserves which are in transition with either declining resource protection area 1 resources or new pioneering resources within resource protection area 3.

(33) "Resource Protection Area 3" — Areas within the aquatic preserve that are characterized by the absence of any significant natural resource attributes.

(34)(29) "Riparian rights" means those rights incident to lands bordering upon navigable waters, as recognized by the courts of this state and common law.

(35)(30) "Sale" means a conveyance of interest in lands, by the board, for consideration.

(36)(31) "Scientific values" means the preservation and promotion of certain qualities or features which have scientific significance.

(37)(32) "Shore protection structure" means a type of coastal construction designed to minimize the rate of erosion. Coastal construction includes any work or activity which is likely to have a material physical effect on existing coastal conditions or natural shore processes.

(38)(33) "Sovereignty lands" means those lands including, but not limited to: tidal lands, islands, sandbars, shallow banks, and lands waterward of the ordinary or mean highwater line, to which the State of Florida acquired title on March 3, 1845, by virtue of statehood, and of which it has not since divested its title interest. For the purposes of this rule sovereignty lands shall include all submerged lands within the boundaries of the preserve, title to which is held by the board.

(39)(34) "Spoil" means materials dredged from sovereignty lands which are redeposited or discarded by any means, onto either sovereignty lands or uplands.

(40)(35) "Transfer" means the act of the board by which any interest in lands, including easements, other than sale or lease, is conveyed.

(41)(36) "Utility of the preserve" means fitness of the preserve for the present and future enjoyment of its biological, aesthetic and scientific values, in an essentially natural condition.

Specific Authority 258.43(1) FS. Law Implemented 258.37, 258.43(1) FS. History—New 2-25-81.

(42) "Water dependent activity" means an activity which can only be conducted on, in, over, or adjacent to, water areas because the activity requires direct access to the water body or sovereignty lands for transportation, recreation, energy production or transmission, or source of water and where the use of the water or sovereignty lands is an integral part of the activity.

Specific Authority 258.43(1) FS. Law Implemented 258.37, 258.43(1) FS. History—New 2-25-81. Amended 6-7-85. FORMERLY 16Q-20.

~~16Q-20.001~~ (5-25-84) ~~Management~~ Policies, Standards And Criteria. The following management policies, standards and criteria are supplemental to Chapter 19 ~~16Q~~-21, Florida Administrative Code (Sovereignty Submerged Lands Management) and shall be utilized in determining whether to approve, approve with conditions or modifications or deny all requests for activities on sovereignty lands in aquatic preserves.

(1) GENERAL PROPRIETARY

(a) In determining whether to approve or deny any request the Board will evaluate each on a case-by-case basis and weigh any factors relevant under Chapter 253 and/or 258, Florida Statutes. The Board, acting as Trustees for all state-owned lands, reserves the right to approve, modify or reject any proposal.

(b) There shall be no further sale, lease or transfer of sovereignty lands except when such sale, lease or transfer is in the public interest (see Section ~~16Q-20.004~~ Public Interest Assessment Criteria).

~~16Q-20.004(2)~~

(c) There shall be no construction of seawalls waterward of the mean or ordinary high water line, or filling waterward of the mean or ordinary high water line except in the case of public road and bridge projects where no reasonable alternative exists.

(d) There shall, in no case, be any dredging waterward of the mean or ordinary high water line for the sole or primary purpose of providing fill for any area landward of the mean or ordinary high water line.

(e) A lease, easement or consent of use may be authorized only for the following activities:

1. a public navigation project;

2. maintenance of an existing navigational channel;

3. installation or maintenance of approved navigational aids;

4. creation or maintenance of a commercial/industrial dock, pier or a marina;

5. creation or maintenance of private docks for reasonable ingress and egress of riparian owners;

6. minimum dredging for navigation channels attendant to docking facilities;

7. creation or maintenance of a shore protection structure;

8. installation or maintenance of oil and gas transportation facilities;

9. creation, maintenance, replacement or expansion of facilities required for the provision of public utilities; and,

10. other activities which are a public necessity or which are necessary to enhance the quality or utility of the preserve and which are consistent with the act and this chapter.

(f) For activities listed in paragraphs 18 ~~16Q~~-20~~.003~~(1)(e)1.—10. above, the activity shall be designed so that the structure or structures to be built in, on or over sovereignty lands are limited to structures necessary to conduct water dependent activities.

(g) For activities listed in paragraphs 18 ~~16Q~~-20~~.003~~(1)(e) 7., 8., 9. and 10. above, it must be demonstrated that no other reasonable alternative exists which would allow the proposed activity to be constructed or undertaken outside the preserve.

(h) The use of state-owned lands for the purpose of providing private or public road access to islands where such access did not previously exist shall be prohibited. The use of state-owned lands for the purpose of providing private or public water supply to islands where such water supply did not previously exist shall be prohibited.

(i) Except for public navigation projects and maintenance dredging for existing channels and basins, any areas dredged to improve or create navigational access shall be incorporated into the preempted area of any required lease or be subject to the payment of a negotiated private easement fee.

(j) Private Residential multi-slip docking facilities shall require a lease.

(k) Aquaculture and beach renourishment activities which comply with the standards of this rule chapter and Chapter ~~16Q~~-21, Florida Administrative Code, may be approved by the board, but only subsequent to a formal finding of compatibility with the purposes of Chapter 258, Florida Statutes, and this rule chapter.

(l) Other uses of the preserve, or human activity within the preserve, although not originally contemplated, may be approved by the board, but only subsequent to a formal finding of compatibility with the purposes of Chapter 258, Florida Statutes, and this rule chapter.

(2) PUBLIC INTEREST ASSESSMENT CRITERIA

In evaluating requests for the sale, lease or transfer of interest, a balancing test will be utilized to determine whether the social, economic and/or environmental benefits clearly exceed the costs.

(a) GENERAL BENEFIT/COST CRITERIA:

1. Any benefits that are balanced against the costs of a particular project shall be related to the affected aquatic preserve;

2. In evaluating the benefits and costs of each request, specific consideration and weight shall be given to the quality and nature of the specific aquatic preserve. Projects in the less developed, more pristine aquatic preserves such as Apalachicola Bay shall be subject to a higher standard than the more developed urban aquatic preserves such as Boca Ciega Bay; and,

3. For projects in aquatic preserves with adopted management plans, consistency with the management plan will be weighed heavily when determining whether the project is in the public interest.

(b) BENEFIT CATEGORIES:

1. Public access (public boat ramps, boatslips, etc.);

2. providing boating and marina services (repair, pumpout, etc.);

3. improve and enhance public health, safety, welfare, and law enforcement;

4. improved public land management;

5. improve and enhance public navigation;

6. improve and enhance water quality;

7. enhancement/restoration of natural habitat and functions; and,

8. improve/protect endangered/threatened/unique species.

(c) COSTS:

1. Reduced/degraded water quality;

2. reduced/degraded natural habitat and function;

3. destruction, harm or harassment of endangered or threatened species and habitat;

4. preemption of public use;

5. increasing navigational hazards and congestion;

6. reduced/degraded aesthetics; and,

7. adverse cumulative impacts.

(d) EXAMPLES OF SPECIFIC BENEFITS:

1. Donation of land, conservation easements, restrictive covenants or other title interests in or contiguous to the aquatic preserve which will protect or enhance the aquatic preserve;

2. providing access or facilities for public land management activities;

3. providing public access easements and/or facilities, such as beach access, boat ramps, etc.;

4. restoration/enhancement of altered habitat or natural functions, such as conversion of vertical bulkheads to riprap and/or vegetation for shoreline stabilization or re-establishment of shoreline or submerged vegetation;

5. improve fishery habitat through the establishment of artificial reefs or other such projects, where appropriate;

6. providing sewage pumpout facilities where normally not required, in particular, facilities open to the general public;

7. improvements to water quality such as removal of toxic sediments, increased flushing and circulation, etc.;

8. providing upland dry storage as an alternative to wetslip; and,

9. marking navigation channels to avoid disruption of shallow water habitats.

(3) RESOURCE MANAGEMENT

(a) All proposed activities in aquatic preserves having management plans adopted by the board must demonstrate that such activities are consistent with the management plan.

(b) No drilling of oil, gas or other such wells shall be allowed.

(c) Utility cables, pipes and other such structures shall be constructed and located in a manner that will cause minimal disturbance to submerged land resources such as oyster bars and submerged grass beds and do not interfere with traditional public uses.

(d) Spoil disposal within the preserves shall be strongly discouraged and may be approved only where the applicant has demonstrated that there is no other reasonable alternative and that activity may be beneficial to, or at a minimum, not harmful to the quality and utility of the preserve.

(4) RIPARIAN RIGHTS

(a) None of the provisions of this rule shall be implemented in a manner that would unreasonably infringe upon the traditional, common law and statutory riparian rights of upland riparian property owners adjacent to sovereignty lands.

(b) The evaluation and determination of the reasonable riparian rights of ingress and egress for private, residential multi-slip docks shall be based upon the number of linear feet of riparian shoreline.

(c) For the purposes of this rule, a private, residential, single docking facility which meets all the requirements of Rule ~~18-20.004~~ 18-20.005(5) shall be deemed to meet the public interest requirements of Rule ~~18-20.004~~ 18-20.004(1)(b), Florida Administrative Code. However, the applicants for such docking facilities must apply for such consent and must meet all of the requirements and standards of this rule chapter.

(5) STANDARDS AND CRITERIA FOR DOCKING FACILITIES

(a) All docking facilities, whether for a single or multi-slip residential or commercial, shall be subject to the following standards and criteria:

1. No dock shall extend waterward of the mean or ordinary high water line more than 500 feet or 20 percent of the width of the waterbody at that particular location whichever is less;

2. certain docks may fall within areas of special or unique importance. These areas may be of significant biological, scientific, historic and/or aesthetic value and require special management considerations. Modifications may be more restrictive than the normally accepted criteria. Such modifications shall be determined on a case-by-case analysis, and may include, but shall not be limited to changes in location, configuration, length, width and height;

3. the number, lengths, drafts and types of vessels allowed to utilize the proposed facility may also be stipulated; and,

4. where local governments have more stringent standards and criteria for docking facilities, the more stringent standards for the protection and enhancement of the aquatic preserve shall prevail.

(b) Private residential single docks shall conform to the following specific design standards and criteria:

1. Any main access dock shall be limited to a maximum width of four (4) feet;

2. the dock decking design and construction will insure maximum light penetration, with full consideration of safety and practicality;

3. the dock will extend out from the shoreline no further than to a maximum depth of minus four (−4) feet (mean low water);

4. when the water depth is minus four (−4) feet (mean low water) at an existing bulkhead the maximum dock length from the bulkhead shall be 25 feet, subject to modifications accommodating shoreline vegetation overhang;

5. wave break devices, when necessary, shall be designed to allow for maximum water circulation and shall be built in such a manner as to be part of the dock structure;

6. terminal platform size shall be no more than 160 square feet; and,

7. dredging to obtain navigable water depths in conjunction with private residential, single dock applications is strongly discouraged.

(c) Private residential multi-slip docks shall conform to the following specific design standards and criteria:

1. The area of sovereignty, submerged land preempted by the docking facility shall not exceed the square footage amounting to ten times the riparian waterfront footage of the affected waterbody of the applicant, or the square footage attendant to providing a single dock in accordance with the criteria for private residential single docks, whichever is greater. A conservation easement or other such use restriction acceptable to the Board must be placed on the riparian shoreline, used for the calculation of the 10:1 threshold, to conserve and protect shoreline resources and subordinate/waive any further riparian rights of ingress and egress for additional docking facilities;

2. docking facilities and access channels shall be prohibited in Resource Protection Area 1 or 2, except as allowed pursuant to Section 258.42(3)(e)1., Florida Statutes, while dredging in Resource Protection Area 3 shall be strongly discouraged;

3. docking facilities shall only be approved in locations having adequate existing water depths in the boat mooring, turning basin, access channels, and other such areas which will accommodate the proposed boat use in order to insure that a minimum of one foot clearance is provided between the deepest draft of a vessel and the bottom at mean low water;

4. main access docks and connecting or cross walks shall not exceed six (6) feet in width;

5. terminal platforms shall not exceed eight (8) feet in width;

6. finger piers shall not exceed three (3) feet in width, and 25 feet in length;

7. pilings may be utilized as required to provide adequate mooring capabilities; and,

8. the following provisions of Rule 18 ~~16Q-20.05~~(5)(d) shall also apply to private residential multi-slip docks.

(d) Commercial, industrial and other revenue generating/income related docking facilities shall conform to the following specific design standards and criteria:

1. Docking facilities shall only be located in or near areas with good circulation, flushing and adequate water depths;

2. docking facilities and access channels shall be prohibited in Resource Protection Area 1 or 2, except as allowed pursuant to Sections 258.42(3)(e)1., Florida Statutes; while dredging in Resource Protection Area 3 shall be strongly discouraged;

3. the docking facilities shall not be located in Resource Protection Area 1 or 2; however, main access docks may be allowed to pass through Resource Protection Area 1 or 2, that are located along the shoreline, to reach an acceptable Resource Protection Area 3, provided that such crossing will generate minimal environmental impact;

4. beginning July 1, 1986 new docking facilities may obtain a lease only where the local governments have an adopted marina plan and/or policies dealing with the siting of commercial/industrial and private, residential, multi-slip docking facilities in their local government comprehensive plan;

5. the siting of the docking facilities shall also take into account the access of the boat traffic to avoid marine grassbeds or other aquatic resources in the surrounding areas;

6. the siting of new facilities within the preserve shall be secondary to the expansions of existing facilities within the preserve when such expansion is consistent with the other standards;

7. the location of new facilities and expansion of existing facilities shall consider the use of upland dry storage as an alternative to multiple wet-slip docking;

8. marina siting will be coordinated with local governments to insure consistency with all local plans and ordinances;

9. marinas shall not be sited within state designated manatee sanctuaries; and,

10. in any areas with known manatee concentrations, manatee warning/notice and/or speed limit signs shall be erected at the marina and/or ingress and egress channels, according to Florida Marine Patrol specifications.

(c) Exceptions to the standards and criteria listed in Rule 18 ~~16Q-20.05~~(5), Florida Administrative Code, may be considered, but only upon demonstration by the applicant that such exceptions are necessary to insure reasonable riparian ingress and egress.

(6) MANAGEMENT AGREEMENTS

The Board may enter into management agreements with local agencies for the administration and enforcement of standards and criteria for private residential single docks.

Specific Authority 253.03, 256.43(1) FS. Law Implemented 253.03, 256.41, 256.42, 256.43(1), 256.44 FS. History—New 2-25-81, Amended 6-7-85.

Editorial Note: The 6-7-85 amendment entirely superseded the former rule.

18-20.005 ~~16Q-20.05~~ Uses, Sales, Leases, or Transfer of Interests in Lands, or Materials, Held by the Board.

Specific Authority 256.43(1) FS. Law Implemented 253.02, 253.12, 256.42 FS. History—New 2-25-81, Repealed 6-7-85.

18-20.006 ~~16Q-20.06~~ Cumulative Impacts. In evaluating applications for activities within the preserves or which may impact the preserves, the department recognizes that, while a particular alteration of the preserve may constitute a minor change, the cumulative effect of numerous such changes often results in major impairments to the resources of the preserve. Therefore, the department shall evaluate a particular site for which the activity is proposed with the recognition that the activity may, in conjunction with other activities adversely affect the preserve which is part of a complete and interrelated system. The impact of a proposed activity shall be considered in light of its cumulative impact on the preserve's natural system. The department shall include as a part of its evaluation of an activity:

(1) The number and extent of similar human actions within the preserve which have previously affected or are likely to affect the preserve, whether considered by the department under its current authority or which existed prior to or since the enactment of the Act; and

(2) The similar activities within the preserve which are currently under consideration by the department; and

(3) Direct and indirect effects upon the preserve and adjacent preserves, if applicable, which may reasonably be expected to result from the activity; and

(4) The extent to which the activity is consistent with management plans for the preserve, when developed; and

(5) The extent to which the activity is permissible within the preserve in accordance with comprehensive plans adopted by affected local governments, pursuant to section 163.3161, F.S., and other applicable plans adopted by local, state, and federal governmental agencies;

(6) The extent to which the loss of beneficial hydrologic and biologic functions would adversely impact the quality or utility of the preserve; and

(7) The extent to which mitigation measures may compensate for adverse impacts.

Specific Authority 258.43(1) FS. Law Implemented 258.36, 258.43, 258.44 FS. History—New 2-25-81.

~~16Q-20.07~~ Protection of Riparian Rights.

Specific Authority 258.43(1) FS. Law Implemented 258.123, 258.124(8), 258.44 FS. History—New 2-25-81, Repealed 6-7-85.

~~16Q-20.08~~ Inclusion of Lands, Title to Which is Not Vested in the Board, in a Preserve.

(1) Lands and water bottoms which are within designated aquatic preserve boundaries, or adjacent thereto and which are owned by other governmental agencies, may be included in an aquatic preserve upon specific authorization for inclusion by an appropriate instrument in writing executed by the agency.

(2) Lands and water bottoms which are within designated aquatic preserve boundaries or adjacent thereto, and which are in private ownership, may be included in an aquatic preserve upon specific authorization for inclusion by an appropriate instrument in writing executed by the owner.

(3) The appropriate instrument shall be either a dedication in perpetuity, or a lease. Such lease shall contain the following conditions:

(a) The term of the lease shall be for a minimum period of ten years.

(b) The board shall have the power and duty to enforce the provisions of each lease agreement, and shall additionally have the power to terminate any lease if the termination is in the best interest of the aquatic preserve system, and shall have the power to include such lands in any agreement for management of such lands.

(c) The board shall pay no more than $1 per year for any such lease.

Specific Authority 258.43(1) FS. Law Implemented 258.40, 258.41 FS. History—New 2-25-81.

~~16Q-20.09~~ Establishment or Expansion of Aquatic Preserves.

(1) The board may expand existing preserves or establish additional areas to be included in the aquatic preserve system, subject to confirmation by the legislature.

(2) The board may, after public notice and public hearing in the county or counties in which the proposed expanded or new preserve is to be located, adopt a resolution formally setting aside such areas to be included in the system.

(3) The resolution setting aside an aquatic preserve area shall include:

(a) A legal description of the area to be included. A map depicting the legal description shall also be attached.

(b) The designation of the type of aquatic preserve.

(c) A general statement of what is sought to be preserved.

(d) A statement that the area established as a preserve shall be subject to the management criteria and directives of this chapter.

(e) A directive to develop a natural resource inventory and a management plan for the area being established as an aquatic preserve.

(4) Within 30 days of the designation and establishment of an aquatic preserve, the board shall record in the public records of the county or counties in which the preserve is located a legal description of the preserve.

Specific Authority 258.43(1) FS. Law Implemented 258.41 FS. History—New 2-25-81.

~~16Q-20.10~~ Exchange of Lands. The board in its discretion may exchange lands for the benefit of the preserve, provided that:

(1) In no case shall an exchange result in any land or water area being withdrawn from the preserve; and

(2) Exchanges shall be in the public interest and shall maintain or enhance the quality or utility of the preserve.

Specific Authority 258.43(1) FS. Law Implemented 258.41(5), 258.42(1) FS. History—New 2-25-81.

~~16Q-20.11~~ Gifts of Lands. The board in its discretion may accept any gifts of lands or interests in lands within or contiguous to the preserve to maintain or enhance the quality and utility of the preserve.

Specific Authority 258.43(1) FS. Law Implemented 258.42(5) FS. History—New 2-25-81.

18-20.012

~~16Q-20.12~~ Protection of Indigenous Life Forms. The taking of indigenous life forms for sale or commercial use is prohibited, except that this prohibition shall not extend to the commercial taking of fin fish, crustacea or mollusks, except as prohibited under applicable laws, rules or regulations. Members of the public may exercise their rights to fish, so long as not contrary to other statutory and regulatory provisions controlling such activities.

Specific Authority 258.43(1) FS. Law Implemented 258.43(1) FS. History—New 2-25-81.

18-20.013

~~16Q-20.13~~ Development of Resource Inventories and Management Plans for Preserves.

(1) The board authorizes and directs the division to develop a resource inventory and management plan for each preserve.

(2) The division may perform the work to develop the inventories and plans, or may enter into agreements with other persons to perform the work. In either case, all work performed shall be subject to board approval.

Specific Authority 258.43(1) FS. Law Implemented 253.03(7), 253.03(8) FS. History—New 2-25-81. Amended 6-7-85.

Editorial Note: The 6-7-85 amendment entirely superseded the former rule.

18-20.014

~~16Q-20.14~~ Enforcement. The rules shall be enforced as provided in Section 258.46.

Specific Authority 258.43(1) FS. Law Implemented 258.46 FS. History—New 2-25-81.

18-20.015

~~16Q-20.15~~ Application Form.

Specific Authority (253.43(1) FS. Law Implemented 258.43 FS. History—New 2-25-81, Repealed 6-7-85.

18-20.016

~~16Q-20.16~~ Coordination with Other Governmental Agencies. Where a Department of Environmental Regulation permit is required for activities on sovereignty lands the department will coordinate with the Department of Environmental Regulation to obtain a copy of the joint Department of Army/Florida Department of Environmental Regulation permit application and the biological survey. The information contained in the joint permit application and biological assessment shall be considered by the department in preparing its staff recommendations to the board. The board may also consider the reports of other governmental agencies that have related management or permitting responsibilities regarding the proposed activity.

Specific Authority 253.43(1) FS. Law Implemented 258.43 FS. History—New 2-25-81.

18-20.017

~~16Q-20.17~~ Lake Jackson Aquatic Preserve. In addition to the provisions of Rules ~~16Q~~-20.001 through ~~16Q~~-20.~~16~~, the following requirements shall also apply to all proposed activities within the Lake Jackson Aquatic Preserve. If any provisions of this Rule are in conflict with any provisions of Rules ~~16Q~~-20.~~17~~ through ~~16Q~~-20.~~20~~ or Chapter 73-534, Laws of Florida, the stronger provision for the protection or enhancement of the aquatic preserve shall prevail.

(1) No further sale, transfer or lease of sovereignty lands in the preserve shall be approved or consummated by the board, except upon a showing of extreme hardship on the part of the applicant or when the board shall determine such sale, transfer or lease to be in the public interest.

(2) No further dredging or filling of sovereignty lands of the preserve shall be approved or tolerated by the Board of Trustees except:

(a) Such minimum dredging and spoiling as may be authorized for public navigation projects or for preservation of the lake according to the expressed intent of Chapter 73-534, Laws of Florida; and,

(b) Such other alteration of physical conditions as may be necessary to enhance the quality or utility of the preserve.

(3) There shall be no drilling of wells, excavation for shell or minerals, and no erection of structures (other than docks), within the preserve, unless such activity is associated with activity authorized by Chapter 73-534, Laws of Florida.

(4) The Board shall not approve the relocations of bulkhead lines within the preserve.

(5) Notwithstanding other provisions of this act, the board may, respecting lands lying within the Lake Jackson basin:

(a) Enter into agreements for and establish lines delineating sovereignty and privately owned lands;

(b) Enter into agreements for the exchange and exchange sovereignty lands for privately owned lands;

(c) Accept gifts of land within or contiguous to the preserve.

Specific Authority 258.39(26) FS. Law Implemented 258.39(26), 258.43 FS. History—New 6-7-85.

Appendix C.

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CHAPTER 16Q-21
SOVEREIGNTY SUBMERGED LANDS MANAGEMENT

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Library References: Lakes: Distinguishing Them from Wet Prairies, James R. Brindell, 57 Fla. Bar J. 724 (December, 1983).

16Q-21.01 Intent. The intent and purpose of this rule is:

(1) To aid in fulfilling the trust and fiduciary responsibilities of the Board of Trustees of the Internal Improvement Trust Fund for the administration, management and disposition of sovereignty lands;

(2) To insure maximum benefit and use of sovereignty lands for all the citizens of Florida;

(3) To manage, protect, and enhance sovereignty lands so that the public may continue to enjoy traditional uses including, but not limited to, navigation, fishing and swimming;

(4) To manage and provide maximum protection for all sovereignty lands, especially those harvesting, public recreation, and fish and wildlife propagation and management;

(5) To insure that all public and private activities on sovereignty lands which generate revenues or exclude traditional public uses provide just compensation for such privileges; and,

(6) To aid in the implementation of the State Lands Management Plan.

Specific Authority 253.03(7) FS, Art. X, Sec. 11, Fla. Const. Law Implemented 253.03, 253.12 FS. History—New 3-27-82.

16Q-21.02 Scope and Effective Date.

(1) These rules are to implement the administrative and management responsibilities of the board and department regarding sovereignty lands. Responsibility for environmental permitting of activities and water quality protection on sovereignty and other lands is vested with the Department of Environmental Regulation. These rules are considered cumulative; therefore, a person planning an activity should consult other applicable department rules (Chapter 16Q-20, Florida Administrative Code and others) as well as the rules of the Department of Environmental Regulation.

(2) These rules are prospective in their application and shall not apply to activities for which applications have been submitted to the department or the Department of Environmental Regulation prior to the adoption date of these rules and shall not affect previous actions of the board concerning private docks or the issuance of any easement, lease, or any disclaimer concerning sovereignty lands. Fee arrangements in existing leases are not subject to the fees of this rule until expiration of said leases unless otherwise specified in the lease instrument.

(3) Docks, piers, and other such structures on sovereignty lands in existence prior to March 10, 1970 shall be subject to the provisions of this rule commencing on January 1, 1998. Any expansions to such structures shall be subject to the provisions of this rule, if any expansion thereto requires the use of any Additional sovereignty lands.

(4) Docks, piers, and other such structures on sovereignty lands in existence prior to March 10, 1970 and which would require a lease pursuant to Section 16Q-21.05(1)(b), Florida Administrative Code, shall be required to register the structures with the department before June 30, 1984.

(5) Any expansion of an existing activity shall be subject to the provisions of this rule.

Specific Authority 253.03(7) FS. Law Implemented 253.03, 253.12, 253.77 FS. History—New 3-27-82, Amended 8-1-83.

16Q-21.03 Definitions. When used in these rules, the following shall have the indicated meaning unless the context clearly indicates otherwise:

(1) "Accretion" means the process of gradual and imperceptible additions of sand, sediment, or other material to riparian lands made by the natural action of water which results in dry lands formerly covered by water.

(2) "Activity" means any use of sovereignty lands which requires board approval for consent of use, lease, easement, sale, or transfer of interest in such sovereignty lands or materials. Activity includes, but is not limited to, the construction of docks, piers, boat ramps, board walks, mooring

pilings, dredging of channels, filling, removal of logs, sand, silt, clay, gravel or shell, and the removal or planting of vegetation on sovereignty lands.

(3) "Applicant" means any person making application for a lease, sale, or other form of conveyance of an interest in sovereignty lands or any other necessary form of governmental approval for an activity on sovereignty lands.

(4) "Artificial accretion" means the addition of sand, sediment, or other material to riparian lands caused by man-made projects and operations which results in dry lands formerly covered by water.

(5) "Artificial erosion" means the loss or washing away of sand, sediment, or other material from riparian property caused by man-made projects and operations which result in submerged lands formerly not covered by water.

(6) "Avulsion" means the addition to or loss of riparian property caused by the sudden and perceptible natural action of water.

(7) "Aquaculture" means the cultivation of animal or plant life in an aquatic environment.

(8) "Board" means the Governor and Cabinet sitting as the Board of Trustees of the Internal Improvement Trust Fund.

(9) "Channel" means a trench, the bottom of which is normally covered entirely by water, with the upper edges of its sides normally below water.

(10) "Coastal barrier islands" means a depositional geologic feature consisting of unconsolidated sedimentary materials in an island configuration which is subject to direct attack by wave, tidal, and wind energies originating from the Atlantic Ocean or Gulf of Mexico, and which serves to protect landward aquatic habitats, such as bays and estuaries, and the interior uplands of the mainland from oceanic wave, tidal, and wind forces.

(11) "Consent of use" means a nonpossessory interest in sovereignty lands created by an approval which allows the applicant the right to erect specific structures or conduct specific activities on said lands.

(12) "Department" means the State of Florida Department of Natural Resources, as administrator for the board.

(13) "Division" means the Division of State Lands which performs all staff duties and functions related to the administration of lands, title to which is or will be vested in the board pursuant to Section 253.002, Florida Statutes.

(14) "Dock" means a fixed or floating structure, including moorings, used for the purpose of berthing buoyant vessels.

(15) "Easement" means a non-possessory interest in sovereignty lands created by a grant or agreement which confers upon the applicant the limited right, liberty, and privilege to use said lands for a specific purpose and for a specific time.

(16) "Energy production" means the exploration for, and extraction of, hydrocarbons, including necessary transmission through pipelines, or the water-oriented activities related to the generation of electricity.

(17) "Fill" means materials from any source, deposited by any means onto sovereignty lands, either for the purpose of creating new uplands or for any other purpose, including spoiling of dredged materials.

(18) "First come, first served" means any water dependent facility operated on the sovereign lands of the state the services of which are open to the general public on a first come, first served basis. This is intended to cover services offered to various types, classes or groups of public users and such services need not be comprehensive. The service offered may be a specialty service such as boat repair, seafood purchasing, marine slip rentals or shipping terminals as long as all services offered are open to the general class of users without any qualifying requirements such as club membership or stock ownership.

(19) "Lease" means an interest in sovereignty lands designated by a contract creating a landlord-tenant relationship between the board as landlord and the applicant as tenant whereby the board grants and transfers to the applicant the exclusive use, possession, and control of certain specified sovereignty lands for a determinate number of years, with conditions attached, at a definite fixed rental.

(20) "Management agreement" means a contractual agreement between the board and one or more parties which does not create an interest in real property but merely authorizes conduct of certain management activities on lands held by the board.

(21) "Marginal dock" means a fixed or floating structure placed immediately contiguous and parallel to an established seawall, bulkhead or revetment.

(22) "Mean high water" means the average height of the high tides over a 19-year period. For shorter periods of observation, "mean high water" means the average height of the high waters after corrections are applied to eliminate known variations and to reduce the result to the equivalent of a mean 19-year value.

(23) "Mean high water line" means the intersection of the local elevation of mean high water with the shore. Mean high water line along the shore of land immediately bordering on navigable waters is recognized and declared to be the boundary between the foreshore owned by the State of Florida in its sovereign capacity and the uplands subject to private ownership. However, no provision of this rule shall be deemed to impair the title to privately owned submerged lands validly alienated by the State of Florida or its legal predecessors.

(24) "Nomination" means a proposal for an oil and gas lease.

(25) "Person" means individuals, minors, partnerships, corporations, joint ventures, estates, trusts, syndicates, fiduciaries, firms, and all other associations and combinations, whether public or private, including governmental entities.

(26) "Preempted area" means the area of sovereignty lands from which the traditional public uses have been or would be excluded to any extent by an activity. The area may include, but is not limited to, the sovereignty lands occupied by the docks and other structures, the area between the docks and out to any mooring pilings, and the area between the docks and the shoreline. If the activity is required to be moved waterward to avoid dredging or disturbance of nearshore habitat, a reasonable portion of the nearshore area that is not impacted by dredging or structures shall not be included in the preempted area.

(27) "Public interest" means demonstrable environmental, social, and economic benefits which would accrue to the public at large as a result of a proposed action, and which would clearly exceed all

costs of the proposed action. In determining the public interest in a request for use, sale, lease, or transfer of interest in sovereignty lands or severance of materials from sovereignty lands, the board shall consider the ultimate project and purpose to be served by said use, sale, lease, or transfer of lands or materials.

(28) "Public navigation project" means an activity primarily for the purpose of navigation which is authorized and funded by the United States Congress or by port authorities as defined by Section 315.02(2), Florida Statutes.

(29) "Public utilities" means those services, provided by persons regulated by the Public Service Commission, or which are provided by rural cooperatives, municipalities, or other governmental agencies, including electricity, public water and wastewater services, and structures necessary for the provision of these services and transmission lines for public communication systems such as telephone, radio and television.

(30) "Public water management project" means an activity primarily for the purpose of flood control, conservation, recreation, water storage and supply, and allied purposes, which is authorized and funded by the United States Congress, the State of Florida, or a water management district as defined by Section 373.069, Florida Statutes.

(31) "Revenue generating/income related activity" means an activity on sovereignty lands which produces income, through rental or any other means, or which serves as an accessory facility to other rental, commercial, or industrial operations. It shall include, but not be limited to, docking for marinas, restaurants, hotels, motels, commercial fishing, shipping, and boat or ship construction, repair and sales.

(32) "Reclamation of lands" means restoring the upland shoreline to a condition that existed prior to avulsion or artificial erosion.

(33) "Riparian rights" means those rights incident to lands bordering upon navigable waters, as recognized by the courts and common law.

(34) "Sale" means a conveyance or transfer of title of sovereignty lands in fee simple by the board, for consideration.

(35) "Satisfactory evidence of title" means a current title insurance policy issued by a title insurance company authorized to do business in the State of Florida, or an opinion of title prepared by a member of the Florida Bar, covering title to lands involved and indicating, at least, such minimum interest in the applicant which may entitle the applicant to the relief sought, or such affidavits as may be required by the department to establish the currency of title status of an applicant.

(36) "Sovereignty lands" means those lands including but not limited to, tidal lands, islands, sand bars, shallow banks, and lands waterward of the ordinary or mean high water line, under navigable fresh and salt waters, to which the State of Florida acquired title on March 3, 1845, by virtue of statehood, and which have not been heretofore conveyed or alienated.

(37) "Spoil island" means any artificially created island having an elevation above water upon formerly submerged sovereignty lands, title to which is vested in the board.

(38) "Water dependent activity" means an activity which can only be conducted on, in, over, or direct access to the water body or sovereignty lands for transportation, recreation, energy production or transmission, or source of water, and where the use of the water or sovereignty lands is an integral part of the activity.

Specific Authority 253.03(7) FS. Law Implemented 253.03 FS. History—New 9-26-77, Formerly 16C-12.01, 16Q-17.01, Amended 5-27-82, 8-1-83.

16Q-21.04 Management Policies, Standards, and Criteria. The following management policies, standards, and criteria shall be utilized in determining whether to approve, approve with conditions or modifications, or deny all requests for activities on sovereignty lands.

(1) General Proprietary

(a) For approval, all activities on sovereignty lands must be not contrary to the public interest, except for sales which must be in the public interest.

(b) All leases, easements, deeds or other forms of approval for sovereignty land activities shall contain such terms, conditions, or restrictions as deemed necessary to protect and manage sovereignty lands.

(c) Equitable compensation shall be required for leases and easements which generate revenues, monies or profits for the user or that limit or preempt general public use. Public utilities and state or other governmental agencies exempted by law shall be excepted from this requirement.

(d) Activities on sovereignty lands shall be limited to water dependent activities only unless the board determines that it is in the public interest to allow an exception as determined by a case by case evaluation. Public projects which are primarily intended to provide access to and use of the waterfront may be permitted to contain minor uses which are not water dependent if:

1. located in areas along seawalls or other nonnatural shorelines;

2. located outside of aquatic preserves or class II waters; and,

3. the nonwater dependent uses are incidental to the basic purpose of the project, and constitute only minor nearshore encroachments on sovereign lands.

(e) Stilt house, boathouses with living quarters, or other such residential structures shall be prohibited on sovereignty lands.

(f) The State Lands Management Plan shall be considered and utilized in developing recommendations for all activities on sovereignty lands.

(g) The use of sovereignty lands for the purpose of providing road access to islands, where such access did not previously exist, shall be prohibited. The board may grant an exception to this prohibition if the board makes a finding that:

1. Construction and use of road access is the least damaging alternative and more protective of natural resources and sovereignty lands than other access activities; and,

2. In the case of coastal barrier islands, such use of sovereignty lands and any upland development facilitated thereby is in the public interest, or in the case of other islands, not contrary to the public interest.

(h) When one or more expansions to existing grandfathered lease facilities equal 50 percent or more of the grandfathered facility then the grandfathered facility will be required to come under lease.

(i) All existing licenses shall be converted to

(2) Resource Management

(a) All sovereignty lands shall be considered single use lands and shall be managed primarily for the maintenance of essentially natural conditions, propagation of fish and wildlife, and traditional recreational uses such as fishing, boating, and swimming. Compatible secondary purposes and uses which will not detract from or interfere with the primary purpose may be allowed.

(b) Activities which would result in significant adverse impacts to sovereignty lands and associated resources shall not be approved unless there is no reasonable alternative and adequate mitigation is proposed.

(c) The Department of Environmental Regulation biological assessments and reports by other agencies with related statutory, management, or regulatory authority may be considered in evaluating specific requests to use sovereignty lands. Any such reports sent to the department in a timely manner shall be considered.

(d) Activities shall be designed to minimize or eliminate any cutting, removal, or destruction of wetland vegetation (as listed in Rule 17-4.02(17), Florida Administrative Code) on sovereignty lands.

(e) Reclamation activities on sovereignty lands shall be approved only if avulsion or artificial erosion is affirmatively demonstrated. Other activities involving the placement of fill material below the ordinary high water line or mean high water line shall not be approved unless it is necessary to provide shoreline stabilization, access to navigable water, or for public water management projects.

(f) To the maximum extent possible, shoreline stabilization should be accomplished by the establishment of appropriate native wetland vegetation. Rip-rap materials, pervious interlocking brick systems, filter mats, and other similar stabilization methods should be utilized in lieu of vertical seawalls wherever feasible.

(g) Severance of materials from sovereignty lands shall be approved only if the proposed dredging is the minimum amount necessary to accomplish the stated purpose and is designed to minimize the need for maintenance dredging.

(h) Severance of materials for the primary purpose of providing upland fill shall not be approved unless no other reasonable source of materials is available or the activity is determined to be in the public interest.

(i) Activities on sovereignty lands shall be designed to minimize or eliminate adverse impacts on fish and wildlife habitat. Special attention and consideration shall be given to endangered and threatened species habitat.

(j) To the maximum extent feasible, all beach compatible dredge materials shall be placed on beaches or within the nearshore sand system.

(k) Oil and gas drilling leases on state-owned submerged lands shall be approved only when the proposed lease area is at least one mile seaward of the outer coastline of Florida as defined in United States v. Florida, 425 U. S. 791, 48 L. Ed. 2d 388, 96 S. Ct. 1840, upon adequate demonstration that the proposed activity is in the public interest, that the impact upon aquatic resources has been thoroughly considered, and that every effort has been made to minimize potential adverse impacts [illegible] the prohibited area if said lease stipulates that any drilling shall be conducted from outside said area.

(3) Riparian Rights

(a) None of the provisions of this rule shall be implemented in a manner that would unreasonably infringe upon the traditional, common law riparian rights of upland property owners adjacent to sovereignty lands.

(b) Applications for activities on sovereignty lands riparian to uplands can only be made by and approved for the upland riparian owner, their legally authorized agent, or persons with sufficient title interest in uplands for the intended purpose.

(c) All structures and other activities must be within the riparian rights area of the applicant and must be designed in a manner that will not restrict or otherwise infringe upon the riparian rights of adjacent upland riparian owners.

(d) All structures and other activities must be set back a minimum of 25 feet from the applicant's riparian rights line. Marginal docks may be set back only 10 feet. There shall be no exceptions to the setbacks unless the applicant's shoreline frontage is less than 65 feet or a sworn affidavit of no objection is obtained from the affected adjacent upland riparian owner, or the proposed structure is a subaqueous utility line.

Specific Authority 253.03(7) FS. Law Implemented 253.03, 253.12, 253.14, 253.47, 253.67-.75 FS. History—New 3-27-82, Amended 8-1-83.

16Q-21.05 Procedures.

(1) All activities on sovereignty lands shall require a lease, easement, consent of use, or other form of approval. The following shall be used to determine the form of approval required:

(a) Consent of Use — is required for the following activities, provided that any such activity not located in an Aquatic Preserve or Manatee Sanctuary and which is exempt from Department of Environmental Regulation permitting requirements under Section 403.813(2)(a), (b), (c), (d), (e), (g), (h), (i), and (k), Florida Statutes, is hereby exempted from any requirement to make application for consent of use, and such consent is herein granted by the board:

1. A single dock or access channel which is no more than the minimum length and size necessary to provide reasonable access to navigable water;

2. Docks, access channels, boat ramps, or other activities which preempt no more than 1,000 square feet of sovereignty land area for each 100 linear feet of shoreline in the applicant's ownership (see "preempted area" definition Rule 16Q-21.03(25), Florida Administrative Code). Proportional increases in the 1,000 square foot threshold can be added for fractional shoreline increments over 100 linear feet;

3. Marginal docks and mooring pilings along an existing seawall, bulkhead or revetment;

4. Replacement or construction of bulkheads or seawalls at or within three feet waterward of the line of mean high water;

5. Placement of riprap at or within ten feet waterward of the line of mean high water;

6. Dredging or other removal of sovereignty materials;

7. Renourishment of publicly owned beaches; and

8. Artificial reefs for public use.

1. Docks, boat ramps, or other such activities which are larger than those which can be approved under consent of use (Section 16Q-21.05(1)(a), Florida Administrative Code);

2. All revenue generating/income related activities;

3. Grandfather structures upon sale, reassignment or other form of conveyance or transfer;

4. Existing licenses upon the date of expiration or renewal.

5. Aquaculture;

6. Oil and gas exploration and development; and

7. Dead shell and other mining.

(c) Easement — is required for:

1. Utility crossings and rights of way;

2. Road and bridge crossings and rights of way;

3. Groins, breakwaters, and other such shoreline protection structures;

4. Public navigation project channels;

[redacted]

6. Spoil disposal sites;

7. Borrow areas for beach renourishment; and

8. Canals, channels, and other public water management structures.

(d) Management Agreement — is required for:

1. Management and protection activities which do not require title interest in state lands. Such activities may include, but are not limited to, endangered species, rookery, preserve, or sanctuary protection, and management of educational, recreational, or scientific study areas.

(e) Grandfather structure registration — is required for:

1. Docks, piers and other such structures on sovereignty lands in existence prior to March 10, 1970 which do not now have a lease but would require a lease pursuant to Section 16Q-21.05(1)(b), Florida Administrative Code.

2. Docks, piers and other such structures which were approved by the Board or department between March 10, 1970 and March 27, 1982 which would now require a lease pursuant to Section 16Q-21.05(1)(b), Florida Administrative Code.

(2) All requests for purchases, disclaimers, and quitclaims of sovereignty lands shall be processed in accordance with Rules 16Q-21.13, 16Q-21.14, and 16Q-21.15, Florida Administrative Code, respectively.

(3) All requests for sales, exchanges, leases, and private bridge or road easements on sovereignty lands shall be processed in accordance with the notice and hearing requirements of Section 253.115, Florida Statutes.

Specific Authority 253.03(7) FS. Law Implemented 253.03, 177.27 FS. History—New 9-26-77, Formerly 16C-12.01, 16Q-17.01, Amended 3-27-82, 8-1-83.

16Q-21.06 Applications — General Information.

(1) Most activities on sovereignty lands will also require a permit from the Department of Environmental Regulation. Much of the information required for applications under this rule has been intentionally designed to be identical to information required for the Department of Environmental Regulation permit applications. Therefore, if a Department of Environmental Regulation permit is also required, a copy of the application on file with the Department of Environmental Regulation will satisfy many of the

Specific Authority 253.03(7) FS. Law Implemented 253.03 FS. History—New 3-27-82.

16Q-21.07 Applications for Consent of Use.

(1) Applications for consent of use shall include the following:

(a) Name, address and telephone number of applicant and applicant's authorized agent, if applicable;

(b) Location of the proposed activity including: county; section, township and range; affected waterbody; and a vicinity map, preferably a reproduction of the appropriate portion of United States Geological Survey quadrangle map;

(c) Satisfactory evidence of title in subject riparian upland property or demonstration of sufficient title interest in uplands for the intended purpose;

(d) A detailed statement of the proposed activity;

(e) Multiple boat slip facilities may require an affidavit certifying that the facility will not be a revenue generating/income producing facility;

(f) Two copies of a dimensioned site plan drawing(s) with the following requirements:

1. utilizing an appropriate scale on 8 1/2" × 11"size paper;

2. showing the approximate water's edge;

3. showing the location of the shoreline vegetation, if existing;

4. showing the location of the proposed structures and any existing structures;

5. showing the applicant's upland parcel property lines; and,

6. showing the primary navigation channels or direction to the center of the affected waterbody.

(g) If dredging is proposed, an estimate of the number of cubic yards of sovereignty materials to be removed showing how the amount was calculated.

Specific Authority 253.03(7) FS. Law Implemented 253.03, 253.12, 253.77 FS. History—New 3-27-82.

16Q-21.08 Applications for Lease.

Applications for leases are divided into four categories. All leases, except aquaculture, oil and gas, and dead shell mining, are handled under the standard lease provisions.

(1) Standard Lease

(a) Applications for standard leases shall include the following:

1. Name, address and telephone number of applicant and applicant's authorized agent, if applicable.

2. Location of the proposed activity including: county; section, township and range; affected waterbody; and a vicinity map, preferably a reproduction of the appropriate portion of United States Geological Survey quadrangle map.

3. Satisfactory evidence of title in applicant's riparian upland property.

4. Two prints of a survey prepared, signed, and sealed by a person properly licensed by the Florida State Board of Land Surveyors with the following requirements:

i. utilizing an appropriate scale on 8 1/2" × 11"size paper (unless a larger size is necessary to provide sufficient clarity and detail);

ii. showing the line of ordinary or mean high water;

iii. showing the location of the shoreline vegetation, if existing;

iv. showing the location of the proposed

structures and any existing structures;

v. showing the applicant's upland parcel property lines;

vi. showing the primary navigation channels or direction to the center of the affected waterbody; and,

vii. including a legal description of preempted area to be leased (see definition, Rule 16Q-21.03 (25), Florida Administrative Code).

5. A list of names and addresses of all property owners within a 1,000 foot radius of the proposed lease area, verified by the County Property Appraiser's Office, that these names came from the latest tax assessment rolls. The names and addresses shall be clearly typed and acceptable to the department, preferably on labels suitable for mailing.

6. Current local zoning and status of any local government approvals necessary for activities.

7. Florida Department of Revenue registration number. Leases without sales tax exemption certificate shall be subject to the Florida State sales tax.

8. A $200.00 non-refundable processing fee.

9. Computation of lease fee including the total square footage of preempted sovereignty land to be leased (see Rule 16Q-21.11(1) and definition, Rule 16Q-21.03(25), Florida Administrative Code).

10. If dredging is proposed, an estimate of the number of cubic yards of sovereignty materials to be removed showing how the amount was calculated.

(b) Terms and conditions shall include but not be limited to the following:

1. Initial payment of annual lease fee shall be made within 90 days of lease approval by the Board. A validated lease will be transmitted to the applicant upon receipt of initial payment and acknowledgment of issuance of the Department of Environmental Regulation permit, where applicable.

2. Leases shall be for a term of up to 25 years and renewable at the option of the board. Leases shall include provisions for lease fee adjustments and payments annually.

3. All leases shall be assignable, in whole or in part, upon the approval of the board. Non-compliance with any term of an executed lease may be grounds for cancellation of the lease.

4. Upon expiration or cancellation of a lease, the lessee shall remove all structures and equipment from the leased area within 180 days after such expiration or cancellation, at the option of the board. If the lessee fails to remove the structures and equipment thereon, the board shall at its option and after 10 days from receipt of written notice by certified mail to the lessee, have the structures and equipment removed at the expense of the lessee.

(2) Aquaculture Lease

(a) Applications for aquaculture leases shall include the following:

1. Name and address of the applicant;

2. Legal description and acreage of the parcel sought;

3. Two prints of a survey of the parcel sought prepared, signed, and sealed by a person properly licensed by the Florida State Board of Land Surveyors or an agent of the federal government acceptable to the department;

4. Description of the aquaculture activities to be conducted, including whether such activities are to be experimental or commercial, and an assessment of the current capability of the applicant to conduct such activities;

5. Statement evidencing that the lease is in the public interest;

6. Names and addresses, as shown on the latest county tax assessment roll, of each owner of property lying within 1,000 feet of the parcel sought, certified by the county property appraiser;

7. Statement of the impact of the proposed use of the parcel sought on the ecology of the area; and

8. A $200 non-refundable processing fee.

(b) If the board determines to lease the parcel sought, the lease shall be by competitive bid. The department shall cause notice of such lease to be published in a newspaper in the county in which the parcel is situated once a week for four consecutive weeks. A copy of the notice shall also be sent to the county commission. Such notice shall contain the following:

1. Legal description and acreage of parcel sought;

2. Terms of the lease acceptable to the board;

3. Deadline, time, and date, for the receipt of all bids;

4. Address to which all bids shall be sent; and

5. The date, time, and place of the opening of bids.

(c) Competitive bids for aquaculture leases shall be written offers of a cash consideration which shall include the advertised fee for the first lease year, the amount offered above such fee for said first year being a competitive bid. The cash consideration offered shall accompany the written offer and shall be returned to the unsuccessful bidders either upon award of the lease or upon rejection of all bids.

(d) A lease shall not be approved by the board when a resolution of objection, adopted by a majority of the county commissioners of the county in which the parcel sought is situated, has been filed with the department within 30 days of the date of first publication of the notice of lease.

(e) A lease shall not be approved for a parcel larger than the applicant can utilize efficiently; however, the board may reserve a reasonable amount of submerged land adjacent to a parcel under experimental lease for the lessee when beginning operation under a commercial lease.

(f) Each lease shall contain the following:

1. The term of the lease which shall not exceed 10 years;

2. The amount of fee per acre leased to be paid on or before January 1 each year which shall take the form of:

i. Fixed fee to be paid throughout the term of the lease; or

ii. Basic fee to be paid throughout the term of the lease plus royalties based upon the productivity of the aquaculture after the first year;

3. The disposition to be made of all improvements and animal and plant life upon the termination or cancellation of the lease.

4. The right to assignment, in whole or in part, upon the approval of the board.

(g) Failure to perform the aquaculture activities for which the lease was granted shall be grounds for cancellation of the lease and forfeiture to the State of Florida of all the work, improvements, animal and plant life in and upon the parcel leased. In addition, a surety bond is required.

(h) The parcel leased shall be identified, well marked, and shall have, except when it will

interfere with the development of the animal and plant life being cultivated by the lessee, reasonable public access for boating, swimming, and fishing. All limitations on the public use of the parcel leased as set forth in the lease shall be clearly posted in conspicuous places by the lessee. Each parcel leased shall be marked in compliance with the rules and regulations of the Department, U. S. Coast Guard, and U. S. Army Corps of Engineers.

(3) Oil and Gas Lease

(a) Applications for nominations for the lease of sovereignty lands in which the State of Florida holds an interest in the petroleum or petroleum products shall include the following:

1. Name and address of the applicant or nominee;

2. Legal description of the parcel sought including the surface acreage; this description may utilize the submerged land blocks approved by the board on March 17, 1981;

3. Identification of the state agency vested with the ownership of the petroleum products;

4. Percentage of the petroleum interests held by the State;

5. Identification of any municipal corporation in which all or part of the parcel sought is located or within 10 miles thereof;

6. Identification of any improved beach outside a municipal corporation or lands in the tidal waters of the State of Florida abutting on or immediately adjacent to any improved beach in which or part of the parcel sought is located or within 3 miles thereof; and

7. A $200 non-refundable processing fee.

(b) Competitive bids for oil and gas leases shall be written offers of a cash consideration including the advertised fee for the first lease year, the amount offered above said fee being the competitive bid. The cash consideration offered shall accompany the written offer by certified or cashier's check made payable to the department and shall be returned to the unsuccessful bidder upon award of the lease or upon rejection of any and all bids. All bids must contain a certified statement as to the bidder's state lease holdings pursuant to Section 253.512, Florida Statutes.

(4) Dead Shell Lease

Applications for leases to remove dead shells shall be submitted to and processed by the Division of Marine Resources of the Department. The issuance of all such leases is subject to approval by the board.

Specific Authority 253.03(7), 253.73 FS. Law Implemented 253.03, 253.12, 253.115, 253.47, 253.67—.75, 370.16 FS. History—New 12-20-78, Formerly 16C-12.14, 16Q-17.14, Amended 3-27-82, 8-1-83.

16Q-21.081 Applications for Grandfather Structure Registration.

(1) Applications for grandfather structure registration shall include the following:

(a) Name, address and telephone number of applicant and applicant's authorized agent, if applicable.

(b) Location of the proposed activity including: county; section, township and range; affected waterbody; and a vicinity map, preferably a reproduction of the appropriate portion of United States Geological Survey quadrangle map.

(c) Satisfactory evidence of [illegible] in applicant's riparian upland property.

(d) Two copies of a dimensioned site plan drawing(s) with the following requirements:

1. Utilizing an appropriate scale on 8 1/2" × 11"size paper;

2. Showing the approximate waters edge;

3. SHowing the location of the grandfathered structures;

4. Showing the applicant's upland parcel property lines;

(e) Dated aerial photography, previously issued permits or authorizations, or other satisfactory information which verifies that the structures qualify as grandfathered structures.

(f) A $200.00 non-refundable processing and registration fee.

Specific Authority 253.03(7) FS. Law Implemented 253.03, 253.71 FS. History—New 8-1-83.

16Q-21.09 Applications for Public Easement.

(1) Applications for easements across sovereignty land for public purposes such as utilities, bridges, and roads, shall include the following:

(a) Name, address, and telephone number of applicant and applicant's authorized agent;

(b) Location of the proposed activity including: county; section, township and range; affected waterbody; and a vicinity map, preferably a reproduction of the appropriate portion of a United States Geological Survey Quadrangle Map;

(c) Satisfactory evidence of title or extent of interest of the applicant to the riparian uplands or consent of upland owners for proposed use;

(d) A detailed statement of proposed use. If the applicant is a local governing body, the request shall be by official resolution;

(e) Two prints of a survey prepared, signed, and sealed by a person properly licensed by the Florida State Board of Land Surveyors meeting the following requirements:

1. utilizing an appropriate scale on 8 1/2" × 11"size paper;

2. showing boundaries of the parcel sought;

3. showing ownership lines of the riparian uplands;

4. showing the line of ordinary or mean high water;

5. showing the location of the shoreline vegetation, if existing;

6. showing the location of any proposed or existing structures; and,

7. including a legal description and acreage of the parcel sought;

(f) Written comments from the Department of Environmental Regulation, when applicable, in the form of:

1. permit appraisal or biological assessment; and,

2. letter of intent, if issued;

(g) A $200.00 non-refundable processing fee. The processing fee may be waived for state agencies established pursuant to Chapter 20, Florida Statutes, and local governments; and,

(h) If dredging is proposed, an estimate of the number of cubic yards of sovereignty material to be removed showing how the amount was calculated.

(2) All easements across sovereignty lands shall be subject to reverter upon failure of the applicants to use the parcels sought as proposed in the applications.

(5) The terms of the easements shall be limited to the life of the proposed project or amortization of the improvements.

Specific Authority 253.03(7) FS. Law Implemented 253.03, 253.12 FS. History—New 9-26-77, Formerly 16C-12.09 and 16Q-17.09, Revised 3-27-82.

16Q-21.10 Applications for Private Easement.

(1) Applications for easements across sovereignty lands for private purposes shall include the following:

(a) Name, address and telephone number of applicant and applicant's authorized agent;

(b) Location of the proposed activity including: county; section, township and range; affected waterbody; and a vicinity map, preferably a reproduction of the appropriate portion of a United States Geological Survey Quadrangle map;

(c) Satisfactory evidence of title or extent of interest of the applicant to the riparian uplands or consent of upland owners for proposed use;

(d) A detailed statement of proposed use;

(e) A statement evidencing that the easement sought is in the public interest;

(f) Two prints of a survey prepared, signed, and sealed by a person properly licensed by the Florida State Board of Land Surveyors meeting the following requirements:

1. utilizing an appropriate scale on 8 1/2" X 11"size paper (unless a larger size is necessary to provide sufficient clarity and detail);

2. showing boundaries of the parcel sought;

3. showing ownership lines of the riparian uplands;

4. showing the line of ordinary or mean high water;

5. showing the location of the shoreline vegetation, if existing;

6. showing the location of any proposed or existing structures; and,

7. including a legal description and acreage of the parcel sought.

(g) Written comments from the Department of Environmental Regulation, when applicable, in the form of:

1. permit appraisal or biological assessment; and,

2. letter of intent, if issued;

(h) A list of names and addresses of all property owners within a 1,000 foot radius of the proposed easement area, verified by the County Property Appraiser's Office that these names came from the latest tax assessment rolls. The names and addresses shall be clearly typed and acceptable to the Department, preferably on labels suitable for mailing;

(i) A $200.00, non-refundable processing fee;

(j) If dredging is proposed, an estimate of the number of cubic yards of sovereignty material to be removed showing how the amount was calculated;

(k) If the application is for an easement of right-of-way for private access from a public road to lands of the applicant, proof of approval from the agency having jurisdiction over the public road; and,

(l) Payment for the value of the easement in the amount stated on an appraisal performed by an independent appraisal firm contracted by the applicant and approved by the department.

(2) Applications shall be granted upon such terms and conditions, including payment of the value of the easement, if any, that the board sees fit. within 90 days after receipt of notification that the easement has been granted by the board or the granting of the easement shall be invalid.

(3) All easements across sovereignty lands shall be subject to reverter upon failure of the applicant to use the parcels sought as proposed in the applications.

(4) The terms of all the easements shall be limited to a reasonable period of time related to the life of the proposed project or amortization of the improvements.

Specific Authority 253.03(7) FS. Law Implemented 253.03, 253.12 FS. History—New 12-20-78. Formerly 16C-12.10 and 16Q-17.10, Revised 3-27-82.

16Q-21.11 Payments and Fees for Standard Leases, Easements, and Severed Dredge Materials.

(1) Standard Leases

(a) The annual lease fee shall be computed at a base rate of $0.065 per square foot.

(b) There shall be a discount of 30 percent per square foot per year for all leases that are open to the public on a first come, first served basis. Marinas constructed in conjunction with owner occupied multi-family residential buildings, shall be considered open to the public on a first come, first serve basis if no less than 50 percent of its berths are made available to the general public on a rental basis.

(c) An additional 20% of the lease fee shall be charged for the first annual fee on all leases.

(d) The per square foot base rate shall be revised March 1 of each year and increased or decreased based on the Consumer Price Index-All Items pursuant to paragraph (f) below.

(e) The rate for all new leases shall be determined according to the appropriate base rate schedule for the year in which the lease is granted.

(f) The rate charged for individual leases shall be adjusted annually based upon the average increase in the Consumer Price Index-All Items for the previous five years with a 10% cap.

(g) A rate of two times the existing rate shall be applied to aquatic preserve leases where 75% or more of the subject lease shoreline and the adjacent 1,000 feet on both sides of the lease area is in a natural, unbulkheaded, nonseawalled or nonriprapped condition. A rate of up to three times the base rate may be used in Class I or 2 Resource Protection Areas as designated in an aquatic preserve management plan adopted by the board.

(h) Nonwater dependent uses shall be assessed a fee that is ten times the appropriate base rate or a fee calculated by multiplying the square footage of the preempted area times the appraised per square foot value of the unimproved adjacent upland property times ten per cent, whichever is greater. The fees shall be adjusted annually pursuant to either 16Q-21.11(1)(d) or the revised annual assessed value as appropriate. Grandfathered nonwater dependent uses shall be treated as water dependent uses when grandfather status is lost for any reason.

(i) There shall be a minimum annual fee of $225.00.

(j) Waivers, partial waivers, or exclusions from payment of the lease fees for government, research, educational or charitable organizations may be granted by the Board in the event that the proposed uses are in the public interest.

(k) If a facility occupies sovereign submerged

lands portions of which are exempted from payment by virtue of grandfathered status and portions of which are leased, and grandfathered status is lost, the lease fee and rate schedule for the entire property shall be the appropriate base rate at the time the renegotiated lease is executed.

(l) There shall be an assessment for prior unauthorized use of sovereignty land for after-the-fact lease applications. The minimum assessment for such applications shall include:

1. Payment of retroactive lease fees;

2. Payment of an assessment computed as the number of square feet in the lease area times the lease fee per square foot at the time construction was commenced times ten; and,

3. Payment of an additional annual percentage on retroactive lease fees and on the assessment calculated under 2., computed at a rate of 12%. Such rate shall be adjusted annually to a rate equal to the two percentage points above the Federal Reserve Bank discount rate to member banks.

(m) Any grandfather structures which are not registered according to this rule shall lose any grandfathered rights.

(n) Any grandfather structures which are not registered according to this rule shall be considered a prior unauthorized use as of June 30, 1984, and may be treated according to the provisions of this section.

(o) The board may, at its discretion, consider equities and particular circumstances on a case by case basis to determine whether an adjustment of the assessment provisions set forth in (l) above would be warranted and may increase or lower the assessment accordingly.

(2) Private Easements

(a) The fee for private easements shall be determined by an appraisal obtained by the applicant. The appraiser must be selected from the division's approved list of appraisers and the appraisal must be reviewed and approved by the division.

(b) In addition to standard appraisal requirements and procedures, the following factors shall be considered in determining the easement fee:

1. the extent to which the easement is exclusionary; i.e., the degree to which the proposed easement precludes, in whole or in part, traditional or future public uses of the easement area or other submerged land; and

2. the enhanced property value or profit gained by the applicant if the proposed easement is approved.

(3) Severed Dredge Materials

(a) When an activity involves the removal of sovereignty materials to upland property by dredging or any other means, payment per cubic yard of material shall be as follows:

1. Monroe County	$3.25
2. Bay, Brevard, Broward, Charlotte, Collier, Dade, Duval, Escambia, Lee, Manatee, Palm Beach, Pasco, Pinellas and Sarasota Counties	$2.25
3. All other counties	$1.25
4. Minimum payment	$50.00

(b) These payments shall not be used for dead shell and mining leases which will be subject to individual royalty or other compensation payments.

(c) A waiver of the severed dredge material payment may be requested and approved when:

1. the materials are being placed on public property and used for public purposes; or

2. it is affirmatively demonstrated that the severed dredge material has no economic value.

Specific Authority 253.03(7) FS. Law Implemented 253.03, 253.71 FS. History—New 3-27-82, Amended 5-18-82, 8-1-83.

16Q-21.12 Spoil Islands.

(1) No spoil islands shall be developed except upon a clear showing that the development is in the public interest and hardship would result if the development was not authorized.

(2) Proposals for public development of spoil islands may be authorized after comments have been solicited and received from the appropriate public agencies determining that the public interest would be served by the development.

(3) Unauthorized structures that have been constructed on spoil islands shall be removed. The procedure for removal shall be as follows:

(a) The individual claiming a possessory interest in any structure shall be served notice by certified mail that he is trespassing and that he must remove the structure within 120 days of receipt of the notice.

(b) If the individual fails or refuses to remove the structure within 120 days of receipt of the notice, the board shall have the structure removed at the individual's expense.

(c) If the individual cannot be located, notice of trespass and intent to remove the structure shall be posted on the structure for 120 days prior to removal.

(4) Continuing human habitation of any spoil islands is prohibited.

Specific Authority 253.03(7) FS. Law Implemented 253.03, 253.115 FS. History—New 9-26-77, Formerly 16C-12.05 and 16Q-17.05, Revised 3-27-82.

16Q-21.13 Applications to Purchase Lands Riparian to Uplands.

(1) Applications to purchase lands riparian to uplands may be made by the riparian owners only. The board reserves the right to reject any and all such applications. The following shall be included in each application:

(a) Name and address of the applicant;

(b) Two prints of a survey prepared, signed, and sealed by a person properly licensed by the State of Florida Board of Land Surveyors or an agent of the federal government approved by the department clearly showing:

1. the boundaries of the parcel sought;

2. land tie referenced, by ground survey, to an established accessible section corner, subsection corner, other U. S. Government Land Office survey corner, or other controlling corner(s);

3. boundary lines of the applicant's adjacent uplands;

4. existing mean high water line, surveyed and approved in accordance with Chapter 177, Part II, Florida Statutes, between the applicant's uplands and the parcel sought extending 1,000 feet from both sides of the parcel;

5. U. S. Government Land Office meander line.

(c) Five maps, no larger than 8 1/2" × 14" in size, showing the location of the parcel sought for purchase. These maps need not be certified;

(d) Legal description and acreage of the filled parcel.

(e) Aerial photograph showing the date of flight, if available, with the parcel sought identified thereon;

with any dedication data, if the applicant's uplands are part of the subdivision;

(g) Satisfactory evidence of title in the applicant to the riparian uplands;

(h) Statement of the applicant's proposed use of the parcel sought;

(i) Statement evidencing that the sale of the parcel is in the public interest;

(j) Names and addresses, as shown on the latest county tax assessment roll, of all owners of land lying within 1,000 feet of the parcel sought, certified by the county appraiser; and

(k) An appraisal of the current market value of the parcel sought made within 3 months after the date of application by an appraiser with designations acceptable to the department.

(l) A non-refundable processing fee of $200 shall accompany each application, except for applications from state agencies.

(2) If the parcel sought is located in Pinellas or Sarasota County, the applicant shall simultaneously file an application with the respective water and navigation control authority having jurisdiction over the parcel.

(3) When state-owned submerged lands have been filled without authority after June 11, 1957 (state-owned submerged lands filled before June 11, 1957 are addressed in Rules 16Q-21.14 and 16Q-21.15, Florida Administrative Code), the board, by law may:

(a) Direct the fill be removed by or at the expense of the applicant;

(b) Direct the fill remain as state-owned and have it surveyed at the expense of the applicant; or

(c) Sell the filled lands. The following sale prices shall be recommended by the department to the board:

1. One and one-half times the present appraised value of the lands excluding building improvements if the unauthorized filling was done by the applicant's predecessor in title between June 11, 1957 and July 14, 1967.

2. Two times the present appraised value of the lands excluding building improvements if the unauthorized filling was done by the applicant's predecessor in title after July 14, 1967.

3. Three times the present appraised value of the lands excluding building improvements if the unauthorized filling was done by the applicant after June 11, 1957.

(4) Full payment for the deed shall be made within 90 days after notification of confirmation of the sale by the board or the sale shall be invalid. *Specific Authority 253.03, 253.12, 370.021 FS. Law Implemented 253.115, 253.12 FS. History—New 9-26-77, Formerly 16C-12.04 and 16Q-17.04, Revised 3-27-82.*

16Q-21.14 Disclaimers to Confirm Title to Filled Formerly Sovereignty Lands.

(1) Applications for disclaimers to confirm title of formerly sovereignty lands filled prior to May 29, 1951 (prior to June 11, 1957 in Dade and Palm Beach Counties), or subsequent to these dates under authority of a U. S. Army Corps of Engineers permit issued prior to these dates, must be supported by documentary evidence acceptable to the department including the following:

(a) Name and address of the applicant;

(b) Two prints of a survey prepared, signed, and sealed by a person properly licensed by the Florida federal government acceptable to department clearly showing:

1. present mean high waterline, surveyed and approved in accordance with Chapter 177, Part II, Florida Statutes;

2. applicant's ownership to the former mean high water line shown or indicated;

3. U. S. Government Land Office meander line; and

4. traverse of fill, showing the location of the former mean high water line, which is properly riparian to the applicant's uplands, with a land tie to an established accessible section corner, subsection corner, other U. S. Government Land Office Survey corner, or other controlling corner(s);

(c) Five maps, no larger than 8 1/2" × 14" in size, showing the location of the parcel sought. The maps need not be certified;

(d) Legal description and acreage of the filled parcel;

(e) Aerial photograph showing the date of flight, if available, evidencing the date of filling;

(f) Satisfactory evidence of title in the applicant to the riparian uplands to the mean high water line as it existed prior to filling;

(g) Two affidavits executed by disinterested parties evidencing the date, as accurately as possible from personal knowledge, when the filling of the parcel sought was completed;

(h) Copy of the U. S. Army Corps of Engineers permit issued prior to May 29, 1951 (June 11, 1957 in Dade and Palm Beach Counties) authorizing the fill, if applicable; and

(i) A non-refundable processing fee of $200 shall accompany each application, except for applications from state agencies.

Specific Authority 253.03(7) FS. Law Implemented 253.12, 253.129 FS. History—New 9-26-77, Formerly 16C-12.06 and 16Q-17.06, Revised 3-27-82.

16Q-21.15 Quitclaims to Clear Title to Filled Formerly Sovereignty Lands.

(1) Applications for quitclaim deeds to clear title to sovereignty lands filled after May 29, 1951, but prior to June 11, 1957 (except in Dade and Palm Beach Counties) or subsequent to these dates under authority of a U. S. Army Corps of Engineers permit issued prior to these dates, must be supported by documentary evidence acceptable to the department and including the following:

(a) Name and address of the applicant;

(b) Two prints of a survey prepared, signed, and sealed by a person properly licensed by the Florida State Board of Land Surveyors or an agent of the federal government acceptable to the department clearly showing:

1. present mean high water line surveyed and approved in accordance with Chapter 177, Part II, Florida Statutes;

2. applicant's ownership to the mean high water line prior to filling;

3. U. S. Government Land Office Meander line; and,

4. traverse of fill, showing the location of the former mean high water line, which is properly riparian to the applicant's upland ownership, with a tie to an established accessible section corner, subsection corner, other U. S. Government Land Office survey corner, or other controlling corner(s);

(c) Five maps, no larger than 8 1/2" × 14" in size, showing the location of the parcel sought. The

maps need not be certified;

(d) Legal description and acreage of the filled parcel;

(e) Aerial photograph showing the date of flight, if available, and showing the land as it existed prior to and after the filling;

(f) Satisfactory evidence of title in the applicant to the riparian uplands;

(g) Two affidavits executed by disinterested parties evidencing the date, as accurately as possible from personal knowledge, of commencement and completion of the fill;

(h) Copy of a U. S. Army Corps of Engineers permit issued after May 29, 1951, but prior to June 11, 1957, authorizing the fill, if applicable; and,

(i) A non-refundable processing fee of $200 shall accompany each application, except for applications from state agencies.

(2) The consideration for the parcel sought shall be the appraised value of the parcel in its unfilled state prior to June 11, 1957. The appraisal of the parcel shall be made within 3 months after the date of application by an appraiser with designations acceptable to the department.

(3) Full payment for the deed shall be made within 90 days after notification of confirmation of the conveyance by the board or the conveyance shall be invalid.

Specific Authority 253.03(7) FS. Law Implemented 253.12 FS. History—New 9-26-77, Formerly 16C-12.07 and 16Q-17.07, Revised 3-27-82.

16Q-21.16 Applications to Reclaim Lands Lost Due to Avulsion or Artificial Erosion.

(1) Applications to reclaim lost lands as defined in Section 253.124(8), Florida Statutes, may be submitted only by the riparian upland owner or the legally authorized agent thereof.

(2) Applications to reclaim lands lost due to avulsion or artificial erosion shall include the following:

(a) Name and address of applicant;

(b) Satisfactory evidence of title in the applicant to the existing upland, such as:

1. current title insurance policy issued by a title insurance company authorized to do business in Florida; or

2. opinion of title prepared by a member of the Florida Bar; or

3. affidavit of ownership;

(c) A survey prepared, signed, and sealed by a registered land surveyor showing the applicant's upland, U. S. Meander survey line, the approximate original mean high water line and the existing approximate mean high water line, and a traverse showing the location of the former mean high water line which is properly riparian to the applicant's uplands with a land tie to an established reference point;

(d) Legal description as shown by original survey which shall include the area to be reclaimed;

(e) Copy of a recorded subdivision plat showing the original recorded shoreline if the applicant's upland is part of a subdivision, or a copy of a map taken from an R. E. D. I. Real Estate Atlas map showing ownership lines and shorelines;

(f) Statement of proposed methods of reclaiming the subject lost lands, if not indicated in an attached Department of Environmental Regulation permit application;

(g) Two affidavits executed by disinterested parties evidencing the manner, as accurately as possible from personal knowledge, that the loss of land occurred by avulsion (storms, hurricanes), artificial erosion (caused by the emplacement of bulkheads, jetties and other structures), dredging, or artificial land cutting of uplands; and

(h) Accurate aerial photographs showing the date of flight evidencing the location and configuration of the original shoreline before and after avulsion or artificial erosion. Suggested sources: local tax assessor's office, local offices of the State Departments of Transportation and Agriculture and Consumer Services, and local offices of the U. S. Army Corps of Engineers.

Specific Authority 253.03(7) FS. Law Implemented 253.03, 253.12 FS. History—New 3-27-82.

Appendix D.

258.393 Terra Ceia Aquatic Preserve wastewater or effluent discharge activities.—

(1) The following described area in Manatee County is hereby designated by the Legislature for inclusion in the aquatic preserve system under the Florida Aquatic Preserve Act of 1975. Such area, to be known as the Terra Ceia Aquatic Preserve, shall be included in the aquatic preserve system and shall include the following described real property: Begin at a point 165 feet north of the southwest corner of the northwest quarter of Section 12, Township 33 South, Range 17 East, Manatee County, thence run west to the mean high-water line of Tampa Bay, said point being the point of beginning. From said point of beginning, run northwesterly into the waters of Tampa Bay and parallel to the Port Manatee ship channel to the Manatee-Hillsborough county line; thence run southwest along the Manatee-Hillsborough county line to its intersection with the Intracoastal Waterway; thence run south-southwesterly along the Intracoastal Waterway to a point on a line connecting the westernmost tip of Snead Island (Manatee County) to the southernmost tip of Mullet Key (Pinellas County); thence run southeasterly along said line to the westernmost tip of Snead Island (also known as Emerson Point); thence run in a northeasterly direction along the mean high-water line of Tampa Bay, Terra Ceia Bay, where the mean high water line intersects the north line of U.S. Government Lot 4, Section 16, Township 34 South, Range 17 East; thence east along the said north line of U.S. Government Lot 4 and the easterly extension thereof a distance of 1,111 feet more or less to the mean high water line at a seawall; thence meander in a northwesterly, westerly, northerly direction along the seawall of a canal; thence in a northeasterly direction along the mean high water line of Miguel Bay, Joe Bay, and Bishop Harbor to the point of beginning, including tidal waters of all tributaries; less all privately titled submerged lands and uplands.

(2) Wastewater or effluent discharge activities from an existing stationary facility or existing stationary installation which has been approved pursuant to state law or federal law or for which facility or installation an application has been filed before June 24, 1984, are exempt from the requirements of this chapter.

History.—s. 1, ch. 84-312; s. 4, ch. 85-345.

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