

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

MARJORY STONEMAN DOUGLAS BUILDING 3900 COMMONWEALTH BOULEVARD TALLAHASSEE, FLORIDA 32399-3000 RICK SCOTT GOVERNOR

HERSCHEL T. VINYARD JR. SECRETARY

August 22, 2013

Ms. Sine Murray
Planning Manager
Office of Park Planning, Division of Recreation and Parks
Department of Environmental Protection
3900 Commonwealth Boulevard, MS 525
Tallahassee, FL 32399-3000

Re: Stump Pass Beach State Park – Lease # 2545

Dear Ms. Murray: Sul

The Division of State Lands, Office of Environmental Services, acting as agent for the Board of Trustees of the Internal Improvement Trust Fund, hereby approves the Stump Pass Beach State Park management plan. The next management plan update is due August 21, 2023.

Approval of this land management plan does not waive the authority or jurisdiction of any governmental entity that may have an interest in this project. Implementation of any upland activities proposed by this management plan may require a permit or other authorization from federal and state agencies having regulatory jurisdiction over those particular activities. Pursuant to the conditions of your lease, please forward copies of all permits to this office upon issuance.

Sincerely,

Marianne S. Gengenbach

Office of Environmental Services

Marianne

Division of State Lands

AUG 2 3 2013

Stump Pass Beach State Park Unit Management Plan

APPROVED

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Recreation and Parks August 22, 2013



TABLE OF CONTENTS

INTRODUCTION	1
PURPOSE AND SIGNIFICANCE OF THE PARK	1
PURPOSE AND SCOPE OF THE PLAN	2
MANAGEMENT PROGRAM OVERVIEW	8
Management Authority and Responsibility	8
Park Management Goals	8
Management Coordination	9
Public Participation	9
Other Designations	10
RESOURCE MANAGEMENT COMPONENT	
INTRODUCTION	11
RESOURCE DESCRIPTION AND ASSESSMENT	12
Natural Resources	12
Topography	12
Geology	15
Soils	15
Minerals	19
Hydrology	19
Natural Communities (FNAI)	19
Imperiled Species	27
Exotic Species	32
Special Natural Features	35
Cultural Resources	35
Condition Assessment	35
Level of Significance	36
Pre-Historic and Historic Archaeological Sites	36
Description	36
Condition Assessment	36
Level of Significance	36
General Management Measures	37
RESOURCE MANAGEMENT PROGRAM	38
Management Goals, Objectives, and Actions	38
Natural Resource Management	39
Natural Communities Management	39
Natural Communities Restoration	39
Imperiled Species Management	41

Exotic Species Management	42
Special Management Considerations	43
Timber Management Analysis	43
Coastal/Beach Management	43
Arthropod Control	47
Sea Level Rise	47
Additional Considerations	47
Cultural Resource Management	47
Cultural Resource Management	47
Resource Management Schedule	48
Land Management Review	49
LAND USE COMPONENT	
INTRODUCTION	51
EXTERNAL CONDITIONS	51
Existing Use of Adjacent Lands	52
Planned Use of Adjacent Lands	52
PROPERTY ANALYSIS	53
Recreation Resource Elements	53
Land Area	53
Water Area	53
Shoreline	54
Natural Scenery	54
Significant Wildlife Habitat	54
Archaeological and Historic Features	57
Assessment of Use	57
Past Uses	57
Future Land Use and Zoning	57
Current Recreational Use and Visitor Programs	57
Protected Zones	58
Existing Facilities	58
Recreation Facilities	58
Support Facilities	59
CONCEPTUAL LAND USE PLAN	
Potential Uses	60
Public Access and Recreational Opportunities	
Proposed Facilities	
Capital Facilities and Infrastructure	62

Facilities Development		67
Existing Use and Recreational Carrying Capacity		67
Optimum Boundary		68
IMPLEMENTATION COMPONENT		
MANAGEMENT PROGRESS		73
Park Administration and Operations	••••	73
Resource Management	•••••	73
Natural Resources		73
Recreation and Visitor Services		
Park Facilities		
MANAGEMENT PLAN IMPLEMENTATION		74
TABLES		
TABLE 1 - Management Zones Acreage		12
TABLE 2 - Imperiled Species Inventory		
TABLE 3 - Exotic Plant Species Inventory		33
TABLE 4 - Cultural Sites Listed in the Florida Master Site File		37
TABLE 5 - Existing Use and Recreational Carrying Capacity		
TABLE 6 - Implementation Schedule and Cost Estimates		77
LIST OF ADDENDA		
ADDENDUM 1		
Acquisition History	A 1	- 1
ADDENDUM 2		
Advisory Group List and Report	A 2	- 1
ADDENDUM 3		
References Cited	А 3	- 1
ADDENDUM 4		
Soil Descriptions	A 4	- 1
ADDENDUM 5		
Plant and Animal List	A 5	- 1

ADDENDUM 6

	Imperiled Species Ranking Definitions	6 - 1
A	DDENDUM 7	
	Cultural Information	7 - 1
	MAPS	
	Vicinity Map	3
	Reference Map	
	Management Zones Map	13
	Soils Map	17
	Natural Communities Map	21
	Base Map	55
	Conceptual Land Use Plan	
	Optimum Boundary Map	

INTRODUCTION

Stump Pass Beach State Park is located in the northwest corner of Charlotte County (see Vicinity Map); access to the park is from U.S. Highway 41, to County Road 776 (see Reference Map) crossing Tom Adams Bridge to the terminus of Gulf Boulevard on Manasota Key or by watercraft. The vicinity map also reflects significant land and water resources existing near the park.

Stump Pass Beach State Park is comprised of the southernmost mile of Manasota Key, which is actually a peninsula, in combination with three smaller, nearby islands in Lemon Bay: Peterson Island, Whidden Key, and Little Whidden Key. Manasota Key is part of a chain of barrier islands stretching from Anclote Key to the north in Pasco County to Cape Romano south in Collier County.

On May 10, 1971, the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida (Trustees) acquired Stump Pass Beach State Park (formerly known as Port Charlotte Beach State Recreation Area) to develop, operate, and maintain the property for outdoor recreation, park, conservation, historic, and related purposes. The state purchased the property with grants from Land Acquisition Trust Fund (LATF) and federal grants from Land & Water Conservation Fund (LWCF). Since this initial purchase, the Trustees acquired two additional parcels, one through donation and purchased with LATF and LWCF funds, adding them to the park. Currently the park contains 211.24 acres.

On May 4, 1971, the Trustees conveyed management authority of Stump Pass Beach State Park to the Florida Department of Environmental Protection (DEP), Division of Recreation and Parks (DRP) under Lease No. 2545. The lease is for a period of ninety-nine (99) years, which will expire on May 4, 2070.

At Stump Pass Beach State Park, public outdoor recreation and conservation is the designated single use of the property (see Addendum 1). There are no legislative or executive directives that constrain the use of this property.

PURPOSE AND SIGNIFICANCE OF THE PARK

The main feature of Stump Pass Beach State Park is the white sand beach, important aesthetically and as an asset to the local tourism based economy. The state originally acquired the park from Charlotte County for the benefit of preserving recreational opportunities at one of Florida's remaining and outstanding beaches. Some examples of the significance of Stump Pass Beach State Park include:

 The primary recreation area of the park offers residents and visitors rare access to pristine Gulf beaches in a highly populated region in Southwest Florida. The park protects a one-mile stretch of coastal beach habitat and adjacent estuarine communities that provide park visitors with exceptional boating, fishing, kayaking, birding, swimming, wading, and other recreational opportunities.

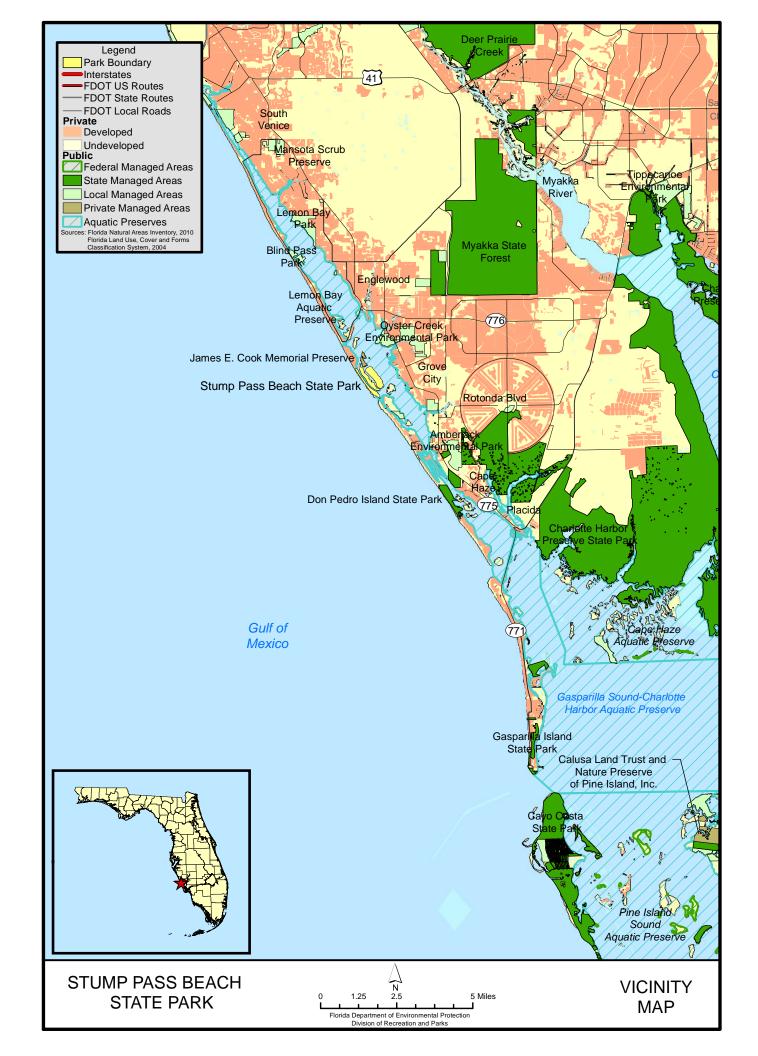
- The park protects representative, native barrier island habitat at the southern end of populated Manasota Key, including nesting areas for imperiled species of sea turtles and shorebirds and habitat for gopher tortoises.
- The nature of the park's barrier islands, consisting of the southern end of Manasota Key and two large islands behind it protects an exceptional area of productive intertidal and estuarine habitat along the Gulf of Mexico.

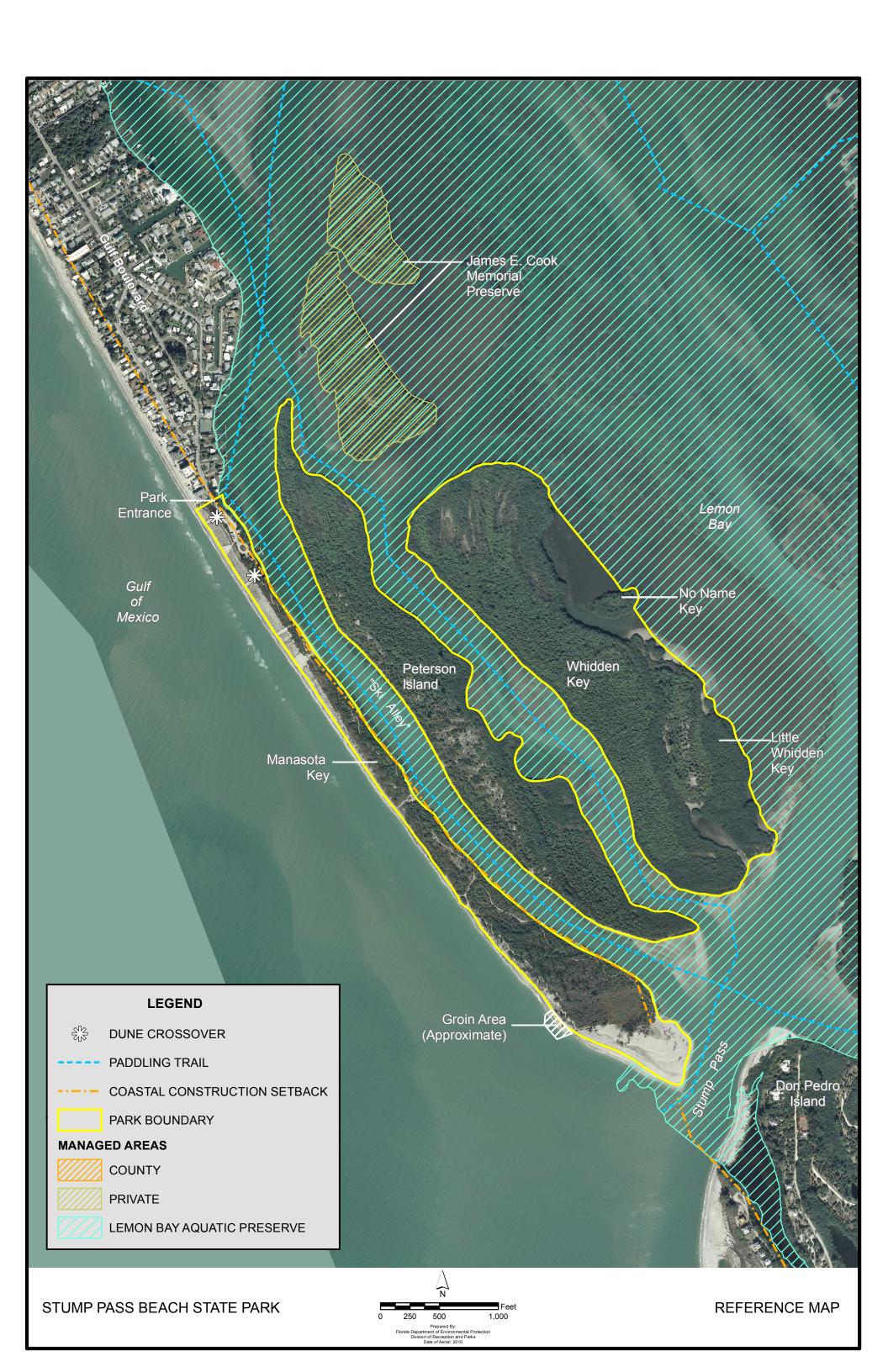
Stump Pass Beach State Park is classified as a State Park in the DRP unit classification system. In the management of a state park, balance is sought between the goals of maintaining and enhancing natural conditions and providing various recreational opportunities. Natural resource management activities are aimed at management of natural systems. Development in the park is directed toward providing public access to and within the park, and to providing recreational facilities, in a reasonable balance, that are both convenient and safe. Program emphasis is on interpretation on the park's natural, aesthetic, and educational attributes.

PURPOSE AND SCOPE OF THE PLAN

This plan serves as the basic statement of policy and direction for the management of Stump Pass Beach State Park as a unit of Florida's state park system. It identifies the goals, objectives, actions, and criteria or standards that guide each aspect of park administration, and sets forth the specific measures that will be implemented to meet management objectives and provide balanced public utilization. The plan is intended to meet the requirements of Sections 253.034 and 259.032, Florida Statutes, Chapter 18-2, Florida Administrative Code, and is intended to be consistent with the State Lands Management Plan. With approval, this management plan will replace the 2001 approved plan.

The plan consists of three interrelated components: the Resource Management Component, the Land Use Component, and the Implementation Component. The Resource Management Component provides a detailed inventory and assessment of the natural and cultural resources of the park. Resource management needs and issues are identified and measurable management objectives are established for each park's management goals and resource types.





This component provides guidance on the application of such measures as prescribed burning, exotic species removal, imperiled species management, cultural resource management, and restoration of natural conditions.

The Land Use Component is the recreational resource allocation plan for the park. Based on considerations such as access, population, adjacent land uses, the natural and cultural resources of the park, current public uses, and existing development, measurable objectives are set to achieve the desired allocation of the physical space of the park. These objectives locate use areas and propose the types of facilities and programs and the volume of public use to be provided.

The Implementation Component consolidates the measurable objectives and actions for each of the park's management goals. An implementation schedule and cost estimates are included for each objective and action. Included in this table are (1) measures that will be used to evaluate the DRP's implementation progress, (2) timeframes for completing actions and objectives and, (3) estimated costs to complete each action and objective.

All development and resource alteration proposed in this plan is subject to the granting of appropriate permits, easements, licenses, and other required legal instruments. Approval of the management plan does not constitute an exemption from complying with the appropriate local, state or federal agencies. This plan is also intended to meet the requirements for beach and shore preservation, as defined in Chapter 161, Florida Statutes, and Chapters 62B-33, 62B-36, and 62R-49, Florida Administrative Code.

In the development of this plan, the potential of the park to accommodate secondary management purposes was analyzed. These secondary purposes were considered within the context of the DRP's statutory responsibilities and the resource needs and values of the park. This analysis considered the park natural and cultural resources, management needs, aesthetic values, visitation and visitor experiences. For this park, it was determined that no secondary purposes could be accommodated in a manner that would not interfere with the primary purpose of resource-based outdoor recreation and conservation. Uses such as water resource development projects, water supply projects, stormwater management projects, linear facilities, and sustainable agriculture and forestry (other than those forest management activities specifically identified in this plan) are not consistent with this plan.

The potential for generating revenue to enhance management was also analyzed. Visitor fees and charges are the principal source of revenue generated by the park. It was determined that multiple-use management activities would not be appropriate as a means of generating revenues for land management. Instead, techniques such as entrance fees, concessions, and similar measures will be employed on a case-by-case basis as a means of supplementing park management funding.

The use of private land managers to facilitate restoration and management of this park was also analyzed. Decisions regarding this type of management (such as outsourcing, contracting with the private sector, use of volunteers, etc.) will be made on a case-by-case basis as necessity dictates.

MANAGEMENT PROGRAM OVERVIEW

Management Authority and Responsibility

In accordance with Chapter 258, Florida Statutes and Chapter 62D-2, Florida Administrative Code, the Division of Recreation and Parks (DRP) is charged with the responsibility of developing and operating Florida's recreation and parks system. These are administered in accordance with the following policy:

It shall be the policy of the Division of Recreation and Parks to promote the state park system for the use, enjoyment, and benefit of the people of Florida and visitors; to acquire typical portions of the original domain of the state which will be accessible to all of the people, and of such character as to emblemize the state's natural values; conserve these natural values for all time; administer the development, use and maintenance of these lands and render such public service in so doing, in such a manner as to enable the people of Florida and visitors to enjoy these values without depleting them; to contribute materially to the development of a strong mental, moral, and physical fiber in the people; to provide for perpetual preservation of historic sites and memorials of statewide significance and interpretation of their history to the people; to contribute to the tourist appeal of Florida.

Many operating procedures are standardized system-wide and are set by internal direction. These procedures are outlined in the DRP's Operations Manual (OM) that covers such areas as personnel management, uniforms and personal appearance, training, signs, communications, fiscal procedures, interpretation, concessions, public use regulations, resource management, law enforcement, protection, safety, and maintenance.

Park Management Goals

The following park goals express the DRP's long-term intent in managing the state park.

- 1. Provide administrative support for all park functions.
- 2. Protect water quality and quantity in the park, restore hydrology to the extent feasible, and maintain the restored condition.
- 3. Restore and maintain the natural communities/habitats of the park.
- 4. Maintain, improve, or restore imperiled species populations and habitats in the park.

- 5. Remove exotic and invasive plants and animals from the park and conduct needed maintenance-control.
- 6. Protect, preserve and maintain the cultural resources of the park.
- 7. Provide public access and recreational opportunities in the park.
- 8. Develop and maintain the capital facilities and infrastructure necessary to meet the goals and objectives of this management plan.

Management Coordination

The park is managed in accordance with all applicable laws and administrative rules. Agencies having a major or direct role in the management of the park are discussed in this plan.

The Florida Department of Agriculture and Consumer Services (FDACS), Division of Florida Forest Service (FFS), assists DRP staff in the development of wildfire emergency plans and provides the authorization required for prescribed burning. The Florida Fish and Wildlife Conservation Commission (FWC), assists staff in the enforcement of state laws pertaining to wildlife, freshwater fish and other aquatic life existing within the park. In addition, the FWC aids the DRP with wildlife management programs, including imperiled species management and Watchable Wildlife programs. The Florida Department of State (FDOS), Division of Historical Resources (DHR) assists staff to ensure protection of archaeological and historical sites. The Florida Department of Environmental Protection (DEP), Office of Coastal and Aquatic Managed Areas (CAMA) aids staff in aquatic preserves management programs. The DEP, Bureau of Beaches and Coastal Systems aids staff in planning and construction activities seaward of the Coastal Construction Line. In addition, the Bureau of Beaches and Coastal Systems aid the staff in the development of erosion control projects.

Public Participation

The DRP provided an opportunity for public input by conducting a public workshop and an Advisory Group Meeting to present the draft management plan to the public. These meetings were held on Wednesday, February 27, 2013 and Thursday, February 28, 2013, respectively. Meeting notices were published in the Florida Administrative Weekly, Tuesday, February 19, 2013, Volume 39, Issue 34, included on the Department Internet Calendar, posted in clear view at the park, and promoted locally. The purpose of the Advisory Group meeting is to provide the Advisory Group members an opportunity to discuss the draft management plan (see Addendum 2).

Other Designations

Stump Pass Beach State Park is not within an Area of Critical State Concern as defined in Section 380.05, Florida Statutes, and it is not presently under study for such designation. The park is a component of the Florida Greenways and Trails System, administered by the Department's Office of Greenways and Trails.

All waters within the park have been designated as Outstanding Florida Waters, pursuant to Chapter 62-302, Florida Administrative Code. Surface waters in this park are also classified as Class III waters by the Department. This park is within or adjacent to Lemon Bay Aquatic Preserve, and Cape Haze-Gasparilla Sound Aquatic Preserve, and Gasparilla Sound-Charlotte Harbor Aquatic Preserve as designated under the Florida Aquatic Preserve Act of 1975 (Section 258.35, Florida Statutes).

RESOURCE MANAGEMENT COMPONENT

INTRODUCTION

The Florida Department of Environmental Protection (DEP), Division of Recreation and Parks (DRP) in accordance with Chapter 258, Florida Statutes, has implemented resource management programs for preserving for all time the representative examples of natural and cultural resources of statewide significance under its administration. This component of the unit plan describes the natural and cultural resources of the park and identifies the methods that will be used to manage them. Management measures expressed in this plan are consistent with DEP's overall mission in natural systems management. Cited references are contained in Addendum 3.

DRP's philosophy of resource management is natural systems management. Primary emphasis is placed on restoring and maintaining, to the degree possible, the natural processes that shaped the structure, function, and species composition of Florida's diverse natural communities as they occurred in the original domain. Single species management for imperiled species is appropriate in state parks when the maintenance, recovery, or restoration of a species or population is complicated due to constraints associated with long-term restoration efforts, unnaturally high mortality, or insufficient habitat. Single species management should be compatible with the maintenance and restoration of natural processes, and should not imperil other native species or seriously compromise park values.

DRP's management goal for cultural resources is to preserve sites and objects that represent Florida's cultural periods, significant historic events, or persons. This goal often entails active measures to stabilize, reconstruct or restore resources, or to rehabilitate them for appropriate public use.

Because park units are often components of larger ecosystems, their proper management can be affected by conditions and events that occur beyond park boundaries. Natural systems management is implemented through a resource management evaluation program that assesses resource conditions, evaluates management activities and refines management actions, and reviews local comprehensive plans and development permit applications for park/ecosystem impacts.

The entire park is divided into management zones that delineate areas on the ground that are used to reference management activities (see Management Zones Map). The shape and size of each zone may be based on natural community type, burn zone, and the location of existing roads and natural fire breaks. It is important to note that all burn zones are management zones; however, not all management zones include fire-

dependent natural communities. Table 1 reflects the management zones with the acreage of each zone.

MANAGEMENT ZONES

Table 1: Stump Pass Beach State Park Management Zones				
Management Zone	Acreage	Managed with Prescribed Fire		
SPB-1	21.50	N		
SPB-2	10.87	N		
SPB-3	26.72	N		
SPB-4A	34.71	N		
SPB-4B	31.97	N		
SPB-5	100.82	N		

RESOURCE DESCRIPTION AND ASSESSMENT

Natural Resources

Topography

Stump Pass Beach State Park is located on the west coast of Florida on the southernmost portion of Manasota Key between the Gulf of Mexico and Lemon Bay. It is part of the chain of barrier islands along the southwest coast of Florida characterized by low relief. The low-energy coastline, with a relatively shallow, sloping bottom prevents the buildup of large waves. Consequently, the dune system is not well developed. Elevations rise above five feet, but do not exceed ten. Accretion due to the southerly transport of sand along the Gulf shoreline continuously forms a spit that extends southward from the tip of Manasota Key. Stump Pass, the channel that separates Manasota Key from Knight Island, is dredged to maintain navigable channel depths between Lemon Bay and the Gulf, and to provide a source of sand for adjacent eroding beach areas (see Coastal/Beach Management Section). Those dredging events (every three to four years) remove accreted sand from the spit (SPB-3) and result in erosion of the adjacent shoreline. The topography of the southern Gulf shoreline of Manasota Key has changed dramatically due to erosion, since an elongated spit was severed from park lands when the dredging commenced in 2003. The severed portion of the spit was connected to Knight Island and is considered state land that is managed by Charlotte County Sand which is periodically dredged from the Stump Pass channel and adjacent ebb shoal areas is placed along the Manasota Key beach and locations south of Stump Pass along the Don Pedro Island to partially offset erosion impacts.



<u>Geology</u>

The park is within the gulf coastal lowlands physiographic region of Florida. The islands of the park are part of a barrier-inlet system along the west-central part of the Florida peninsula that has the most diverse morphology in the world (Davis, 1994). This system extends for about 186 miles and includes 29 barrier islands and 30 tidal inlets. (Randazzo and Jones, 1997). The sands of the surface formation rest upon Pleistoceneaged limestone. The upper strata of this limestone belong to a series of sedimentary deposits called the Anastasia Formation, made up of coquinoid limestone, sand, and clay.

Barrier islands are unstable land masses, constantly changing shape in response to the natural influences of wave energy, storms, tides, wind, and rising sea levels. Tide gauge data show that the average rate of sea level rise in Florida over the last fifty years (1-2) mm/yr, Evans and Hine, 1983), is greater than the average for the last several thousand years (Ewel and Myers, 1990). Anthropological effects resulting from groins, experimental sand-filled tubes, and dredge and renourishment projects have also dramatically changed the shoreline features of this island. The morphology of the barrier islands results from the interplay between these natural and manmade coastal forces (Randazzo and Jones 1997). They are highly susceptible to being breached and flooded during hurricanes (Charlotte Harbor National Estuary Program, 1998). One of the historically narrowest and lowest points of the park is at the developed area, just south of the groins that are outside the park. This was the location of the pass prior to the hurricane of 1910. These factors combine to make this portion of the park most susceptible to overwash and possible breakthrough in a major storm or hurricane (Reynolds, 1976). Waves are driven ashore by winds that come predominantly from the west and northwest (University of Florida study, 1972). Stump Pass was a natural inlet until a navigation channel was first dredged in 1980 (DEP Strategic Beach Management Plan, May 2008). Storms of record have relocated the pass at this locale, and to the north, as well as the south, for a considerable distance (Reynolds, 1976).

Soils

The soils of the coastal barrier islands of Southwest Florida are relatively young, lacking well-developed horizons. The coastal beach soils are composed predominately of fine quartz sand and calcareous shell material deposited by wind and wave action. The proportion of sand to shell in coastal soils varies. Most are mixtures of shells, shell fragments, and fine sand; however, pure sediments of both shell material and sand are common. Little organic matter occurs in these young, sandy soils (Reynolds, 1976).

In the 1984 soil survey of Charlotte County, three types are identified (see Soils Map) within the park boundaries: Canaveral Fine Sand, Kesson Fine Sand, and a type known simply as "Beaches." Complete soil descriptions are contained in Addendum 4. Several soil samples were taken during a study of the park in 1976. All of the samples were of

the Canaveral Series, a sandy soil mixed with shell fragments and little organic material. The texture ranged from fine sand to coarse sand; the shell particles were stratified or homogeneously mixed through the soil. The Canaveral Series is mildly alkaline and moderately well drained, although drainage is limited by the shallow water table.

Two types of the Canaveral Series were found. The Canaveral Series (Low) has a seasonally high water table within 10 inches of the surface, while the Canaveral Series (High) has a seasonally high water table from 10 to 40 inches deep. The boundaries of the Canaveral Series (Low) were found the same as the boundaries of those plant communities that are tolerant of excessively wet or flooded conditions.

The boundaries of the Canaveral Series (High) were the same as the vegetation communities that cannot withstand the flooding or saline conditions of the Canaveral Series (Low) in this area. The communities found in association with the Canaveral Series (High) were the unconsolidated substrate, maritime hammock, beach dune, coastal strand and altered landscape type areas. Definite ecotones marked the boundaries between the Canaveral Series (Low) and Canaveral Series (High) soils. This was particularly evident in those areas where old shorelines had formed alternating lines of ridges and swales. The Canaveral Series (Low) occurred in those areas low in elevation that were subject to tidal flooding or accumulation of rainwater runoff during the rainy season. The Canaveral Series (High) occurred in those areas of higher elevation, above the reach of the tides and where water could not accumulate during heavy rains (Reynolds, 1976).

There is potential for soil erosion along the western shore of Peterson Island where a channel known as "Ski Alley" is often subject to wave action from watercraft. After public hearings in 2002, the Florida Fish and Wildlife Conservation Commission (FWC) decided not to restrict boat speed as the channel has been historically used for water sport activity (per communication Scott Callison, FWC). Aerial photographs, suggest that the erosion has not worsened since the last plan was approved in 2003. Management measures will follow generally accepted best management practices to prevent soil erosion and conserve soil on the site.



Minerals

There are no minerals of commercial value at this park.

Hydrology

The park lies within the Southern Coastal Watershed of the Southwest Florida Water Management District. "The watershed has a high degree of coastal urbanization which strongly influences the quality of the surrounding natural areas" (SFWMD, 2001). The only natural source of fresh water in the park is rainfall. The rain rapidly percolates through the sandy soil into the Gulf of Mexico. Presently, all water for park use is piped from the mainland. It is not anticipated that there will ever be any withdrawals of ground water. Therefore, hydrology should not be a concern in the management of this small park. In addition, because the park is made up of several small islands of shifting sand there is no surface drainage of fresh water.

Natural Communities

This section of the management plan describes and assesses each of the natural communities found in the state park. It also describes of the desired future condition (DFC) of each natural community and identifies the actions that will be required to bring the community to its desired future condition. Specific management objectives and actions for natural community management, exotic species management, imperiled species management and restoration are discussed in the Resource Management Program section of this component.

The system of classifying natural communities employed in this plan was developed by the Florida Natural Areas Inventory (FNAI). The premise of this system is that physical factors such as climate, geology, soil, hydrology, and fire frequency generally determine the species composition of an area, and that areas that are similar with respect to those factors will tend to have natural communities with similar species compositions. Obvious differences in species composition can occur, however, despite similar physical conditions. In other instances, physical factors are substantially different, yet the species compositions are quite similar. For example, coastal strand and scrub, two communities with similar species compositions, generally have quite different climatic environments, and these necessitate different management programs. Some physical influences, such as fire frequency, may vary from FNAI's descriptions for certain natural communities in this plan.

When a natural community within a park reaches the desired future condition, it is considered to be in a "maintenance condition." Required actions for sustaining a community's maintenance condition may include, maintaining optimal fire return intervals for fire dependent communities, ongoing control of non-native plant and animal species, maintaining natural hydrological functions (including historic water

flows and water quality), preserving a community's biodiversity and vegetative structure, protecting viable populations of plant and animal species (including those that are imperiled or endemic), and preserving intact ecotones linking natural communities across the landscape.

The park contains six distinct natural communities as well as altered landcover types and developed areas (see Natural Communities Map). A list of known plants and animals occurring in the park is contained in Addendum 5.

BEACH DUNE

Desired future condition: A coastal mound or ridge of unconsolidated sediments will be found along shorelines with high-energy waves. Vegetation will consist of herbaceous dune forming grass species such as sea oats (*Uniola paniculata*) and sand cordgrass (*Spartina alterniflora*). Other typical species will include sea rocket (*Cakile lanceolata*) railroad vine (*Ipomoea pes-caprae*), seashore paspalum (*Paspalum vaginatum*), beach morning glory (*Ipomea imperati*), and beach sunflower (*Helianthus debilis subsp. debilis* along Gulf coast). Occasionally shrubs such as beach elder (*Iva imbricata*), and bay cedar (*Suriana maritima*) will be scattered within the herbaceous vegetation.

Description and assessment: The Gulf coast does not experience the high-energy waves of the east coast and as a result dune formation is very modest. Prior to the 2011 maintenance dredging of Stump Pass and subsequent erosion along the southern end of Manasota Key, the park's beach dune community occupied a stabilized wide zone at the southern end, which had been accreting.

Elsewhere this community forms a narrow band paralleling the beach (unconsolidated substrate) to the north where it is periodically encroached upon, or entirely eroded, by heavy surf during storms. There are several disjunct segments of beach dune that are broad enough to persevere through most storms. In addition, groins along the beach north of the park disrupt the southward littoral drift, which increases dune erosion when there is not enough sand to bypass the groins. Periodic beach nourishment replaces some of the erosion losses. Consequently, the acreage of beach dune at this park may vary from year to year. A large project replanting sea oats occurred after the hurricanes and tropical storms in 2004. To prevent further damage the dune system, two walkovers were constructed at the more heavily used northern areas of the park. The crossovers are void of vegetation, caused by visitor foot traffic arriving from the eastern side, and have experienced washovers (or blowouts) during storms. Interpretive signs were also installed to assist with dune protection.



Typical plant species include sandspur (*Cenchrus spp.*), sea purslane (*Sesuvium portalacastrum*), sea rocket, railroad vine, and beach elder. There is remnant beach dune at the pass that has been accreting since the latest dredging project in Spring 2011. The vegetation consists predominantly of sandspur, railroad vine, and Virginia dropseed (*Sporobolus virginicus*). Wilson's plover (*Chardrius wilsonia*) have nested successfully in this area and a few least terns (*Sternula antillarum*) have attempted to nest but were not successful. At present, the remaining beach dune community is considered to be in good condition.

General management measures: If the southern tip of Manasota Key can be stabilized, a healthy dune should be restored by the erosion control measures. In addition, active park management activities that include strategic dune planting, sand fencing, roping off dune restoration areas, and providing interpretive signage provide further protection in heavier use areas. The staff will continue to monitor and remove exotic vegetation as it occurs.

Designated pathways with posts and rope will be installed at the two crossovers lacking a boardwalk and sea oats will be planted to decrease the unvegetated areas and possibility of blowouts.

COASTAL STRAND

Desired Future Condition: The community will be characterized by stabilized, winddeposited coastal dunes that will be thickly vegetated with evergreen salt-tolerant shrubs. It will be an ecotonal community that is found between the beach dune and maritime hammock, or tidal swamp. Coastal strand dunes contain deep, well-drained sands that are generally quite stable but become susceptible to severe damage if the vegetation is significantly disturbed. Tropical species are more prevalent on the Gulf coast and will include seagrape (Coccoloba uvifera), swamp privet (Forestiera segregata), myrsine (Rapanea punctata), buttonsage (Lantana involucrata), white indigoberry (Randia aculeata), snowberry (Chiococca alba), nickerbean (Caesalpinia bondoc), and numerous others. Smooth domed canopies develop as the taller vegetation is "pruned" by the windblown salt spray that kills the outer buds. This process is not as prevalent on the west coast of Florida or on the lee-side of islands due to prevailing easterly winds. Significant debate exists on the relative occurrence of natural fires compared to inland pyric communities. The Division Fire Management Standard estimates that the appropriate fire return interval to be between 4 and 15 years. However, variability outside this range may occur based on site-specific conditions and management goals.

Description and Assessment: This natural community is found on the Manasota Key parcel, the western portion of Peterson Island and much of Whidden Key. The substrate is composed of wave-washed sand, deposited long ago when the site fronted on the Gulf of Mexico. Much of the vegetation is short and sparse, with mully grass

(*Mulenburgia spp.*) being common, but also with clumps of small trees and shrubs that are expanding and coalescing in a successional trend toward maritime hammock. A healthy, abundant population of Florida coontie (*Zamia pumila*) is found on Whidden Key. Common shrubs found are buttonsage, golden creeper (*Ernodia littoralis*), necklace pod (*Sophora tomentosa*), myrsine, Jamaican caper (*Capparis cynophallophora*), Florida privet, wax myrtle (*Myrica cerifera*), and white indigo berry. In spite of the presence of scattered Brazilian pepper, this community is in good condition.

General management measures: No prescribed burning is conducted on Stump Pass Beach State Park. The staff will continue to monitor and remove exotic vegetation as it occurs.

MARITIME HAMMOCK

Desired Future Condition: A coastal evergreen hardwood forest will occur in narrow bands along stabilized coastal dunes. Canopy species typically consisting of sea grape, marlberry (*Ardisia escallonioides*), wild coffee, snowberry, and white indigoberry and cabbage palm (*Sabal palmetto*) will be present. The dense canopy will be pruned by salt-spray and wind. Understory species will consist of saw palmetto (*Serenoa repens*) and/or wax myrtle. Very sparse or absent herbaceous groundcover will exist. Variation in species composition exists along the coast as you head southward, tropical species become more prevalent.

Description and Assessment: The maritime hammock at Stump Pass is composed of more subtropical species, such as Jamaican caper, and cat's claw (*Pithecellobium unguiscati*) than typical of the eastern barrier islands. The eastern portion of Peterson Island is covered with hammock vegetation and vestiges of hammock remain in the interior of Whidden Key. The most abundant native canopy species are cabbage palm and seagrape. Where the hammock has matured, white stopper is an abundant understory tree, with other species being much reduced and with little foliage springing from the mat of leaves covering the ground. However, much of the hammock fringe on the western side of Peterson Island is in a transitional stage from an earlier sere of coastal strand vegetation; it is dense with large shrubs like myrsine and wax myrtle. The well-developed hammocks on these islands mark the uplands that have been continuously in existence since at least 1884. The blackened trunks of cabbage palm trees in the hammock on Peterson Island are evidence of a past fire. A fire was reported in 1974 (Reynolds, 1976). The community is in good condition despite the presence of Brazilian pepper.

General management measures: Efforts to eradicate Australian pine will continue on all the islands with replanting of hammock vegetation in appropriate sites. As mentioned above, Australian pine and Brazilian pepper have virtually been eradicated from the Manasota Key portions of the park. Efforts to eradicate exotic plant species on

Peterson Island and Whidden Key will continue. The staff will continue to monitor and remove exotic vegetation as it occurs.

MANGROVE SWAMP

Desired future condition: Coastal swamp will consist of a low, dense forest occurring on low energy, flat shorelines. Dominant plants will include mangrove species. Other species present include saltgrass (*Distichlis spicata*), saltwort (*Batis maritima*) sand cordgrass (*Spartina alterniflora*), and bushy sea oxeye (*Borrichia frutescens*).

Description and assessment: Little Whidden Key, attached to the east side of Whidden Key and a smaller unnamed island, are made up entirely of mangroves. Mangroves also encircle Whidden Island, being wider on the east side of the island and forming only a fringe along the western shore. At Peterson Island, a narrow band of mangroves lines the eastern border, overlapping at both ends to continue partway down the western shore. The community is much less common on Manasota Key. At three sites on the two larger bay islands, salt pans occur between the landward edge of the tidal estuarine swamp and the maritime hammock communities. Here, halophytic species are common: saltwort, saltgrass, glasswort, sea oxeye, and Christmas berry (*Lycium carolinianum*). The community is in excellent condition.

General management measures: This community should be monitored for invasive, exotic species. Staff will continue to treat designated species, as they are located.

ESTUARINE/MARINE UNCONSOLIDATED SUBSTRATE

Desired future condition: Expansive unvegetated, open areas of mineral-based substrate composed of shell, coralgal, marl, mud, and/or sand (sand beaches) will be present. Desired conditions include prevention of soil compaction, dredging activities and disturbances such as the accumulation of pollutants.

Description and assessment: This term also describes the community on the bay side, also called estuarine unconsolidated substrate, commonly known as a mudflat. These flats are found on either end of Peterson Island, which is the inner island. The community is above the surface of the water at low tide. This community supports many organisms that constitute a rich source of food for several species of birds and provides rare resting places for birds when the beach portion is crowded with visitors.

The beach at Manasota Key is composed of sand darker in color than is usual along the high-energy shores of Florida. This location is near the apex of southwest Florida's protuberant coastline and, indeed, this barrier island, which converges with the mainland a few miles to the north, is apparently a feature of an eroding headland; thus the quantity of dark material (peaty remnants of former mangrove community) mixed

with the usual siliceous sand and shell particles. Shark teeth and skeletal fragments from an ancient geologic time, unearthed by waves eroding the mainland, are commonly found on the beach. In 2003, sand was placed near the bathhouse and parking area to create a dune feature to offer additional protection from storms to the infrastructure of the park property. In 2006 and 2011, sand from dredging the pass was placed on the Stump Pass beach to ameliorate erosion. The sand has acted like a modest dune, protecting the infrastructure and adding to the width of the beach. This community is in excellent condition but is also ephemeral, constantly accreting and eroding. The groins to the north outside the park boundary will continue to have an eroding effect.

General management measures: The sandy beach portion was a narrow, linear community over 6,000 feet in length. This sandy "spit" has migrated and is attached to Knight Island. The beach feature is the primary reason many people visit the park and is among the most important asset to the local tourist based economy. Due to beach erosion, two thirds of the park beach became too narrow between the Gulf waters and steep dune escarpments to support visitor recreation, sea turtle nesting and natural intertidal habitat along these beach sections. As mentioned above, the beaches are periodically widened through beach nourishment. Longer-term beach management measures are needed to reduce the beach erosion and beach nourishment cycles, and thereby improve the condition of this community. The "mudflats" on the south sides of the three islands should be evaluated for exclusion of visitors to allow a resting and foraging place for wading and shorebirds.

INVASIVE EXOTIC MONOCULTURE

Desired future condition: Existing monocultures of Australian pines and Brazilian pepper, and other exotic plants will be eliminated. Native vegetation will begin growing in the areas and the subsequent natural communities will be documented by park staff.

Description and assessment: Those two exotics, which are located on Peterson Island and Whidden Key, have prevented maritime hammock succession. In some places, the infestation is very dense. Park staff has treated the areas several times and will continue to eradicate these species as they have successfully done on the Manasota Key portion. Logistics have made reaching these areas difficult.

General management measures: Exotic plants will be removed by park staff using best management practices. Staff work days and collaborating with other parks in the district to assist in the eradication of exotics will be scheduled.

DEVELOPED

Desired future condition: Developed areas at Stump Pass Beach State Park should be free of invasive exotic species.

Description and assessment: All developed areas are located at the northern end of the park on the Manasota Key portion. Included are roads, parking, a bathhouse, dock, and boardwalk with a rinse station. Gopher tortoises are sometimes observed crossing the area.

General management measures: All exotic species should be removed, and native species protected. Priority invasive plant species (FLEPPC category I and II species) will be removed from all developed areas. Other management measures include appropriate stormwater management and development guidelines that are compatible with protecting and restoring native species. Signs will be posted to warn vehicle drivers of the presence of gopher tortoises.

Imperiled Species

Imperiled species are those that are (1) tracked by FNAI as critically imperiled (G1, S1) or imperiled (G2, S2); or (2) listed by the U.S. Fish and Wildlife Service (USFWS), Florida Fish and Wildlife Conservation Commission (FWC), or the Florida Department of Agriculture and Consumer Services (FDACS) as endangered, threatened, or of special concern.

The predominant species present in the park, that require imperiled species management include loggerhead sea turtle (*Caretta caretta*), green sea turtle (*Chelonia mydas*), Kemp's ridley sea turtle, manatee, gopher tortoise, least tern, and black skimmer. Loggerhead sea turtles nest on the beach and records from 2000 to 2011 reflect that there were 1205 nests total, averaging 109 per year. Three green sea turtle nests and one Kemp's ridley s nest were documented in that time. The hurricanes and storms of 2004, 2005, and 2012 washed out many nests.

Nesting data on the severed spit was included in park service and volunteer efforts on Knight, Don Pedro, and Little Gasparilla Islands. Volunteer groups are contracted by Charlotte County to conduct sea turtle nest surveys at Stump Pass Beach in conjunction with FWC permit conditions related to dredging and erosion mitigation projects. In accordance with FWC protocol, volunteers survey the full length of the beach daily – identifying new nests, locating eggs, and erecting boundary posting with signage. Nests are excavated after either hatching occurs or 70 days have elapsed. All nests are documented and recorded, including those lost to erosion. All exterior lighting should incorporate "turtle-friendly" lighting and conform to the FWC Marine Turtle Lighting Guidelines.

Areas throughout the park are posted for nesting birds, but the park is heavily used by visitors in areas such as the sandy southern end. Management actions by park staff, volunteers, and FWC work to minimize visitor impacts and preserve areas that are significant to nesting shorebirds. The posted and roped areas provide sufficient buffering for nesting and resting birds. These areas are monitored for changes in nesting and resting activity and ropes and signage are adjusted accordingly. Timing, size, and enforcement of the closed areas for beach nesting shorebirds and sea turtles are critical to their effectiveness. Posting of significant wildlife habitat in advance of seasonal occupation (pre-posting) can make the difference between occupied and unused nesting sites. Providing sufficient buffer to ensure that disturbance does not result in abandonment is critical. In areas of intense recreational pressure outreach and enforcement need to accompany any posting effort. The DRP will continue to coordinate with FWC on enforcement and protection measures for critical shorebird and sea turtle nesting areas.

Imperiled shorebirds such as least terns and black skimmers have attempted nesting with minimal success since the pass has been dredged as there is very limited suitable habitat. Remaining sandy beach is posted for nesting birds where habitat appears suitable. The extended spit no longer exists as part of the park, since it was severed from the park as a result of the 2003 dredging of Stump Pass. Fill placement from the 2011 maintenance dredge eventually connected the spit to Knight Island on the south shore of Stump Pass. Sea turtle nesting data on the severed spit are now included in the data for Knight and Don Pedro Islands. Shorebird protection efforts on the severed spit have focused on education, enforcement, and a beach steward program managed and monitored by Charlotte County. The population of nesting birds on the severed spit has not returned to the numbers recorded in 2000. Human activity, predators such as dogs, raccoons and other avian species have been documented on the spit by the staff from Charlotte County and likely contribute to the diminished productivity.

Shorebird nesting in 2000 on the spit (which was the south end of SPB-3) included 280 black skimmer nests and 350 least tern nests. In 2001, six least tern nests and three Wilson's plovers nests were observed. In 2002, two snowy plover nests and 28 least tern nests were observed. The footprint of the 2003 dredge was altered because a Wilson's plover nest was found in the path. Since 2003, nesting at Stump Pass Beach State park has been poor. The area of beach dune that remains at the south end of the park may be suitable nesting habitat and will be monitored beginning February 1st to determine if shorebird-nesting activity is taking place. Appropriate protection measures shall be in place for any documented nesting. Management should coordinate with Charlotte County for each dredge project to minimize impacts caused by equipment, lighting, trespassing, and erosion, among other deleterious effects to shorebirds and sea turtles in this area.

No protection measures are taken for other listed bird species beyond observation and interpretation.

Manatees have been observed within the "Ski Alley" area. However, FWC has not established a manatee protection zone within this area to reduce speeds and operation of boating vessels. Manatee boat collisions have not occurred in this area for some time.

Gopher tortoises are still present on the Manasota portion of the park, and in 2002 were observed in a small upland area on Whidden Key (pers. observation S. Braem). Surveys have been conducted on the Manasota Key portion and about 25 active burrows were mapped.

A subspecies of beach mouse, *Peromyscus gossypinus restrictus* or Chadwick Beach cotton mouse, formerly existed on the southern end of Manasota Key, but after several comprehensive surveys it has been declared extinct by USFWS (Millsap and Holder, 1989). It is believed to have been extirpated in the 1950s (Humphrey).

Four imperiled plants found in the park include herbaceous and shrubby species. FNAI globally ranked species include the beach sunflower (*Helianthus debilis subsp. vestitus*). Staff will continue to monitor known imperiled species at a Tier 1 level. No special management measures are required at this time.

Several sightings of the uncommon mangrove cuckoo (*Coccyzus minor*) have been documented. Observations are noted and placed in the District 4 database.

Table 2 contains a list of all known imperiled species within the park and identifies their status as defined by various entities. It also identifies the types of management actions that are currently being taken by DRP staff or others, and identifies the current level of monitoring effort. The codes used under the column headings for management actions and monitoring level are defined following the table. Explanations for federal and state status as well as FNAI global and state rank are provided in Addendum 6.

Table 2: Imperiled Species Inventory						
Common and Scientific Name	Imperiled Species Status			Management Actions	Monitoring Level	
PLANTS	FWC	USFWS	FDACS	FNAI	2 4	
Beach sunflower Helianthus debilis subsp vestitus				G5T2 S2	2	Tier 1
Florida mayten Maytenus phyllanthoides			Т		2	Tier 1
Prickly pear cactus Opuntia stricta			Т		2	Tier 1
Indigo berry Scaevola plumieri			Т		2	Tier 1
REPTILES						
Atlantic loggerhead Caretta caretta	FT	LT		G3S3	2, 8, 10, 13	Tier 4
Atlantic green turtle Chelonia mydas	FE	LE		G3S2	2, 8, 10, 13	Tier 4
Kemp's ridley Lepidochelys kempii	FE	LE		G1S1	2, 8, 10, 13	
Gopher tortoise Gopherus polyphemus	ST	С		G3S3	13	Tier 2, Tier 3
BIRDS						
Magnificent frigatebird Fregata magnificens				G5S1		Tier 1
Brown pelican Pelecanus occidentalis	SSC			G4S3		Tier 1
Tri-colored heron <i>Egretta tricolor</i>	SSC			G5S4		Tier 1
Reddish egret Egretta rufescens	SSC			G4S2		Tier 1
Snowy egret Egretta thula	SSC			G5S3		Tier 1
White ibis <i>Eudocimus albus</i>	SSC			G5S4		Tier 1

Table 2: Imperiled Species Inventory						
Common and Scientific Name	Imperiled Species Status FWC USFWS FDACS FNAI			Management Actions	Monitoring Level	
Roseate spoonbill	SSC	031773	IBITES	G5S2	Z 4	Tier 1
Platalea ajaja	330					TICLI
Osprey Pandion haliaetus	SSC			G5S3S 4		Tier 1
Merlin Falco columbarius				G5S2		Tier 1
Peregrine falcon Falco peregrinus				G4S2		Tier 1
Snowy plover Charadrius nivosus	ST			G3S1	10	Tier 4
Piping plover Charadrius melodus	FT	LT		G3S2	10	Tier 4
Wilson's plover Charadrius wilsonia				G5S2	10	Tier 4
American oystercatcher <i>Haematopus palliatus</i>	SSC			G5S2	10	Tier 4
American avocet Recurvirostra americana				G5S2		Tier 1
Sandwich tern Thalasseus sandvicensis				G5S2		Tier 1
Least tern Sterna antillarum	ST			G5S3	10	Tier 4
Black skimmer Rynchops niger	SSC			G5S3	10	Tier 4
Worm-eating warbler Helmintheros vermivorum				G5S1		Tier 1
MAMMALS						
West Indian manatee Trichechus manatus	FE	LE		G2S2		Tier 1

Management Actions:

- 1. Prescribed Fire
- 2. Exotic Plant Removal
- 3. Population Translocation/Augmentation/Restocking

- 4. Hydrological Maintenance/Restoration
- 5. Nest Boxes/Artificial Cavities
- 6. Hardwood Removal
- 7. Mechanical Treatment
- 8. Predator Control
- 9. Erosion Control
- 10. Protection from visitor impacts (establish buffers)/law enforcement
- 11. Decoys (shorebirds)
- 12. Vegetation planting
- 13. Outreach and Education
- 14. Other

Monitoring Level:

- **Tier 1.** Non-Targeted Observation/Documentation: includes documentation of species presence through casual/passive observation during routine park activities (i.e. not conducting species-specific searches). Documentation may be in the form of Wildlife Observation Forms, or other district specific methods used to communicate observations.
- **Tier 2**. Targeted Presence/Absence: Includes monitoring methods/activities that are specifically intended to document presence/absence of a particular species or suite of species.
- **Tier 3.** Population Estimate/Index: An approximation of the true population size or population index based on a widely accepted method of sampling.
- **Tier 4.** Population Census: A complete count of an entire population with demographic analysis, including mortality, reproduction, emigration, and immigration.
- **Tier 5.** Other: May include habitat assessments for a particular species or suite of species or any other specific methods used as indicators to gather information about a particular species.

Detailed management goals, objectives, and actions for imperiled species in this park are discussed in the Resource Management Program section of this component and the Implementation Component of this plan.

Exotic Species

Exotic species are plants or animals not native to Florida. Invasive exotic species are able to out-compete, displace or destroy native species and their habitats, often because they have been released from the natural controls of their native range, such as diseases, predatory insects, etc. If left unchecked, invasive exotic plants and animals alter the character, productivity, and conservation values of the natural areas they invade.

Eleven plant species designated Category I and II by Florida Exotic Pest Plant Council are found on the three islands of the park. Brazilian pepper and Australian pine remain the most prevalent species treated. Since the approval of the last plan in 2003, 161 acres have been treated by park staff. St. Augustine grass is found in a few areas bordering the nature trail but should not be difficult to eradicate.

The Manasota portion of the park is virtually free of exotics and the staff immediately treats newly appearing exotic species when found. Peterson Island and Whidden Key are more logistically difficult to treat but the staff periodically canvasses the islands and treats the exotics. Australian pine are scattered and Brazilian pepper is found in often dense patches.

Table 3 contains a list of the Florida Exotic Pest Plant Council (FLEPPC) Category I and II invasive, exotic plant species found within the park (FLEPPC, 2011). The table also identifies relative distribution for each species and the management zones in which they are known to occur. An explanation of the codes is provided following the table. For an inventory of all exotic species found within the park, see Addendum 5.

Table 3: Inventory of FLEPPC Category I and II Exotic Plant Species						
Common and Scientific Name	FLEPPC Category	l Distribiltion				
PLANTS						
Asparagus fern Asparagus aethiopius	I	0	SPB1			
Australian pine Causarina equisetifolia	I	2	SPB4A,SPB4B, SPB5			
Bowstring hemp Sansevieria hyacinthoides	II	2	SPB1			
Brazilian pepper Schinus terebinthifolia	I	3	SBP1,SPB2,SPB3, SPB4A,SPB4B,SP B5			
Carrotwood Cupaniopsis anacardioides	I	1	SBP1,SPB2,SPB3, SPB4A,SPB4B,SP B5			
Durban crowfoot grass Dactylotenium aegyptium	II	3	SBP1,SPB2,SPB3, SPB4A,SPB4B,SP B5			
Half-flower Scaevola taccada	I	1	SPB1,SPB2,SPB3			
Laurel fig Ficus microcarpa	I	1	SBP1,SPB2,SPB3, SPB4A,SPB4B,SP B5			

Table 3: Inventory of FLEPPC Category I and II Exotic Plant Species						
Common and Scientific Name	FLEPPC Category	Distribution	Management Zone (s)			
Oyster plant Tradescantia spathacea	II	0	SPB1			
Sisal hemp Agave sisalana	II	1	SBP1			
Wedelia Sphagneticola trilobata	II	2	SPB1			

Distribution Categories:

- No current infestation: All known sites have been treated and no plants are currently evident.
- 1 Single plant or clump: One individual plant or one small clump of a single species.
- 2 Scattered plants or clumps: Multiple individual plants or small clumps of a single species scattered within the gross area infested.
- 3 Scattered dense patches: Dense patches of a single species scattered within the gross area infested.
- 4 Dominant cover: Multiple plants or clumps of a single species that occupy a majority of the gross area infested.
- Dense monoculture: Generally, a dense stand of a single dominant species that not only occupies more than a majority of the gross area infested, but also covers/excludes other plants.
- 6 Linearly scattered: Plants or clumps of a single species generally scattered along a linear feature, such as a road, trail, property line, ditch, ridge, slough, etc. within the gross area infested.

Exotic animal species include non-native wildlife species, free ranging domesticated pets or livestock, and feral animals. Because of the negative impacts to natural systems attributed to exotic animals, DRP actively removes exotic animals from state parks, with priority being given to those species causing the greatest ecological damage.

In some cases, native wildlife may also pose management problems or nuisances within state parks. A nuisance animal is an individual native animal whose presence or activities create special management problems. Examples of animal species from which nuisance cases may arise include raccoons, venomous snakes, and alligators that are in public areas. Nuisance animals are dealt with on a case-by-case basis in accordance with DRP's Nuisance and Exotic Animal Removal Standard.

Detailed management goals, objectives, and actions for management of invasive exotic plants and exotic and nuisance animals are discussed in the Resource Management Program section of this component.

Special Natural Features

The sandy beach and the remnant coastal hammock could be considered special natural features at the park. However, both natural communities have been seriously altered through erosion, beach renourishment, and the effects of winds and tides.

Cultural Resources

This section addresses the cultural resources present in the park that may include archaeological sites, historic buildings and structures, cultural landscapes, and collections. The Florida Department of State (FDOS) maintains the master inventory of such resources through the Florida Master Site File (FMSF). State law requires that all state agencies locate, inventory and evaluate cultural resources that appear to be eligible for listing in the National Register of Historic Places. Addendum 7 contains the FDOS, Division of Historical Resources (DHR) management procedures for archaeological and historical sites and properties on state-owned or controlled properties; the criteria used for evaluating eligibility for listing in the National Register of Historic Places, and the Secretary of Interior's definitions for the various preservation treatments (restoration, rehabilitation, stabilization, and preservation). For the purposes of this plan, significant archaeological site, significant structure and significant landscape means those cultural resources listed or eligible for listing in the National Register of Historic Places. The terms archaeological site, historic structure, or historic landscape refer to all resources that will become 50 years old during the term of this plan.

Condition Assessment

Evaluating the condition of cultural resources is accomplished using a three-part evaluation scale, expressed as good, fair, and poor. These terms describe the present condition, rather than comparing what exists to the ideal condition. Good describes a condition of structural stability and physical wholeness, where no obvious deterioration other than normal occurs. Fair describes a condition in which there is a discernible decline in condition between inspections, and the wholeness or physical integrity is and continues to be threatened by factors other than normal wear. A fair assessment is usually a cause for concern. Poor describes an unstable condition where there is palpable, accelerating decline, and physical integrity is being compromised quickly. A resource in poor condition suffers obvious declines in physical integrity from year to year. A poor condition suggests immediate action is needed to reestablish physical stability.

Level of Significance

Applying the criteria for listing in the National Register of Historic Places involves the use of contexts as well as an evaluation of integrity of the site. A cultural resource's significance derives from its historical, architectural, ethnographic or archaeological context. Evaluation of cultural resources will result in a designation of NRL (National Register or National Landmark Listed or located in an NR district), NR (National Register eligible), NE (not evaluated) or, NS (not significant) as indicated in the table at the end of this section.

There are no criteria for use in determining the significance of collections or archival material. Usually, significance of a collection is based on what or whom it may represent. For instance, a collection of furniture from a single family and a particular era in connection with a significant historic site would be considered highly significant. In the same way, a high quality collection of artifacts from a significant archaeological site would be of important significance. A large herbarium collected from a specific park over many decades could be valuable to resource management efforts. Archival records are most significant as a research source. Any records depicting critical events in the park's history, including construction and resource management efforts, would all be significant.

Stump Pass State Park does not have historic structures and cultural resource collections. The following is a summary of the FMSF inventory. In addition, this inventory contains the evaluation of significance.

Prehistoric and Historic Archaeological Sites

Desired future condition: All significant archaeological sites within the park that represent Florida's cultural periods or significant historic events or persons are preserved in good condition in perpetuity, protected from physical threats and interpreted to the public.

Description: The FMSF lists one site (CH00367) within the park. It is a small shell scatter site on Peterson Island.

Condition Assessment: The single identified cultural site (CH000367) is somewhat protected by its inaccessibility and can be considered in good condition. It was observed in 2001 by park biologists and appeared intact.

Level of Significance: Peterson Island (CH00367) is the only recorded archaeological site within the park's boundary. It was recorded as part of the Historic Properties Survey of Charlotte County, conducted in 1989 by Historic Property Associates. Due to

the limited amount of surface artifacts encountered at the site, the surveyor determined that site was not eligible for the National Register.

General management measures: The site should be visited annually in the next ten years, and its condition evaluated.

Detailed management goals, objectives, and actions for the management of cultural resources in this park are discussed in the Cultural Resource Management Program section of this component. Table 4 contains the name, reference number, culture or period, and brief description of all the cultural sites within the park that are listed in the Florida Master Site File. The table also summarizes each site's level of significance, existing condition and recommended management treatment. An explanation of the codes is provided following the table.

Table 4: Cultural Sites Listed in the Florida Master Site File						
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment	Management Zone
CH00367	Prehistoric (unspecified)	Shell scatter site	NE	G	N/ A	SP B4 A

Significance:

NRL National Register listed

NR National Register eligible

NE not evaluated NS not significant

Condition:

G Good

F Fair

P Poor

NA Not accessible

NE Not evaluated

Recommended Treatment:

RS Restoration

RH Rehabilitation ST Stabilization P Preservation R Removal N/A Not applicable

RESOURCE MANAGEMENT PROGRAM

Management Goals, Objectives, and Actions

Measurable objectives and actions have been identified for each of DRP's management goals for Stump Pass Beach State Park. Please refer to the Implementation Schedule and Cost Estimates in the Implementation Component of this plan for a consolidated spreadsheet of the recommended actions, measures of progress, target year for completion, and estimated costs to fulfill the management goals and objectives of this park.

While, DRP utilizes the ten-year management plan to serve as the basic statement of policy and future direction for each park, a number of annual work plans provide more specific guidance for DRP staff to accomplish many of the resource management goals and objectives of the park. Where such detailed planning is appropriate to the character and scale of the park's natural resources, annual work plans are developed for prescribed fire management, exotic plant management, and imperiled species management. Annual or longer- term work plans are developed for natural community restoration and hydrological restoration. The work plans provide DRP with crucial flexibility in its efforts to generate and implement adaptive resource management practices in the state park system.

The work plans are reviewed and updated annually. Through this process, DRP's resource management strategies are systematically evaluated to determine their effectiveness. The process and the information collected is used to refine techniques, methodologies and strategies, and ensures that each park's prescribed management actions are monitored and reported as required by Sections 253.034 and 259.037, Florida Statutes.

The goals, objectives, and actions identified in this management plan will serve as the basis for developing annual work plans for the park. The ten-year management plan is based on conditions that exist at the time the plan is developed, and the annual work provide the flexibility needed to adapt to future conditions as they change during the ten-year management planning cycle. As the park's annual work plans are implemented through the ten-year cycle, it may become necessary to adjust the management plan's priority schedules and cost estimates to reflect these changing conditions.

Natural Resource Management

Natural Communities Management

Goal: Restore and maintain the natural communities/habitats of the park.

As discussed above, DRP practices natural systems management. In most cases, this entails returning fire to its natural role in fire-dependent natural communities. Other methods to implement this goal include large-scale restoration projects as well as smaller scale natural community improvements. Following are the natural community management objectives and actions recommended for the state park.

Hydrological Management

Goal: Protect water quality and quantity in the park, restore hydrology to the extent feasible, and maintain the restored condition.

The natural hydrology of most state parks has been impaired prior to acquisition to one degree or another. Florida's native habitats are precisely adapted to natural drainage patterns and seasonal water level fluctuations, and variations in these factors frequently determine the types of natural communities that occur on a particular site. Even minor changes to natural hydrology can result in the loss of plant and animal species from a landscape. Restoring state park lands to original natural conditions often depends on returning natural hydrological processes and conditions to the park. This is done primarily by filling or plugging ditches, removing obstructions to surface water "sheet flow," installing culverts or low-water crossings on roads, and installing water control structures to manage water levels.

There are no hydrological management concerns at the park. The only natural source of fresh water throughout Stump Pass Beach State Park is rainfall. There is no surface water runoff since rain rapidly percolates through the park's sandy soils.

Natural Communities Restoration: In some cases, the reintroduction and maintenance of natural processes is not enough to reach the natural community desired future conditions in the park, and active restoration programs are required. Restoration of altered natural communities to healthy, fully functioning natural landscapes often requires substantial efforts that may include mechanical treatment of vegetation or soils and reintroduction or augmentation of native plants and animals. For the purposes of this management plan, restoration is defined as the process of assisting the recovery and natural functioning of degraded natural communities to desired future condition, including the re-establishment of biodiversity, ecological processes, vegetation structure, and physical characters.

Examples that would qualify as natural community restoration, requiring annual restoration plans, include large mitigation projects, large-scale hardwood removal and

timbering activities, roller-chopping, and other large-scale vegetative modifications. The key concept is that restoration projects will go beyond management activities routinely done as standard operating procedures such as routine mowing, the reintroduction of fire as a natural process, spot treatments of exotic plants, and small-scale vegetation management.

Following are the natural community/habitat restoration and maintenance actions recommended to create the desired future conditions in the Beach Dune and Marine Unconsolidated Substrate communities.

Objective: Restore up to 15 acres of Beach Dune and Marine Unconsolidated Substrate communities on newly restored lands created through the Charlotte County Erosion Control Project.

As further discussed in the following Coastal/Beach Management section of the RMC, DRP will continue to work towards restoring beach dune and marine unconsolidated substrate communities on lands restored at the southern end of Manasota Key by beach nourishment activities. Staff will continue to evaluate and monitor existing and restored lands to determine the feasibility and scope of restoration activities, and develop and implement restoration plans that include replanting beach dunes. The accretion and erosion of this sand placement is constant; this is the dynamic nature of barrier islands. Hurricanes, storms, and northwest winds perpetually change the acreage. When more sand is placed on the park, a decision will be made whether sea oats should be planted.

<u>Natural Communities Improvement</u>: Improvements are similar to restoration but on a smaller, less intense scale. This typically includes small-scale vegetative management activities or minor habitat manipulation. Following are the natural community/habitat improvement actions recommended at the park.

Objective: Conduct natural community/habitat improvement activities on one acre of Beach Dune and Marine Unconsolidated Substrate communities.

Construct temporary barriers to prevent further dune habitat damage and potential dune blowouts resulting from visitor foot traffic at two or more undesignated crossovers.

Sea oats should also be planted adjacent to beach renourishment areas to fortify and protect the existing dune system and newly created beaches. Areas recommended for planting will extend along portions of the existing shoreline. The areas should consist of undulating swaths (to appear more natural) measuring approximately 15 feet wide by 2,800 feet long depending on volume of sand available. This is approximately one acre.

Imperiled Species Management

Goal: Maintain, improve, or restore imperiled species populations and habitats in the park.

DRP strives to maintain and restore viable populations of imperiled plant and animal species primarily by implementing effective management of natural systems. Single species management is appropriate in state parks when the maintenance, recovery or restoration of a species or population is complicated due to constraints associated with long-term restoration efforts, unnaturally high mortality, or insufficient habitat. Single species management should be compatible with the maintenance and restoration of natural processes, and should not imperil other native species or seriously compromise park values.

In the preparation of this management plan, DRP staff consulted with staff of the FWC's Imperiled Species Management or that agency's Regional Biologist and other appropriate federal, state, and local agencies for assistance in developing imperiled animal species management objectives and actions. Likewise, for imperiled plant species, DRP staff consulted with FDACS. Data collected by the USFWS, FWC, FDACS, and FNAI as part of their ongoing research and monitoring programs will be reviewed by park staff periodically to inform management of decisions that may have an impact on imperiled species at the park.

Ongoing inventory and monitoring of imperiled species in the state park system is necessary to meet DRP's mission. Long-term monitoring is also essential to ensure the effectiveness of resource management programs. Monitoring efforts must be prioritized so that the data collected provides information that can be used to improve or confirm the effectiveness of management actions on conservation priorities. Monitoring intensity must at least be at a level that provides the minimum data needed to make informed decisions to meet conservation goals. Not all imperiled species require intensive monitoring efforts on a regular interval. Priority must be given to those species that can provide valuable data to guide adaptive management practices. Those species selected for specific management action and those that will provide management guidance through regular monitoring are addressed in the objectives below.

Objective: Update baseline imperiled species occurrence inventory lists for plants and animals.

Objective: Monitor and document seven selected imperiled animal species in the park.

The following species will be monitored at tier 2 or above: gopher tortoise, loggerhead and green sea turtles, snowy plovers, Wilson's plovers, least terns, and black skimmers will continue to be monitored. Monitoring and population indexes will continue to be

conducted using FWC protocol. Park staff, volunteers, conservation groups such as the Coastal Wildlife Club, Charlotte county staff, and contractors have participated with those efforts in past years. District biology staff is involved in evaluating and reporting the results of annual monitoring to FWC. Gopher tortoises are occasionally observed in parking areas and on the entrance road. After burning potential Gopher tortoise habitat, the area will be surveyed for active, inactive, and abandoned burrows to estimate population size. Interpretive information regarding gopher tortoises and sea turtles will be installed for visitors at appropriate areas within the park.

Objective: Objective: Monitor and document four selected imperiled plant species in the park.

Using field notes and GPS locations, all known and newly discovered imperiled plant species will be documented. Staff will continue to monitor all known imperiled plant species listed in Table 2 at a tier 1 level, including prickly pear cactus and Florida Mayten.

Objective: Continue to improve protection and awareness of sensitive shorebird nesting areas.

Shorebird nesting areas will be posted in advance of seasonal occupation (pre-posting) as warranted. Future posted areas will provide sufficient buffering in an effort to limit abandonment. The park will work to enhance community outreach efforts during shorebird nesting season through improved interpretive programming and regular monitoring of posted areas by park staff and volunteers.

Exotic Species Management

Goal: Remove exotic and invasive plants and animals from the park and conduct needed maintenance control.

DRP actively removes invasive exotic species from state parks, with priority being given to those causing the ecological damage. Removal techniques may include mechanical treatment, herbicides, or biocontrol agents.

Objective: Annually treat ten acres of exotic plant species in the park.

The annual acreage is comprised of both maintenance activities and initial treatments. Most of the Manasota Key portion of the park is in maintenance phase, but some exotic infestations on the other islands of the park require initial treatment. In addition, St. Augustine grass infestations require treatment on the Manasota Key portion.

Objective: Implement control measures on three nuisance and exotic animal species in the park.

Control of nuisance raccoons, armadillos, and coyotes is sometimes necessary to prevent excessive disturbance or depredation of nests of imperiled sea turtles and

shorebirds. Armadillos have caused significant destruction of sea turtle nests in the park. Additionally, feral house cats are exotic to the park and can impact native wildlife. They are typically trapped and removed as they are detected.

Special Management Considerations

Timber Management Analysis

Chapters 253 and 259, Florida Statutes, require an assessment of the feasibility of managing timber in land management plans for parcels greater than 1,000 acres if the lead agency determines that timber management is not in conflict with the primary management objectives of the land. The feasibility of harvesting timber at this park during the period covered by this plan was considered in context of DRP's statutory responsibilities and an analysis of the park's resource needs and values. The long-term management goal for forest communities in the state park system is to maintain or reestablish old-growth characteristics to the degree practicable, with the exception of those communities specifically managed as early successional.

A timber management analysis was not conducted for this park since its total acreage is below the 1,000-acre threshold established by statute. Timber management will be reevaluated during the next revision of this management plan.

Coastal/Beach Management

DRP manages over 100 miles of sandy beach, which represents one-eighth of Florida's total sandy beach shoreline. Approximately one-quarter of Florida's state parks are beach-oriented parks and account for more than 60 percent of statewide park visitation. The management and maintenance of beaches and their associated systems and processes is complicated by the presence of inlets and various structures (jetties, groins, breakwaters) all along the coast. As a result, beach restoration and nourishment have become increasingly necessary and costly procedures for protecting valuable infrastructure. All of these practices affect beaches for long distances on either side of a particular project. DRP staff needs to be aware of and participate in the planning, design and implementation of these projects to ensure that park resources and recreational use are adequately considered and protected. DRP and Charlotte County are working in cooperation to investigate alternatives to reduce erosion and stabilize the southern tip of Manasota Key acceptable to both parties considering the natural resources and the financial cost.

The Stump Pass Inlet lies between the Gulf of Mexico and Lemon Bay, separating Manasota Key from Knight Island to the south. In 1910, a hurricane relocated the inlet's historical location, near the park's northern boundary, 6,500 feet south near its current location. The gulf's net southward littoral drift naturally accretes sand on a peninsular

spit at the southern tip of Manasota Key while pushing the inlet's channel alignment southwest at its gulf entrance. In 1944 and 1947, consecutive hurricanes breached the south end of the key causing an island formed by the breaching to drift southward and connect to Knight Island while Manasota Key continued to expand southward.

In 1980, the first Stump Pass dredge severed an elongated peninsular spit from southern Manasota Key to improve navigation, while groins placed along the beach north of the park's northern boundary caused significant beach erosion to the north end of the park. Approximately 109,000 cubic yards of beach quality sand dredged from this 1980 event was spread along the park's northern beach to compensate for the groin-induced erosion. As a result, an immediate accretion of the peninsular spit reformed in the dredge cut. By the late 1980s, the severed peninsular spit had migrated southward and connected to Knight Island with the peninsular spit reforming in the same shoreline configuration prior to the initial 1980 dredging.

Dredging of the pass continued. In 1995, the park's western shoreline was approximately 1.7 miles long and an interim dredging event occurred west of the inlet's pass in an effort to restore beaches on Knight Island. In 1998, Stump Pass was dredged along its existing southward channel meander to help maintain navigation and provide interim beach nourishment to Knight Island.

A Stump Pass Inlet Management Study (IMS) was completed in August 2000. This study compared the dredging of the 1998 meander channel versus the 1980 permitted channel. The IMS recommended to dredge and maintain the 1980 template for navigation, again through the peninsular spit, to "backpass" about 100,000 cubic yards of sand to Manasota Key beach for offsetting expected inlet effects, and to "bypass" approximately 400,000 cubic yards of sand to nourish Knight Island beach segments. The IMS also explored options for stabilizing Stump Pass and Manasota Key beach by using coastal structures such as a terminal groin at the south end of the Park or cluster pile groins near the center of the Park beach.

In 2003, Permit No. 0194790-001-JC was issued for the recommended dredging. Backpassing of sand to the north end of the park beach and creation of a four-acre shorebird mitigation site was required by this permit. Additional compensation to the park was required to the park through terms of an easement (No. 40072) which allowed for implementation of the project. The first dredging under this permit and easement was completed in 2003. Despite placement of about 100,000 cubic yards of sand on the Park beach, the southern Gulf beach of the Park eroded dramatically in response to this project, losing several hundred feet of width within months. Erosion was further exacerbated by 2004 and 2005 hurricanes. The spit continued to grow into the navigation channel from the eroded position of the southern tip.

In 2005 and 2006, the permitted project was expanded to install six low-profile geotextile groins along the central beach area of the park. This was an "experimental" project intended to provide some beach stabilization consistent with the cluster pile groin concept that was considered in the IMS. Unfortunately, though the experimental groins impounded sand to their north, they reportedly further increased the erosion into the Coastal Hammock and the shorebird mitigation site at the south end of the park. The permitted template was dredged again in 2006 with backpassing of 148,000 cubic yards to Manasota Key, and the south beach retreated further. The groins were removed in early 2009 due to documented adverse impacts. In a project completed in April 2011, the permitted template was dredged once again as the Post-Storm (Tropical Storm Faye) Recovery and Maintenance Project, and a total of 156,000 cubic yards was placed on Manasota Key beach. This was expected to be the last project to be implemented under the 2003 permit.

The Gulf beach of the park, formerly 1.7 miles, was severed in 2003, reducing it to only 1.2 miles. Of this, only .5 miles of the north park beach is designated as "Critically Eroded" by the Bureau of Beaches and Coastal Systems (BBCS). However, BBCS is considering extending the critically eroded designation to include the entire Gulf beach of the park.

As part of the effort to implement our goal to restore and maintain the natural communities and habitats of the state park, the following special management objectives are recommended.

Objective: Continue to collaborate with federal, state, and local agencies, to fund, design and permit expanded beach restoration activities consistent with the mission of DRP.

DRP would like to see the south end of Manasota Key restored to the shoreline position that existed shortly after the 2003 dredging. It was estimated that about 37 acres of land (beach, dune, and coastal strand) from the south end of Manasota Key had been lost to erosion between completion of that dredging event and July 2009. It is expected that 15 acres total of this land loss will be restored through the coordinated efforts of beach and inlet stabilization projects that are being planned with Charlotte County. As indicated in the Natural Communities Restoration section, this proposed Manasota Key Beach restoration would allow for a return of an estimated 15 acres of manageable natural communities. It would also allow additional beach width to provide habitat buffer zones and to expand zones of safe public beach recreation at the Park.

Charlotte County's existing coastal project objectives will be to continue to maintain safe navigation of Stump Pass with the minimum maintenance dredging possible. This would provide adequate flushing of Lemon Bay and continue to offset critical erosion losses to Manasota Key, Knight Island, and Don Pedro Island State Park beaches.

Restoring the south end of Manasota Key and continuing to manage these existing coastal resource management objectives in the next decade will require adding three new elements to the existing Charlotte County Erosion Control permit and project:

Locating and permitting an offshore source of beach quality sand to maintain the beaches, so that dredging widths and volumes can be minimized,

Designing, permitting, and implementing an alternate alignment of the Stump Pass dredged channel template, which would be further south of the Park Beach, and angled more southward toward the channel's natural tendency to bend, and

Studying the feasibility and potential impacts of a terminal groin constructed north of the new channel alignment, followed by designing and permitting the most feasible coastal structure.

Objective: Continue to collaborate with Charlotte County to implement and maintain Manasota Key restoration with the next phase of the Charlotte County Erosion Control project consistent with the mission of DRP.

The final Manasota Key restoration plans, and details of the other elements of the next Charlotte County Erosion Control project, will depend on results of the engineering and permitting effort in collaboration with many stakeholders. The phasing and extent of the restoration will also depend on the availability of funds from all sources. Actions for the implementation of Manasota Key restoration depend on the outcome of the permit and funding processes. DRP will work to expand its partnership with Charlotte County to revise project easements and coastal construction, construct a beach and inlet stabilizing structure at the south end of the Park beach, and backfill the restoration area with beach compatible sand from an offshore sand source. The DRP will coordinate with FWC on the design and implementation of this project to minimize any impacts to imperiled fish and wildlife species. Through the partnership with Charlotte County and in coordination with FWC, staff will monitor affected imperiled species, physical project performance, and provide reports as required by coastal permits. DRP will seek periodic beach nourishment and, as needed, coastal structure repairs to maintain the restoration area and the remainder of beach within the park.

Public access to the park is limited by the availability of parking if visitors arrive by vehicle. Alternative access to the park is available by boat. The park and surrounding beaches and waters are very busy during certain times of the year, primarily during peak tourism season, generally between the months of November and April. No management activities have yet been necessary regarding resource management within the 400-foot sovereign zone.

Arthropod Control Plan

All DRP lands are designated as "environmentally sensitive and biologically highly productive" in accordance with Ch. 388 and Ch. 388.4111 Florida Statutes. If a local mosquito control district proposes a treatment plan, DRP works with the local mosquito control district to achieve consensus. By policy of DEP since 1987, aerial adulticiding is not allowed, but larviciding and ground adulticiding (truck spraying in public use areas) is typically allowed. DRP does not authorize new physical alterations of marshes through ditching or water control structures. Mosquito control plans temporarily may be set aside under declared threats to public or animal health, or during a Governor's Emergency Proclamation. The Charlotte County Mosquito Control District has not proposed mosquito control for the park.

Sea Level Rise

Potential sea level rise is now under study and will be addressed by Florida's residents and governments in the future. The DRP will stay current on existing research and predictive models, in coordination with other DEP programs and federal, state, and local agencies. The DRP will continue to observe and document the changes that occur to the park's shorelines, natural features, imperiled species populations, and cultural resources. This ongoing data collection and analysis will inform the Division's adaptive management response to future conditions, including the effects of sea level rise, as they develop.

Additional Considerations

The addition of a sovereign submerged area to the proposed optimum boundary is appropriate for this park and is discussed in the Optimum Boundary section of the Land Use Component.

Cultural Resource Management

Cultural Resource Management

Cultural resources are individually unique, and collectively, very challenging for the public land manager whose goal is to preserve and protect them in perpetuity. DRP is implementing the following goals, objectives, and actions, as funding becomes available, to preserve the cultural resources found in Stump Pass Beach State Park.

Goal: Protect, preserve, and maintain the cultural resources of the park.

The management of cultural resources is often complicated because these resources are irreplaceable and extremely vulnerable to disturbances. The advice of historical and archaeological experts is required in this effort. All activities related to land clearing, ground disturbing activities, major repairs, or additions to historic structures listed or eligible for listing in the National Register of Historic Places must be submitted to the FDOS, Division of Historical Resources (DHR) for review and comment prior to

undertaking the proposed project. Recommendations may include, but are not limited to concurrence with the project as submitted, pre-testing of the project site by a certified archaeological monitor, cultural resource assessment survey by a qualified professional archaeologist, modifications to the proposed project to avoid or mitigate potential adverse effect. In addition, any demolition or substantial alteration to any historic structure or resource must be submitted to DHR for consultation and DRP must demonstrate that there is no feasible alternative to removal and must provide a strategy for documentation or salvage of the resource. Florida law further requires that DRP consider the reuse of historic buildings in the park in lieu of new construction and must undertake a cost comparison of new development versus rehabilitation of a building before electing to construct a new or replacement building. This comparison must be accomplished with the assistance of DHR.

Objective: Assess and evaluate one of one recorded cultural resources in the park.

The park will continue to annually assess and evaluate the Peterson Island (CH00367) site. The site is the only known and recorded cultural resource at the park and consists of sparse prehistoric shell scatter. Staff currently assesses and evaluates the small prehistoric shell scatter site when conducting management activities within the vicinity. The site should be surveyed annually during the term of this plan to determine the condition. Sea level rise associated with global climate change will probably inundate this site in the next 50 years. Sea levels could rise by 8 inches to over 2 feet by the year 2100 (NRDC 2001). Staff will stabilize the site as needed and in compliance with DRP policy.

Objective: Compile reliable documentation for all recorded historic and archaeological resources.

The Peterson Island archaeological site has been documented and recorded in the FMSF. Site file update forms will be submitted to document significant changes to the site's condition. If additional cultural resources are discovered or recognized, staff will also document and record them in the FMSF. A predictive model will be developed to determine probable locations of additional cultural sites within the park. Maritime hammock and coastal strand are presently considered to have a high probability for containing additional archaeological resources. A Phase I survey of the park has not been completed; such a survey of the entire park is recommended, and for any areas within the park slated for projects that may involve large-scale ground disturbance.

Resource Management Schedule

A priority schedule for conducting all management activities that is based on the purposes for which these lands were acquired, and to enhance the resource values, is located in the Implementation Component of this management plan.

Land Management Review

Section 259.036, Florida Statutes, established land management review teams to determine whether conservation, preservation, and recreation lands titled in the name of the Board of Trustees are being managed for the purposes for which they were acquired and in accordance with their approved land management plans. Stump Pass Beach State Park is not currently subject to the requirements of a land management review as it is below the 1,000-acre threshold established by the Statute.

Stump Pass Beach State Park was subject to a land management review on January 25, 2002. The review team made the following determinations:

That the land is being managed for the purpose for which it was acquired.

That the actual management practices, including public access, complied with the management plan for this site.

LAND USE COMPONENT

INTRODUCTION

Land use planning and park development decisions for the state park system are based on the dual responsibilities of the Florida Department of Environmental Protection (DEP), Division of Recreation and Parks (DRP). These responsibilities are to preserve representative examples of original natural Florida and its cultural resources, and to provide outdoor recreation opportunities for Florida's citizens and visitors.

The general planning and design process begins with an analysis of the natural and cultural resources of the unit, and then proceeds through the creation of a conceptual land use plan that culminates in the actual design and construction of park facilities. Input to the plan is provided by experts in environmental sciences, cultural resources, park operation, and management, through public workshops, and environmental groups. With this approach, DRP objective is to provide quality development for resource-based recreation throughout the state with a high level of sensitivity to the natural and cultural resources at each park.

This component of the unit plan includes a brief inventory of the external conditions and the recreational potential of the unit. Existing uses, facilities, special conditions on use, and specific areas within the park that will be given special protection, are identified. The land use component then summarizes the current conceptual land use plan for the park, identifying the existing or proposed activities suited to the resource base of the park. Any new facilities needed to support the proposed activities are described and located in general terms.

EXTERNAL CONDITIONS

An assessment of the conditions that exist beyond the boundaries of the unit can identify any special development problems or opportunities that exist because of the unit's unique setting or environment. This also provides an opportunity to deal systematically with various planning issues such as location, regional demographics, adjacent land uses, and park interaction with other facilities.

Stump Pass Beach State Park is located within Charlotte County, about 30 miles northwest of Punta Gorda, in the southwestern part of the state on the Gulf of Mexico. Other urban centers in the region include Englewood, Port Charlotte, Cape Coral, and Fort Myers.

Charlotte County is also located within the Visit Florida Southwest Vacation Region. According to Visit Florida, during 2011, 93% of the region's visitors came for leisure purposes with beach or waterfront activities being the primary activity at 36%, which is consistent with the park's heavy visitation rates. Most visitors stayed in non-paid accommodations, including residences of friends or family, second homes, or timeshares with a longest average length of stay of 6.8 nights. Winter and spring constitute the peak

seasons of the region with the median age of the adult traveler being 49 years (Visit Florida, 2011).

A number of public and private conservation lands are located within 15 miles of Stump Pass Beach State Park including Chadwick County Park at Englewood Beach, located about one mile north of the park. Other recreational areas include lands managed by SWFWMD (Deer Prairie Creek and Myakka River), Charlotte County (Tippecanoe Environmental Park and Amberjack Environmental Park), Sarasota County (Jelks Preserve and Lemon Bay Preserve), FFS (Myakka State Forest), and the Division of Recreation and Parks (Don Pedro Island State Park, Myakka River State Park, and Charlotte Harbor Preserve State Park). Resource-based recreational opportunities provided by these lands include hiking, biking, horseback riding, boating, canoeing, kayaking, fishing, swimming, picnicking, and camping.

Existing Use of Adjacent Lands

Stump Pass Beach State is comprised of the southernmost mile of Manasota Key peninsula and three smaller, nearby islands in Lemon Bay. The Gulf of Mexico is to the west of Manasota Key and the town of Englewood is located immediately north, with private residences and rental units adjacent to the park's northern boundary. County zoning on adjacent properties are identified as multi-family with designations of RMF-12 (12 units/acre) and RMF-7.5 UN (7.5 units/acre). Access to the park by motor vehicle is from U.S. Highway 41, to County Road 776; crossing Tom Adams Bridge to the terminus of Gulf Boulevard on Manasota Key or by watercraft.

Planned Use of Adjacent Lands

The park is located within the Punta Gorda Metropolitan Statistical Area (MSA) that includes Charlotte County. The Florida Statistical Abstract 2011 reported nearly 160,000 residents in the Punta Gorda MSA in 2011, a 13% increase since 2000 with a projected 12% increase by 2020. Punta Gorda, with a population of 16,641 is the largest urban area within the MSA, and accounts for 10 percent of the population of Charlotte County. In addition to Punta Gorda, the incorporated areas of Cape Coral, Sarasota, North Port, and Venice are within 30 miles of the park. The latter three cities are located in adjacent Sarasota County. Strong growth rates are projected over the next decade for Charlotte and Sarasota counties, at 23 and 15 percent, respectively (BEBR, 2011).

Rapid urbanization is expected to continue as a land use trend in southwest Florida. The remaining undeveloped land south of Stump Pass is in private ownership. Any other undeveloped land in the bay area will likely be utilized for additional residential development. Future Land Use (FLU) designations for these properties are multi-family residential with medium and high densities. As development increases, the role of the park as provider of public beach recreation, wildlife habitat, and resource protection will become increasingly important (Charlotte County, 2010).

As Charlotte County continues dredging the channel at Stump Pass, parkland has been significantly affected. Approximately 37 acres have eroded from the southern end of the park. The Division will continue to coordinate with DEP's Bureau of Beaches and Coastal Systems and Charlotte County to ensure that adverse effects to resources are appropriately mitigated.

PROPERTY ANALYSIS

Effective planning requires a thorough understanding of the unit's natural and cultural resources. This section describes the resource characteristics and existing uses of the property. The unit's recreation resource elements are examined to identify the opportunities and constraints they present for recreational development. Past and present uses are assessed for their effects on the property, compatibility with the site, and relation to the unit classification.

Recreation Resource Elements

This section assesses the unit's recreation resource elements those physical qualities that, either singly or in certain combinations, supports the various resource-based recreation activities. Breaking down the property into such elements provides a means for measuring the property's capacity to support various forms of recreational activities. This process also analyzes the existing spatial factors that either favor or limit the provision of each activity.

Land Area

Park lands are made up of the Manasota Key, a barrier island and primary use area, and three smaller islands to the east that include Peterson Island, Whidden Key, and Little Whidden Key. The low topographic profile of the islands that comprise the park makes them susceptible to washover during large storm events. The dynamic nature of the coastline, lack of stable uplands, and widespread presence of ecologically sensitive and unique natural communities limits the degree of recreational development that can occur at the park. Protected plants can be observed in the park's coastal strand and beach dune communities, including beach creeper (*Ernodea littoralis Rubiaceae*), twistpine prickly pear cactus (*Opuntia humifusa*), white indigo berry (*Randia aculeata*), necklace pod (*Sophora tomentosa var. truncata*), bay cedar (*Suriana maritima*), and coontie (*Zamia pumila*) (Charlotte County, 2010).

Water Area

There is a small, seasonal, interior wetland at the south end of Manasota Key. This brackish wetland provides visitors with birding habitat that supports wading birds and other aquatic life. The recreational potential of this area is limited to nature study. With the Intracoastal Waterway to the east and the Gulf of Mexico to the west, water related recreational activities are the most popular among visitors at Stump Pass Beach State Park.

The bay waters of the park are part of the Lemon Bay Aquatic Preserve that provides opportunities for wildlife viewing, fishing, and recreation.

Shoreline

The Gulf of Mexico borders the western and southwestern shoreline of Manasota Key, whereas Lemon Bay surrounds the three islands. Only the portions of shoreline along Manasota Key are accessible by vehicle. The Gulf beach on Manasota Key provides the most suitable area for saltwater beach recreation. The eastern shoreline of Manasota Key and western shoreline of Peterson Island are accessible by boat. The southern tip of Manasota Key, abutting Stump Pass, is also a popular anchor point for boaters. The extensive presence of tidal mangrove swamp limits shoreline access at Whidden Key, Little Whidden Key, and portions of the eastern shoreline of Peterson Island. As a natural resource, the beach functions as a significant site for sea turtle and shorebird nesting, due to the absence of any development along the southern expanse of the island. The barrier islands protect the productive intertidal zone and the estuary systems behind them, and the mainland as well, from the wave energy of the Gulf of Mexico. The main feature of the park is the white sand beach, important aesthetically and an asset to the local tourist based economy that provides year-around access to sunbathing, swimming, and snorkeling. The park's expansive beachfront also offers opportunities for shoreline fishing, shelling, and interpreting the natural processes of the barrier islands.

Natural Scenery

The natural scenery at the park is variable. Although much of the property is still in a natural state, adjacent residential development is visible. The gradual restoration of native vegetation in areas once infested with Australian pines (*Casuarina equisetifolia L.*) is in progress and will serve to improve the visual quality of the park. Views along the beach and across the Gulf provide visitors with undeveloped coastline scenery.

Significant Wildlife Habitat

Visitors to the park beaches may observe both marine turtles and tortoises. The Gulf beach of the park is significant for abundant marine turtle nests. Gopher tortoises (*Gopherus polyphemus*) inhabit Peterson Island and Whidden Key. Birdwatchers have opportunities to observe Least terns nesting sites. Manatees have been spotted in waters around the park. A population of approximately 40 gopher tortoises have dug burrows across the length of the park in upland areas. Margins of maritime hammock community along the ecotone of the estuarine tidal swamp community contain the rare plant species, Florida mayten, and Christmas berry. Listed species near the trail and on the beach will continue to be monitored on a regular basis. If unacceptable impacts to natural communities or wildlife populations on the island result from visitor activity, management measures will be implemented, which may include temporary closure of sensitive areas. Sign posting and



restricting access to shorebird resting and nesting areas and individual sea turtle nests will continue.

Archaeological and Historic Features

The park contains one scattered shell site that is recorded in the Florida Master Site File. Due to its location on Peterson Island, public access is not encouraged at this site.

Assessment of Use

All legal boundaries, significant natural features, structures, facilities, roads, and trails existing in the unit are delineated on the base map (see Base Map). Specific uses made of the unit are briefly described in the following sections.

Past Uses

The state originally acquired Port Charlotte Beach State Recreation Area from Charlotte County for the benefit of preserving recreational opportunities at one of Florida's popular beaches. Recreation has been the historic use of these lands. The adjacent Whidden Key contains prehistoric shell scatter of unknown origins. The land retained most of its natural communities when acquired by the state; however, some dredge material had been placed adjacent to the small island. Peterson Island is a small mangrove island with no known land use.

Future Land Use and Zoning

DRP works with local governments to establish designations that provide both consistency between comprehensive plans and zoning codes and permit typical state park uses and facilities necessary for the provision of resource-based recreation opportunities.

Although the primary park property on Manasota Key is accessible by land, and can support a variety of beach related activities, its narrow configuration limits construction of additional recreation and support facilities. The location of the Coastal Construction Control Line along the eastern shoreline of Manasota Key further limits development potential. Development of any facilities will require a permit for construction seaward of that line. The County has given park lands an Environmentally Sensitive (ES) zoning designation with FLU designations as Parks and Recreation (PKR) with two of the more remote islands of Whidden Key and Little Whidden Key as Preservation (PR), (Charlotte County, 2010).

Current Recreational Use and Visitor Programs

The location of the park within a rapidly expanding urban area contributes to large rates of visitation. Stump Pass Beach State Park recorded 588,300 visitors in FY 2011/2012. By DRP estimates, the FY 2011/2012 visitors contributed \$25.6 million in direct economic impact

and the equivalent of 511 jobs to the local economy (Florida Department of Environmental Protection, 2011).

Visitors enjoy quiet strolls along the hiking trail that stretches to the park's southern end through the park's five distinct natural communities. Appropriate protective measures are implemented to avoid visitor activities that contribute to erosion problems on any of the shoreline areas. For visitors interested in Southwest Florida's underwater beauty, the park's coastline provides readily accessible high-quality snorkeling opportunities. The mangrove-lined waterways of the Manasota Key and the park's islands are scenic places to kayak or canoe, observe wildlife, and take photographs. The park's hiking trail provides a pedestrian connection to the park's more remote south beach area that is otherwise accessed by private boat. The park is a popular destination for area residents and out of state visitors. The parking area often reaches capacity and visitors tend to park in unauthorized spaces or wait for parking spaces to become available.

Protected Zones

A protected zone is an area of high sensitivity or outstanding character from which most types of development are excluded as a protective measure. Generally, facilities requiring extensive land alteration or resulting in intensive resource use, such as parking lots, camping areas, shops, or maintenance areas, are not permitted in protected zones. Facilities with minimal resource impacts, such as trails, interpretive signs, and boardwalks are generally allowed. All decisions involving the use of protected zones are made on a case-by-case basis after careful site planning and analysis.

At Stump Pass Beach State Park the beach dune, coastal strand, maritime hammock, estuarine tidal swamp, estuarine unconsolidated substrate, and marine unconsolidated substrate communities have been designated as protected zones as delineated on the Conceptual Land Use Plan.

Existing Facilities

Recreation Facilities

Existing facilities at the park are restricted to the northern end of the Manasota Key parcel and include stabilized parking, a dune boardwalk, restrooms with park storage area, a picnic shelter, and outside showers. A nature trail extends through the interior of the park from the primary day use area at the north end of the park to the remote south end of the park. Visitors are also able to reach the south end of the park by walking along the Gulf beach. The bay side of the park consists of mangrove shoreline that is not suitable for walking. Paddlers or other boaters may access the south end from either Lemon Bay or the Gulf.

The following is a complete listing of existing facilities:

In 2009, following extensive beach erosion, Charlotte County provided the park with a new boardwalk and new service dock as mitigation for the loss of land at the park's southern end. The boardwalk provides an accessible link from the picnic pavilion to the beach use area. The dock was constructed on the bay shoreline of Manasota Key near the existing use and shop area to assist staff with park operations. This facility also provides the Charlotte County Sheriff's Office Marine Patrol with park access.

Recreation facilities include:

Small picnic pavilions (5)

Nature trail (2.8 miles)

Small picnic shelter

Interpretive signs

Restrooms

Outside showers

Dune boardwalks (2)

Support Facilities

Shop facility (located in restroom facility)

Service dock

Park entrance

Stabilized parking (up to 60 vehicles)

CONCEPTUAL LAND USE PLAN

The following narrative represents the current conceptual land use proposal for this park. The conceptual land use plan is the long-term, optimal development plan for the park, based on current conditions and knowledge of the park's resources, landscape, and social setting (see Conceptual Land Use Plan). The conceptual land use plan will be reassessed during the next update of the park management plan. As new information is provided regarding the environment of the park, cultural resources, recreational use, and as new land is acquired, the conceptual land use plan may be amended to address the new conditions as needed. A detailed development plan for the park and a site plan for specific facilities will be developed based on this conceptual land use plan, as funding becomes available.

During the development of the conceptual land use plan, DRP assessed the potential impacts of proposed uses or development on the park resources and applied that analysis to decisions for the future physical plan of the park as well as the scale and character of proposed development. Potential impacts are more thoroughly identified and assessed as part of the site planning process once funding is available for facility development. At that stage, design elements (such as existing topography and vegetation, sewage disposal, and stormwater management) and design constraints (such as imperiled species or cultural site locations) are more thoroughly investigated. Municipal sewer connections, advanced wastewater treatment, or best available technology systems are applied for on-site sewage disposal. Stormwater management systems are designed to minimize impervious surfaces to the greatest extent feasible, and all facilities are designed and constructed using best management practices to limit and avoid resource impacts. Federal, state, and local permit and regulatory requirements are addressed during facility development. This includes the design of all new park facilities consistent with the universal access requirements of the Americans with Disabilities Act (ADA). After new facilities are constructed, the park staff monitors conditions to ensure that impacts remain within acceptable levels.

During the next 10 years the park will provide visitors with more access to water recreation. Additional volunteer and ranger-led programs will provide opportunities to visitors that expand their knowledge about the surrounding waters, natural systems, and wildlife while they develop paddling skills. Two concessions are proposed, including kayak and canoe rentals to access Lemon Bay and a ferry service to access the main use area of the park.

A new accessible launch facility for kayaks and canoes will provide water access to and from the park at a convenient location adjacent to the existing parking area and proposed kayak/canoe concessionaire. A paved walkway will also improve access to the beach area by connecting the existing drop-off area to the existing picnic pavilion and dune cross-over. A new flammable storage building will warehouse chemicals and fuels needed by staff at a location away from the combined public restroom and shop facility.

Potential Uses

Public Access and Recreational Opportunities

Goal: Provide public access and recreational opportunities in the park.

The existing recreational activities and programs of this state park are appropriate to the natural and cultural resources contained in the park and should be continued. New and improved activities and programs are also recommended and discussed below.

Objective: Maintain the park's current recreational carrying capacity of 2,212 users per day.

The park provides visitors with a variety of recreational activities including shoreline fishing, kayak and canoe access, swimming, nature study, boating, and picnicking. The park's north beach area continues to be very popular with residents and visitors.

Objective: Expand the park's recreational carrying capacity by 240 users per day.

A proposed kayak concessionaire and a universally accessible launch facility will benefit both novice and experienced paddlers. Experienced paddlers will be able to access more than 5 miles of estuarine waters from the new launch.

A proposed ferry service could provide visitors with access to the park's main use area. Due to limited parking at the park, the proposed ferry service could provide visitors with more access by launching from Park's land base dock and other appropriate places, such as marinas, where additional parking is available. The ferry service provider would shuttle visitors to an existing accessible dock that is adjacent to the combined restroom and shop buildings located on Lemon Bay. The provider will furnish on-board restrooms similar to excursion services provided at other regional state parks. Excursions will be offered to the public with scheduling based on user demand.

Multiple alternative drop-off points are recommended to allow for flexible management of the ferry concession, i.e., seasonal or periodic closures of certain drop-off points based on locations of nesting habitat, visitor use patterns, weather conditions, or shoreline erosion. At least one drop-off point is proposed at a point of access midway along the Lemon Bay side of the park on Manasota Key. Continued evaluation will be needed regarding conditions, environmental impacts, and suitability for visitors at the designated drop-off points. Site selection of drop-off points is contingent upon results of further assessment of natural resource impacts.

Due to the presence of shorebird and sea turtle nesting habitat and current trends of high visitation rates at the south end of Manasota Key is excluded as a potential ferry concession drop-off point.

The existing dock on the bay side at the north day use area is currently not utilized for boats other than FWC or park service, but should be considered for use by future ferry concessions. Modifications to the structure of the dock may be necessary in order to be permitted as a ferry dock.

Objective: Continue to provide the current repertoire of 11 interpretive, educational, and recreational programs on a regular basis.

The park currently has a series of interpretive programs that serve as a catalyst to learning and build visitors' understanding and appreciation of the park's natural resources. Staff and volunteers host five ranger and volunteer led lecture-walks that emphasize the natural communities and inhabitant species of the park. Three recreational programs at the park

provide opportunities for visitor to learn or improve outdoor skills. The programs include fishing, cast netting, and birding. The park's CSO and staff conducts four comprehensive educational and children's programs that investigate near-shore habitats through the Shark Teeth, Wading Adventure, and wildlife programs. The Bird Call program instructs visitors how to distinguish between bird songs and calls and the very important roles they play in the lives of birds. The Calusa Indian Program informs visitors about past indigenous cultures that inhabited the area's bays and barrier islands.

Objective: Develop three interpretive and recreational programs.

The park would also like to provide more guided nature tours to visitors by recruiting additional volunteers. One of the leading volunteer-based paddling programs will teach paddling skills while the other two will focus on expanding the visitors' understanding of complex natural systems. The new information will promote stewardship and conservation of Florida's natural communities and wildlife through increased appreciation.

The park would like to develop paddling ecotours in conjunction with the park's Citizens Support Organization (CSO). It is recommended that the program be modeled after a similar program that was established at Don Pedro Island State Park. The established program is very popular with visitors. The proposed program will utilize the adjacent waters of Lemon Bay to interpret wildlife and the habitats that support them while exploring the park's islands and the bayside of Manasota Key.

Proposed Facilities

Capital Facilities and Infrastructure

Goal: Develop and maintain the capital facilities and infrastructure necessary to implement the recommendations of the management plan.

The existing facilities of this state park are appropriate to the natural and cultural resources contained in the park and should be maintained. New construction, as discussed further below, is recommended to improve the quality and safety of the recreational opportunities, to improve the protection of park resources, and to streamline the efficiency of park operations. As recommended by the FWC Marine Turtle Lighting Guidelines, all exterior lighting for current and proposed facilities will utilize "turtle-friendly" lighting. The following is a summary of improved and new facilities needed to implement the conceptual land use plan for Stump Pass Beach State Park:

Objective: Maintain all public and support facilities in the park.

All capital facilities, trails, and roads within the park will be kept in proper condition through the daily or routine work of park staff and contracted help.

Objective: Improve or repair three existing facilities.

Major repair projects for park facilities may be accomplished within the ten-year term of this management plan, if funding is made available. These include the modification of existing park facilities to bring them into compliance with the Americans with Disabilities Act (a top priority for all facilities maintained by DRP). The following discussion of other recommended improvements and repairs are organized by use area within the park.

A 500-foot universally accessible paved walkway is recommended to provide visitors with linked access from the parking area to a proposed kayak/canoe launch and concession area, picnic shelter, and restrooms. The walkway will rim the existing circular drive located next to the boat dock. A 90-foot portable access mat is also recommended to provide visitors with a dune crossover and beach access from the recently built boardwalk.

To resolve the current parking issues at the park, staff will work with Charlotte County to provide "Parking Lot Full" signage along the road north of the park to indicate availability of parking for visitors before entering. Additionally, DRP will evaluate the potential feasibility, costs, and resource impacts of installing a traffic turn around between the park boundary and the parking area to alleviate traffic congestion.

The sign will be similar to Collier County's advisory sign used for Delnor-Wiggins State Park and should help alleviate congestion within the parking lot.

A flammable storage shed is recommended for the park. The recommended building location will be adjacent to the existing shop area located under the elevated restroom facility.

Objective: Construct one new facility.

DRP supports local efforts to promote kayaking or canoeing opportunities in the adjacent waters of Lemon Bay. A kayak/canoe facility would provide park visitors with additional water recreational opportunities and paddlers navigating the bay access to the park. The park would like to establish an agreement with a concessionaire to provide visitors with kayak or canoe rentals. A proposed concession facility is recommended adjacent to the existing restroom buildings and existing parking area.



A universally accessible single-lane kayak/canoe launch, accessible ramp, and adjacent paved parking space will also be included. The development of concession facilities may be planned in a segment of the parking lot where a temporary or mobile concession could be located or, alternatively, in an area adjacent to the existing restroom/storage building, where the building could be expanded to accommodate a permanent concession.

The Division will conduct additional assessments of impacts to natural and cultural resources to determine the feasibility of constructing a permanent concession facility. Construction of a permanent facility is contingent upon the results of required impact studies (i.e., reduction or degradation of maritime hammock, coastal strand, or beach dune).

Facilities Development

Preliminary cost estimates for these recommended facilities and improvements are provided in the Ten-Year Implementation Schedule and Cost Estimates (Table 6) located in the Implementation Component of this plan. These cost estimates are based on the most cost-effective construction standards available at this time. The preliminary estimates are provided to assist DRP in budgeting future park improvements, and may be revised as more information is collected through the planning and design processes. Improvements to existing facilities and new facilities recommended by the plan include:

Proposed Improvement and New Recreation and Support Facilities

Improved facilities -

Paved walkway (500 feet)

Portable access mat (90 feet)

Flammable storage shed

New facilities -

Kayak/canoe launch

Kayak/canoe launch access ramp

Paved parking space

Existing Use and Recreational Carrying Capacity

Carrying capacity is an estimate of the number of users a recreation resource or facility can accommodate and still provide a high quality recreational experience and preserve the natural values of the site. The carrying capacity of a unit is determined by identifying the land and water requirements for each recreation activity at the unit, and then applying

these requirements to the unit's land and water base. Next, guidelines are applied for estimating the physical capacity of the unit's natural communities to withstand recreational uses without significant degradation. This analysis identifies a range within which the carrying capacity most appropriate to the specific activity, the activity site, and the unit's classification is selected (see Table 5).

The recreational carrying capacity for this park is a preliminary estimate of the number of users the unit could accommodate after the current conceptual development program has been implemented. When developed, the proposed new facilities would approximately increase the unit's carrying capacity as shown in Table 5.

Optimum Boundary

An optimum boundary map reflects lands that have been identified as desirable for direct management by DRP as part of the state park. These parcels may include public as well as privately owned lands that improve the continuity of existing parklands, provide the most efficient boundary configuration, improve access to the park, provide additional natural and cultural resource protection, or allow for future expansion of recreational activities. The map also identifies lands that are potentially surplus to the management needs of DRP. As additional needs are identified through park use, development, or research, and changes to land use on adjacent private property occurs, modification of the park's optimum boundary may be necessary.

The optimum boundary for sovereign submerged lands proposes to include two areas of state sovereign submerged land. At the southern ends of both Peterson Island and Whidden Key, tidally accreted sand has formed partially inundated extensions of marine consolidated substrate. Addition of the accreted tidal sand areas to the lease would provide opportunity for management and resource protection of shorebird and sea turtle nesting habitat.

The park also proposes management of the submerged land located 25 feet seaward of the mean high waterline along the Gulf shore of Manasota Key, for resource protection (see Optimum Boundary Map).

No land has been identified as surplus to the needs of the park.



Table 5: Recreational Carrying Capacity

	Exis Capa	O	Propo Addit Capa	ional	Estim Recrea Capa	tional
Activity/Facility	One Time	Daily	One Time	Daily	One Time	Daily
Swimming	985	1,970	0	0	985	1,970
Hiking	46	184	0	0	46	184
Picnicking	8	16	0	0	8	16
Fishing, Shoreline	21	42	0	0	21	42
Kayaking/Canoeing	0	0	20	60	20	60
Excursion Boat	0	0	60	180	60	180
TOTAL	1,060	2,212	80	240	1,140	2,452

^{*}Existing capacity has been revised from the approved plan to better follow DRP carrying capacity guidelines.

IMPLEMENTATION COMPONENT

The resource management and land use components of this management plan provide a thorough inventory of the park's natural, cultural, and recreational resources. They outline the park's management needs and problems, and recommend both short and long-term objectives and actions to meet those needs. The implementation component addresses the administrative goal for the park and reports on the Division of Recreation and Parks (DRP) progress toward achieving resource management, operational, and capital improvement goals and objectives since approval of the previous management plan for this park. This component also compiles the management goals, objectives, and actions expressed in the separate parts of this management plan for easy review. Estimated costs for the ten-year period of this plan are provided for each action and objective, and the costs are summarized under standard categories of land management activities.

MANAGEMENT PROGRESS

Since the approval of the last management plan for Stump Pass Beach State Park in 2003, significant work has been accomplished and progress made towards meeting the DRP's management objectives for the park. These accomplishments fall within three of the five general categories that encompass the mission of the park and the DRP.

Park Administration and Operations

- Over the last ten years the park's Citizen Support Organization (CSO), Barrier Island Parks Society, has contributed over 4,264 hours of volunteer service.
- The park's CSO has provided staff with resources including power tools, a beach buggy and interpretive programs and materials.

Resource Management

Natural Resources

- All Australian Pines (Casuarina equisetifolia) have been removed from Manasota Key.
- The park's beach was renourished in 2003. Afterwards, all of the park's dunes were replanted.
- Staff recruits volunteers and conducts exotic plant removal workdays to promote natural communities improvements in the park.

- Exotic plant species have been removed from 167 acres within the park.
- A confirmed sighting of a Mangrove cuckoo was documented at the park.
- Signs have been posted in shorebird nesting areas to protect imperiled species utilizing park lands.

Recreation and Visitor Services

- Weekly ranger-lead interpretive programs are provided to park visitors during peak tourist season.
- Staff and the CSO work in partnership to provide a children's wildlife education program at the park.

Park Facilities

• In cooperation with Charlotte County, the park also constructed a service dock that provides staff and law enforcement boating access from Lemon Bay and a boardwalk that provides visitors access from the drop-off area to the beach.

MANAGEMENT PLAN IMPLEMENTATION

This management plan is written for a timeframe of ten years, as required by Section 253.034 Florida Statutes. The Ten-Year Implementation Schedule and Cost Estimates (Table 6) summarizes the management goals, objectives and actions that are recommended for implementation over this period, and beyond. Measures are identified for assessing progress toward completing each objective and action. A time frame for completing each objective and action is provided. Preliminary cost estimates for each action are provided and the estimated total costs to complete each objective are computed. Finally, all costs are consolidated under the following five standard land management categories: Resource Management, Administration and Support, Capital Improvements, Recreation Visitor Services, and Law Enforcement.

Many of the actions identified in the plan can be implemented using existing staff and funding. However, a number of continuing activities and new activities with measurable quantity targets and projected completion dates are identified that cannot be completed during the life of this plan unless additional resources for these purposes are provided. The plan's recommended actions, time frames and cost estimates will guide the DRP's planning and budgeting activities over the period of this plan. It must be noted that these recommendations are based on the information that exists at the time the plan was prepared. A high degree of adaptability and flexibility must be built

into this process to ensure that the DRP can adjust to changes in the availability of funds, improved understanding of the park's natural and cultural resources, and changes in statewide land management issues, priorities and policies.

Statewide priorities for all aspects of land management are evaluated each year as part of the process for developing the DRP's annual legislative budget requests. When preparing these annual requests, the DRP considers the needs and priorities of the entire state park system and the projected availability of funding from all sources during the upcoming fiscal year. In addition to annual legislative appropriations, the DRP pursues supplemental sources of funds and staff resources wherever possible, including grants, volunteers and partnerships with other entities. The DRP's ability to accomplish the specific actions identified in the plan will be determined largely by the availability of funds and staff for these purposes, which may vary from year to year. Consequently, the target schedules and estimated costs identified in Table 6 may need to be adjusted during the ten-year management planning cycle.

Table 6 Stump Pass Beach State Park Ten-Year Implementation Schedule and Cost Estimates Sheet 1 of 3

	ISION'S ABILITY TO COMPLETE THE OBJECTIVES OUTLINED BY THE MANAGEMENT PLAN IS CONTI R THESE PURPOSES.	NGENT ON THE AVAILABILI	TY OF FUND	ING AND OTHER
	dministrative support for all park functions.	Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Continue day-to-day administrative support at current levels.	Administrative support ongoing	С	\$35,496
Objective B	Expand administrative support as new lands are acquired, new facilities are developed, or as other needs arise.	Administrative support expanded	UFN	\$3,900
Goal II: Restore	and maintain the natural communities/habitats of the park.	Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Restore up to 15 acres of Beach Dune and Marine Unconsolidated Substrate communities on newly restored lands created through the Charlotte County Erosion Control Project.	# Acres within fire return interval target	UFN	\$276,300
Action 1	Develop/update site specific restoration plans.	Plan developed/updated	UFN	\$2,300
Action 2	Implement restoration plan.	# Acres with restoration underway	UFN	\$274,000
Objective B	Conduct habitat/natural community improvement activities on 1 acre of Beach Dune and Marine Unconsolidated Substrate communities.	# Acres improved or with improvements underway	UFN	\$13,500
Action 1	Construct temporary barriers to prevent further dune habitat damage and potential dune blowouts resulting from visitor foot traffic.	Barriers installed	UFN	\$2,300
	Plant sea oats adjacent to renourished beach areas to fortify and protect the existing dune system and newly created beaches.	# Square feet planted	UFN	\$11,200
Objective C	Continue to collaborate with federal, state and local agencies, to fund, design and permit expanded beach restoration activities consistent with the mission of DRP.	Project created	С	\$43,500
Action 1	Work with the County to formalize a project agreement for design and permitting.	Agreement executed	С	\$33,500
	Collaborate in the coastal engineering permitting process to ensure restoration activities are consistent with the needs of the park.	Permit obtained	С	\$10,000
Objective D	Work with Charlotte County to restore the south end of Manasota Key while maintaining a navigable pass.	Beach restored and maintained/or project underway	UFN	\$4,497,900
Action 1	Expand the project partnership with Charlotte County as needed for revised project easements and coastal construction.	Agreement amended	UFN	\$55,600
Action 2	Construct a beach and inlet stabilizing structure at the south end of the park and backfill the restoration project area with beach compatible sand from an offshore sand source.	Beach restored and maintained	UFN	\$1,764,300
Action 3	Perform or coordinate monitoring of imperiled species and physical project performance, and provide monitoring reports as required by coastal permits.	Monitoring reports submitted	UFN	\$278,000
Action 4	Provide periodic beach nourishment and as needed coastal structure repairs to maintain the restoration area and the rest of the Park beach.	Project maintained	UFN	\$2,400,000

Table 6 Stump Pass Beach State Park Ten-Year Implementation Schedule and Cost Estimates Sheet 2 of 3

	ISION'S ABILITY TO COMPLETE THE OBJECTIVES OUTLINED BY THE MANAGEMENT PLAN IS CONTI R THESE PURPOSES.	NGENT ON THE AVAILABILI	TY OF FUND	ING AND OTHER
Goal III: Maintai	n, improve or restore imperiled species populations and habitats in the park.	Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Update baseline imperiled species occurrence inventory lists for plants and animals, as needed.	List developed/updated	С	\$6,400
Objective B	Monitor and document 7 selected imperiled animal species in the park.	# Species monitored	С	\$111,400
Action 1	Continue implementing monitoring protocols for 7 imperiled animal species including the gopher tortoise, loggerhead turtle, green sea turtle, snowy plovers, Wilson's plovers, least terns and black skimmers.	# Protocols developed	ST	\$111,400
Objective C	Monitor and document 5 selected imperiled plant species in the park.	# Species monitored	С	\$17,700
Action 1	Develop monitoring protocols for imperiled plant species.	# Protocols developed	ST	\$9,600
	Continue implementing monitoring protocols at a tier 1 level for 2 imperiled plant species including the beach sunflower, Florida mayten, indigo berry, prickly pear cactus and Florida coontie.	# Species monitored	С	\$8,100
Goal IV: Remove	e exotic and invasive plants and animals from the park and conduct needed maintenance-control.	Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Annually treat 10 acres of exotic plant species in the park.	# Acres treated	С	\$35,800
Action 1	Annually develop/update exotic plant management work plan.	Plan developed/updated	С	\$19,800
Action 2	Implement annual work plan by treating 10 acres in park, annually, and continuing maintenance and follow-up treatments, as needed.	Plan implemented	С	\$16,000
Objective B	Implement control measures on 3 exotic and nuisance animal species in the park.	# Species for which control measures implemented	С	\$31,100
Action 1	Continue to coordinate with USDA to remove raccoons, armadillos, coyotes and any other nuisance predator.	# exotic and nuisance animals	С	\$11,100
Action 2	Continue to implement the use of wire mesh to protect turtle nests from raccoons, coyotes and other predators.	# Nests protected by wire mesh	С	\$20,000
Goal IV: Protect,	preserve and maintain the cultural resources of the park.	Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Assess and evaluate 1 of 1 recorded cultural resources in the park.	Documentation complete	С	\$800
Action 1	Complete 1 assessment/evaluation of archaeological sites. Prioritize preservation and stabilization projects.	Assessments complete	С	\$800
Objective B	Compile reliable documentation for all recorded historic and archaeological resources.	Documentation complete	С	\$5,900
Action 1	Ensure all known sites are recorded or updated in the Florida Master Site File.	# Sites recorded or updated	С	\$200
Action 2	Complete a predictive model for high, medium and low probability of locating archaeological sites within the park.	Probability Map completed	UFN	\$5,700

Table 6 Stump Pass Beach State Park Ten-Year Implementation Schedule and Cost Estimates Sheet 3 of 3

	ISION'S ABILITY TO COMPLETE THE OBJECTIVES OUTLINED BY THE MANAGEMENT PLAN IS CONTI R THESE PURPOSES.	NGENT ON THE AVAILABI	LITY OF FUND	ING AND OTHER
	public access and recreational opportunities in the park.	Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Maintain the park's current recreational carrying capacity of 2,212 users per day.	# Recreation/visitor	C	\$173,044
Objective B	Expand the park's recreational carrying capacity by 240 users per day.	# Recreation/visitor	UFN	\$18,772
Action 1	Develop new canoe/kayaking and excursion boat opportunities as identified in the Land Use Component	# Recreation/visitor opportunities per day	UFN	\$18,772
Objective C	Continue to provide the current repertoire of 11 interpretive, educational and recreational programs on a regular basis.	# Interpretive/education programs	С	\$20,000
Objective D	Develop 3 new interpretive and recreational programs.	# Interpretive/education programs	UFN	\$15,000
Goal VI: Develor	o and maintain the capital facilities and infrastructure necessary to meet the goals and objectives of this n.	Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Maintain all public and support facilities in the park.	Facilities maintained	С	\$124,237
Objective B	Continue to implement the park's transition plan to ensure facilities are accessible in accordance with the American with Disabilities Act of 1990.	Plan implemented	LT	\$10,000
Objective C	Improve and/or repair 3 existing facilities as identified in the Land Use Component.	# Facilities/Miles of Trail/Miles of Road	UFN	\$48,000
Objective D	Construct 1 new facility as identified in the Land Use Component.	# Facilities/Miles of Trail/Miles of Road	UFN	\$9,000
Objective E	Expand maintenance activities as existing facilities are improved and new facilities are developed.	Facilities maintained	UFN	\$5,000
Summary of Estin	mated Costs			
	Management Categories	6		Total Estimated Manpower and Expense Cost* (10-years)
	Resource Managemen	t		\$5,040,300
	Administration and Suppor	t		\$39,396
	Capital Improvements	3		\$67,000
	Recreation Visitor Services	3		\$356,053
	Law Enforcement Activities	1		
		1Law enforcement activities in DEP Division of Law Enforce agencies.		5



Purpose and Sequence of Acquisition

The Board of Trustees of the Internal Improvement Trust Fund (Trustees) acquired Stump Pass Beach State Park (formerly known as Port Charlotte Beach State Recreation Area) to develop, operate, and maintain the property for outdoor recreation, park, conservation, historic, and related purposes.

On May 10, 1971, the Trustees obtained title property constituting the initial area of Stump Pass Beach State Park. The Trustees purchased the property with LATF and LWCF funds. Since this initial purchase, the Trustees acquired two additional parcels, one through donation and purchased with LATF and LWCF funds, and added them to Stump Pass Beach State Park.

Title Interest

The Trustees hold fee simple title to Stump Pass Beach State Park. On May 4, 1971, the Trustees conveyed management authority of Stump Pass Beach State Park to the Division of Recreation and Parks (DRP) under Lease No. 2545. The lease is for a period of ninetynine (99) years, which will expire on May 4, 2070.

According to the lease, the DRP is to manage Stump Pass Beach State Park for the conservation and protection of natural, historic and cultural resources, and to provide resource-based public outdoor recreation compatible with the conservation and protection of the property.

Special Conditions on Use

The Stump Pass Beach State Park is designated single-use to provide resource-based public outdoor recreation and other park related uses. Uses such as water resource development projects, water supply projects, storm-water management projects, and linear facilities, and sustainable agriculture and forestry (other than those forest management activities specifically identified in this unit management plan) are not consistent with the unit management plan or management purposes of the park.

Outstanding Reservations

Following is a listing of outstanding rights, reservations, and encumbrances that apply to Stump Pass Beach State Park.

Stump Pass Beach State Park Acquisition History

Instrument:	Indenture
Instrument Holder:	Venture Out in America, Inc.
Beginning Date:	July 9, 1971
Ending Date:	No specific date is given.
Outstanding Rights, Uses, Etc.:	The indenture is subject to certain utility as described in Deed Book 48, page 29 of Charlotte County public records.
Instrument:	Special Warranty Deed
Instrument Holder:	General Development Corporation
Beginning Date:	June 28, 1971
Ending Date:	Forever
Outstanding Rights, Uses, Etc.:	If said lands are not used for purposes outlined, they will revert to instrument holder.
Instrument:	Deed
Instrument Holder:	
	Walter Van B. Roberts, Alice W.
Instrument Holder:	Walter Van B. Roberts, Alice W.
Instrument Holder:	Walter Van B. Roberts, Alice WRoberts, Thomas C. Roberts, SylviaRoberts, Richard B. Roberts, Josephine T. Roberts
Instrument Holder:	Walter Van B. Roberts, Alice W Roberts, Thomas C. Roberts, Sylvia Roberts, Richard B. Roberts, Josephine T. Roberts May 14, 1971
Instrument Holder: Beginning Date: Ending Date:	Walter Van B. Roberts, Alice W Roberts, Thomas C. Roberts, Sylvia Roberts, Richard B. Roberts, Josephine T. Roberts May 14, 1971
Instrument Holder: Beginning Date: Ending Date:	Walter Van B. Roberts, Alice W. Roberts, Thomas C. Roberts, Sylvia Roberts, Richard B. Roberts, Josephine T. Roberts May 14, 1971 No specific date is given. The deed is subject to certain utility easements as described in Deed Book 48, page 29 of Charlotte County public records.
Instrument Holder: Beginning Date: Ending Date: Outstanding Rights, Uses, Etc.:	Walter Van B. Roberts, Alice W Roberts, Thomas C. Roberts, Sylvia Roberts, Richard B. Roberts, Josephine T. Roberts May 14, 1971 No specific date is given The deed is subject to certain utility easements as described in Deed Book 48, page 29 of Charlotte County public records Deed
Instrument Holder: Beginning Date: Ending Date: Outstanding Rights, Uses, Etc.: Instrument: Instrument Holder:	Walter Van B. Roberts, Alice W Roberts, Thomas C. Roberts, Sylvia Roberts, Richard B. Roberts, Josephine T. Roberts May 14, 1971 No specific date is given The deed is subject to certain utility easements as described in Deed Book 48, page 29 of Charlotte County public records Deed

Stump Pass Beach State Park Acquisition History

Ending Date:	No specific date is given.
Outstanding Rights, Uses, Etc.:	The deed is subject to certain utility easements as described in Deed Book 48, page 29 of Charlotte County public records.



Department of Environmental Protection Division of Recreation and Parks

Don Pedro Island State Park Stump Pass Beach State Park Unit Management Plan Advisory Group February 28th, 2013

Local Government Representative

The Honorable Bill Truex, Commissioner, District 3 Charlotte County Board of County Commissioners 18500 Murdock Circle Port Charlotte, Florida 33948

Agency Representatives

Mr. Chad Lach, Park Manager Florida Park Service Gasparilla Island Administration 880 Belcher Road Boca Grande, Florida 33921

Mr. Thomas Williams, Senior Forester Florida Forest Service Florida Department of Agriculture and Consumer and Services Myakka State Forest 2000 South River Road Englewood, Florida 34223

Mr. Joseph Bozzo, Senior Environmental Analyst South Florida Water Management District 23998 Corkscrew Road Estero, Florida 33928

Mr. Peter Diamond, Conservation Planner Florida Fish and Wildlife Conservation Commission Division of Habitat and Species Conservation Planning Services 3434 Hancock Bridge Pkwy., Ste 209 B North Fort Myers, Florida 33908

Mr. Andy Dodd, Chair Charlotte County Soil and Water Conservation District 25550 Harbor View Road, Unit 3 Port Charlotte, Florida 33980

Tourism Development Council

Representative

Ms. Lorah Steiner Charlotte Harbor Visitor & Convention Bureau 18500 Murdock Circle, B104 Port Charlotte, Florida 33948

Environmental and Conservation Representative

Mr. Larry Behrens, President Peace River Audubon Society 438 Chamber Street NW Port Charlotte, Florida 33948

Recreational User Representative

Mr. George Fox, President Englewood Fishing Club 1684 Bayshore Drive Englewood, Florida 34223

Adjacent Landowners

Mr. Don Milroy, President Palm Island Estates Homeowners Association P.O. Box 983 Placida, Florida 33946

Ms. Valerie Hazlett, Corporate Representative Weston's WannaB Inn 985 Gulf Blvd. Englewood, Florida 34223

<u>Citizen Support Organization</u> Representative

Mr. Jim Grant, President Barrier Island Parks Society 11200 Hacienda Del Mar Blvd., Unit 301 Placida, Florida 33946

The Advisory Group meeting to review the proposed land management plan for Stump Pass Beach State Park was held at Cedar Point Environmental Park in Englewood, Florida on Thursday, February 28th, 2013, at 9:00 AM.

Chip Futch represented Lorah Steiner. Larry Behrens (Peace River Audubon Society) was not in attendance. Jim Grant (Barrier Island Parks Society) was not in attendance. All other appointed Advisory Group members were present as well as Heather Stafford (DEP/CAMA Lemon Bay Aquatic Preserve), Lynette Auger (Charlotte County Parks and Recreation Department), and Wilma Katz (Coastal Wildlife Club). Additionally, Peter Diamond (Florida Fish and Wildlife Conservation Commission) provided written comments. Wilma Katz and another member of Coastal Wildlife Club, Bill Dunson, also provided written comments.

Attending Division of Recreation and Parks staff members were Lew Scruggs, Daniel Alsentzer, Ezell Givens, Natalie Cole, Sally Braem, and Chad Lach.

Mr. Alsentzer began the meeting by explaining the purpose of the Advisory Group and reviewing the meeting agenda. He provided a brief overview of the Division of Recreation and Parks' (DRP) planning process. Mr. Alsentzer summarized public comments received during the previous evening's public workshop. Mr. Alsentzer then asked each member of the Advisory Group to express his or her comments on the draft plan.

Summary of Advisory Group Comments

Don Milroy (Palm Island Estates Homeowners) offered no comments for the draft plan. He agrees with the proposed land use changes or additions and finds current and proposed management actions to be appropriate for this popular beach environment.

Commissioner Bill Truex (Charlotte County Board of County Commissioners) inquired about the dredging projects in Stump Pass and how the park service communicates with Charlotte County government on this issue. Ms. Braem and Mr. Lach explained that DRP and Charlotte County staff have exchanged data from engineering models that illustrate the "give and take" dynamics of the shoreline erosion when the pass is widened/water flow through the pass is increased. Commissioner Truex is interested in carefully picking a solution (that is not cost-prohibitive) to maintain sufficient depth/width of Stump Pass. The two primary benefits including – (1) commercial and recreational navigability, and (2) circulation of water through the pass to keep Lemon Bay clean. Commissioner Truex acknowledges the loss of beach sand acreage and the need for beach renourishment.

Regarding parking issues at the park, Commissioner Truex agrees that a "parking full" sign could alleviate unauthorized parking and traffic congestion. However, he noted that these types of signs are sometimes overlooked by visitors if they cannot see for themselves that the lot is full when they approach the gate. He assessed that he park has ample recreational space on the beach, but lacks the space for parking – a predicament common to both the park and Manasota Key as a whole. He encourages further consideration of offsite parking at Manasota Plaza and referenced that there are examples of shuttle service arrangements between parks and offsite parking locations in analogous parts of the state.

Commissioner Truex added that a ferry service may further alleviate the parking shortage and could promote controlled beach access and prevent damage to dunes, vegetation, and nesting habitat.

Tom Williams (Florida Forest Service) commented that the coloration of Don Pedro Island and Stump Pass Beach State Parks on the Vicinity Map is not distinct, recommending an alternative color to represent the state park boundaries in this map. He confirmed that the Florida Forest Service is properly identified in the maps and the text of the plans. Mr. Williams also asked for clarification of the definition of "sovereign submerged land".

Valerie Hazlett (Wanna B Inn) stated that the adjacent business enjoys a good relationship with the park. The park is one of the primary attractions to Manasota Key and provides positive economic benefit to the community. Likewise, she perceives that the Inn provides benefit to the park as guests frequently join the ranger guided nature walks in the park and the Inn management takes care to dim or reduce artificial lighting during sea turtle hatchings. She observes that the park has been effective at educating the public about sea turtle protection. The one issue that she would like to see improved is the lack of parking and the resulting traffic congestion at the park entrance, since on frequent occasions when the park's parking lot is full, the Inn parking lot is often used for unauthorized overflow parking. She states that she does not want to tow visitors, but if there is consistent impact to business, towing might become necessary. To help resolve this issue, she supports the idea of adding a "parking full" sign to the park entrance. She asks whether offsite, street-side parking has been considered. Ms. Hazlett also recommends redesign of the park entrance and northern portion of the parking lot to include a traffic turn-around for visitors as they exit.

Lynette Auger (Charlotte County Parks and Recreation Department) notes the long line of cars that form at the front of the park during the busy season. She commented that given the popularity of the park as well as the small businesses on Manasota Key, it seems that both sides would benefit from offsite parking – pedestrian visitors walking to and from the park would be patrons at local businesses.

Heather Stafford (CAMA, Lemon Bay Aquatic Preserve) identified an error on the natural communities map, where unconsolidated marine substrate is labeled as mangrove swamp. She inquires where a ferry service would depart and arrive. She then inquired as to how a concessionaire is selected, noting concern that there should be careful attention to cost-effectiveness and compatibility with visitor interests and resource protection. She asked whether the park accounts for visitors who would arrive by a ferry service in the carrying capacity. She concluded with a question to clarify the benefits of Mobi-Mat.

Ms. Stafford recommends adding language to the Resource Management or Implementation Components to explain how the park service identifies and posts shorebird nesting sites.

Peter Diamond (Florida Fish and Wildlife Conservation Commission) thanked the Division of Recreation and Parks for the opportunity to review the plan. He notes that enhanced monitoring will be needed as the number of visitors to the park increases, particularly where the beaches of the park are most vulnerable to erosion. FWC encourages addition of the accreted spits of sand at the ends of Peterson Island and Whidden Key to the park's optimum boundary.

George Fox (Englewood Fishing Club) noted that fishermen compose a major user group in the park, especially at the far southern end of Manasota Key. It is Mr. Fox's observation that boaters who visit frequently use the dunes and vegetated area instead of restrooms as the walk to the north beach use area is too long for many visitors. This observation prompted him to ask how DRP plans to accommodate restroom needs for visitors who arrive by ferry. Additionally, Mr. Fox recommends additional protection of the pass between Peterson Island and Whidden Key, such that the pass would be closed to use of boat motors – requiring boaters to pole through the shallow pass, which would protect the mangroves and be a benefit to fishermen. Mr. Fox also asked how the carrying capacity is calculated for different types of environments. By his calculation, the park is already close to its full capacity. He noted concern that that the park may not reasonably sustain additional visitors by way of a ferry service. Mr. Fox recommends that if visitation increases to the extent that he forecasts, then the carrying capacity may need to be increased through more improvements to park infrastructure than have been proposed in the plan.

Joseph Bozzo (South Florida Water Management District) inquired how the park service collects fees from boaters. Mr. Bozzo then asked about the rate of compliance at unmanned pay stations and how payment is enforced.

Wilma Katz (Coastal Wildlife Club) noted the presence of two additional Kemp's Ridley sea turtle nest in the park. Her concern is that the nests are vulnerable to disturbance by visitors and erosion. Her recommendation is to document both nests in the Resource Management Component of the plan.

Andy Dodd (Charlotte County Soil and Water Conservation District) inquired whether the park service posts before or during shorebird nesting activity. He noted that ideal management practice is to post predicted nesting sites and continue posting as sites are identified.

Summary of Written Comments

Stump Pass Beach State Park

Wilma Katz (Coastal Wildlife Club) provided detailed comments in writing in addition to her attendance at the meeting. These comments addressed concerns about loss of seas turtle and shorebird nesting habitat at the park, due to visitor impacts and erosion. Due to these impacts there is need for enhanced monitoring and mitigation. She also notes that there is a need for more citizen participation in the review process for unit management plan updates. More effective measures are needed to ensure that public meetings on management plans are promoted locally to gain input from the parks' primary user groups. Other suggestions made are intended to clarify resource management and land use planning language in the plan.

Bill Dunson (Coastal Wildlife Club) did not attend the meeting, but submitted comments in writing. Mr. Dunson's comments addressed the negative roles of feral cats and domestic dogs on the ecosystem of the park. He recommends designating permanent protection areas for shorebird resting and nesting habitat in the park, delineating boundaries with rope or other physical barriers. Additional recommendations concern DRP's approach to the dredging of Stump Pass.

Peter Diamond (Florida Fish and Wildlife Conservation Commission) provided detailed comments in writing in addition to his attendance at the meeting. Key points of concern to FWC noted in the written comments include dredging and erosion, as well as human disturbances in shorebird nesting areas. Also under consideration are various alternate land uses, particularly with respect to outdoor recreation. The degree of recreational development that can occur within the park is, however, limited in large part by the very nature of a barrier island and its exposed coastline position. Nevertheless, FWC recognizes the need for DRP to seek a balance between goals of preserving and restoring the park's natural resources and its populations of imperiled species with its mission of providing appropriate resource-based recreational opportunities. Expanded development within the park must be balanced with the needs of all wildlife species and especially those that are considered rare.

Staff Recommendations

The staff recommends approval of the proposed management plan for Don Pedro Island State Park as presented, with the following significant changes:

- Park and District staff and the Office of Park Planning will work with the Bureau of Design and Construction to consider the feasibility of installing a traffic turn around between the park boundary and the parking area. Language will be added to the Land Use Component to propose the improvement and assess the cost and related resource impacts.
- The Resource Management Component will identify additional locations of potential shorebird nesting areas.
- Language will be added regarding the need for visitor restroom facilities aboard any ferry boat which is used in a concession agreement.
- Language will be added regarding recent nesting activity of Kemps Ridley sea turtles as well as potential shorebird nesting areas.
- Clarifications will be made in the language of both the Resource Management Component and the Land Use Component, concerning protection of shorebird and sea turtle nesting and resting habitat and mitigation of shoreline erosion.

Additional revisions were made throughout the document to address editorial corrections, consistency of spellings and notations, and other minor corrections.

Notes on Composition of the Advisory Group

Florida Statutes Chapter 259.032 Paragraph 10(b) establishes a requirement that all state land management plans for properties greater than 160 acres will be reviewed by an advisory group:

"Individual management plans required by s. 253.034(5), for parcels over 160 acres, shall be developed with input from an advisory group. Members of this advisory group shall include, at a minimum, representatives of the lead land managing agency, co-managing entities, local private property owners, the appropriate soil and water conservation district, a local conservation organization, and a local elected official."

Advisory groups that are composed in compliance with these requirements complete the review of State park management plans. Additional members may be appointed to the groups, such as a representative of the park's Citizen Support Organization (if one exists), representatives of the recreational activities that exist in or are planned for the park, or representatives of any agency with an ownership interest in the property. Special issues or conditions that require a broader representation for adequate review of the management plan may require the appointment of additional members. DRP's intent in making these appointments is to create a group that represents a balanced cross-section of the park's stakeholders. Decisions on appointments are made on a case-by-case basis by DRP staff.



- Beaches and Coastal Systems. May 2010. DEP permit. Charlotte County Erosion Control Project. JCP 0194790-012.
- Bureau of Economic and Business Research (BEBR), Warrington College of Business Administration, University of Florida. 2010. Florida Statistical Abstract.
- Charlotte County, 2010. Smart Charlotte 2050. Charlotte County, Florida.
- Charlotte County Public Works. Stormwater Management, Erosion Control Project. http://charlottecountyfl.com/PublicWorks/Stormwater/erosion.asp. Accessed April 2011.
- Davis, R.A. 1994. Barriers of the Florida Gulf Peninsula. In Geology of Holocene barrier island systems, edited by R.A.Davis, 167-206. Heidelberg:Springer-Verlag.
- Estevez, Ernest, Phd. et al. Charlotte Harbor National Estuary Program. (CHEP) 1998.
 The State of Charlotte Harbor and Its Adjacent Inland Waters and Watersheds,
 CHEP,North Fort Myers, Florida. 133 pp.
- Evans. A.W., and Hine, A.C. (1983). Basic control of barrier island evolution. In "the Crisis of Our Beaches." Environ.Stud. Publ. No.35,. New College, Sarasota, Florida. pp.21-40.
- Florida DEP. 2008. Strategic Beach Management Plan, Southwest Gulf Coast Region. DEP, Tallahassee, Florida. 11 pp.
- Florida Department of Environmental Protection. 2010. Florida State Park System Economic Impact Assessment for Fiscal Year 2010/2011. Tallahassee, Florida.
- Florida Fish and Wildlife Conservation Commission, 2011. Scott Callison. Personal communication.
- Florida Fish and Wildlife Conservation Commission, 2001. Lucy Keith, Mote Marine aerial studies, 1987-present. Personal communication. Port Charlotte, Florida. Three pp.
- Florida Game and Fresh Water Fish Commission. Milsap,B and Holder,G. 1989. Chadwick Beach Cotton Mouse Survey. Final Performance Report. Four pp.
- FNAI (Florida Natural Areas Inventory). 2009. Guide to the Natural Communities of Florida. Prepared by Florida Natural Areas Inventory and the Department of Natural Resources, Tallahassee, Florida. 111 pp.

- Henderson, Warren G., Jr. 1984. Soil Survey of Charlotte County, Florida. Soil Conservation Service, U.S. Department of Agriculture. 185 pp. + 58 maps.
- Humphrey, S.,1992. Rare and Endangered Biota of Florida, Volume 1, Mammals. University Press of Florida, Gainesville, Florida. 392 pp.
- Myers, R., and Ewel, J. 1990. Ecosystems of Florida. University of Central Florida Press, Gainesville, Florida. 765 pp.
- Randazzo, Anthony and D. Jones. 1997. The Geology of Florida, University Press of Florida, Gainesville, Florida. 327 pp.
- Reynolds, William. 1976. Botanical Geological and Sociological Factors Affecting the Management of The Barrier Islands Adjacent to Stump Pass. New College Environmental Studies Program, Sarasota Florida. 117 pp.
- Southwest Florida Water Management District. 2001 Five-year Land Acquisition Plan. 50 pp.
- University of Florida, Department of Coastal and Oceanographic Engineering.1972 "Manasota Key, Port Charlotte Beach State Park Beach Erosion." Gainesville, Florida.
- Visit Florida! 2010. 2009 Domestic Visitor Profile by Florida Vacation Region. 13 pp. In Florida Visitor Survey/2009.
- Wunderlin, Richard. 2003. Guide to the Vascular Plants of Florida. University Press of Florida. Gainesville, Florida. 788 pp.



(2) Canaveral Fine Sand. The soils of the Canaveral series are very rapidly permeable soils that formed in thick marine deposits of sand and shell fragments. These nearly level soils are on low ridges and in depressions along the Gulf Coast. They are associated with beaches.

Canaveral Fine Sand is nearly level, moderately well drained and somewhat poorly drained soil on low ridges. Slopes are smooth to slightly convex and range from 0 to 2 percent.

Typically, the surface layer is black and dark gray fine sand mixed with shell fragments and is about 15 inches thick. The underlying layers are light brownish gray and light gray fine sand mixed with shell fragments to a depth of 80 inches or more. The available water capacity is very low. Natural fertility is low. Permeability is very rapid. Natural vegetation includes seagrape, wild coffee and myrsine.

(24) Kesson Fine Sand. Kesson Fine Sand is associated with Wulfert Muck. It is a nearly level, very poorly drained soil in tidal swamps. Areas are subject to tidal flooding. Slopes are smooth and range from 0 to 1 percent.

Typically, the surface layer is about 6 inches of sand that contains shell fragments. The underlying layers are fine sand that contains shell fragments, and they extend to a depth of 80 inches or more. Natural vegetation consists of mangrove trees, pickel weed and oxeye daisy.

(22) Beaches. (2) Canaveral Fine Sand - The soils of the Canaveral series are very rapidly permeable soils that formed in thick marine deposits of sand and shell fragments. These nearly level soils are on low ridges and in depressions along the Gulf Coast. They are associated with beaches.

Canaveral Fine Sand is nearly level, moderately well drained and somewhat poorly drained soil on low ridges. Slopes are smooth to slightly convex and range from 0 to 2 percent.

Typically, the surface layer is black and dark gray fine sand mixed with shell fragments and is about 15 inches thick. The underlying layers are light brownish gray and light gray fine sand mixed with shell fragments to a depth of 80 inches or more. The available water capacity is very low. Natural fertility is low. Permeability is very rapid. Natural vegetation includes seagrape, wild coffee and myrsine.

(24) Kesson Fine Sand - Kesson Fine Sand is associated with Wulfert Muck. It is a nearly level, very poorly drained soil in tidal swamps. Areas are subject to tidal flooding. Slopes are smooth and range from 0 to 1 percent.

Stump Pass Beach State Park Soil Descriptions

Typically, the surface layer is about 6 inches of sand that contains shell fragments. The underlying layers are fine sand that contains shell fragments, and they extend to a depth of 80 inches or more. Natural vegetation consists of mangrove trees, pickel weed and oxeye daisy.

(22) Beaches - Beaches consist of narrow strips of nearly level, mixed sand and shell fragments along the Gulf of Mexico. These areas are covered with saltwater at daily high tides. Usually bare of vegetation, they are unstable and subject to being shifted by storms and longshore currents. Beaches are geographically with Canaveral soils. Beaches consist of narrow strips of nearly level, mixed sand and shell fragments along the Gulf of Mexico. These areas are covered with saltwater at daily high tides. Usually bare of vegetation, they are unstable and subject to being shifted by storms and longshore currents. Beaches are geographically with Canaveral soils.



Primary Habitat Scientific Name(for

Common Name

imperiled species)

PTERIDOPHYTES

GYMNOSPERMS

South Florida slash pine......Pinus elliottii var. densa Coontie.....Zamia pumila

ANGIOSPERMS

MONOCOTS

Sisal hemp	.Agave sisalana*
Wild century plant	.Agave neglecta
Spanish bayonet	
Cabbage palm	.Sabal palmetto
Saw palmetto	
Sprenger's asparagus-fern	
Ball moss	.Tillandsia recurvata
Southern sandbur	.Cenchrus echinatus
Coastal sandbur	
Whitemouth dayflower	
Oyster plant	
Swamp flatsedge	
Hurricane grass	
Durban crowfootgrass	.Dactyloctenium aegyptium*
Salt grass	.Distichlis spicata
Hairgrass; hairawn muhly	
Salt jointgrass	
Smooth cordgrass	.Spartia alterniflora var. glabra
Virginia dropseed	.Sporobolus virginicus
St. Augustinegrass	
Sea oats	
Bowstring hemp	•
Earleaf greenbriar	e e

Primary Habitat Scientific Name(for

Common Name

imperiled species)

DICOTS

Yellow joyweed	Alternanthera flamescens
Common ragweed	
Marlberry	
Black mangrove	
Groundsel tree	
Saltwort	y .
Beggarticks	
Samphire	
Bushy seaside oxeye Gumbo-limbo	•
Gray nicker	
cCoastal searocket	
American beautyberry	
Baybean	
Jamaican capertree	
Love vine	
Australian-pine	
Madagascar periwinkle	
Dixie sandmat	Chamaesyce bombensis
	Chamaesyce mesembryanthemifolia
Common snowberry	
Jack-in-the-bush	
Seagrape	Coccoloba uvifera
Buttonwood	
Canadian horseweed	Conyza canadensis
Tickseed	Coreopsis leavenworthii
Gulf croton; beach tea	Croton punctatus
Carrotwood	
Gulf coast swallowwort	Cynanchum angustifolium
Coinvine	Dalbergia ecastaphyllum
Beach creeper	Ernodea littoralis
White stopper	Eugenia axillaris
Marshgentian	Eustoma exaltatum
Strangler fig	
Cuban laurel	
Florida swampprivet	
Bedstraw	

Primary Habitat Scientific Name(for

Common Name

imperiled species)

Southern beeblossom	
	Helianthus debilis subsp. DebilisBD
West coast dune sunflower	,
Scorpionstail	
Pineland heliotrope	
Camphorweed	
Oceanblue morningglory	Ipomoea indica var. acuminata
Railroad vine	, , , ,
Bloodleaf	Iresine diffusa
Seacoast marshelder	Iva imbricata
Chandelier plant	Kalanchoe delagoensis
Life plant	
Tubular bells	Kalanchoe tubiflora*
White mangrove	Laguncularia racemosa
Wild Sage; buttonsage	Lantana involucrata
Sea lavender	
Christmasberry	Lycium carolinianum
Florida mayten	Maytenus phyllanthoiodes MAH
Creeping cucumber	Melothria pendula
Climbing hempvine	
Balsampear	
Wax myrtle	
Seabeach eveningprimrose	
Cutleaf eveningprimrose	· · · · · · · · · · · · · · · · · · ·
Pricklypear	
	Opuntia strictaCG
Clustered pellitory-of-the-wall	·
Virginia creeper	
Corky-stemmed passionflower	Passiflora suberosa
Creeping-charlie; Capeweed	
Leaf flower	
Coastal ground cherry	
Walter's ground cherry	Physalis walteri
American pokeweed	
Paintedleaf	· ·
White bachelor's button	•
Showy milkwort	
Little hogweed	
Red-stem purslane	
_	

Primary Habitat Scientific Name(for

Common Name

imperiled species)

Wild coffee	Psychotria nervosa
White indigoberry	Randia aculeata
Myrsine	Rapanea cubana
Rouge plant	Ravina humilis
Red mangrove	
Perennial glasswort	Sarcocornia ambigua
Sage	
Water pimpernel	
	Scaevola plumieriBD, CG
Brazilian-pepper	
Shoreline seapurslane	
Saffron plum	
American black nightshade	Solanum americanum
Common nightshade	Solanum chenopodioides
Seaside goldenrod	Solidago sempervirens
Common sowthistle	Sonchus oleraceus*
Yellow necklacepod variety	Sophora tomentosa
	Sphagneticola trilobata(= Wedelia trilobata)*
Sea blite	Sueda linearis
Bay-cedar	Suriana maritima
Saltmarsh aster	Symphyotrichum subulatum
Poison ivy	Toxicodendron radicans
Forked bluecurls	Trichostema dichotomum
Hairypod cowpea	Vigna luteola
Hercules club	

Common Name

Primary Habitat Scientific Name (for all species)

REPTILES

Turtles and tortoises Loggerhead turtle
Green turtle
Gopher tortoise
Florida box turtle
Tierida ten tarriem in Terrupente eurem eum rim
Lizards
Brown anole
Black spiny-tailed iguana
Southeastern five-lined skinkEumeces inexpectatus
,
Snakes
Eastern coachwhip
Eastern rat snake
BIRDS
Dod.
Ducks Matthe delicate Access for Institute CIC
Mottled duck
Loons
Common loon
Continon toott
Mergansers
Red-breasted merganserMergus serratorBD
red credited intergaliser
Sulids
Northern gannet
O Company of the comp
Pelicans
Brown pelicanPelecanus occidentalisOF
•
Cormorants
Double-crested cormorant
Darters
AnhingaOF

Common Name		Primary Habitat Scientific Name (for all species)
Frigatebirds		
<u> </u>	Fregata magnificens	OF
0	0 0)	
Bitterns and Herons		
	Ardea alba	
	Ardea herodias herodias	
	Butorides virescens	
Little blue heron	Egretta caerulea	AP, CIS, MS
Reddish egret	Egretta rufescens	BD
	Egretta thula	
	Egretta tricolor	
Yellow-crowned night-heron	Nyctanassa violacea	BD, MS
Ibises and Spoonbills	Ajaia ajaja	OE.
	Eudocimus albus	
writte ibis	Euuocimus aious	CIS, MIH, MIS, DV
Storks		
Wood stork	Mycteria americana	OF
Ospreys		
	Pandion haliaetus	MS MAH
Copicy	what is a market with the second	1410/ 1411 11 1
Hawks, Eagles, and Kites		
Southern bald eagle	Haliaeetus leucocephalus	BD,MAH,OF
Red-shouldered hawk	Buteo lineatus	CS, RD
Falcons		
	Falco columbarius	CS RD DV
	Falco peregrinus	
=		
American kestrei	Falco sparverius paulus	C5, KD, DV
Plovers		
	Chardadrius nivosus	
	Charadrius melodus	
	Charadrius semipalmatus	
	Charadrius vociferus	
	Charadrius wilsonia	
Black-bellied Plover	Pluvialis squatarola	BD

Common Name

Primary Habitat

Scientific Name

Common Name		Scientific Nume
		(for all species)
Decemberated de		
Recurvirostrids	I lim antonio monicanio	PD CIC
	Himantopus mexicanus	
American avocet	Recuroirostra americana	DD
Snipes and Sandpipers		
	Actitis macularius	MS
	Arenaria interpres	
	Calidris alba	
	Calidris alpina	
	Calidris mauri	
	Calidris minutilla	
	Calidris pusilla	
	Limnodromus griseus	
	Tringa flavipes	
	Tringa melanoleuca	
	Tringa semipalmata	
Gulls and Terns		
	Chroicocephalus philadelphia	CIS
	Gelochelidon nilotica	
	Hydroprogne caspia	
	Leucophaeus atricilla	
0 00	Larus argentatus	
	Larus delawarensis	
	Larus fuscus	
	Larus marinus	
	Rynchops niger	
	Sternula antillarum	
	Sterna hirundo	
	Sterna forsteri	
	Thalasseus maximus	
Sandwich tern	Thalasseus sandvicensis	OF
Doves		
Common ground-dove	Columbina passerina	CS, RD
	Streptopelia decaocto*	
	Zenaida macroura	
S		

Common Name		Primary Habitat Scientific Name (for all species)
Owls		
	Bubo virginianus	CS, MA
Goatsuckers Common nighthawk	Chordeiles minor	RD
Swifts Chimney swift	Chaetura pelagica	OF
Hummingbirds Ruby-throated hummingbird	Archilochus colubris	CS, DV
Kingfishers Belted kingfisher	Megaceryle alcyon	MS
Red-bellied woodpecker	Dryocopus pileatus	CS, MAH, DV
Elyeatehous and Vinghinds		
Flycatchers and Kingbirds Eastern wood-Pewee	Contopus virens	MAH
	Myiarchus crinitus	
	Sayornis phoebe	
	Tyrannus dominicensis	
	Tyrannus forficatus	
Vireos		
	Vireo altiloquus	MS, MAH
	.Vireo griseus	
	.Vireo olivaceus	
Jays and Crows		
	Corvus ossifragus	BD. DV
	Corvus brachyrhynchos	
	Cyanocitta cristata	
Swallows and Martins Barn swallow	Hirundo rustica	BD

Common Name		Primary Habitat Scientific Name (for all species)
	Riparia riparia Tachycineta bicolor	
	Thryothorus ludovicianus Troglodytes aedon	
Kinglets Ruby-crowned kinglet	Regulus calendula	MAH
Gnatcatchers Blue-gray gnatcatcher	Polioptila caerulea	CS, MAH, RD, DV
Thrushes American robin	Turdus migratorius	CS
	Dumetella carolinensis Mimus polyglottos	
Starlings European starling	Sturnus vulgaris*	DV
Warblers		
	Mniotilta varia	
5	Protonotaria citrea	
Ö	Helmitheros vermivorus	
	Vermivora pinus	
	Parula americana	
	Dendroica petechia	
	Dendroica coronata	
	Dendroica cerulea	· · · · · · · · · · · · · · · · · · ·
	Dendroica fusca	
	Dendroica pinusDendroica discolor	
	Seiurus aurocapillus Seiurus noveboracensis	
	Geothlypis trichas	
	Wilsonia citrina	
TIOUCH WAIDICI	VIIOUIIIN CIIIIIII	

Common Name	Primary Habitat Scientific Name (for all species)
Cardinals, Tanagers, Grosbeaks, and Buntings	
Snow bunting	MAH
Northern cardinal	
Painted bunting	
Tunica building	
Meadowlarks, Blackbirds and Orioles	
Red-winged blackbird	CIS, MS, RD
Boat-tailed grackleQuiscalus major	
Common grackleQuiscalus quiscula	
MAMMALS	
Rodents	
Eastern gray squirrelSciurus carolinensis	DV, MAH
Carnivores	
Domestic cat	MTC
RaccoonProcyon lotor	MTC
Gray fox	MAH
Sirens) (T.10
Florida manatee	MUS

Common Name

Primary Habitat *Scientific Name* (for all species)

TERRESTRIAL Beach DuneBD Coastal Berm.....CB Coastal Strand......CS Dry Prairie......DP Keys Cactus Barren KCB Limestone OutcropLO Mesic Hammock......MEH Pine RocklandPR Rockland HammockRH Sandhill.....SH ScrubSC Scrubby FlatwoodsSCF Shell Mound......SHM SinkholeSK Slope ForestSPF Upland GladeUG Upland Hardwood Forest......UHF Upland Mixed Woodland......UMW Upland PineUP Wet Flatwoods......WF Xeric Hammock XH **PALUSTRINE** Alluvial ForestAF Basin Marsh......BM Basin Swamp......BS BaygallBG Bottomland Forest......BF Coastal Interdunal SwaleCIS Floodplain Marsh.....FM Floodplain Swamp......FS

Glades Marsh......GM

Primary Habitat

Common Name Scientific Name (for all species) Hydric HammockHH Keys Tidal Rock Barren.....KTRB Salt Marsh......SAM Seepage SlopeSSL Shrub Bog SHB Slough......SLO Slough Marsh.....SLM Strand SwampSTS Wet PrairieWP **LACUSTRINE** Clastic Upland Lake......CULK Coastal Dune Lake......CDLK Coastal Rockland Lake......CRLK Flatwoods/Prairie...... FPLK Sandhill Upland Lake......SULK Sinkhole Lake.....SKLK Swamp Lake.....SWLK RIVERINE Alluvial Stream.....AST Seepage Stream.....SST Spring-run Stream.....SRST **SUBTERRANEAN** Aquatic Cave ACV

ESTUARINE

Common Name	Primary Habitat Scientific Name (for all species)
Seagrass Bed	ESGB
Sponge Bed	
Unconsolidated Substrate	
Worm Reef	
MARINE	
Algal Bed	MAB
Composite Substrate	
Consolidated Substrate	
Coral Reef	
Mollusk Reef	
Octocoral Bed	
Seagrass Bed	
Sponge Bed	
Unconsolidated Substrate	
Worm Reef	MWR
ALTERED LANDCOV	ER TYPES
Abandoned field	ABF
Abandoned pasture	
Agriculture	
Canal/ditch	
Clearcut pine plantation	
Clearing	
Developed	
Impoundment/artificial pond	
Invasive exotic monoculture	
Pasture - improved	PI
Pasture - semi-improved	
Pine plantation	PP
Road	RD
Spoil area	SA
Successional hardwood forest	SHF
Utility corridor	UC
MISCELLANEOUS	
Many Types of Communities	MTC
Overflying	



Imperiled Species Ranking Definitions

The Nature Conservancy and the Natural Heritage Program Network (of which FNAI is a part) define an <u>element</u> as any exemplary or rare component of the natural environment, such as a species, natural community, bird rookery, spring, sinkhole, cave or other ecological feature. An <u>element occurrence</u> (EO) is a single extant habitat that sustains or otherwise contributes to the survival of a population or a distinct, self-sustaining example of a particular element.

Using a ranking system developed by The Nature Conservancy and the Natural Heritage Program Network, the Florida Natural Areas Inventory assigns two ranks to each element. The global rank is based on an element's worldwide status; the state rank is based on the status of the element in Florida. Element ranks are based on many factors, the most important ones being estimated number of Element occurrences, estimated abundance (number of individuals for species; area for natural communities), range, estimated adequately protected EOs, relative threat of destruction, and ecological fragility.

Federal and State status information is from the U.S. Fish and Wildlife Service; and the Florida Game and Freshwater Fish Commission (animals), and the Florida Department of Agriculture and Consumer Services (plants), respectively.

FNAI GLOBAL RANK DEFINITIONS

Imperiled Species Ranking Definitions

G#Qrank of questionable species - ranked as species but questionable whether
it is species or subspecies; numbers have same definition as above (e.g., G2Q)
G#T#Qsame as above, but validity as subspecies or variety is questioned.
GUdue to lack of information, no rank or range can be assigned (e.g., GUT2).
G?Not yet ranked (temporary)
S1Critically imperiled in Florida because of extreme rarity (5 or fewer
occurrences or less than 1000 individuals) or because of extreme
vulnerability to extinction due to some natural or man-made factor.
S2Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000
individuals) or because of vulnerability to extinction due to some natural or man-made factor.
S3Either very rare or local throughout its range (21-100 occurrences or less
than 10,000 individuals) or found locally in a restricted range or
vulnerable to extinction of other factors.
S4apparently secure in Florida (may be rare in parts of range)
S5demonstrably secure in Florida
SHof historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker)
SXbelieved to be extinct throughout range
SAaccidental in Florida, i.e., not part of the established biota
SEan exotic species established in Florida may be native elsewhere in North
America
SNregularly occurring but widely and unreliably distributed; sites for
conservation hard to determine
SUdue to lack of information, no rank or range can be assigned (e.g., SUT2).
S?Not yet ranked (temporary)
NNot currently listed, nor currently being considered for listing, by state or
federal agencies.

LEGAL STATUS

FEDERAL

(Listed by the U. S. Fish and Wildlife Service - USFWS)

LE	Listed as Endangered Species in the List of Endangered and Threatened
	Wildlife and Plants under the provisions of the Endangered Species Act.
	Defined as any species that is in danger of extinction throughout all or a
	significant portion of its range.
PE	Proposed for addition to the List of Endangered and Threatened Wildlife
	and Plants as Endangered Species.

Imperiled Species Ranking Definitions

LT.....Listed as Threatened Species. Defined as any species that is likely to become an endangered species within the near future throughout all or a significant portion of its range.

PT.....Proposed for listing as Threatened Species.

CCandidate Species for addition to the list of Endangered and Threatened Wildlife and Plants. Defined as those species for which the USFWS currently has on file sufficient information on biological vulnerability and threats to support proposing to list the species as endangered or threatened.

E(S/A).....Endangered due to similarity of appearance.

T(S/A).....Threatened due to similarity of appearance.

STATE

ANIMALS ..(Listed by the Florida Fish and Wildlife Conservation Commission - FFWCC)

- ST.....Listed as Threatened Species by the FFWCC. Defined as a species, subspecies, or isolated population, which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat, is decreasing in area at a rapid rate and therefore is destined or very likely to become an endangered species within the near future.
- SSCListed as Species of Special Concern by the FFWCC. Defined as a population which warrants special protection, recognition or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance or substantial human exploitation that, in the near future, may result in its becoming a threatened species.

PLANTS(Listed by the Florida Department of Agriculture and Consumer Services - FDACS)

- LE.....Listed as Endangered Plants in the Preservation of Native Flora of Florida Act. Defined as species of plants native to the state that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue, and includes all species determined to be endangered or threatened pursuant to the Federal Endangered Species Act of 1973, as amended.
- LT.....Listed as Threatened Plants in the Preservation of Native Flora of Florida Act. Defined as species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in such number as to cause them to be endangered.



Management Procedures for Archaeological and Historical Sites and Properties on State-Owned or Controlled Properties (revised February 2007)

These procedures apply to state agencies, local governments and non-profits that manage state-owned properties.

A. General Discussion

Historic resources are both archaeological sites and historic structures. Per Chapter 267, Florida Statutes, "Historic property" or "historic resource" means any prehistoric district, site, building, object, or other real or personal property of historical, architectural or archaeological value, and folklife resources. These properties or resources may include, but are not limited to, monuments, memorials, Indian habitations, ceremonial sites, abandoned settlements, sunken or abandoned ships, engineering works, treasure trove, artifacts, or other objects with intrinsic historical or archaeological value, or any part thereof, relating to the history, government, and culture of the state."

B. Agency Responsibilities

Per State Policy relative to historic properties, state agencies of the executive branch must allow the Division of Historical Resources (Division) the opportunity to comment on any undertakings, whether these undertakings directly involve the state agency, i.e., land management responsibilities, or the state agency has indirect jurisdiction, i.e. permitting authority, grants, etc. No state funds should be expended on the undertaking until the Division has the opportunity to review and comment on the project, permit, grant, etc.

State agencies shall preserve the historic resources that are owned or controlled by the agency.

Regarding proposed demolition or substantial alterations of historic properties, consultation with the Division must occur, and alternatives to demolition must be considered.

State agencies must consult with Division to establish a program to location, inventory and evaluate all historic properties under ownership or controlled by the agency.

C. Statutory Authority

Statutory Authority and more in depth information can be found in the following:

Chapter 253, F.S. – State Lands

Chapter 267, F.S. - Historical Resources

Chapter 872, F.S. - Offenses Concerning Dead Bodies and Graves

Other helpful citations and references:

Chapter 1A-32, F.A.C. - Archaeological Research

Other helpful citations and references:

Chapter 1A-44, F.A.C. - Procedures for Reporting and Determining Jurisdiction Over Unmarked Human Burials

Chapter 1A-46, F.A C. - Archaeological and Historical Report Standards and Guidelines

The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings

D. Management Implementation

Even though the Division sits on the Acquisition and Restoration Council and approves land management plans, these plans are conceptual. Specific information regarding individual projects must be submitted to the Division for review and recommendations.

Managers of state lands must coordinate any land clearing or ground disturbing activities with the Division to allow for review and comment on the proposed project. Recommendations may include, but are not limited to: approval of the project as submitted, pre-testing of the project site by a certified archaeological monitor, cultural resource assessment survey by a qualified professional archaeologist, modifications to the proposed project to avoid or mitigate potential adverse effects.

Projects such as additions, exterior alteration or related new construction regarding historic structures must also be submitted to the Division of Historical Resources for review and comment by the Division's architects. Projects involving structures fifty years of age or older, must be submitted to this agency for a significance determination. In rare cases, structures under fifty years of age may be deemed historically significant. These must be evaluated on a case-by-case basis.

Adverse impacts to significant sites, either archaeological sites or historic buildings, must be avoided. Furthermore, managers of state property should prepare for locating and evaluating historic resources, both archaeological sites and historic structures.

E. Minimum Review Documentation Requirements

In order to have a proposed project reviewed by the Division, the following information, at a minimum, must be submitted for comments and recommendations.

<u>Project Description</u> - A detailed description of the proposed project including all related activities. For land clearing or ground disturbing activities, the depth and extent of the disturbance, use of heavy equipment, location of lay down yard, etc. For historic structures, specific details regarding rehabilitation, demolition, etc.

<u>Project Location</u> - The exact location of the project indicated on a USGS Quadrangle map, is preferable. A management base map may be acceptable. Aerial photos indicating the exact project area as supplemental information are helpful.

<u>Photographs</u> - Photographs of the project area are always useful. Photographs of structures are required.

<u>Description of Project Area</u> - Note the acreage of the project; describe the present condition of project area, and any past land uses or disturbances.

<u>Description of Structures</u> – Describe the condition and setting of each building within project area if approximately fifty years of age or older.

<u>Recorded Archaeological Sites or Historic Structures</u> – Provide Florida Master Site File numbers for all recorded historic resources within or adjacent to the project area. This information should be in the current management plan; however, it can be obtained by contacting the Florida Master Site File at (850) 245-6440 or Suncom 205-6440.

Questions relating to the treatment of archaeological and historic resources on state lands should be directed to:

Susan M. Harp
Historic Preservation Planner
Division of Historical Resources
Bureau of Historic Preservation
Compliance and Review Section
R. A. Gray Building
500 South Bronough Street
Tallahassee, FL 32399-0250

Phone: (850) 245-6333 Fax: (850) 245-6438 The criteria to be used for evaluating eligibility for listing in the National Register of Historic Places are as follows:

- 1) Districts, sites, buildings, structures, and objects may be considered to have significance in American history, architecture, archaeology, engineering, and/or culture if they possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:
 - a) are associated with events that have made a significant contribution to the broad patterns of our history; and/or
 - b) are associated with the lives of persons significant in our past; and/or
 - c) embody the distinctive characteristics of type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; and/or
 - d) have yielded, or may be likely to yield, information important in prehistory or history.
- Ordinarily cemeteries, birthplaces, or graves of historical figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; properties primarily commemorative in nature; and properties that have achieved significance within the past 50 years shall not be considered eligible for the *National Register*. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:
 - a) a religious property deriving its primary significance from architectural or artistic distinction or historical importance; or
 - b) a building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
 - c) a birthplace or grave of an historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life; or
 - d) a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, distinctive design features, or association with historic events; or

Eligibility Criteria for National Register of Historic Places

- e) a reconstructed building, when it is accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and no other building or structure with the same association has survived; or a property primarily commemorative in intent, if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- **f)** a property achieving significance within the past 50 years, if it is of exceptional importance.

Preservation Treatments as Defined by Secretary of Interior's Standards and Guidelines

Restoration is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations and additions while preserving those portions or features that convey its historical, cultural or architectural values.

Stabilization is defined as the act or process of applying measures designed to reestablish a weather resistant enclosure and the structural stability of an unsafe or deteriorated property while maintaining the essential form as it exists at present. **Preservation** is defined as the act or process of applying measures necessary to sustain the existing form, integrity and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.