FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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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: Don Pedro Island State Park – Lease # 3415

Dear ~~Ms. Murray~~: Sine

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 Don Pedro Island 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

Marianne S. Gengenbach
Office of Environmental Services
Division of State Lands

RECEIVED
AUG 23 2013
BY:_____

Don Pedro Island State Park

Unit Management Plan

APPROVED

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Recreation and Parks

August 22, 2013

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INTRODUCTION

Don Pedro Island State Park is located in western Charlotte County (see Vicinity Map).

The park is six miles south of Englewood, which is on the mainland, and five miles south of Englewood Beach, which is on one of the barrier islands that comprise the Gulf of Mexico coastline. The park consists of a mainland parcel accessible from County Road 775, and a barrier island parcel accessible only by commercial ferry or private watercraft (see Reference Map). The vicinity map also reflects significant land and water resources near the park.

On February 15, 1985, the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida (Trustees) obtained title to a 132.9–acre property constituting the initial area of Don Pedro Island State Park. This acquisition was funded through the Save Our Coasts (SOC) program. Since the initial purchase, the Trustees acquired several parcels under Preservation 2000/Additions and Inholdings (P2000/A&I) and added them to Don Pedro Island State Park. Presently the park consists of 245.12 acres.

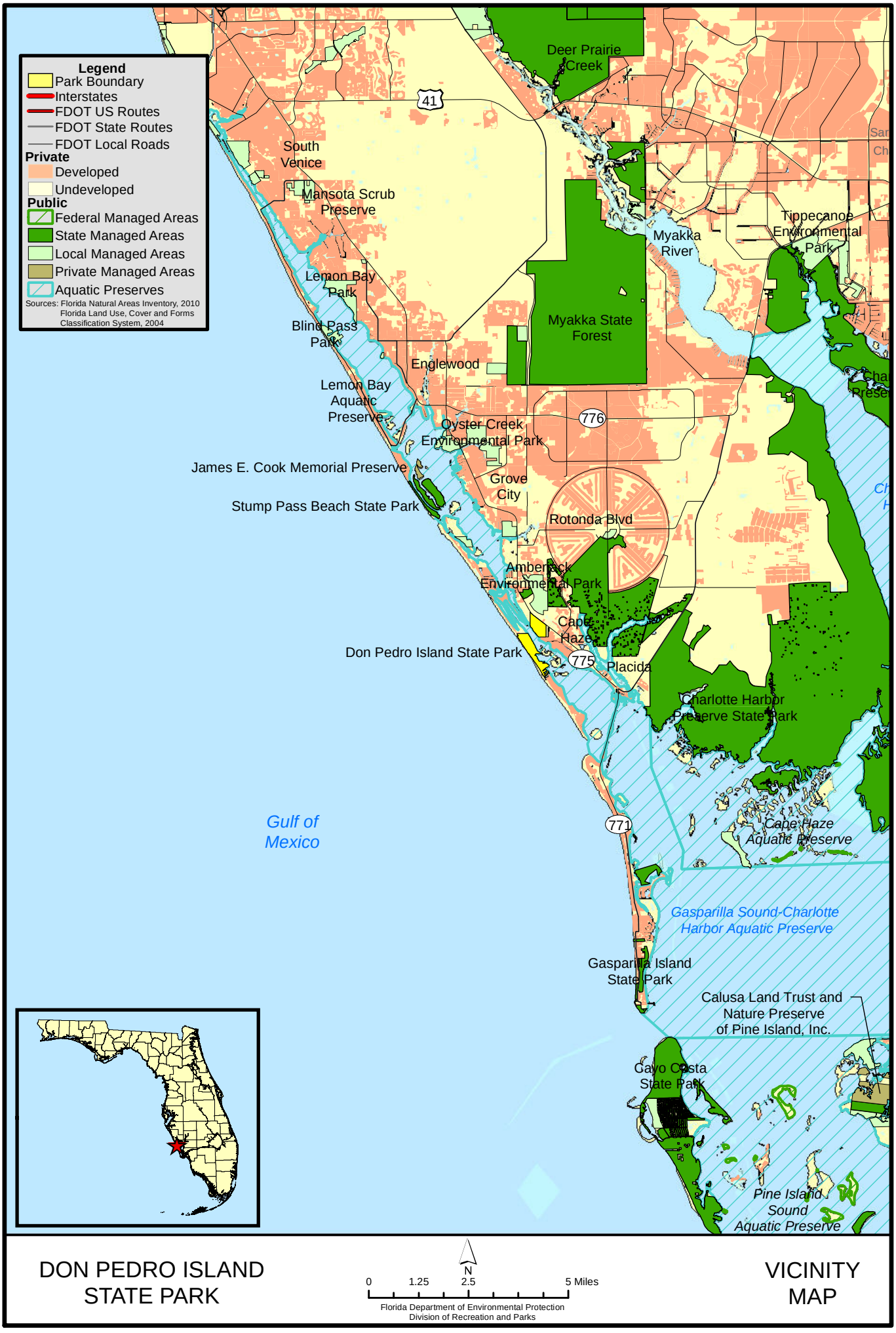
On September 9, 1985, the Trustees conveyed management authority of Don Pedro Island State Park to the Florida Department of Environmental Protection (DEP), Division of Recreation and Parks (DRP) under Lease No. 3415. The lease is for a period of fifty (50) years, which will expire on September 8, 2035. According to the lease agreement, DRP manages Don Pedro Island State Park for public outdoor recreation and related purposes.

Don Pedro Island State Park is designated single-use to provide resource-based public outdoor recreation and other park related uses (see Addendum 1). There are no legislative or executive directives that constrain the use of this property.

PURPOSE AND SIGNIFICANCE OF THE PARK

The park provides important opportunities for resource-based outdoor recreation for the enjoyment of Florida residents and visitors. The park protects representative portions of Florida's original coastal natural communities for future generations of Floridians and conserves significant recreational assets for meeting current and future needs for outdoor recreation vital to the state's economy. Examples of the significance of Don Pedro Island State Park include:

- The park is part of a barrier island system that protects the Lemon Bay Aquatic Preserve, a unique submerged ecosystem of mangroves, seagrass and oyster beds, and one of Florida's most productive estuaries.
- The park protects rare, intact barrier island habitat, as well as integral mainland shoreline habitat, for imperiled species, including the loggerhead sea turtle, gopher tortoise, indigo snake, snowy plover, and roseate tern.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Gayo Costa State Park
Pine Island Sound Aquatic Preserve
DON PEDRO ISLAND STATE PARK
VICINITY MAP
N
0
1.25
2.5
5 Miles
Florida Department of Environmental Protection
Division of Recreation and Parks

DON PEDRO ISLAND STATE PARK

REFERENCE MAP

- The park's land base also protects a representative segment of rare coastal grassland community and undeveloped mainland shoreline with easy access via hiking trails.
- The park's primary recreation area benefits visitors by offering remote and pristine beaches, increasingly rare in Florida.
- The park provides residents and visitors with high-quality boating, fishing, kayaking, birding, swimming, and beachcombing within the highly populated areas of Southwest Florida.

Don Pedro Island State Park is classified as a State Park in the DRP's unit classification system. In the management of a State Park, a 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 Don Pedro 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 of the 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.

The Board of Trustees of the Internal Improvement Trust Fund (Trustees) has granted management authority of certain sovereign submerged lands to the DRP under Management Agreement MA 68-086 (as amended January 19, 1988). The management area includes a 400-foot zone from the edge of mean high water where a park boundary borders sovereign submerged lands fronting beaches, bays, estuarine areas, rivers, or streams. Where emergent wetland vegetation exists, the zone extends waterward 400 feet beyond the vegetation. The agreement is intended to provide additional protection to resources of the park and nearshore areas and to provide authority to manage activities that could adversely affect public recreational uses.

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), 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 on 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

Don Pedro Island 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 II waters by the Department. This park is adjacent to the Lemon Bay 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 the DEP's overall mission in ecosystem management. Cited references are contained in Addendum 3.

The 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.

The 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. Ecosystem 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 or 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 and acres of each zone.

Table 1: Don Pedro Island State Park Management Zone Acreage

Management Zone	Acreage	Managed with Prescribed Fire
DP 1	53.39	Y
DP 2	42.8	Y
DP 3	2.28	N
DP 4	72.96	N
DP 5	20.43	N
DP 6	3.81	N
DP 7	18.26	N
DP 8	15.55	N
DP 9	7.28	N
DP 10	8.35	N
DP 11	0.02	N

RESOURCE DESCRIPTION AND ASSESSMENT

Natural Resources

Topography

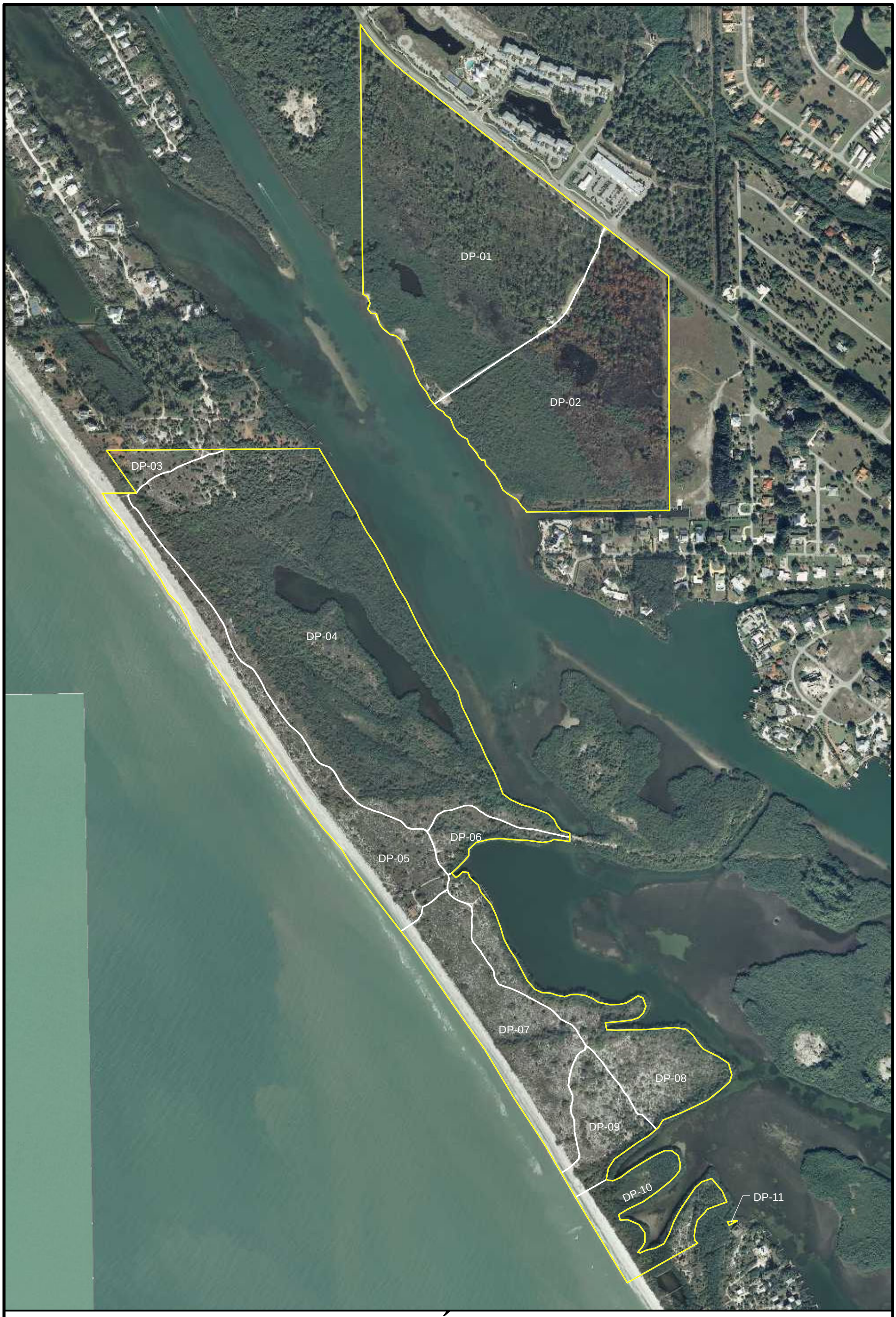
Don Pedro Island State Park, which includes acreage on the mainland, has a maximum elevation of slightly more than 15 feet above mean sea level (msl). The highest elevation occurs at the south end of the barrier island, and is a result of spoil deposition from dredging activity. The spoil mound is being eroded by the Gulf surf, resulting in an escarpment that is higher than most of the foredune to the north. On the bay side of the island, the spoil mound is not as high but drops off sharply to a narrow fringe of mangroves.

The mainland portion of the park presents an overall gradual rise in elevation from sea level to about 6 feet above msl along County Road 775, which marks the eastern boundary of the park. A natural berm has formed along the seaward edge of the tidal swamp. There are even more pronounced rises in elevation where dredged spoil has been deposited along the Intracoastal Waterway as well as along a navigable canal that delineates the southern boundary of the park.

The park is within the Florida Gulf coastal lowlands topographic division, and forms part of the 300 kilometer Gulf barrier islands chain. Tidal effects and wave action both act to shape coastal morphology along this mixed-energy coastline (Davis 1997).

Geology

The region surrounding the park rests upon Pleistocene-aged limestone overlain by a relatively shallow soil layer. The upper layer of limestone belongs to a series of sedimentary deposits called the Anastasia formation - coquinoid limestone, sand, and



DON PEDRO ISLAND STATE PARK

0 250 500 1,000 Feet

Florida Departmnet of Environmental Protection
Division of Recreation and Parks
Date of aerial: 2010

MANAGEMENT ZONES MAP

clay (Puri and Vernon 1964). Don Pedro Island is part of the Gulf of Mexico West-Central Barrier Chain (Davis 1997). Barrier islands of the Gulf Coast were built from sand locally derived, probably by erosion of headlands. Significant erosion occurring between estuaries led to the development of barrier islands attached to the mainland, midway between the mouths of the estuaries. These barrier islands are increasingly separated from the mainland as the estuary is approached. Intervening bays show the inverse pattern, narrow at their heads and widest at their mouths (White 1970). Don Pedro Island became permanently connected to Knight Island to the north with the closing of Blind Pass, and Little Gasparilla Island to the south with the closing of Little Gasparilla Pass (Bush 2001).

The mainland is part of the Silver Bluff Terrace, which may be correlated with the period of about 5,000 to 4,000 years ago, when sea level was 8 to 10 feet higher than at present, and the climate was warmer.

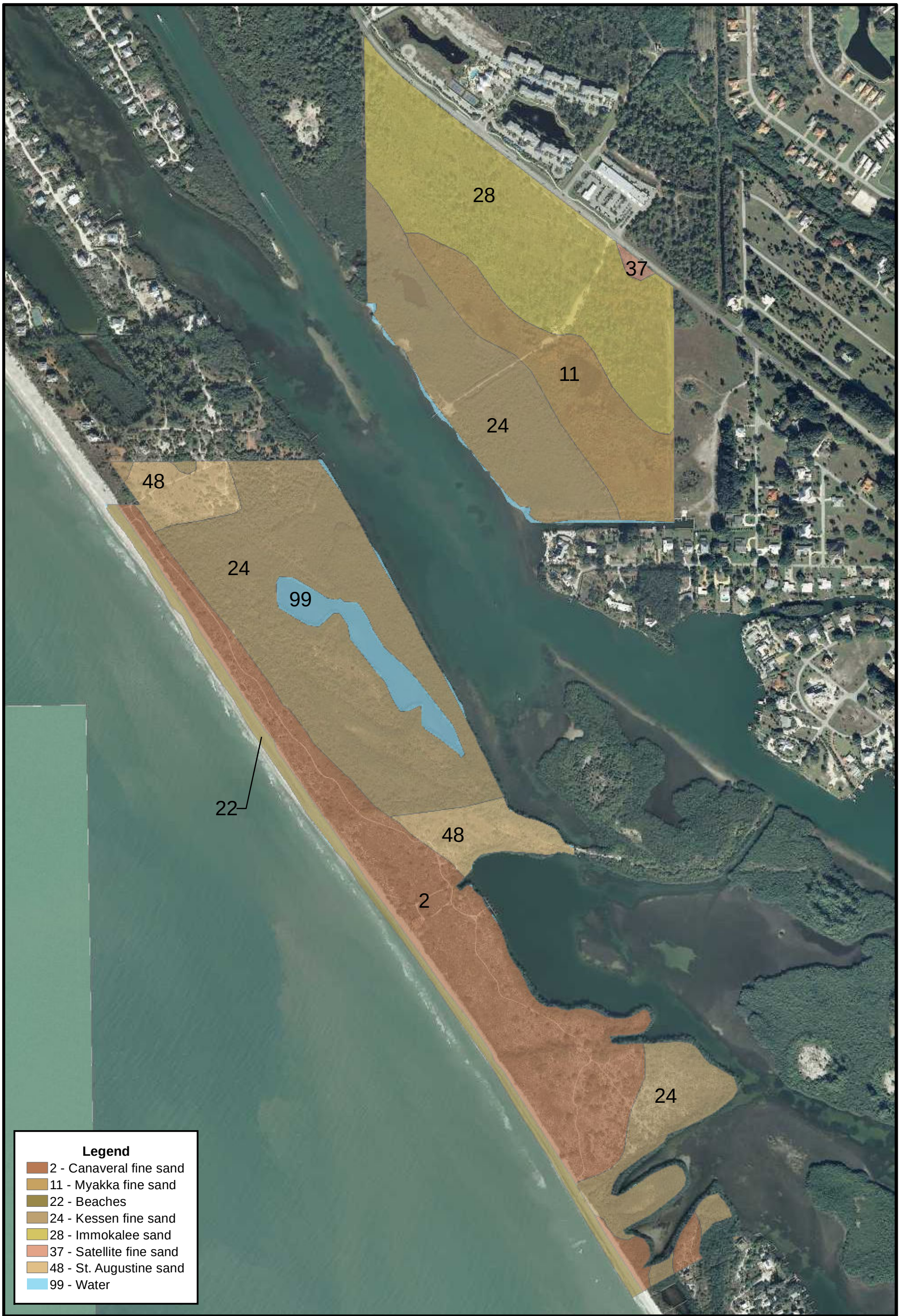
Soils

The park's soils include porous formations characteristic of Gulf Coast barrier islands - undifferentiated sand, shell, clay, marl, and peat. Sand and shell are the major component on the west side of the barrier island, and peat occurs on the east side, where mangrove swamp produces detritus deposits. Peat also occurs on the west side of the mainland parcel. The upland mainland soils consist of sands characteristic of "flatwoods areas." Several spoil piles are present where dredging has occurred.

There are seven soil types (see Soils Map) at Don Pedro Island State Park: Canaveral fine sand, Beaches, Myakka fine sand, Kesson fine sand, Immokalee sand, Satellite fine sand, and St. Augustine sand. Addendum 4 contains a complete description of the soil types in the park.

The soil comprising the beaches and coastal grasslands on the barrier island is Canaveral fine sand. Its fertility is low, the surface layer consisting of shell fragments amongst black and dark gray fine sand. The underlying layers also contain shell fragments, but lighter colored sand. Underlying the maritime hammock and tidal swamp is Kesson fine sand. The water table in this soil fluctuates with the tide but usually ranges from 0 to 6 inches. On the mainland, Immokalee sand underlies most of the mesic flatwoods, and Satellite fine sand underlies the scrubby flatwoods along County Road 775. The surface layer of Satellite fine sand is lighter colored compared to Immokalee sand, and the water table is typically at a greater depth (12 to 42 inches vs. 6 to 18 inches).

Historically, a road from the mainland crossed the bay via a bridge at a point midway along the length of the barrier island portion of the park. Soil underlying this former roadway was fill from earthmoving operations, and is designated St. Augustine sand. Soil layers are typically not well defined within this mapping unit, and the water table



DON PEDRO ISLAND STATE PARK

0 250 500 1,000 Feet

Florida Departmnet of Environmental Protection
Division of Recreation and Parks
Date of aerial: 2010

SOILS MAP

tends to be 18 to 36 inches. Natural erosion occurs along the Gulf side of the barrier island, where waves and wind produce changes in beach shape through erosion and re-deposition of beach materials. This process does not require remedial action. The remainder of the park does not have erosion problems. The beaches north and south of the park are considered critically eroded beaches due to the presence of residential development. Three beach nourishments have occurred north of the park since 2003. It is likely that sand from these activities has migrated to the park, as sediment transport is from north to south in this area of the Gulf of Mexico (Bush 2001).

Minerals

There are no known mineral resources at Don Pedro Island State Park.

Hydrology

Don Pedro Island State Park is located in the Southern Coastal Watershed that also encompasses the watersheds of Sarasota Bay, Dona and Roberts Bays, Lemon Bay, and Gasparilla Sound. The mainland and island parcels of the park are separated by Lemon Bay, which extends from South Venice to the Gasparilla Island Causeway (SWFWMD, 2000). The Lemon Bay estuary is within the boundaries of the Charlotte Harbor National Estuary Program (CHNEP) and has been designated as an aquatic preserve and an Outstanding Florida Water (OFW). These designations should promote the preservation of the resource values of the bay.

Management objectives for Lemon Bay were outlined in the Southwest Florida Water Management District's Comprehensive Management Plan. These objectives include:

Water Use: implement year round water conservation measures, develop alternative water sources, adopt minimum aquifer levels for the Intermediate Aquifer, and promote conservation and water reuse;

Flood Protection: effectively manage and/or regulate runoff associated with development within the watershed, coordinate water resource planning and land use planning, and educate the public on the role of floodplains and the probability of flood events in low lying areas;

Water Quality: continue and expand water quality monitoring in Charlotte County, determine effects of increased nutrient loads entering Lemon Bay, and continue efforts to reduce wastewater and stormwater related pollutant loads;

Natural Systems: continue efforts to enhance, restore, and create wetlands within the watershed, and protect existing natural systems through conservation.

Within the park, water features include a coastal interdunal swale midway along the barrier island in management zone DP-6. This area was once subject to tidal flushing, but currently, no open water is present. There is an abandoned roadbed that runs alongside the area, and a dense stand of exotic plants grew up on the site. Extensive

exotic removal has occurred around the interdunal swale. Cattails now dominate, with saltbush (*Baccharis halimifolia)*, Carolina willow (*Salix carolinana),* and the exotic Brazilian pepper (*Shinus terebinthifolius)* present along the edges. Invasive exotic species removal continues in this area.

On the mainland, several fire-plow scars and spoil piles may influence surface water flow (i.e. direction and flow rate) from mesic flatwoods into salt marsh and mangrove swamp communities. A north to south linear spoil pile is present along 800 feet of the interface between the bay and the mangrove swamp community east of the Intracoastal Waterway. Native vegetation has successfully colonized the pile and it has succeeded to a coastal berm natural community type.

The salt marsh on the mainland has been invaded by shrubby vegetation, such as saltbush. Prescribed fire has not been effective in reducing the shrubs within the salt marsh community. The community may also be lacking the proper hydroperiod due to ditches and berms diverting and blocking water from the area, and promoting the encroachment of woody species.

In 2006, a grant from the Gulf of Mexico Foundation was obtained to install four culverts to restore tidal flow under the road in the mainland parcel that bisects the mangrove swamp. The project was completed in 2008 and some hydrological improvement is evident. The shrub layer that was once existent within the community has been eliminated and the swamp is now dominated by red mangroves (*Rhizophora mangle)*.

Removing the spoil on the south end of the mainland will also help to restore the natural hydrologic regime of the adjacent marine tidal marsh and marine tidal swamp. It is expected that the hydroperiod would be improved with exchange of fresh and salt 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, and imperiled species management 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 types, 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 twelve distinct natural communities as well as spoil 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 ridge of unconsolidated sediments will be located along the entire length of the western shoreline. Herbaceous dune-forming grass species such as sea oats (*Uniola paniculata),* golden beach creeper (*Ernodea littoralis)*, seashore dropseed (*Sporobolus virginicus),* and cordgrass (*Spartina spp*) will be present. Other typical species may include sea rocket (*Cakile lanceolata*), railroad vine (*Ipomoea pes-caprae* subsp. *brasiliensis)*, seashore paspalum (*Paspalum vaginatum*), and beach morning glory (*Ipomoea imperati*). Occasionally shrubs such as seagrape (*Coccoloba uvifera)* will be scattered within the herbaceous vegetation.

Description and assessment: The beach dune community extends the length of the barrier island along the western shoreline, and is in excellent condition and is currently comprised of sea oats, cordgrass, golden beach creeper, railroad vine, and seashore paspalum. Intact beach dune is becoming less common along the shores of southwestern Florida where most coastal areas have been developed or invaded by Australian pines (*Casuarina equisetifolia)*. At the southern end of the barrier island parcel, the community occurs on the highest elevation of the park. The topography here was created by spoil deposition, but typical beach dune community has formed on top of

MF
SCF
MUS
CB
MS
SAM
SA
CS
BD
MS
ESGB
MAH
MUS
CIS
MUS
DV
CG
CS
MS
MAH
CS

Legend

- BD - Beach Dune 10.81 ac.
- CB - Coastal Berm 1.82 ac.
- CG - Coastal Grassland 32.27 ac.
- CS - Coastal Strand 26.35 ac.
- MAH - Maritime Hammock 31.69 ac.
- MF - Mesic Flatwoods 46.43 ac.
- SCF - Scrubby Flatwoods 2.54 ac.
- CIS - Coastal Interdunal Swale 0.7 ac.
- MS - Mangrove Swamp 57.48 ac.
- SAM - Salt Marsh 14.41 ac.
- ESGB - Estuarine Seagrass Bed 2.18 ac.
- MUS - Marine Unconsolidated Substrate 13.75 ac.
- DV - Developed 1.98 ac.
- SA - Spoil Area 2.59 ac.

DON PEDRO ISLAND STATE PARK

0 300 600 1,200 Feet

Florida Department of Environmental Protection
Division of Recreation and Parks
Date of aerial: 2010

NATURAL COMMUNITIES MAP

the spoil. North of the spoil deposition, the community is comprised of a linear, narrow foredune less than two meters high. It is characterized by sea oats, railroad vine, golden beach creeper, seashore dropseed, and seagrape. Boardwalks protect the beach dune at the developed site in the park.

General management measures: Monitor for exotic invasive species and remove them as necessary.

COASTAL BERM

Desired future condition: The vegetation of the coastal berm habitat will consist of a mixture of tropical herbs, shrubs, and trees, defined by its substrate of coarse, calcareous, storm-deposited sediment forming long narrow ridges that parallel the shore. This berm located immediately adjacent to the Intracoastal Waterway may support a suite of plants similar to beaches, including shoreline seapurslane (*Sesuvium portulacastrum*), saltgrass (*Distichlis spicata*), and seashore dropseed, or dense shrub thickets with buttonwood (*Conocarpus erectus*), and bushy seaside oxeye (*Borrichia frutescens*).

Description and assessment: A small acreage of this community type has developed on a man-made embankment (a low, linear, flat-topped spoil pile) between the mainland mangrove swamp community and the Intracoastal Waterway. This community is in good condition and contains purslane (*Portulacca rubricaulis)*, seashore dropseed, coin-vine (*Dalbergia ecastophyllum)*, beach-elder (*Iva imbricata)*, shoreline sea-purslane, seaside goldenrod (*Solidago sempervirens)*, Christmasberry (*Lycium carolinianum)*, seaside heliotrope (*Heliotropium curassavicum)*, bushy sea oxeye, seablite (*Suaeda linearis)*, sea grape, cabbage palm (*Sabal palmetto)*, buttonwood, and globe amaranth (*Gomphrena serrata)*. Invasive exotics, such as Brazilian pepper and creeping oxeye (*Sphagneticola trilobata)* are also present. At one time, several buildings were present, but they have now been removed. The community is bounded by mangrove swamp to the east. A roadway built through the mangrove swamp connects the berm to the mainland upland communities. The elevated sides of the roadbed support some of the same plant species found on the coastal berm. As noted above, culverts were recently installed under this roadbed.

General management measures: Maintain exotic plant control of Brazilian pepper and creeping oxeye.

COASTAL STRAND

Desired future condition: This community will be characterized by stabilized, wind-deposited coastal dunes that are thickly vegetated with evergreen, salt-tolerant shrubs. Coastal strand is an ecotonal community that generally lies between the coastal grasslands and maritime hammock or mangrove 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. Dominant plant species will include cabbage palms, saffron-plum (*Sideroxylon celastrinum)*, Hercules' club (*Zanthoxylum clava-herculis*), seagrape, Florida privet (*Forestiera segregata),* and myrsine (*Rapanea punctata*). Smooth domed canopies will develop as the taller vegetation is "pruned" by the windblown salt spray that kills the outer buds.

Description and assessment: This coastal strand community is in fair condition and is located on the island portion of the park, recognizable by the dominance of salt-tolerant shrubs. At Don Pedro Island State Park, the shrubs include saltbush, Hercules-club, wax myrtle (*Myrica cerifera)*, saffron-plum, Florida privet and sea grape. Also present are cabbage palm, coin-vine, grey nicker bean (*Caesalpinia bonduc)*, yellow necklacepod (*Sophora tomentosa* var. *occidentalis)*, ground-cherry (*Physalis angustifolia)*, American pokeweed (*Phytolacca americana)*, lantana (*Lantana camara)*, eastern poison ivy (*Toxicodendron radicans)*, poor man's patches (*Mentzelia floridana)*, Spanish bayonet (*Yucca aloifolia)*, and hairgrass (*Muhlenbergia capillaris)*. This community is developing on the disturbed site of an old roadbed at the center of the island (DP-6) and along the park's southern boundary (DP-10). This community contains a heavy infestation of exotic plants in some areas and routine monitoring of these areas continues to be necessary. Much vegetative debris resulted from exotic control efforts. Additional herbicide treatment is needed in this community, especially in DP-6, DP-8, DP-9, and DP10. An exotic workday focused on treating approximately 2 acres of Brazilian pepper and Australian pine was completed in DP-8, DP-9, and DP-10 during autumn 2010.

Coastal strand has also developed at sites where coastal grassland communities have become dominated by shrubs. A natural succession sequence is likely occurring in the absence of catastrophic storms or anthropogenic interference. Finally, some of the plant community, labeled coastal strand, at the southern end of the barrier island in DP-8, DP-9, and DP-10 has succeeded from a previously ruderal state. Characteristic coastal strand species are now dominant, having been planted or spread through natural seed dispersion from the neighboring strand communities.

A Southern bald eagle (*Haliaeetus leucocephalus*) nest was located within the coastal strand in DP-8. The nest tree fell down in 2009. Since that time, the eagles have rebuilt on an adjacent island to the southeast.

General management measures: Continue monitoring and treatment of invasive exotic plant species.

MARITIME HAMMOCK

Desired future condition: A coastal evergreen, hardwood forest will occur in narrow bands along stabilized coastal dunes. Canopy species will typically consist of Eastern red cedar (*Juniperus virginiana)* and cabbage palm. The canopy slopes towards the beach due to salt-spray pruning. Understory species may consist of wax myrtle, seagrape, and

myrsine. Very sparse or absent herbaceous groundcover will exist.

Description and assessment: A substantial portion of the northern half of the barrier island is comprised of this community type, which is in fair condition. Along the Gulf, coastal grassland grades directly into maritime hammock. As a result, the latter exhibits a canopy profile sloped towards the beach, evidently a result of wind and salt-spray pruning. There are also small pockets of maritime hammock on the mainland parcel. Species present in the hammock include cabbage palm, myrsine, broad-leaf spider lily (*Hymenocallis latifolia)*, eastern red cedar, eastern poison ivy, greenbrier (*Smilax* spp), wax myrtle, and seagrape. Invasive Brazilian pepper is also scattered along the ecotone of the maritime hammock and coastal grasslands. Twenty-five acres of Brazilian pepper were treated by a contractor within the maritime hammock and along the ecotone in 2011 as mitigation for impacts from a nearby development. Additional follow-up treatments will be performed in the future.

General management measures: Continue treatment and removal of Brazilian pepper.

MESIC FLATWOODS

Desired future condition: Canopies are dominated by south Florida slash pine (*Pinus elliottii*). Native herbaceous groundcover characterizes at least 50% of the area and less than 3 feet in height. Exotic vegetation such as melaleuca (*Melaleuca quinquenervia)*, Cogon grass, creeping oxeye and Brazilian pepper will be absent. Saw palmetto (*Serenoa repens*) will comprise no more than 50% of total shrub species cover. Other shrub species will include gallberry (*Ilex glabra*), staggerbush (*Lyonia fruticosa*), dwarf live oak (*Quercus minima*), shiny blueberry (*Vaccinium myrsinites*), and southern fox grape (*Vitis rotundifolia* var. *munsoniana)*. Shrubs, including saw palmetto, will generally grow to waist height. The Optimal Fire Return Interval for this community is 1 to 3 years.

Description and assessment: This is the most extensive community type on the mainland. The community is in good condition and typical in its assemblage of species, which includes slash pine, saw palmetto, rabbit-tobacco (*Pterocaulon pycnostachyum)*, American beautyberry (*Callicarpa americana)*, winged sumac (*Rhus copallinum)*, ear-leaf greenbrier (*Smilax auriculata)*, eastern poison ivy, shiny blueberry, southern fox grape, coastal plain staggerbush, dwarf live oak, and wiregrass (*Aristida stricta* var. *beyrichiana)*. Before 2007, fire was excluded from mesic flatwoods within the park, although nearly all plants and animals within this community are adapted to and dependent on periodic fires. There are shallow ditches present within the mesic flatwoods that could be remnants of old plow lines. A small portion of the mesic flatwoods in management zone DP-2 burned by wildfire during August 2006 as evidenced by the number of charred slash pine snags present. These snags currently support two Osprey nests. Prescribed fire was conducted in January of 2007, on the northern side of the main park road (DP-1) and in December 2009, on the southern side of the roadway (DP-2). The saw palmettos were roller-chopped prior to burning.

Additionally, the southeastern portion of the pine flatwoods area was surveyed for gopher tortoises (*Gopherus polyphemus*) in 2002 and 2010 after a prescribed burn but only abandoned burrows were found. This is likely due to the wet conditions of the site.

The mesic flatwoods were once invaded by melaleuca, especially adjacent to the salt marsh. In recent years, most of the mature trees were cut down and treated. Some mature melaleuca are present in the salt marsh. It is likely these trees invaded the area after the prescribed burn of 2007. Continuous monitoring and treatment are needed in the salt marsh to control the spread of melaleuca into the adjacent flatwoods. Cogon grass, creeping oxeye, and Brazilian pepper are other exotics found in the mesic flatwoods, primarily along the disturbed and developed areas of the mainland.

General management measures: Measures to restore mesic flatwoods include prescribed fire, mechanical treatment, and exotic plant and animal management.

COASTAL GRASSLANDS

Desired future condition: A predominantly herbaceous community will occupy the flatter and drier portions of the transition zone between the primary beach dunes and the natural communities dominated by woody species (such as coastal strand and maritime hammock). With the exception of overwash from severe storms, it will exist as a relatively stable community compared to the dynamic primary dunes. Characteristic plant species include hairgrass, bluestem grasses (*Andropogon* spp. and *Schizachyrium* spp.), seaoats, and cordgrass (*Spartina* spp).

Description and assessment: This community is in good condition and one of the most extensive on the barrier island. Coastal grassland is characterized as having a sparse to dense ground cover of grasses, vines, and other herbs. Scattered small clumps of shrubs or trees may be present on older, well- established sites. At Don Pedro Island, this community occurs mostly behind the narrow dune along the Gulf side of the barrier island in management zones DP-5 and DP-7. This community also occurs along a low ridge within the maritime hammock in the interior of the island. The large spoil mound on the southern end of the barrier island in DP-7 has also developed a diversity of grasses characteristic of this community type and can now be considered functional coastal grassland. Grasses, in particular hairgrass, predominate. Also present are coastal ground cherry, bluestem grasses, cordgrass, Spanish daisy (*Helenium amarum)*, spotted beebalm (*Monarda punctata)*, seaside croton (*Croton punctatus)*, seaside heliotrope, broad-leaf spider lily, sea oats, and prickly-pear cactus (*Opuntia humifusa)*. Mature and young slash pines as well as small patches of cogon grass occur on the barrier island parcel at the edge of the coastal grassland community in DP-3 and DP-4 in the northwestern corner of the park.

General management measures: Monitor for invasive exotic species and remove them as necessary.

SCRUBBY FLATWOODS

Desired future condition: Dominant tree species will be south Florida slash pine. There will be a diverse shrubby understory with patches of bare white sand. A scrub-type oak "canopy" will vary in height from 3 to 8 feet and there will be a variety of oak age classes and heights across the landscape. Dominant shrubs include sand live oak (*Quercus geminata*) and myrtle oak (*Quercus myrtifolia*), and saw palmetto. The optimal fire return interval for this community is 5 to 8 years.

Description and assessment: A relatively small acreage of this community type occurs midway along the eastern edge of the mainland parcel. It is associated with the soil type Satellite fine sand. The community has a canopy dominated by slash pine and overgrown scrub oaks, including sand live oak and myrtle oak. Coontie (*Zamia pumila)* and saw palmetto are present, but the latter is shorter here than in the adjacent mesic flatwoods. The herb layer includes wiregrass, and lichens cover the light-colored, sandy soil. This community was included in the prescribed burn in 2007, along with the adjacent mesic flatwoods and salt marsh. Although the saw palmetto is still dense, a diversity of scrubby flatwoods species is present and the community is in fair condition.

General management measures: A consistent fire return interval will help to increase species diversity and abundance, and maintain a lower palmetto height and density.

COASTAL INTERDUNAL SWALE

Desired future condition: A variable community which occurs as marshes, moist grasslands, dense shrublands, or damp flats which occur in strips between successive dune ridges that develop as beach building occurs seaward (accretion). Dominant plant species are quite variable and a function of local hydrology, salt water occurrence, and the age of the swale. Wetter areas can include sawgrass (*Cladium jamaicense*), cattail (*Typha* spp.) or needle rush (*Juncus roemerianus*) while shallower areas have diverse mixture of herbs, including southern umbrellasedge (*Fuirena scirpoidea*), Carolina redroot (*Lachnanthes carolina*), spadeleaf (*Centella asiatica*), and broomsedges (*Andropogon* spp.). Shrubby areas may contain wax myrtle (*Myrica cerifera*), coastalplain willow (*Salix caroliniana*), or Atlantic St. Johns wort (*Hypericum reductum*) on the Panhandle coast. Hurricanes and tropical storms can flood the swales with salt water after which they are recolonized with salt-tolerant species like needle rush (*Juncus roemerianus*), Gulf Coast spikerush (*Eleocharis cellulosa*), and Yellow spikerush (*Eleocharis flavescens*).

Description and assessment: The coastal interdunal swale is located in DP-6 and was once subject to occasional tidal flushing from the bay according to historical aerials from the early 1950s. This community has been disturbed by the construction of the nearby roadbed and road which existed for some time and connected the mainland to the island. The swale is currently dominated by southern cattail (*Typha domingensis)* and

coastalplain willow. Due to previous disturbances this area is in poor condition. Large Brazilian peppers dominate the edge of the interdunal swale with broomsedge and wax myrtle also present. Past Brazilian pepper removal efforts resulted in trees felled into the swale where their skeletons remain today.

General management measures: Measures to restore the coastal interdunal swale include the continued treatment and removal of Brazilian pepper from the area.

SALT MARSH

Desired future condition: A largely herbaceous community will occur in the portion of the coastal zone affected by tides and seawater, and protected from large waves. Salt marsh typically has distinct zones of vegetation based on water depth and tidal fluctuations. Cordgrass and needle rush (*Juncus* spp) are two indicator species of this habitat type. Soil salinity and flooding are the two major environmental factors that influence salt marsh vegetation. While there is little data on natural fire frequency in salt marshes, fire probably occurred sporadically and with a mosaic pattern, given the patchiness of the fuels intermixed with drainage ways and salt flats.

Description and assessment: This community type occurs between the mesic flatwoods and the mangrove swamp of the mainland portion of the park. It is in fair condition and dominated by grasses, sedges, and rushes and also contains scattered shrubs and cabbage palms. The southern section formerly showed evidence of scraping, perhaps by heavy equipment, but has now succeeded to herbaceous tidal wetland species. Native vegetation includes sand cordgrass (*Spartina bakeri)*, marsh fimbry (*Fimbristylis spadicea*), needlepod rush (*Juncus scirpoides),* black needlerush (*Juncus roemarianus)*, leather fern (*Acrostichum danaeifolium)*, coastal water-hyssop (*Bacopa monnieri)*, and saltmarsh morning-glory (*Ipomoea sagittata)*. Mature seeding melaleuca trees were treated by park staff in recent years, but there were still some present after the prescribed burn in 2007. Brazilian pepper and a few Australian pine saplings are also scattered throughout this community, particularly on the ecotone of the pine flatwoods. A low berm is present along the interface with marine tidal swamp, and probably results in a wide range of salinity over time -- from mostly brackish to mostly freshwater, depending on the amount of rainfall and tidal amplitude. There are several ditches in the marsh both north and south of the main park road that may be man-made and impacting the natural hydrology.

A small section of salt marsh is located inside the mangrove swamp on the south end of the barrier island. Elevation here is higher than the surrounding swamp, but experiences flooding to maintain the marsh species. Species found here include perennial glasswort (*Sarcocornia perennis)*, sea oxeye daisy, saltwort (*Batis maritima)*, sea lavender (*Limonium carolinianum)*, stunted white (*Laguncularia racemosa*), and black mangroves (*Avicennia germinans)*.

General management measures: When a prescribed burn is conducted in the adjacent mesic flatwoods, the fire should be allowed to carry into the salt marsh whenever possible. In addition, a study of the tidal marsh should be undertaken to determine the effects of the ditches on the natural hydrology in this community. Continuous monitoring and removal of the invasive exotic plant species is necessary.

MANGROVE SWAMP

Desired future condition: This community is typically a dense forest occurring along relatively flat, low wave energy, marine and estuarine shorelines. The dominant overstory includes red mangrove, black mangrove, white mangrove, and buttonwood. These four species can occur either in mixed stands or often in differentiated, monospecific zones based on varying degrees of tidal influence, levels of salinity, and types of substrate. Red mangroves typically dominate the deepest water, followed by black mangroves in the intermediate zone, and white mangroves and buttonwood in the highest, least tidally influenced zone. Mangroves typically occur in dense stands (with little to no understory) but may be sparse, particularly in the upper tidal reaches where salt marsh species predominate. Soils are generally anaerobic and saturated with brackish water at all times, becoming inundated at high tides.

Description and assessment: Low-lying flat topography along the bay side of both the barrier island and the mainland park harbors this type of community, which is in good condition. It is a forested community dominated by red, black, and white mangroves. Buttonwood is also present where the topography begins to rise inland. The soil type associated with this community is Kesson fine sand. Plants characteristic of the understory and herb layer include sea oxeye, saltwort, glasswort, shoreline sea-purslane, and black needlerush. On the barrier island, the mangrove swamp is fringed by Brazilian pepper where it grades into maritime hammock.

General management measures: Remove the existing Brazilian pepper along ecotone and monitor for new invasive exotic plant species.

SEAGRASS BED

Desired future condition: Marine seagrass beds are typically characterized as expansive stands of vascular plants and are one of the most productive communities in the world. Seagrass beds will occur in clear coastal waters where wave energy is moderate. The three most common species of seagrasses in Florida are turtle grass, (*Thalassia testudinum*), manatee grass, (*Syringodium filiforme*), and shoal grass shoalweed (*Halodule wrightii*). Other seagrasses of the genus *Halophila* may be intermingled with the other seagrasses, but species of this genus are considerably less common.

Seagrass beds require unconsolidated substrate in order to establish their underground biomass root structure. They will typically be found in waters ranging from 20° to 30°C

(68° to 86°F), and require clear water for photosynthesis. Seagrass beds will not thrive where nutrient levels are high because of increased turbidity and competition with undesirable algal species.

Seagrass beds provide important habitat for a host of commercially and recreationally important species. Many species spend part or all of their life cycles in seagrass, which provides food, oxygen, and shelter. Seagrass blades trap suspended sediment in the water allowing for clear water to be transported to the offshore coral reefs during tidal movement.

Description and assessment: Seagrass beds are present in the access to the lagoon on the island and in the shallow areas of the lagoon. The lagoon access is comprised of turtle grass and shoal grass dominates the shallow areas of the lagoon. The seagrass beds within the park boundary are in good condition. The mouth of the lagoon is comprised of patchy turtle grass while dense turtle grass patches exist in shallow portions of the lagoon less than four feet in depth. The lagoon also contains dense areas of shoal grass, especially in the southern region. Portions of the lagoon within DP-4 are deceivingly deep, up to 7 feet, however it is an important refuge for fish and shallower areas may be utilized by foraging birds during low tide.

General management measures: The lagoon is inaccessible to motorized vessels due to the narrowness and shallow nature of the creek that connects the lagoon to the bay. Limited accessibility protects this community.

MARINE UNCONSOLIDATED SUBSTRATE

Desired future condition: This community will consist of expansive, unvegetated, open areas of mineral-based substrate composed of shell, sand and finer sediments. Desired conditions include the absence of soil compaction, dredging activities, and disturbances such as the accumulation of pollutants.

Description and assessment: This community is in excellent condition. It includes the beach shoreline at Don Pedro Island State Park, as well as the lagoons within the mangrove swamp on the island and mainland parcels. The lagoons are subject to tidal flushing from the bay and are an important refuge for fish. The beach shoreline is where sea turtles emerge to nest, and where shorebirds probe wet sand for invertebrates. It is also one of the most important recreational areas for park visitors. This community consists of subtidal, intertidal, and supratidal zones. Although it lacks herbaceous cover, it may support a large population of infaunal, planktonic, and pelagic organisms. These include isopods, amphipods, crustaceans, tube worms, and mollusks. The beach along the barrier island is a very dynamic community, where tides, currents, and storms first accrete and then erode the unconsolidated substrate.

General management measures: Continue to balance the intensity of recreational use with natural resource protection by including signage around sea turtle nests, prohibiting pets on the beach and posting barriers to prevent trespassing within shorebird nesting areas.

SPOIL AREA

Desired future condition: The spoil areas within the park and all priority invasive exotic plant species (FLEPPC Category I and II species) will be absent. Restoration efforts will have minimized the effect of spoil areas on adjacent natural areas. Cost-effectiveness, return on investment, and consideration of other higher priority restoration projects within the park will determine the extent of restoration measures in ruderal areas.

Description and assessment: Spoil area sites are present because of human disturbance on both the barrier island and mainland portions of the park. A large pile of spoil dredged from the Intracoastal Waterway was placed on the barrier island in DP-5, DP-7, and DP-8 many years before acquisition. Subsequently the spoil was heavily invaded by Australian pine and Brazilian pepper. After the property was acquired, removal of exotic plants was initiated. Portions of the site have now succeeded to coastal strand and coastal grassland natural communities, with characteristic species of both communities now dominant in the midst of the debris from the removal effort. Brazilian pepper and Australian pine continue to re-sprout amongst the dead branches.

The spoil area on the mainland was created by spoil deposition during dredging of a canal along the park's southern boundary. The berm is still infested with exotics including Australian pine, Brazilian pepper, cogon grass natal grass, wedelia, and beach naupaka. Cabbage palm, saw palmetto, live oak, and sedges occur in the sparse understory.

General management measures: The altered landcover areas within the park will be managed to remove priority invasive plant species, along with limited restoration efforts designed to minimize the effect of the disturbed areas on adjacent natural lands.

DEVELOPED

Desired future condition: The developed areas within the park will be managed to minimize their effect on adjacent natural areas. Priority invasive plant species (FLEPPC Category I and II species) will be removed from all developed areas. Other management measures include proper stormwater management and development guidelines that are compatible with prescribed fire management in adjacent natural areas.

Description and assessment: The barrier island has separate boat docks on the bay side for visitor access and park management operations. On the Gulf side of the island, directly across from the docks, are two elevated buildings with restrooms, a small

office, and a picnic pavilion. A boardwalk connects the buildings, and separate boardwalks lead from each building, across the foredune, to the open beach. In addition, a small storage shed is present near the park operations dock.

Development on the mainland portion of the park supports a landbase operation. It consists of a park drive, parking facilities, restrooms, several picnic benches, one small picnic pavilion, a kiosk, and small shed for storage. The two facilities, a dock and road through the marine tidal swamp, which existed on the land prior to acquisition, are in use for both park management operations and visitor access to the bay.

Development currently occurs on the barrier island north and south of the park, as well as on the mainland, across from the park along County Road 775.

General management measures: Monitor and remove exotic plants, including those that have been introduced by park visitors.

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.

Five designated species of reptiles, 16 designated species of birds, and one designated species of mammal have been documented in the park (Table 2). The vertebrate list inventory is ongoing, so additional species may be added. Among reptiles, the Atlantic loggerhead sea turtle (*Caretta caretta*) and green sea turtle (*Chelonia mydas*) nest on the beach of the park. Gopher tortoises are present on both the barrier island and mainland. The pristine beach and beach dune within the park provide important foraging and loafing sites for several species of designated shorebirds. Designated plant species include golden leather fern, giant orchid (*Pteroglossaspis ecristata),* Florida mayten (*Maytenus phyllanthoides)*, giant air plant (*Tillandsia utriculata*), inkberry, and shell mound prickly pear (*Opuntia stricta*).

The welfare of designated species is an important concern of the DRP. In many cases, these species will benefit most from proper management of their natural communities. At times, however, additional management measures are needed because of the poor condition of some communities, or because of unusual circumstances that aggravate the particular problems of a species.

The animal species that require additional protective measures at Don Pedro Island State Park are those that use the beach and beach dunes (shorebirds, seabirds, sea turtles, and gopher tortoises). Although bald eagles are no longer considered listed,

FWC's Bald Eagle Management Plan outlines specific guidelines for creating protective buffer zones from nesting activity. The guidance outlined in FWC's Bald Eagle Management Plan will be implemented should any nesting activity occur. Among protected species of shorebirds and seabirds documented at the park are the Eastern brown pelican (*Pelecanus occidentalis*), least tern (*Sterna antillarum*), Wilson's plover (*Charadrius wilsonia*), snowy plover (*Charadrius alexandrinus)*, sandwich tern (*Sterna sandvicensis*), roseate tern (*Sterna dougallii*), black skimmer (*Rhynchops niger*), and American oystercatcher (*Haematopus palliatus*). The park provides valuable foraging and resting habitat for these species and may provide suitable nesting habitat as desired conditions are achieved. Several heron species are also known to use the beach habitat, including the little blue heron (*Egretta caerulea*), reddish egret (*Egretta rufescens*), white ibis, (*Eudocimus albus*) snowy egret (*Egretta thula*), and tricolored heron (*Egretta tricolor*). Finally, wood stork (*Mycteria Americana*), and roseate spoonbill (*Platelea ajaja*) have been sighted on the bay side of the island.

Residential developments north and south of the park boundary on the barrier island increase the likelihood of occurrence of pets, feral animals, and nuisance native predators on the beach that are disruptive and even destructive to designated species. Pets must be excluded from the beach, and pet owners should be instructed about park policy by signs located at park boundaries, at public meetings, and through the media when the opportunity arises. Signs interpreting the agency's policy of integrating protection of natural resources with recreational use may be helpful. Feral animals and nuisance native species should be controlled by park management. Sea turtle nests should be posted with signs that discourage tampering, and warn of the penalties for harassing adult turtles and their offspring. Lighting at developed sites should conform to standards preventing adult and hatchling disorientation. All exterior lighting will incorporate "turtle-friendly" lighting and conform to the FWC Marine Turtle Lighting Guidelines.

The peak sea turtle nesting year at the park was 1997, with 122 loggerhead nests. Recently nest predation, primarily due to coyotes (*Canis latrans*), has been problematic at the park, even with extra protection measures in place such as self-releasing flat screens to cover the nests. A coyote removal program was also implemented. The number of hatchlings declined from 1,445 in 2007 to 644 in 2008. No hatchlings emerged in 2009-2012 although over 20 loggerhead nests were documented each year. The U.S. Department of Agriculture Wildlife Services was contracted in 2008 to remove two coyotes and one raccoon. A total of 14 coyotes have been removed from the park since 2008. This program is expected to continue unless funding becomes unavailable.

The loggerhead sea turtle is the marine turtle species that nests most frequently on Don Pedro Island; however, green sea turtle nests were documented in 1994, 1998, 2000, 2003, 2004, and 2005. In addition, false crawls by a green sea turtle and a leatherback were reported in 2010.

Monitoring of sea turtle and bald eagle nesting activity, as well as shorebird nesting activity, is integral to protecting these species. A Tier 2 Targeted Presence/Absence, pre- and post-burn monitoring should be initiated for golden leather fern, a threatened plant species, particularly on the land base to document the species' response to fire. The effectiveness of protective measures should be regularly re-evaluated through monitoring. Currently, the beach is surveyed 6 times per year by District staff for shorebird use, and may be surveyed more frequently during shorebird nesting season.

Gopher tortoises are common around the recreational structures on the barrier island. For example, in a 2008 survey, 10 active tortoise burrows were counted in the immediate vicinity of the picnic shelter. Additionally, abandoned burrows have been documented in DP-1 and DP-2 on the landbase. Any plans to expand facilities within the park will need to take into account this threatened species and updated surveys will need to be completed.

Gopher tortoise burrow surveys should be conducted in association with the implementation of land use plans in the park and after prescribed burns. The last gopher tortoise survey on the land base took place in April 2008 within the mesic flatwoods of DP-2. These flatwoods stay relatively wet throughout the year and may contain standing water in some areas during the summer months. This may explain why only abandoned burrows were observed during the 2008 survey; however, fire exclusion may also help explain why the species does not occur more frequently within this habitat. An updated census should be conducted in the mesic flatwoods after the next prescribed burn.

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**
	FWC	**USFWS**	**FDACS**	**FNAI**		
PLANTS						
Golden leather fern *Acrostichum aureum*			LT	G5, S3	2,4	Tier 2
Florida mayten *Maytenus phyllanthoides*			LT	N	2,10	Tier 1
Giant orchid *Pteroglossaspis ecristata*			LT	G2, S2	1	Tier 1
Shell mound prickly-pear *Opuntia stricta*			LT	N	2	Tier 1
Inkberry *Scaevola plumieri*			LT	N	2,	Tier 1
Giant wild-pine *Tillandsia utriculata*			LE	N	10	Tier 1
REPTILES						
American Alligator *Alligator mississippiensis*		T(S/A)		G5, S4		Tier 1
Gopher tortoise *Gopherus polyphemus*	ST	C		G3, S3	1,2,7	Tier 3
Green sea turtle *Chelonia mydas*		LE		G3, S2	8, 10, 13	Tier 2
Loggerhead sea turtle *Caretta caretta*		LT		G3, S3	8, 10, 13	Tier 2
Eastern indigo snake *Drymarchon couperi*		LT		G3, S3	1, 10, 13	Tier 1
BIRDS						
Brown pelican *Pelecanus occidentalis*	SSC			G4, S3		Tier 1

Table 2: Imperiled Species Inventory						
Common and Scientific Name	**Imperiled Species Status**				**Management Actions**	**Monitoring Level**
	FWC	**USFWS**	**FDACS**	**FNAI**		
Little blue heron *Egretta caerulea*	SSC			G5, S4	4	Tier 1
Reddish egret *Egretta rufescens*	SSC			G4, S2	4	Tier 1
Snowy egret *Egretta thula*	SSC			G5, S3	4	Tier 1
Tricolored heron *Egretta tricolor*	SSC			G5, S4	4	Tier 1
Wood stork *Mycteria americana*		LE		G4, S2	4	Tier 1
White ibis *Eudocimus albus*	SSC			G5, S4	4	Tier 1
Roseate spoonbill *Platalea ajaja*	SSC			G5, S2	4	Tier 1
American oystercatcher *Haematopus palliatus*	SSC			G5, S2	10, 13	Tier 3
Snowy plover *Charadrius alexandrinus*	ST			G4, S1	10, 13	Tier 3
Wilson's plover *Charadrius wilsonia*				G5, S2	10, 13	Tier 3
Roseate tern *Sterna dougallii*		LT		G4, S1	10, 13	Tier 3
Least tern *Sterna antillarum*	ST			G4, S3	10, 13	Tier 3
Sandwich tern *Thalasseus sandvicensis*				G5, S2	10, 13	Tier 3
Red knot *Calidris canutus*		C		N	10, 13	Tier 3
Black skimmer *Rynchops niger*	SSC			G5, S3	10, 13	Tier 3
MAMMALS						
West Indian manatee *Trichechus manatus*		LE		G2, S2	10, 13	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. Thus, the policy of the DRP is to remove exotic species from native natural communities. Currently, 17 species of FLEPPC Category I and II plants have been documented in the park. Brazilian pepper is the most prevalent. Since the approval of the last management plan, approximately 300 acres have been treated. The acreage treated includes areas that were retreated, resulting in an acreage estimate greater than the size of the park. In 2011, a 25-acre area of Brazilian pepper was treated within the maritime hammock of DP-4 as mitigation for a nearby development project. Additional follow-up treatments are expected to occur in the future.

A significant amount of exotic plant control work has been conducted by park staff on the barrier island. Large stands of Australian pine and Brazilian pepper have been removed from the dredge-spoil pile at the southern end of the island and the old roadbed at the center of the island. In July and August 2004, a grant from the Southwest Florida Water Management District provided for treatment of approximately 40 acres of Australian pine and Brazilian pepper. In addition, 200 individual native plants of seven different species were planted. New additions to the barrier island parcel need continued work, and Brazilian pepper and Australian pine have re-invaded portions of the maritime hammock and coastal strand on the north end of the island and at spoil deposition sites in DP-4, DP-8, and DP-10. During an exotic workday in 2010, most of the Australian pines that were present in these areas were treated, and additional follow-up treatments are needed.

On the mainland, Brazilian pepper is scattered throughout the mesic flatwoods and on spoil piles throughout the park. Melaleuca continues to invade the salt marsh of the mainland parcel. Seed sources from outside of the park will necessitate continual maintenance of this exotic to prevent new monocultures from forming. This exotic's apparent response after fire dictates that trees should be treated before they mature, and that any mature, seed-producing melaleuca trees present need to be treated (i.e. to prevent seed dispersal) before any prescribed burning is done.

Finally, small areas of invasive exotics such as Australian pine, Brazilian pepper, cogon grass, natal grass (*Melinus repens*), wedelia, and beach naupaka have infested spoil areas of the park. The berm adjacent to the canal on the mainland parcel, in particular, contains a variety of invasive exotic species. Currently, the impacts these species have on the natural communities are low, but only consistent surveying and treatment will control the spread and possible dominance of these species.

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	Distribution	Management Zone
PLANTS			
Australian pine *Casuarina equisetifolia*	I	2	DP-2, DP-4, DP-8, DP-9, DP10
Beach naupaka *Scaevola taccada*	I	1	DP-2
		2	DP-4
		4	DP-10
Bowstring hemp *Sansevieria hyacinthoides*	II	2	DP-8, DP-9
Brazilian pepper *Schinus terebinthifolius*	I	2 3	DP-1, DP-2, DP-3, DP-4, DP-5, DP-6 DP-7, DP-8, DP-9, DP-10
Carrotwood *Cupaniopsis anacardioides*	I	2	DP-2
Cogon grass *Imperata cylindrica*	I	2	
		3	DP-1, DP-2
		4	
Java plum *Syzygium cumini*	I	2	DP-6
Lantana *Lantana camara*	I	2	DP-5, DP-6, DP-7, DP-8, DP-9
Laurel fig *Ficus microcarpa*	I	1	DP-7
		2	DP-2
Surinam cherry *Eugenia uniflora*	I	2	DP-2
Melaleuca *Melaleuca quinquenervia*	I	2	DP-1, DP-2
Natal grass *Melinis repens*	I	2	DP-2, DP-4, DP-5, DP-6

Distribution Categories:

0 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.
5 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 or 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, the DRP actively removes exotic animals from state parks, prioritizing species causing the most 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 and coyotes on the beaches. Nuisance animals are managed on a case-by-case basis.

Exotic or non-indigenous and nuisance animals are removed as necessary to protect the integrity of natural communities and native wildlife populations. *Sus scrofa (*Feral hogs) have been observed on the mainland by park staff (R. Newman, pers. comm.) Extensive damage due to rooting has been recently observed and should be monitored. It will be necessary to initiate a control program to prevent these negative impacts.

Raccoons become a problem species when they become proficient at depredating sea turtle and shorebird nests. Wire mesh placed on the sand over the sea turtle nest deters these predators. However, some are persistent and need to be removed. Nuisance alligators will be removed in accordance with policies of the FWC.

Recent observations of tracks and scat confirm an increase in use of the barrier island by one or more coyotes, a known destructive predator of sea turtle nests (Wright 2002). Due to the detrimental impact the coyotes have on sea turtle hatchlings on Don Pedro, a population reduction program was enacted in 2007. With the help of the United States Department of Agriculture (USDA), 14 coyotes were removed from the island, along with 1 nuisance bobcat and 35 raccoons.

Special Natural Features

The undisturbed dune community should be regarded as a special feature at this park. It is a fine example of a primary dune, representative of the southwestern coast of Florida. Coastal grassland communities are often sites of major development on inhabited stretches of barrier islands. The extensive coastal grassland community on Don Pedro has high species diversity and should be regarded as a special feature.

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.

The following is a summary of the FMSF inventory. In addition, this inventory contains the evaluation of significance.

Pre-Historic 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 Florida Master Site File lists one large archaeological site in the unit (site CH00363). The site consists of a sparse scatter of shell midden debris of unknown cultural affiliation or significance other than Prehistoric ceramic. Remains of shell tools were recovered from the surface of this 0.1 km^2 site, but the depth of the site was not determined.

Condition Assessment: The condition of the archaeological site on Don Pedro Island is fair because recreational facilities were constructed on the site before it was a park. Natural erosion is also occurring along the Gulf beach portion of the site.

Level of Significance: Little Gasparilla Island State Park (CH00363) is the only recorded archaeological site that exists 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 scope of the survey, the surveyor determined that there was insufficient information to evaluate the site for National Register significance.

General management measures: Additional development on the site is planned, but it

should proceed in accordance with DRP policy for ground disturbing activities. A survey has not been conducted on the landbase.

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
CH00363 Little Gasparilla Island State Park	Prehistoric Aceramic	Archaeological Site	NE	F	P

Significance:

NRL National Register listed
NR National Register eligible
LS locally significant
NE not evaluated
NS not significant

Condition

G Good
F Fair
P Poor

Recommended Treatment:

RS Restoration
RH Rehabilitation
ST Stabilization
P Preservation
R Removal

RESOURCE MANAGEMENT PROGRAM

Management Goals, Objectives, and Actions

Measurable objectives and actions have been identified for each of the DRP's management goals for the 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, the 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 the 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, the 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 Chapters 253.034 and 259.032, 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

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.

Objective: Continue to assess the park's hydrological restoration needs.

Several areas within the park's land base could benefit from hydrological assessments, and potential restoration. Portions of the salt marsh have been invaded by shrubby vegetation such as saltbush and the prescribed fire measures of 2007 were not effective in reducing the shrub layer. The community may be lacking the proper hydroperiod due to ditches, berms, and roadway that bisect the salt marsh. Assessments of the existing roadway and culverts through the salt marsh will be necessary in the future. Additionally, several fire-plow scars may influence surface water flow (i.e. direction and flow rate) from the mesic flatwoods to the salt marsh. An ongoing assessment to restore hydrology to protect and maintain the salt marsh community located on the mainland is recommended. Staff will also assess and seek funding sources for hydrological restoration.

Objective: Restore natural hydrological conditions and functions to approximately 20 acres of salt marsh and mangrove swamp natural communities by removing the spoil pile on the south end of the mainland.

Staff will seek funding to remove the spoil pile on the south end of the mainland to restore tidal fluctuation and the associated exchange of fresh and salt water within the adjacent salt marsh and mangrove swamp communities. Restoring the natural hydrologic regime of this area should also alleviate exotic infestation along the berm and prevent shrubs from invading the salt marsh.

Natural Communities Management

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

As discussed above, the 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 communities improvements. Following are the natural community management objectives and actions recommended for the state park.

Prescribed Fire Management: Prescribed fire is used to mimic natural lightning-set fires, which are one of the primary natural forces that shaped Florida's ecosystem. Prescribed burning increases the abundance and health of many wildlife species. A large number of Florida's imperiled species of plants and animals are dependent on periodic fire for their continued existence. Fire-dependent natural communities gradually accumulate flammable vegetation; therefore, prescribed fire reduces wildfire hazards by reducing these wild land fuels.

All prescribed burns in the Florida state park system are conducted with authorization from the Department of Agriculture and Consumer Services, Florida Forest Service (FFS). Wildfire suppression activities in the park are coordinated with the FFS.

> ***Objective: Within 10 years, have 65 acres of the park maintained within the optimum fire return interval.***

Reintroducing fire to the scrubby flatwoods, mesic flatwoods and salt marsh communities on the mainland has been a primary management concern. The objectives of prescribed burning are to create those conditions that are most natural for a particular community, and to maintain ecological diversity within the unit's natural communities. To meet these objectives, the park is partitioned into management zones, and burn prescriptions are implemented on the prescribed burn cycle for each zone (see Management Zones Map). The park's burn plan is updated annually because fire management is a dynamic process. To provide adaptive responses to changing conditions, fire management requires careful planning based on annual and very specific burn objectives. Each annual burn plan is developed to support and implement the broader objectives and actions outlined in this ten-year management plan.

The mainland portion of the park is divided into two management zones (DP-1 and DP-2) that are separated by an access road. Both zones contain mesic flatwoods and tidal marsh. DP-1 also contains scrubby flatwoods, while DP-2 contains a ruderal area that will burn. Fire lines were established along the perimeter of the landbase after the last management plan was adopted.

The mesic flatwoods were roller chopped between 2001 and 2003, and a prescribed burn was conducted in DP-1 in the winter of 2007. Pine mortality occurred after the fire and increased because of a subsequent pine beetle infestation. Ospreys are currently nesting in multiple snags in this management zone. Successive fires will reduce the litter layer until it is comprised of only what accumulates between burns and mineral soil that is present immediately following a fire. The mortality to pine trees, attributed to prolonged absence of fire, should then be more typical of a fire-maintained condition (i.e. litter layer is reduced to mineral soil after burns, flame lengths are typical of surface

fires, and ladder fuels are no longer present on pine trees). Pine snags may need to be judiciously thinned before the next prescribed burn. Smoke dispersal is a concern with a major highway and development along the eastern boundary, and residences south of the park. The FFS requires the consent of Charlotte County before issuing a permit to burn in the park (R. Norman, pers. comm.). This area will need continual monitoring and control of melaleuca after future prescribed burns.

DP-2 was last burned in 2009. This management zone can be treated in a manner similar to that discussed above for DP-1. Most of the large melaleuca trees in this zone have been treated. To help reduce pine mortality, thinning of the pines should be considered, with local FFS consultation, before conducting a prescribed burn.

The scrubby flatwoods in DP-1 will continue to be mechanically treated as necessary before burning to reduce the fire hazard. Currently, mesic flatwoods in management zones DP-1 and DP-2 at Don Pedro are on a 2 to 4 year burn rotation with fire allowed to burn into scrubby flatwoods and salt marsh as often as it will carry. Abandoned gopher tortoise burrows have been recorded in DP-1 and DP-2 in the past. A population of tortoises may return to the mesic flatwoods once the fuel height and duff layer is reduced enough for groundcover to become more suitable.

Table 5 contains a list of all fire-dependent natural communities found within the park, their associated acreage and optimal fire return interval, and the annual average target for acres to be burned.

Table 5: Prescribed Fire Management

Natural Community	Acres	Optimal Fire Return Interval (Years)
Mesic Flatwoods	47	2-4
Salt Marsh	15	2-5
Scrubby Flatwoods	3	5-8
Annual Target Acreage	19-55	

In order to track fire management activities, the DRP maintains a statewide burn database. The database allows staff to track various aspects of each park's fire management program including individual burn zone histories and fire return intervals, staff training/ experience, backlog, if burn objectives have been met, etc. The database is also used for annual burn planning which allows the DRP to document fire management goals and objectives on an annual basis. Each quarter the database is updated and reports are produced that track progress towards meeting annual burn objectives.

Imperiled Species Management

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

The DRP strives to maintain healthy 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 the 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 which 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.

Land use changes, as well as resource management efforts within the park, have altered habitat conditions for a number of species. The park will continue to update the imperiled species occurrence inventory to reflect the current distribution of imperiled plant and animal species.

Objective: Monitor and document 11 selected imperiled animal species in the park.

A significant portion of resource management at Don Pedro Island State Park focuses on documenting and monitoring sea turtle nesting activity on the beach by park staff and FWC volunteers. The 2 species of turtles that have been documented nesting on Don Pedro include the loggerhead, and occasionally the green sea turtle. Sea turtles are particularly vulnerable because of their exposure on the open beach, which is also the most popular recreation site. The greatest threats are vandalism, pets, unintentional disturbance by park visitors, and depredation by raccoons and coyotes.

In order to protect nesting areas and hatchlings, recreation will continue to be balanced with natural resource protection. Nuisance species, such as raccoons and coyotes that are depredating unacceptably high numbers of sea turtle nests, will be removed from the island. Residential developments north and south of the park boundary on the barrier island increase the likelihood of occurrence of pets, feral animals, and nuisance native predators on the beach. Pets must be prohibited from the beach, and pet owners should be instructed about park policy by signs located at park boundaries, at public meetings, and through the media when the opportunity arises. Signs interpreting the agency's policy of integrating protection of natural resources with recreational use may be helpful. Feral animals and nuisance native species should be controlled by park management. Sea turtle nests should continue to be posted with signs that discourage tampering, and warn of the penalties for harassing adult turtles. Lighting at developed sites should conform to standards preventing adult and hatchling disorientation.

The third imperiled species that is subject to detailed survey and monitoring is the gopher tortoise. The survey and monitoring protocol for the gopher tortoise consists of mapping tortoise burrows via Global Positioning System (GPS) technology after prescribed burns. The park conducts a burn zone census to characterize burrows as active, inactive or abandoned. Burrows are routinely mapped within several weeks after burns. District Biological staff conducts the mapping. The last gopher tortoise survey was conducted within the mesic flatwoods of the landbase in 2010. An updated gopher tortoise survey should be completed for the entire park, especially after the next prescribed fire in the mesic flatwoods on the landbase.

Eight imperiled species of shorebirds have been documented in the park, and Wilson's plovers have nested on the island. These species are monitored and documented regularly using a protocol adopted fromFWC. Listed shorebird species are particularly vulnerable to disturbances because of their exposure on the open beach, which is also the most popular recreation site. Several heron species are also known to use the beach habitat, including the little blue heron, snowy egret, and tricolored heron. They are monitoredat a Tier 1 level.

Monitoring of shorebird use and potential nesting activity is integral to protecting these

species. The effectiveness of protective measures should be regularly re-evaluated through monitoring.

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

A monitoring program should be established to document areas where golden leather fern, a state-threatened plant species, is present on the mainland. A targeted survey that documents the population changes of this species over time will help determine the response golden leather fern has to prescribed fire. After surveys are completed, management actions can be adjusted accordingly to prevent the population of this species from declining.

Exotic Species Management

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

The DRP actively removes invasive exotic species from state parks, with priority being given to those causing the ecological damage. Removal techniques for plants may include mechanical treatment, herbicides or bio-control agents, and trapping may be used for animals.

Objective: Annually treat 16 acres of exotic plant species in the park.

The greatest management problem at Don Pedro Island State Park is control of invasive exotic plants. Although substantial progress has been made both on the barrier island and the mainland parcels, the main objective is to continue to control and eradicate invasive exotic plants, and prevent their re-establishment. The latter will require vigilance, and may be aided by restoration on spoil areas.

On the mainland, Brazilian pepper is scattered throughout the mesic flatwoods and on spoil piles. Melaleuca continues to invade the salt marsh of the mainland parcel. Seed sources from outside of the park will necessitate continual maintenance of this exotic to prevent it from spreading.

The highest priority for exotic plant control at Don Pedro is to continue the significant amount of exotic control work that has been conducted on the barrier island to eradicate Brazilian pepper and Australian pine from the maritime hammock and coastal strand communities in DP-4, DP-8, and DP-10. More than 25 acres of maritime hammock located in DP-4 were treated in 2011 by a contractor to fulfill a mitigation requirement for a nearby development project. Additional follow-up treatments are expected to occur in the future to prevent re-establishment.

Smaller areas of invasive exotics such as Australian pine, Brazilian pepper, cogon grass natal grass, wedelia, beach naupaka and St. Augustine grass have infested the mainland parcel, mostly in the developed and spoil areas of the park. The berm adjacent to the

canal on the mainland parcel is also infested with a variety of invasive exotic species.

The effects of Brazilian pepper removal on the barrier island's maritime hammock microclimate should be monitored.

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

Raccoons and coyotes have become problem species in the park. Both species have been removed by USDA and park staff through the control program initiated in 2008. Both of these species are proficient at depredating sea turtle nests. Wire mesh placed on the sand over the nest occasionally deters predators, however the mesh does not work in every instance. Raccoons and coyotes may also pose a threat to shorebirds attempting to nest at the park. A control program should also be initiated for feral hogs to prevent further damage in the park.

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 the 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 re-establish 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. In order to facilitate restoration, timber management may be used to reduce the density of slash pines in DP-2. Timber management will be re-evaluated during the next revision of this management plan The FFS will be consulted to assist with this management activity if necessary will be re-evaluated during the next revision of this management plan.

Coastal/Beach Management

The 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 are 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.

Approximately 1.3 miles of beach occur within Don Pedro Island State Park. There are no critically eroded areas within the boundary, however nearly 2 miles of developed beach north of the park and 0.4 miles immediately south of the park were characterized as critically eroded in 2010 by the Bureau of Beaches and Coastal Systems. The park is included in the Manasota Barriers section of the Statewide Strategic Beach Management Plan. The Manasota subregion extends from northern Manasota Key in Sarasota County to Gasparilla Pass in Charlotte County (Strategic Beach Management Plan, 2008).

Erosion in the Manasota sub region is mainly attributed to winter storms and tropical weather systems (Statewide Beach Management Plan, 2008). Three beach nourishments have occurred north of the park since 2003. It is likely that sand from these activities has migrated to the park as sediment transport is from north to south in this area of the Gulf of Mexico (Bush 2001). Natural erosion occurring in the park does not require remedial action. Charlotte County completed an erosion control project in June 2006 where they placed beach compatible fill material along approximately 2.7 miles of critically eroding coastline on Knight Island and Don Pedro Island.

Don Pedro Island became permanently connected to Knight Island to the north with the closing of Blind Pass, and Little Gasparilla Island to the south with the closing of Little Gasparilla Pass (Bush 2001). Therefore there are no inlets immediately adjacent to the park. Stump Pass is the nearest inlet located approximately 3.5 miles to the north of the park, while Gasparilla Pass lies 2 miles to the south.

In 2001 the “Stump Pass Inlet Management Study" (IMS) was completed to mitigate the erosive impact of the inlet. The IMS evaluated the inlet system and concluded that Stump Pass is a significant cause of erosion on the downdrift beaches of Knight Island and Don Pedro Island (Charlotte County, 2010).

The presence of residential development on the barrier island just north and south of the park boundary increases the potential for the occurrence of pets on the beach of the park. Dogs create significant problems for shorebird conservation (Lafferty 2006) and sea turtle nests (Fowler 1979). Pet owners should be instructed about park policy by signs located at park boundaries, at public meetings, and through the media when opportunities arise

Sea turtle nests will continue to be posted with signs that discourage tampering, and warn of the penalties for harassing adult turtles. The recreational goals outlined in this

management plan that will likely increase visitation to the island portion of the park when implemented. Lighting at developed sites should conform to standards preventing adult and hatchling disorientation. Any documented shorebird or seabird nests will be posted with twine, stakes, and signs stating that the area is temporarily closed.

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.

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.

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. The DRP is implementing the following goals, objectives, and actions, as funding becomes available, to preserve the cultural resources found in Don Pedro Island 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 and collections care must be submitted to the FDOS, the 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 the 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 the 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 resource in the park.
The park will continue to assess and evaluate the recorded cultural resource when conducting management activities within the vicinity, and examine the impact of natural erosion on the condition of the site.

Objective: Compile reliable documentation for all recorded historic and archaeological resources.
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 involve large-scale ground disturbance.

Objective: Bring one of one recorded cultural resource into good condition.
This objective will be difficult to achieve since recreational facilities are constructed on a portion of the site and additional development is proposed. The park's one archaeological site will be periodically assessed and stabilized as needed. Site CH00363, consisting of sparse shell scatter, will be assessed on an annual basis and future development will proceed in accordance with DHR policy for ground disturbing activities.

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. Don Pedro Island State Park is not subject to a land management review every 5 years, as it is below the 1,000-acre threshold established by the Statute.

Don Pedro Island State Park was subject to a land management review on September 23, 1999**.** The review team made the following determinations:

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

2.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, the objective of DRP 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.

Don Pedro Island State Park is located in the unincorporated area of Cape Haze within Charlotte County in Southwest Florida. Urban population centers in the region include Port Charlotte, Punta Gorda, Cape Coral, and Fort Myers. 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 2010, a 13% increase since 2000 with a projected increase to 176,000 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, North Port, and Venice are within 30 miles of the park. The latter two 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).

Charlotte County is also located within the Visit Florida Southwest Vacation Region. According to Visit Florida, during 2011, 93% of region's visitors came for leisure purposes with beach or waterfront activities being the top activity at 36%, which is inconsistent with the park's low visitation rates due to limited access to the park' beach use area. Most visitors stayed in non-paid accommodations, including residences of friends or family, a second home, or a timeshare with the longest average length stay of 6.8 nights. Winter and spring constitute the peak tourism 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 Don Pedro Island State Park. Lands managed by the Southwest Florida Water Management District (SWFWMD) include Deer Prairie Creek and Myakka River. Lands managed by Charlotte County include the Tippecanoe Environmental Park and Amberjack Environmental Park. Sarasota County's conservation lands include the Jelks Preserve and Lemon Bay Preserve. The Florida Forest Service (FFS) manages Myakka State Forest. Division of Recreation and Parks (DRP) manages the Myakka River State Park and Charlotte Harbor Preserve State Park. Resource-based recreational opportunities provided by these lands include hiking, biking, horseback riding, boating, fishing, swimming, picnicking, and camping.

The county is preparing to construct a 1.3-mile 10' wide shared-use trail on the east side of CR-775 that will connect Rotunda Boulevard to the Boca Grande Causeway. The trails are part of a loop trail system that circles the Cape Haze peninsula and connects into other regional trails.

Paddlers navigating the Florida Circumnavigational Saltwater Paddling Trail also have access to recreation facilities at Don Pedro Island State Park. The paddling trail begins at Big Lagoon State Park near Pensacola, extends around the Florida peninsula and Keys, and ends at Fort Clinch State Park near the Florida-Georgia border. The trail is 1,500 miles long and divided into 26 segments. Segment 11 of the paddling trail accesses the park's facilities via Lemon Bay Aquatic Preserve. The development of the paddling trail was coordinated by the Office of Greenways and Trails in cooperation with state agencies and local governments.

Existing Use of Adjacent Lands

Don Pedro Island State Park consists of lands located on both the mainland (land base), west of CR-775, Placida Road, and on the barrier island of Don Pedro Island (island). Lands on Don Pedro Island, adjacent to the park, are developed for single-

family residential use. Although the island is not connected to the mainland by bridge, a ferry service for adjacent residents delivers automobiles to a network of unpaved roads that do not enter the state park. Future Land Use designations surrounding both the land base and Don Pedro Island adjacent to the park are primarily medium and high density residential. Commercial use designations are located along the eastern side of the CR-775 corridor across from the park. The County is widening CR-775 into four traffic lanes in addition to stormwater swales. An associated stormwater retention pond will be constructed on the adjacent property east of the park. DRP will work with the county to ensure northbound traffic will maintain direct access to the park and turning lanes are retained.

As vacant land is converted to more intensive uses, additional resource and visitor management challenges could occur including increased exotic species control, limited opportunities for using prescribed fire, and alterations in the existing patterns of hydrology. Increased urban activity adjacent to the park has the potential to affect the visitor experience through increased noise, artificial light, and a more visible built environment. DRP will monitor land use changes adjacent to the park and provide feedback on proposed development plans to local planning officials to protect the recreational setting and park resources.

Planned Use of Adjacent Lands

Rapid urbanization is expected to continue as a land use trend in southwest Florida. Future Land Use designations surrounding both the land base and island portions of the park are primarily medium and high density residential. Commercial use designations are located along the eastern side of the CR-775 corridor across from the park. The County is actively pursuing land acquisition for rights-of-way to widen CR-775 into four traffic lanes in addition to stormwater swales. Road construction is not identified in the county's 5-year comprehensive plan due to budget constraints. An associated stormwater retention pond is planned on the adjacent property east of the park. DRP will work with the county to ensure northbound traffic will maintain direct access to the park and turning lanes are retained.

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's 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 capability to support individual recreation activities. This process also analyzes the existing spatial factors that either favor or limit the provision of each activity.

Land Area

Don Pedro Island's natural communities provide a base for recreational uses including beach recreation, picnicking, fishing, and wildlife observation. The natural scenery of the park is excellent, marred only by overhead power lines crossing the property. The mainland portion of the park contains pine flatwoods and estuarine tidal swamp. This area of the park is ideal as a land base location for access to Don Pedro Island and Stump Pass Beach State Park located about three miles north of the site. Picnicking and interpretive trails are also accommodated on the mainland property.

Water Area

Estuarine areas on the eastern side of the island are within the Lemon Bay Aquatic Preserve and contain mangrove habitat for a variety of birds and marine life in addition to protected coves that make for a popular destination for power boaters, paddlers, and anglers.

Shoreline

With approximately one-mile of white sand beach on the Gulf of Mexico, the recreational focus of the park is year-around access to sunbathing, swimming, and snorkeling. The park's expansive beachfront also offers opportunities for superior shoreline fishing and shelling.

Natural Scenery

Nature trails provide hiking opportunities through ten distinct natural communities on the land base and island portions of the park. These natural communities contain rare plant species, including giant leather fern, spreading air plant, and coontie. The land base is characterized by a viewshed through fire-maintained flatwoods that grade into mangrove forests.

Significant Wildlife Habitat

Beach and dune areas within the park provide valuable foraging and resting habitat for a number of shorebirds and seabirds. Visitors and birdwatchers have the opportunity to study a number of imperiled species including the Eastern brown pelican (Pelecanus occidentalis), least tern (Sterna antillarum), Wilson's plover

(Charadrius wilsonia), snowy plover (Charadrius alexandrinus), sandwich tern (Sterna sandvicensis), roseate tern (Sterna dougallii), and black skimmer (Rhynchops niger).

Archaeological and Historical Features

The park has one archeological site that contains the large scatter of a prehistoric shell midden of unknown origin. Although shell tools were recovered from the surface, little is known about the culture that created it. The site is discrete, but remains discernible from the park's main trails as a shell-hardened high point with sparse dune vegetation.

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 park was previously owned by the Cavanaugh Community Corporation. The island portion was a private beach for homeowners of the Rotunda development area located north of Cape Haze. A private residence was constructed on a filled area fronting the Intracoastal Waterway at the western edge of the mainland parcel and was removed by the DRP. A dock and a filled causeway connecting that location to the state road remain from that period of development.

Future Land Use and Zoning

DRP works with 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.

The park's current Future Land Use (FLU) and zoning designations limit DRP in the development of recreation and support facilities. The park is working with the county to change the park's land base and island FLU from Parks and Recreation (PKR) to Preservation (PR). Current zoning for the park's land base will be designated from Residential, Multifamily (RMF-10) to Environmentally Sensitive (ES). Island zoning will be changed from Residential, Multifamily/Tourist (RMF-T) to Environmentally Sensitive (ES). The new designations will support the park's current and proposed facilities (Charlotte County, 2010).

DON PEDRO ISLAND STATE PARK

N

0 250 500 1,000 Feet

Florida Department of Environmental Protection
Division of Recreation and Parks
Date of aerial: 2010

BASE MAP

Current Recreational Use and Visitor Programs

The park's headquarters is located at Gasparilla Island State Park. The location of the park within a rapidly expanding urban area contributes to large rates of visitation. Don Pedro Island State Park recorded 28,748 visitors in FY 2011/2012. By DRP estimates, the FY 2011/2012 visitors contributed $1.35 million in direct economic impact and the equivalent of 27 jobs to the local economy (Florida Department of Environmental Protection, 2011).

Don Pedro Island State Park is part of an extensive chain of barrier islands extending along Florida's Gulf Coast. Boating, swimming, picnicking, fishing, hiking, and nature study have been the traditional recreational uses of Don Pedro Island. The park's more recently acquired 100-acre land base provides visitors with additional hiking trails and opportunities for nature study within a mature flatwood community. A fishing dock, picnic shelter, and small restroom are also available. The 230-acre island portion of the park is located between Knight Island and Little Gasparilla Island and is accessible only by private boat or ferry. A boat dock is located on the bay side of the island. Visitors often observe an abundance of marine and terrestrial wildlife, including imperiled species such as the West Indian manatee (*Trichechus manatus*), gopher tortoise (*Gopherus polyphemus*), bald eagle (*Haliaeetus leucocephalus*), and American oystercatcher (*Haematopus palliatus*). Typical recreation includes swimming, snorkeling, shoreline fishing, sunbathing, and shelling on the gulf beaches. A ferry service from Placida to Don Pedro Island is available on weekdays and weekends.

Other Uses

An existing overhead power line and water main are located along the central ridgeline of the park and connect to adjacent island communities, including Little Gasparilla Island just south of the park. DRP is currently working with the communities while they explore potable water and central sewer service options provided by utilities on the mainland. In addition to connecting the park's sewer system to new central services, it is recommended staff continue to work with utility providers to bury the electrical line to improve the park's viewshed while limiting impacts to natural resources.

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 Don Pedro Island State Park, the beach dune, restored coastal berm, maritime hammock, coastal grassland, salt marsh, and mangrove swamp communities have been designated as protected zones as delineated on the Conceptual Land Use Plan.

Existing Facilities

Recreation Facilities

In the early 1990s, DRP constructed a dock and renovated beach recreation facilities constructed by the island's previous owner. After acquiring the park's land base, DRP constructed limited recreation and support facilities and a dock in 2003.

Land Base
- Small picnic shelter (1)
- Small restroom
- Interpretive kiosk (1)
- Nature trail (2.20 miles)

Don Pedro Island
- Large picnic pavilion
- Beach bathhouse
- Dune boardwalk (800 feet)
- Nature trail (1 mile)
- Ferry dock
- Recreational boat dock (12 vessels)
- Kayak/canoe storage area
- Kiosks (2)
- Interpretive signs (4)

Support Facilities

Land Base
- Stabilized parking (60 vehicles)
- Paved parking (2 vehicles, accessible)
- Equipment storage shed
- Flammable storage building
- Service dock
- Stabilized road (.14 mile)

Don Pedro Island
- Service dock
- Storage area

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 limits.

Improved water access is recommended for visitors and staff. The park is committed to offering accessible facilities, including a parking-to-dock nature trail and a dock lift for paddlers and boaters. Onsite storage for the park's powerboat would provide staff with cost effective water access.

As more paddlers are discovering the park's access to the bay, demand for staff and volunteers services has increased. RV sites for volunteers will accommodate the additional work force needed to assist visitors and maintain the park's valuable resources.

During the next 10-years the park will provide visitors with more access to water recreation. Additional programs will give opportunities to visitors that expand their knowledge about the surrounding waters, natural systems and wildlife while they

develop paddling skills. Two concessionaire services are proposed and will include kayak or canoe rentals and a ferry service to access Don Pedro Island.

Recommended facilities for the park's land base will provide visitors with improved dock access. A new shop and volunteer area will provide staff with consolidated support facilities for efficient and effective land management and visitor services.

Don Pedro Island is a popular destination for boaters who prefer remote beaches and the high quality of natural resources they provide. New island amenities will provide visitors with an expanded docking facility and new kayak/canoe launch. Improvements to the beach use area include additional picnic pavilions and a new bathhouse. A primitive paddle-in camping area will conveniently be located near the new launch area without compromising onsite support resources. The island's small support area will be relocated away from visitor use areas and a new service dock will facilitate equipment and supply transport.

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 2,558 users per day.

The island offers a remote beach setting that continues to be popular among residents and tourists. The land base provides visitors with quality trails and picnicking within the setting of a well maintained flatwoods natural community. Preserving the undisturbed natural features and communities of the park that attract visitors will continue to be a priority.

Objective: Expand the park's recreational carrying capacity by 116 users per day.

Kayak and ferry concessionaires, additional boat slips, and accessible dock and launch facilities will provide greater public access. New pavilions will provide more users with opportunities for sheltered picnicking. Boaters and long-distance paddlers will be provided with opportunities for overnight stays at the proposed primitive camping area. Visitors will also have access to nighttime programming that explores the park's natural resources.

CR-775 (PLACIDA DR)

Interim Volunteer RV sites

Day-Use Area
- Concession

Park Entrance

Residence & Maintenance Area
- 3-Bay Shop
- Flamable Storage Building
- Equipment Building
- Stabilized Road
- Stabilized Parking
- Residence
- Volunteer RV Sites

Boat Dock Facility
- Small Picnic Pavilion
- Kayak/Canoe Storage Rack
- Boat Lift for Park Service Boat
- Accessible Dock Lift
- Ferry Service
- Passenger Waiting Shelter

Lemon Bay

GULF OF MEXICO

Support Area
- Service Dock
- Storage Building
- Flamable Storage Building

Kayak/Canoe Facility
- Primitive Paddle-in Camp Sites (2)
- Accessible Paddling Launch
- Kayak/Canoe Storage Rack

Boat Dock Facility
- Addtional Boat Slips (8)
- Floating Ferry Dock
- Passenger Waiting Shelter

Beach Day Use Area
- Bathhouse
- Small Picnic Pavilions (2)
- Shower Tower
- Boardwalks
- Underground Utilities

LEGEND

- PARK BOUNDARY
- PROPOSED FACILITY
- EXISTING TRAILS
- PROPOSED TRAIL IMPROVEMENT
- PROPOSED ROAD IMPROVEMENT
- PROPOSED FACILITY AREA
- PROTECTED ZONES

N

0 250 500 1,000 Feet

Prepared By:
Florida Department of Environmental Protection
Division of Recreation and Parks
Date of Aerial: 2010

DON PEDRO ISLAND STATE PARK

CONCEPTUAL LAND USE PLAN

Due to limited parking at the park, a proposed ferry service could provide visitors with more access to Don Pedro Island and Stump Pass Beach State Park by launching from the park's land base dock and other appropriate places, such as local marinas, where additional parking is available. The ferry service provider could shuttle visitors to existing docks located at participating parks.

Objective: Continue to provide the current repertoire of 12 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 builds visitors' awareness of the park's natural resources. Staff and volunteers host five guided tours of sea turtle and shorebird nesting habitat and the broader natural communities on which they depend.

Five recreational programs at the park provide opportunities for visitor to improve or learn outdoor skills. Park staff and volunteers currently lead seasonal paddling ecotours from the park's land base. Tour groups paddle to Don Pedro Island, using kayaks funded by the park's Citizens Support Organization (CSO). Other recreational programs include lessons on fishing, cast netting, and birding.

Park staff also conducts two comprehensive educational programs that investigate near-shore habits through the Wading Adventure Program. The Bird Call Program teaches visitors about how to distinguish between bird songs and calls and the important roles they play in the lives of birds.

Objective: Develop four interpretive and recreational programs.

Year-around opportunity for the park's popular paddling ecotours is proposed for visitors. Additional programs to meet user needs associated with a proposed primitive campground are also recommended. The new programs should incorporate activities such as campfire building and safety, moonlight paddling, stargazing, night hiking, and night fishing.

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 regular work of park staff and contracted help.

Objective: Improve or repair nine existing facilities, 0.2 mile of trail, and 0.15 mile of road.

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.

Improved Recreation Facilities

Land Base:

Boat Dock A small picnic pavilion is recommended at the boat dock and proposed kayak/canoe launch area. The pavilion will also provide a shaded resting area and will be located near the nature trail that leads to the day use area. An accessible lift for the dock is also recommended to improve boat and ferry access for visitors.

Trails and Walkways During recent hydrological restoration work within the park's mangrove swamp community, culverts were installed under the existing service road that connects the entrance road and day use parking area to the dock. Further improvements are recommended to improve visitor accessibility along this service road.

The dock was damaged in Tropical Storm Debbie in June 2012. It is currently under reconstruction. Improvements to the path from the parking area to the Lemon Bay dock are planned.

Don Pedro Island:

Boat Dock Area The existing boat dock can no longer support user demand. The dock should be expanded to provide up to eight new slips and a floating ferry dock. A waiting shelter for visitors accessing the park by ferry is also recommended near the existing kayak/canoe storage rack.

Beach Use Area Two small picnic shelters and a shower tower are recommended for the beach use area to accommodate the anticipated increase in day use visitation. In addition, the bathhouse is deteriorating and needs to be improved or replaced with a new bathhouse to support day use activity and a proposed primitive campsite. The need for an expanded septic system will be evaluated to

ensure support capacity for the proposed bathhouse. Evaluations to move the proposed facility landward and expand the existing septic system are also recommended.

Trails and Boardwalks A system of surfaced nature trails and boardwalks would provide beach access for a greater diversity of users. A 0.2-mile universally accessible nature trail is proposed to connect the dock area and proposed kayak/canoe area to the beach use area. A stabilized natural surface is preferred, however, a combination of natural surfacing, permeable paving and boardwalks are recommended where needed. Gopher tortoise crossings should be taken into consideration during trail development. A boardwalk linking the proposed picnic pavilions and bathhouse to the beach is also recommended to provide accessibility.

Support Facilities

Land Base:

Roads The park entrance road is in need of repairs. Stabilization of the park's 0.15-mile entrance road is recommended to improve increased visitor and service use.

Storage Area Two flammable storage buildings are recommended for the storage areas located at the land base and on the island. Two interim volunteer RV sites are recommended adjacent to the existing storage shed off the main road.

Boat Dock The park currently pays monthly offsite docking fees. A service boat lift is recommended to assist staff with convenient boating access from the mainland.

Don Pedro Island:

Staff Office A small staff office that is convenient to the beach use area should be included in the bathhouse to replace the office in the existing restroom facility, which provides island visitors with convenient access to park personnel.

Utilities An existing overhead power line is routed through the center of the park on Don Pedro Island. DRP will work with the utility company to bury existing overhead utilities and possible additional support services. Underground utilities will improve the ability of the park to recover after large storm events, significantly improving the aesthetic quality of the public use areas, and provide connection to municipal sewer, if available.

Objective: Construct seven new facilities and 0.15 mile of road.

New park facility developments may be accomplished within the ten-year term of this management plan, if funding is made available. Proposed facilities will expand water recreational opportunities for park visitors and improve maintenance support with a new shop and a volunteer RV site located at the park's land base. The following discussion is organized by use area within the park.

Recreation Facilities

Land Base:

Day Use Area A kayak/canoe facility would provide park visitors with additional water recreational opportunities and alternative access to Don Pedro Island. The park would like to establish an agreement with a concessionaire to provide visitors with kayak or canoe rentals within a small concession space adjacent to the existing restrooms, picnic, and parking area. An area for a locking storage rack would also be provided for the concessionaire near the boat dock. A concession agreement for a ferry service from the park's existing dock is recommended to shuttle visitors from the park's land base to the island as well as Stump Pass Beach State Park. A proposed concession agreement for excursion boat service to Stump Pass Beach State Park will also utilize the park's dock. A shelter is proposed for visitors waiting for the ferry boat.

Don Pedro Island:

Kayak/Canoe Facilities A universally accessible kayak/canoe launch is proposed at the site of the existing ferry and service boat dock. The launch will provide day users and paddlers navigating the Florida Circumnavigational Saltwater Paddling Trail with island access separate from the powerboat docking area. The locking kayak/canoe storage rack will be relocated to the new launch site. A new primitive camping area is also recommended. Two primitive campsites will be located at the site of existing support storage area.

The recommended primitive camping area geared for paddlers navigating the bay and Florida Circumnavigational Saltwater Paddling Trail will consist of two primitive campsites that accommodate up to four campers each, located adjacent to the proposed kayak/canoe launch. The support storage facility that is currently adjacent to the proposed site will be relocated to a more appropriate location. The primitive site will not require a new bathhouse or toilet facility. The existing bathhouse at the Gulf beach use area is located within 500 feet of the proposed primitive campsites and is connected by a trail.

<u>Support Facilities</u>

Land Base:

Shop and Residence Area A permanent shop and residence area are proposed near the southeast boundary of the land base. The facility will be developed on an existing spoil pile and support expanded operations at the park and include a 3-bay shop, residence, relocated flammable storage building, two volunteer RV sites, and stabilization of a 0.15-mile service road for access. The site of the existing storage area and shed will be restored to flatwoods.

Don Pedro Island:

Satellite Shop Area A relocated storage area and new service dock are proposed for the park's island. The new support facility will include a larger storage building and be located adjacent to an existing bridge and former causeway.

Facilities Development

Preliminary cost estimates for these recommended facilities and improvements are provided in the Ten-Year Implementation Schedule and Cost Estimates (Table 7) 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. New facilities and improvements to existing facilities recommended by the plan include:

Recreation Facilities

Improved Land Base Facilities:

Day Use Area
- Small picnic pavilion
- Paved walkway (150 feet)
- Paved nature trail (0.2 mile)
- Accessible dock lift

Improved Don Pedro Island Facilities:

Boat Dock
- Boat slips (8)
- Floating ferry dock
- Waiting shelter

Beach Use Area
- Bathhouse
- Septic system expansion
- Small picnic pavilions (2)
- Shower tower
- Boardwalks (200 feet)
- Nature trail (0.2 mile)
- Boardwalks (100 feet)

New Don Pedro Island Facilities:

Primitive Paddle-in Camping Area
- Tent sites (2)
- Universally accessible kayak/canoe launch

Support Facilities

Improved Land Base Facilities:

Stabilized entrance road (0.15 mile)
Service boatlift
Flammable storage building (1)
Volunteer RV sites (2)

New Land Base Facilities:

Shop and Residence Area
- 3-bay shop
- Ranger residence
- Volunteer RV sites (2)
- Storage building
- Stabilized parking
- Stabilized road (0.15 mile)

Improved Don Pedro Island Facilities:

Flammable storage building (1)
Buried utilities

New Don Pedro Island Facilities:

New Satellite Shop Area
- Service boat dock
- Storage building

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 which estimate 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 selected unit classification (see Table 6).

Table 6: Recreational Carrying Capacity

Activity/Facility	Existing Capacity*		Proposed Additional Capacity		Estimated Recreational Capacity	
	One Time	Daily	One Time	Daily	One Time	Daily
Nature trail	74	296	0	0	74	296
Swimming	1,025	2,049	0	0	1,025	2,049
Picnicking	80	160	24	48	104	208
Shoreline fishing	26	53	0	0	26	53
Kayaking/Canoeing	0	0	20	60	20	60
Primitive paddle-in camping	0	0	8	8	8	8
TOTAL	**1,205**	**2,558**	**52**	**116**	**1,257**	**2,674**

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

**Boating and ferry facilities are assumed to serve the same recreational user base as swimming, picnicking, and primitive camping. Therefore, no carrying capacity is determined for these types of recreational activity.

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 6.

Optimum Boundary

The 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.

Identification of parcels on the optimum boundary map is intended solely for planning purposes. It is not to be used in connection with any regulatory purposes. Any party or governmental entity should not use a property's identification on the optimum boundary map to reduce or restrict the lawful rights of private landowners. Identification on the map does not empower or suggest that any government entity should impose additional or more restrictive environmental land use or zoning regulations. Identification should not be used as the basis for permit denial or the imposition of permit conditions.

Lands identified on the optimum boundary map adjacent to the park provide valuable watershed and viewshed protection for the land base and Don Pedro Island in addition to expanded boating opportunities.

A 10-acre parcel located adjacent to the eastern boundary of the land base would serve as a valuable buffer space, facilitate natural resource management, and would provide the park with constructed facilities including a 10-slip boat basin, additional dock space, concrete seawall, and launch ramp. The structures were recently constructed and would facilitate boating access to the park from Lemon Bay via a canal and a ferry or excursion boat concessionaire. The parcel contains altered lands that would further expand recreational opportunities. Acquiring parcels located on the small islands east of Don Pedro Island would serve the park by providing habitat for wildlife, additional use areas for paddlers and anglers, viewshed protection, and protection of local surface waters.

The optimum boundary is proposed to include two areas of state sovereign submerged land, including a 25 foot radius around the land base dock in Lemon Bay for maintenance and resource management, and the area 25 feet seaward of the mean high waterline along the Gulf shore of the island for resource protection.

A small area of the park, identified as management zone DP-11, has been determined to be surplus to the needs of the park. DP-11 is a 0.02-acre portion of mangrove swamp, located in Lemon Bay near the southern end of the park's island portion. It provides no recreational access and contains no known cultural resources (see Optimum Boundary Map).

DON PEDRO ISLAND STATE PARK

OPTIMUM BOUNDARY MAP

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 Florida Department of Environmental Protection (DEP), 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 Don Pedro Island State Park in 2001, significant work has been accomplished and progress made towards meeting 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 DRP.

Park Administration and Operations

- Over the last ten years the park's Citizen Support Organization (CSO), Barrier Island Parks Society, has contributed over 922 hours of volunteer service.
- The park's CSO has provided the park with:
    - funding for kayaks used for ecotours that are available the park's land base
    - ecotours tour guides
    - a beach buggy
    - materials to construct build a boardwalk
    - materials to construct cages to protect sea turtle nests
    - materials for the park's interpretive programs

Resource Management

<u>Natural Resources</u>

- Over 224 acres of exotics were removed from the park, including the all of the Australian Pines (*Casuarina equisetifolia*).

- Fifteen acres of Marine Tidal Swamp community has been restored to the park.
- Park staff coordinated with USDA to remove of 56 exotic and nuisance animals, including 41 raccoons, 14 coyotes, and 1 bobcat.
- Park and District staff has burned over 80 % of the park's fire-dependent natural communities. Recreation and Visitor Services Park Facilities.

Park Facilities

Recreational Facilities

- In 2003, a new day use area was developed at the park's land base. Newly constructed facilities include two picnic pavilions, a small restroom and nature trails.
- In 2006, a new roof was constructed for the beach picnic pavilion following Hurricane Charley.
- The dune boardwalk was replaced to protect the dune system and improve beach access.
- In 2007, the park installed a universally accessible water fountain for visitors.
- Staff has developed new interpretive programs for the park's visitors, including onsite sea turtle and shore bird education programs.
- More paddlers are launching kayaks from the park's land base.

Support Facilities

- In 2003, the park established a temporary shop area that includes storage sheds and parking area.

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 7) 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 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 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 DRP's annual legislative budget requests. When preparing these annual requests, 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, DRP pursues supplemental sources of funds and staff resources wherever possible, including grants, volunteers, and partnerships with other entities. 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 7 may need to be adjusted during the ten-year management planning cycle.

Table 7
Don Pedro Island State Park
Ten-Year Implementation Schedule and Cost Estimates

NOTE: THE DIVISION'S ABILITY TO COMPLETE THE OBJECTIVES OUTLINED BY THE MANAGEMENT PLAN IS CONTINGENT ON THE AVAILABILITY OF FUNDING AND OTHER RESOURCES FOR THESE PURPOSES.

Goal I: Provide administrative 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	**C**	**$61,000**
Objective B	**Expand administrative support as new lands are acquired, new facilities are developed, or as other needs arise.**	Administrative support expanded	**UFN**	**$2,800**
Goal II: Protect water quality and quantity in the park, restore hydrology to the extent feasible, and maintain the restored condition.		**Measure**	**Planning Period**	**Estimated Manpower and Expense Cost* (10-years)**
Objective A	**Continue to assess the park's hydrological needs.**	Assessment conducted	**C**	**$11,000**
Action 1	Continue to assess hydrological restoration needs to maintain and protect the salt marsh community located on the park's mainland from erosion from the adjacent roadway and culvert failure.	Assessment conducted	UFN	$7,400
Action 2	Assess funding sources for targeted hydrological restoration.	Assessment conducted	UFN	$3,600
Objective B	**Restore natural hydrological conditions and functions to approximately 20 acres of salt marsh and mangrove swamp natural communities by removing a 4-acre spoil pile.**	# Acres restored or with restoration underway	**UFN**	**$65,500**
Goal III: Restore and maintain the natural communities/habitats of the park.		**Measure**	**Planning Period**	**Estimated Manpower and Expense Cost* (10-years)**
Objective A	**Within 10 years have 65 acres of the park maintained within optimal fire return interval.**	# Acres within fire return interval target	**C**	**$35,500**
Action 1	Update annual burn plan.	Plan updated	C	$1,600
Action 2	Manage fire dependent communities for ecosystem function, structure and processes by burning between 19-55 acres annually, as identified by the annual burn plan.	Average # acres burned annually	C	$29,000
Action 3	Assess and thin pines and pine snags to reduce pine mortality following prescribed fire treatments.	# Acres thinned	LT	$1,900
Action 4	Continue to mechanically treat scrubby flatwoods to reduce fuel loads.	# Acres mechanically treated	LT	$3,000

* 2012 Dollars
ST = actions within 2 years
LT = actions within 10 years
C = long term or short term actions that are continuous or cyclical
UFN = currently unfunded need

Table 7
Don Pedro Island State Park
Ten-Year Implementation Schedule and Cost Estimates

NOTE: THE DIVISION'S ABILITY TO COMPLETE THE OBJECTIVES OUTLINED BY THE MANAGEMENT PLAN IS CONTINGENT ON THE AVAILABILITY OF FUNDING AND OTHER RESOURCES FOR THESE PURPOSES.				
Goal IV: Maintain, 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 updated	**C**	**$7,200**
Objective B	**Monitor and document 11 selected imperiled animal species in the park.**	# Species monitored	**C**	**$45,000**
Action 1	Continue to update monitoring protocols for 11 selected imperiled animal species including sea turtles, gopher tortoises, and imperiled shorebirds if nesting occurs in the park.	# Protocols developed	LT	$8,400
Action 2	Continue to implement monitoring protocols for 11 imperiled animal species including those listed in Action 1 above and sea turtles and gopher tortoises	# Species monitored	C	$36,600
Objective C	**Monitor and document 1 selected imperiled plant species in the park.**	# Species monitored	**C**	**$3,000**
Action 1	Update monitoring protocols for 1 selected imperiled plant species including golden leather fern.	# Protocols developed	ST	$1,000
Action 2	Continue to implement monitoring protocols for 1 selected plant species including the golden leather fern listed in Action 1 above.	# Species monitored	C	$2,000
Goal V: Remove 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 16 acres of exotic plant species in the park.**	# Acres treated	**UFN**	**$96,000**
Action 1	Annually update exotic plant management work plan.	Plan developed/updated	C	$16,000
Action 2	Implement annual work plan by treating 16 acres in park, annually, and continuing maintenance and follow-up treatments, as needed.	Plan implemented	C	$80,000
Objective B	**Implement control measures on 3 exotic and nuisance animal species in the park.**	# Species for which control measures implemented	**C**	**$24,000**
Action 1	Continue to coordinate with USDA to remove raccoons and coyotes from the park, and implement a hog removal program on an as needed basis.	# Species removed	C	$10,000
Action 2	Continue to implement the use of wire mesh to protect turtle nests from raccoons and coyotes.	# Nests protected	C	$14,000

* 2012 Dollars
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UFN = currently unfunded need

Table 7
Don Pedro Island State Park
Ten-Year Implementation Schedule and Cost Estimates

NOTE: THE DIVISION'S ABILITY TO COMPLETE THE OBJECTIVES OUTLINED BY THE MANAGEMENT PLAN IS CONTINGENT ON THE AVAILABILITY OF FUNDING AND OTHER RESOURCES FOR THESE PURPOSES.

Goal VI: 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	**C**	**$800**
Objective B	**Compile reliable documentation for all recorded historic and archaeological sites.**	Documentation complete	**LT**	**$6,000**
Action 1	Ensure all known sites are recorded or updated in the Florida Master Site File.	# Sites recorded or updated	C	$160
Action 2	Complete a predictive model for high, medium and low probability of locating archaeological sites within the park.	Probability Map completed	LT	$5,800
Objective C	**Bring 1 of 1 recorded cultural resources into good condition.**	# Sites in good condition	**C**	**$150**
Action 1	Continue to implement annual monitoring for 1 cultural site.	Site monitored annually	C	$150
Action 2	Continue to stabilize the Little Gasparilla Island State Park archaeological site (CH00363) as needed.	Site stabilized	C	$0
Goal VII: Provide 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 2,558 users per day.**	# Recreation/visitor	**C**	**$263,000**
Objective B	**Expand the park's recreational carrying capacity by 116 users per day.**	# Recreation/visitor	**UFN**	**$12,000**
Action 1	Develop new paddling and camping opportunities.	# Recreation/visitor	UFN	$12,000
Objective C	**Continue to provide the current repertoire of 12 interpretive, educational and recreational programs on a regular basis.**	# Interpretive/education/ recreation programs	**UFN**	**$30,000**
Objective D	**Develop 4 new interpretive, educational and recreational programs.**	# Interpretive/education/ recreation programs	**UFN**	**$20,000**

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UFN = currently unfunded need

Table 7
Don Pedro Island State Park
Ten-Year Implementation Schedule and Cost Estimates

NOTE: THE DIVISION'S ABILITY TO COMPLETE THE OBJECTIVES OUTLINED BY THE MANAGEMENT PLAN IS CONTINGENT ON THE AVAILABILITY OF FUNDING AND OTHER RESOURCES FOR THESE PURPOSES.

Goal VIII: Develop and maintain the capital facilities and infrastructure necessary to meet the goals and objectives of this management plan.		**Measure**	**Planning Period**	**Estimated Manpower and Expense Cost* (10-years)**
Objective A	**Maintain all public and support facilities in the park.**	Facilities maintained	**C**	**$263,000**
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 9 existing facilities, 0.4 mile of trail and 0.16 mile of road.**	# Facilities/Miles of Trail/Miles of Road	**UFN**	**$1,480,000**
Objective D	**Construct 7 new facilities and 0.15 mile of road.**	# Facilities/Miles of Trail/Miles of Road	**UFN**	**$580,000**
Objective E	**Expand maintenance activities as existing facilities are improved and new facilities are developed.**	Facilities maintained	**UFN**	**$6,300**

Summary of Estimated Costs

Management Categories		**Total Estimated Manpower and Expense Cost* (10-years)**
Resource Management		**$295,000**
Administration and Support		**$61,000**
Capital Improvements		**$2,339,300**
Recreation Visitor Services		**$325,000**
Law Enforcement Activities[1]		

1Law enforcement activities in Florida State Parks are conducted by the DEP Division of Law Enforcement and by local law enforcement agencies.

* 2012 Dollars
ST = actions within 2 years
LT = actions within 10 years
C = long term or short term actions that are continuous or cyclical
UFN = currently unfunded need

Addendum 1 — Acquisition History

Sequence of Acquisition

On February 15, 1985, the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida (Trustees) obtained title to a 132.9–acre property constituting the initial area of Don Pedro Island State Park. The Trustees purchased the property from Sunshine State Bank for $1,500,000. This purchase was funded under the Save Our Coasts (SOC) program. Since this initial purchase, the Trustees acquired several parcels under Preservation 2000/Additions and Inholdings and added them to Don Pedro Island State Park. Presently the park is consisted of approximately 245 acres.

Lease Agreement

On September 9, 1985, the Trustees conveyed management authority of Don Pedro Island State Park to the Division of Recreation and Parks (DRP) under Lease No. 3415. The lease is for a period of fifty (50) years, which will expire on September 8, 2035. According to the lease agreement, the DRP manages Don Pedro Island State Park for public outdoor recreation and related purposes.

Title Interest

Trustees hold fee simple title to Don Pedro Island State Park.

Special Conditions on Use

Don Pedro Island 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 activities specifically identified in this plan, are not consistent with this plan or the management purposes of the park.

Outstanding Encumbrances

There no outstanding rights, uses or encumbrances that applies to Don Pedro Island State Park. Additionally, there are no legislative or executive directives that constrain the use of this property.

Addendum 2—Advisory Group Members and Report

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

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

Don Pedro Island State Park Advisory Group Staff Report

The Advisory Group meeting to review the proposed land management plan for Don Pedro Island 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.

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) asked whether DRP intends to significantly expand park facilities over the next five to ten years. He then inquired as to by what measure DRP will consider the park to have reached maximum carrying capacity. Mr. Milroy inquired how the park controls the number of visitors, especially by different means of entry, i.e., pedestrians walking, driving, boating, etc. He further inquired about the rate of compliance at the bay and gulf pay stations on Don Pedro Island.

Commissioner Bill Truex (Charlotte County Board of County Commissioners) **a**sked for an overall summary of the park's Conceptual Land Use Plan. He notes that there are uplands present on the Optimum Boundary Islands which may have potential for visitor access as the natural communities on these islands do not consist entirely of mangrove swamp.

Tom Williams (Florida Forest Service) assessed that cost estimates for proposed land use additions and projects in the park appear to be ambitious but are still reasonable, especially if the DRP intends to implement or break ground on these projects over the course of ten years.

Andy Dodd (Charlotte County Soil and Water Conservation District) complimented the staff on accomplishments, especially for onsite restoration efforts and mitigation on the Land Base. He states that the pine tree thinning in the park has been effective the purposes of restoring the natural community type. However, he also states that removal of the exotics has been a necessary priority and that commendable field action has been taken. Mr. Dodd recommends continuing monitoring and removal of any exotic species. He notes no adverse affects of the methodologies in practice. He pointed out on the base map the area where Charlotte County has acquired land for stormwater management and proposes a wildlife corridor underpass crossing CR 775 to the Land Base. Mr. Dodd added that mitigation of beach erosion should

continue and that although projects to mitigate beach erosion often involve "give and take" results, the overall effect is a net-benefit to the park.

George Fox (Englewood Fishing Club) **c**ommented on insufficient or sparse signage identifying the park at its boundaries and entrances. He inquired whether the distance from the dock to the day-use areas on the land base is compliant with ADA requirements. He notes the long distance and potentially uneven surface of the path. Additionally, he perceived that the estimated carrying capacity of the park is high, relative to its small land area, especially when considering that portions of the park are not accessible areas to the public. Mr. Fox asked what the typical rate of usage is and whether the park frequently reaches its carrying capacity. He was also concerned about the methods used to estimate costs for proposed park projects or development and inquired how the cost estimates are generated. He recommends prioritizing tasks and basing prioritization on the state of the economy and State budget. Mr. Fox further recommends sequencing proposed infrastructural improvements, giving the example that prior to developing a passenger shuttle or ferry service, the park needs increased parking.

Joseph Bozzo (South Florida Water Management District) complimented the comprehensiveness and accuracy of the flora and fauna surveys. He also notes that the resource management and land use components are well written, including significant details on a wide range of environmental and outdoor recreation tourism planning topics. Additionally, Mr. Bozzo inquires whether it would be necessary to provide additional restroom facilities at the primitive paddle-in campsite on the island or whether campers could utilize the existing permanent restroom facility, since it seems preferable to use a single sewer facility for environmental, operational, and aesthetic reasons.

Peter Diamond (Florida Fish and Wildlife Conservation Commission) inquired whether there is a surplus of mangrove swamp in the park. He followed by asking how or what basis DRP makes determinations about adding or subtracting land from park management. Mr. Diamond further inquired whether DRP would consider adding the undeveloped island of mangrove swamp that is adjacent to the island portion of the park in Lemon Bay.

Lynette Auger (Charlotte County Parks and Recreation Department) commented that the park does not appear to have reached its full carrying capacity and, accordingly, it would be appropriate to improve visitor access to the island.

Heather Stafford (CAMA, Lemon Bay Aquatic Preserve) inquired how DRP determines where public access should be encouraged. She also asked what benefits are expected to be gained from acquiring the various parcels identified on the optimum boundary map. Ms. Stafford concluded by stating that CAMA/Lemon Bay Aquatic Preserve staff would be interested in assisting with any efforts to develop ecotourism in and around the park.

Summary of Written Comments

Peter Diamond (Florida Fish and Wildlife Conservation Commission) provided detailed comments in writing in addition to his attendance at the meeting. FWC commends DRP for envisioning desired future conditions for each habitat type, as well as for setting goals and making recommendations for managing habitats and for protecting such imperiled wildlife species as marine turtles. Among the natural resource management goals for the Plan, items of particular interest to FWC include restoring hydrology, natural habitats, and imperiled species populations, and removing exotic-invasive plants and animals. Additional topics of concern include burying electrical lines, prescribed burning methods, eradicating exotic plants and animals within Park boundaries, and acquiring adjacent land parcels as proposed in the draft plan.

Staff Recommendations

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

- Language will be added to the plan that states if the project to bury the electrical lines does move forward, an updated gopher tortoise survey will be completed and efforts will be made to avoid all burrows to the greatest extent possible. The Division of Recreation and Parks will consult the appropriate permitting guidelines for those burrows that cannot be avoided.

- Language will be added to discuss management techniques such as roller chopping prior to prescribed fire and the burn rotation for mesic flatwoods on pages 29-30 and 50-51 of the document.
- Wildlife underpass and information regarding the need for a wildlife corridor will be added to the discussion of the County Road 775 widening.

- The proposal to add primitive paddle-in camping on the island can specify that the existing restroom facilities, which are located nearby, could be utilized by campers.

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.

Addendum 3—References Cited

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Addendum 4—Soil Descriptions

(2) Canaveral Fine Sand, 0 to 2 percent slopes - This soil is nearly level and is somewhat poorly drained. It is located on the deep, sandy ridges and flats on marine terraces. The mapped area is large and ranges approximately 11,520 acres. The slopes are linear and convex.

Typically, this soil has a surface layer of black fine sand about 7 inches thick. The underlying material is fine sand. The upper part is dark gray in color and extends to a depth of 15 inches. The next layer is light brownish gray and 80 inches deep.

Included with this soil in mapping are some small areas of Captiva soil that makes up about 3 percent or less of the map unit.

This soil has a water table at a depth of 12 to 36 inches. The available water capacity is very low. The permeability is very rapid.

(11) Myakka Fine Sand, 0 to 2 percent slopes - This soil is nearly level and is poorly drained. It is on the broad flatwoods within the uplands of the county. The slopes of this soil are smooth to slightly concave.

Typically, this soil has a surface layer of very dark gray fine sand about 3 inches thick. The subsurface layer is fine sand about 23 inches thick. The upper part, to a depth of 3 inches is gray. The lower part, to a depth of 23 inches, is light gray. The upper part of the subsoil to a depth of 27 inches is dark black and firm and the next 5 inches is dark reddish brown and friable. The lower part to a depth of 43 inches is mixed black and dark reddish brown.

Included with this soil in mapping are small areas of EauGallie, Immokalee, Oldsmar, Smyrna and Wabasso soils. The included soils make up about 15 percent or less of the map unit.

This soil has a high water table at a depth of 6-18 inches for 1 to 3 months and 10 to 40 inches below the surface for 2 to 6 months. It recedes to a depth of more than 40 inches during extended dry periods. The available water capacity is moderate. Permeability is rapid in the surface and subsurface layers and moderate to moderately rapid in the subsoil.

(22) Beaches - This soil is nearly level and poorly drained. These areas consist of narrow strips of shell and sand fragments along the Gulf of Mexico. Slopes are convex and range from 0 to 3 percent. The depth to water table can vary from 0-72 inches.

(24) Kesson Fine Sand, 0 to 1 percent slopes - This is a nearly level, very poorly drained soil on broad tidal swamps. Areas are subject to tidal flooding. Slopes are smooth.

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. The upper 4 inches is pale brown, the next 3 inches is light brownish gray, the next 25 inches is light gray with dark gray streaks and the lower 42 inches is white.

Included with this soil in mapping are areas of Captiva and Wulfert soils and soils that have organic surface layers. Also included are soils that have loamy material throughout. Included soils make up about 10 to 15 percent of any mapped area.

The water table fluctuates with the tide and ranges from 0-6 inches. The available water capacity is low. Permeability is moderately rapid or rapid.

(28) Immokalee sand, 0 to 2 percent slopes - This is a nearly level, poorly drained soil in flatwoods areas. Slopes are smooth to convex.

Immokalee soil makes up about 90 percent of this map unit. Minor components included with this soil when mapping are EauGallie, Myakka, Oldsmar, Smyrna and Wabasso.

Typically, the surface layer is black sand about 4 inches thick. The subsurface layer is dark gray sand in the upper 5 inches and light gray sand in the lower 27 inches. The subsoil is sand to a depth of 69 inches. The upper 14 inches is black and firm, the next 5 inches is dark reddish brown, and the lower 14 inches is dark yellowish brown. The substratum is very bale brown sand to a depth of 80 inches or more.

The soil in this map unit has a high water table within 6-18 inches of the surface for 1 to 3 months and 10 to 40 inches below the surface for 2 to 6 months. It recedes to a depth of more than 40 inches during extended dry periods. The available water capacity is low. Permeability is rapid in the surface and subsurface layers and moderate or moderately rapid in the subsoil.

(37) Satellite fine sand, 0 to 2 percent slopes - This is a nearly level, somewhat poorly drained soil on low knolls and ridges. Slopes are smooth to convex.

Typically, the surface layer is gray fine sand about 3 inches thick. The substratum extends to a depth of 80 inches or more and is white and light gray fine sand.

Included with this soil in mapping are small areas of Immokalee, Myakka, Daytona and Pompano soils. Included soils generally make up 10 percent or less of any mapped area.

In most years, under natural conditions, this soil has a water table at a depth of 12 to 42 inches for 2 to 6 months and at a depth of 42 to 72 inches for 6 months or more. The available water capacity is very low. Permeability is very rapid.

(48) St. Augustine sand, 0 to 2 percent slopes - This is a nearly level, somewhat poorly drained soil formed by fill and earthmoving operations. Most areas are former sloughs and depressions or other low areas that have been filled with sandy material. Slopes are smooth to slightly convex and range from 0 to 2 percent.

There are no definite horizonation because the soil has been mixed during movement and reworking of the fill material. Typically, the upper 30 inches consists of mixed very dark grayish brown, very dark gray, dark gray and gray sand with a few lenses of silt loam and about 20 percent multicolored shell fragments less the 3 inches in diameter. Below this to a depth of 80 inches or more is undisturbed fine sand. The upper 10 inches is dark grayish brown with about 15 percent multicolored shell fragments. The lower 40 inches is light gray with about 30 percent multicolored shell fragments.

Included with this soil in mapping are areas where the fill material is underlain by organic soils and other areas where the mixed fill material is less than 20 inches thick. Also included are areas that contain lenses or pockets of organic material throughout the fill. In addition, there are small-scattered areas with more than 35 percent shells or shell fragments within the fill. Several areas with some urban development or in related uses have been included. These areas typically make up less than 5 percent of the map unit.

This soil has a water table that varies with the amount of fill material and artificial drainage within any mapped area. However, in most years, the water table is 24 to 36 inches below the surface of the fill material for 2 to 4 months. It is below a depth of 60 inches during extended dry periods. The available water capacity is low. Permeability is estimated to be rapid.

Addendum 5—Plant and Animal List

Don Pedro Island State Park Plants

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
PTERIDOPHYTES		
Golden leather fern	*Acrostichum aureum*	MP, MUS
Giant leather fern	*Acrostichum danaeifolium*	
Toothed mid-sorus fern	*Blechnum serrulatum*	
Asian sword fern	*Nephrolepis brownii* *	
Golden polypody	*Phlebodium aureum*	
Whisk fern	*Psilotum nudum*	
Bracken fern	*Pteridium aquilinum* var. *pseudocaudatum*	
Giant orchid	*Pteroglossaspis ecristata*	MF, SCF
Shoestring fern	*Vittaria lineata*	
Virginia chain fern	*Woodwardia virginica*	
GYMNOSPERMS AND CYCADS		
Eastern red cedar	*Juniperus virginiana*	
Slash pine	*Pinus elliottii*	
Coontie	*Zamia pumila*	
MONOCOTS		
False sisal	*Agave decipiens*	
Bushy bluestem	*Andropogon glomeratus*	
Broomsedge	*Andropogon virginicus*	
Tall threeawn	*Aristida patula*	
Hillsborough threeawn	*Aristida purpurescens* var. *tenuispica*	
Wiregrass	*Aristida stricta* var. *beyrichiana*	
Bottlebrush threeawn	*Aristida spiciformis*	
Watergrass	*Bulbostylis barbata* *	
Capillary hairsedge	*Bulbostylis ciliatifolia*	
Slender sandspur	*Cenchrus gracillimus*	
Coast sandspur	*Cenchrus spinifex*	
Dayflower	*Commelina erecta*	
Swamplily	*Crinum americanum*	
Alabama swamp flatsedge	*Cyperus ligularis*	
Crowfootgrass	*Dactyloctenium aegyptium**	
Hemlock witchgrass	*Dichanthelium portoricense*	
Pangolagrass	*Digitaria eriantha* *	
Air potato	*Dioscorea bulbifera* *	
Barnyard grass	*Echinochloa muricata*	
Coast cockspur	*Echinochloa walteri*	

*** Non-native Species**

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Feather lovegrass	*Eragrostis amabilis*	
Saltmarsh fingergrass	*Eustachys glauca*	
Pinewoods fingergrass	*Eustachys petraea*	
Hurricanegrass	*Fimbristylis cymosa*	
Marsh fimbry	*Fimbristylis spadicea*	
Toothpetal false reinorchid	*Habenaria floribunda*	
Shoalgrass	*Halodule wrightii*	
Broad-leaf spider-lily	*Hymenocallis latifolia*	
Cogon grass	*Imperata cylindrica* *	
Black needlerush	*Juncus roemarianus*	
Needlepod rush	*Juncus scirpoides*	
Natal grass	*Melinis repens* *	
Hairgrass	*Muhlenbergia capillaris*	
Beachgrass	*Panicum amarum*	
Torpedograss	*Panicum repens* *	
Switchgrass	*Panicum virgatum*	
Bahiagrass	*Paspalum notatum* *	
Thin paspalum	*Paspalum setaceum*	
Fascicled beaksedge	*Rhynchospora fascicularis*	
Pinebarren beaksedge	*Rhynchospora intermedia*	
Giant star rush; Giant whitetop	*Rhynchospora latifolia*	
Plumed beaksedge	*Rhynchospora plumosa*	
Cabbage palm	*Sabal palmetto*	
Bull-tongue arrowhead	*Sagittaria lancifolia*	
Mother-in-laws tounge	*Sansevieria hyacinthoides**	
Saw palmetto	*Serenoa repens*	
Knotroot foxtail	*Setaria parviflora*	
Narrow-leaf blue-eyed grass	*Sisyrinchium angustifolium*	
Ear-leaf greenbrier	*Smilax auriculata*	
Saw greenbrier	*Smilax bona-nox*	
Marshhay cordgrass	*Spartina alterniflora*	
Sand cordgrass	*Spartina bakeri*	
Saltmeadow cordgrass	*Spartina patens*	
Spring ladiestresses	*Spiranthes vernalis*	
Smutgrass	*Sporobolus indicus* *	
Seashore dropseed	*Sporobolus virginicus*	
St. Augustinegrass	*Stenotaphrum secundatum*	
Yellow hatpins	*Syngonanthus flavidulus*	
Turtlegrass	*Thalassia testudinum*	
Ballmoss	*Tillandsia recurvata*	

*** Non-native Species**

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Spanish moss	*Tillandsia usneoides*	
Giant air plant	*Tillandsia utriculata*	, MF,MAH
Southern cattail	*Typha domingensis*	
Sea oats	*Uniola paniculata*	
Spanish bayonet	*Yucca aloifolia*	
Short-leaf yellow-eyes grass	*Xyris brevifolia*	
Carolina yellow-eyed grass	*Xyris caroliniana*	

DICOTS

Rosary pea	*Abrus precatorius* *	
Shyleaf	*Aeschynomene americana*	
Beach false foxglove	*Agalinis fasciculata*	
Saltmarsh false foxglove	*Agalinis maritima var. grandifolia*	
Yellow chaff-flower	*Alternanthera flavescens*	
Common ragweed	*Ambrosia artemisiifolia*	
Savannah milkweed	*Asclepias pedicillata*	
Netted pawpaw	*Asimina reticulata*	
Sprenger's asparagus-fern	*Asparagus aethiopicus* *	
Crested saltbush	*Atriplex pentandra*	
Black mangrove	*Avicennia germinans*	
Saltbush	*Baccharis halimifolia*	
Coastal water-hyssop	*Bacopa monnieri*	
Coastal plain honeycombhead	*Balduina angustifolia*	
Saltwort	*Batis maritima*	
Beggar-ticks	*Bidens alba*	
Samphirie; Silverhead	*Blutaparon vermiculare*	
Kiss-me-quick	*Boerhavia diffusa*	
Sea daisies; Sea oxeye	*Borrichia frutescens*	
Black olive	*Bucida buceras**	
Gumbo-limbo	*Bursera simarouba*	
Grey nicker bean	*Caesalpinia bonduc*	
Coastal searocket	*Cakile lanceolata*	
American beautyberry	*Callicarpa americana*	
Papaya	*Carica papaya*	
Vanillaleaf	*Carphephorus odoratissimus var. subtropicanus*	
Love vine	*Cassytha filiformis*	
Australian-pine	*Casuarina equisetifolia* *	
Madagascar periwinkle	*Catharanthus roseus* *	
Spadeleaf	*Centella asiatica*	

* Non-native Species

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Butterfly pea	*Centrosema virginianum*	
Partridge pea	*Chamaecrista fasciculata*	
Wild sensitive-plant	*Chamaecrista nictitans* var. *aspera*	
Dixie sandmat	*Chamaesyce bombensis*	
Graceful sandmat	*Chamaesyce hypericifolia*	
Spotted sandmat	*Chamaesyce maculata*	
Snowberry	*Chiococca alba*	
Coco plum	*Chrysobalanus icaco*	
Coastalplain goldenaster	*Chrysopsis scabrella*	
Purple thistle	*Cirsium horridulum*	
Seagrape	*Coccoloba uvifera*	
Buttonwood	*Conocarpus erectus*	
Canadian horseweed	*Conyza canadensis*	
Leavenworth's tickseed	*Coreopsis leavenworthii*	
Rabbit bells	*Crotalaria rotundifolia*	
Showy rabbit-bells	*Crotalaria spectabilis* *	
Seaside croton	*Croton punctatus*	
Five angled dodder	*Cuscuta pentagona*	
Gulf coast swallow-wort	*Cynanchum angustifolium*	
Coin-vine	*Dalbergia ecastophyllum*	
Tick-trefoil	*Desmodium incanum*	
Varnish leaf	*Dodonaea viscosa*	
False daisy	*Eclipta prostrata*	
American burnweed	*Erechtites hieracifolius*	
Oakleaf fleabane	*Erigeron quercifolius*	
golden beach creeper	*Ernodea littoralis*	
Fragrant eryngo	*Eryngium aromaticum*	
Baldwin's eryngo	*Eryngium baldwinii*	
Southeastern coralbean	*Erythrina herbacea*	
White stopper	*Eugenia axillaris*	
Surinam cherry	*Eugenia uniflora* *	
Dogfennel	*Eupatorium capillifolium*	
Semaphore eupatorium	*Eupatorium mikanioides*	
Lateflowering thoroughwort	*Eupatorium serotinum*	
Lesser Florida spurge	*Euphorbia polyphylla*	
Seaside gentain	*Eustoma exaltatum*	
Flattop goldenrod	*Euthamia caroliniana*	
Florida strangler fig	*Ficus aurea*	
Cuban laurel	*Ficus microcarpa* *	
Florida yellowtops	*Flaveria floridana*	

*** Non-native Species**

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Florida privet, swampprivet	*Forestiera segregata*	
Elliott's milk-pea	*Galactia elliottii*	
Hairy bedstraw	*Galium pilosum*	
Stiff marsh bedstraw	*Galium tinctorium*	
Southern gaura; Beeblossum	*Gaura angustifolia*	
Globe amaranth	*Gomphrena serrata*	
Rough hedge-hyssop	*Gratiola hispida*	
Spanish daisy	*Helenium amarum*	
West coast dune sunflower	*Helianthus debilis* subsp. *vestitus*	
Scorpiontail	*Heliotropium angiospermum*	
Seaside heliotrope	*Heliotropium curassavicum*	
Pineland heliotrope	*Heliotropium polyphyllum*	
Camphorweed	*Heterotheca subaxillaris*	
Whorled pennywort	*Hydrocotyle verticillata*	
Roundpod St. John's wort	*Hypericum cistifolium*	
Atlantic St. John's wort	*Hypericum tenuifolium*	
Fourpetal St. John's wort	*Hypericum tetrapetalum*	
Gallberry	*Ilex glabra*	
Moonflower	*Ipomoea alba*	
Beach morningglory	*Ipomoea imperati*	
Oceanblue morning-glory	*Ipomoea indica*	
Railroad-vine	*Ipomoea pes-caprae* subsp. *brasiliensis*	
Saltmarsh morning-glory	*Ipomoea sagittata*	
Juba's bush	*Iresine diffusa*	
Blue flag	*Iris hexagona*	
Big-leaf marsh-elder	*Iva frutescens*	
Beach-elder	*Iva imbricata*	
Grass leaf lettuce	*Lactuca graminifolia*	
White mangrove	*Laguncularia racemosa*	
Shrubverbena, lantana	*Lantana camara* *	
Buttonsage	*Lantana involucrata*	
Pineland pinweed	*Lechea sessiliflora*	
Poorman's-pepper	*Lepidium virginicum*	
Shortleaf blazing star	*Liatris tenuifolia*	
Shortleaf blazing star	*Liatris tenuifolia* var. *quadriflora*	
Carolina sea lavender	*Limonium carolinianum*	
Canadian toadflax	*Linaria canadensis*	
Primrose willow	*Ludwigia peruviana* *	
Skyblue lupine	*Lupinus diffusus*	
Christmasberry	*Lycium carolinianum*	

* Non-native Species

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Rose-rush	*Lygodesmia aphylla*	
Lowland loosestrife	*Lythrum flagellare*	
Coastal Plain staggerbush	*Lyonia fruticosa*	
Wild bushbean	*Macroptilium lathyroides**	
Florida mayten	*Maytenus phyllanthoides*	MAH
Black medic	*Medicago lupulina*	
Melaleuca	*Melaleuca quinquenervia* *	
White sweetclover	*Melilotus albus*	
Creeping cucumber	*Melothria pendula*	
Poorman's patches	*Mentzelia floridana*	
Climbing hempvine	*Mikania scandens*	
Wild balsam-apple	*Momordica charantia* *	
Spotted beebalm	*Monarda punctata*	
Wax myrtle	*Myrica cerifera*	
Tropical puff	*Neptunia pubescens*	
Seaside evening-primrose	*Oenothera humifusa*	
Prickly-pear cactus	*Opuntia humifusa*	
Shell mound prickly pear	*Opuntia stricta*	CG
Common yellow woodsorrel	*Oxalis corniculata*	
Florida pellitory	*Parietaria floridana*	
Virginia creeper	*Parthenocissus quinquefolia*	
Corky-stemmed passionflower	*Passiflora suberosa*	
Lemongrass	*Pectis linearifolia*	
Swamp bay	*Persea palustris*	
Capeweed; turkeytangle frogfruit	*Phyla nodiflora*	
Coastal ground-cherry	*Physalis angustifolia*	
Starry-hair ground-cherry	*Physalis walteri*	
American pokeweed	*Phytolacca americana*	
Wild pennyroyall	*Piloblephis rigida*	
Cat-claw	*Pithcellobium unguis-cati*	
Narrowleaf silk-grass	*Pityopsis graminifolia*	
Common plantain	*Plantago major* *	
Shrubby camphorweed	*Pluchea odorata*	
Rosy camphorweed	*Pluchea baccharis*	
Wild poinsettia, painted leaf	*Poinsettia cyathophora*	
Boykin's milkwort	*Polygala boykinii*	
Candyroot	*Polygala nana*	
Showy milkwort	*Polygala violacea*	
Tall jointweed	*Polygonella gracilis*	

*** Non-native Species**

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
October flower	*Polygonella polygama*	
Swamp smartweed	*Polygonum hydropiperoides*	
Rustweed	*Polypremum procumbens*	
Pink purslane	*Portulaca pilosa*	
Purslane	*Portulaca rubricaulis*	
Wild coffee	*Psychotria nervosa*	
Blackroot; rabbit-tobacco	*Pterocaulon pycnostachyum*	
Hairlike mock bishop's-weed	*Ptilimnium capillaceum*	
Sand live oak	*Quercus geminata*	
Dwarf live oak	*Quercus minima*	
Myrtle oak	*Quercus myrtifolia*	
Live oak	*Quercus virginiana*	
Indigo berry	*Randia aculeata*	
Myrsine	*Rapanea cubana*	
Red mangrove	*Rhizophora mangle*	
Winged sumac	*Rhus copallinum*	
Bloodberry, rouge plant	*Rivina humilis*	
Black-eyed susan	*Rudbeckia hirta*	
Shortleaf rosegentian	*Sabatia brevifolia*	
Carolina willow	*Salix caroliniana*	
Lyreleaf sage	*Salvia lyrata*	
Water pimpernel	*Samolus ebracteatus*	
Perennial glasswort	*Sarcocornia ambigua*	
White twinevine	*Sarcostemma clausum*	
Inkberry	*Scaevola plumieri*	BD, CG
Beach naupaka	*Scaevola taccada* var. *sericea**	
Brazilian pepper	*Schinus terebinthifolius **	
Shoreline sea-purslane	*Sesuvium portulacastrum*	
Saffron-plum	*Sideroxylon celastrinum*	
American black nightshade	*Solanum americanum*	
Chapman's goldenrod	*Solidago odora* var. *chapmanii*	
Seaside goldenrod	*Solidago sempervirens*	
Common sow-thistle	*Sonchus oleraceus**	
Yellow necklacepod	*Sophora tomentosa* var. *occidentalis **	
Yellow necklacepod	*Sophora tomentosa* var. *truncata*	
Shrubby false buttonweed	*Spermacoce verticillata **	
Creeping oxeye, wedelia	*Sphagneticola trilobata **	
Diamond flowers	*Stenaria nigricans*	
Pineland scalypink	*Stipulicida setacea*	
Seablite	*Suaeda linearis*	

*** Non-native Species**

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Bay cedar	*Suriana maritima*	
Rice button aster	*Symphotrichium dumosum*	
Java plum	*Syzygium cumini* *	
Eastern poison ivy	*Toxicodendron radicans*	
Forked bluecurls	*Trichostema dichotomum*	
Caesar's weed	*Urena lobata* *	
Shiny blueberry	*Vaccinium myrsinites*	
Frostweed	*Verbesina virginica*	
Four leaf vetch	*Vicia acutifolia*	
Cowpea	*Vigna luteola*	
Southern fox grape	*Vitis rotundifolia*	
Sleepymorning	*Waltheria indica*	
Oriental false hawksbeard	*Youngia japonica**	
Hercules-club	*Zanthoxylum clava-herculis*	

FISH

Southern stingray	*Dasyatis americana*	MUS
Atlantic needlefish	*Strongylura marina*	MUS
Bay anchovy	*Anchoa mitchilli*	MUS
Ladyfish	*Elops saurus*	MUS
Tarpon	*Megalops atlanticus*	MUS
Common snook	*Centropomus undecimalis*	MUS
Blue runner	*Caranx crysos*	MUS
Jack crevalle	*Caranx hippos*	MUS
Florida pompano	*Trachinotus carolinus*	MUS
Gray snapper	*Lutjanus griseus*	MUS
White grunt	*Haemulon plumieri*	MUS
Spot-tailed pinfish	*Diplodus holbrooki*	MUS
Sheepshead	*Archosargus probatocephalus*	MUS
Spotted seatrout	*Cynoscion nebulosus*	MUS
Black drum	*Pogonias cromis*	MUS
Red drum	*Scianops ocellatus*	MUS
Striped mullet	*Mugil cephalus*	MUS
Spanish mackerel	*Scomberomorus maculatus*	MUS
Gulf flounder	*Paralichthys albigutta*	MUS
Puffer	*Sphoeroides nephelus*	MUS

* Non-native Species

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)

AMPHIBIANS

Oak toad	*Bufo quercicus*	MF,SCF
Little grass frog	*Pseudacris ocularis*	MF
Cuban tree frog*	*Osteopilus septentrionalis*	DV
Squirrel tree frog	*Hyla squirella*	SLO

REPTILES

American alligator	*Alligator mississippiensis*	CIS
Striped mud turtle	*Kinosternon bauri palmarum*	CIS
Box turtle	*Terrapene carolina*	CS,DV
Gopher tortoise	*Gopherus polyphemus*	CB,CS
Atlantic green turtle	*Chelonia mydas*	BD,MUS
Atlantic loggerhead	*Caretta caretta*	BD,MUS
Green anole	*Anolis carolinensis*	CB
Brown anole*	*Anolis sagrei*	MTC
Six-lined racerunner	*Cnemidophorus sexlineatus*	CB,SCF
Southern black racer	*Coluber constrictor*	CB
Eastern rat snake	*Pantherophis alleghaniensis*	MTC
Eastern diamondback rattlesnake	*Crotalus adamanteus*	SCF
Eastern indigo snake	*Drymarchon couperi*	MF
Eastern coachwhip	*Masticophis flagellum flagellum*	MAH

BIRDS

Common loon	*Gavia immer*	ESGB
Eastern brown pelican	*Pelecanus occidentalis carolinensis*	OF
Magnificent frigatebird	*Fregata magnificens*	OF
Northern gannet	*Morus bassanus*	MUS
Double-crested cormorant	*Phalacrocorax auritus*	OF
Great blue heron	*Ardea herodias*	CIS,MS
Little blue heron	*Egretta caerulea*	CIS,MS
Reddish egret	*Egretta rufescens*	BD
Great egret	*Ardea alba*	CIS,DV,MS
Snowy egret	*Egretta thula*	CIS,MUS
Tricolored heron	*Egretta tricolor*	CIS,MS
Green Heron	*Butorides virescens*	MS
Black-crowned night heron	*Nycticorax nycticorax*	MS
Yellow-crowned night heron	*Nycticorax violaceus*	MS

* Non-native Species

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Wood stork	*Mycteria americana*	CIS,SAM
White ibis	*Eudocimus albus*	CIS,MAH,MS,MUS
Roseate spoonbill	*Platalea ajaja*	SAM
Red-breasted merganser	*Mergus serrator*	BD
Red-shouldered hawk	*Buteo lineatus*	CS,SA
Southern bald eagle	*Haliaeetus leucocephalus*	BD,CSMAH,OF
Northern harrier	*Circus cyaneus*	CB,SAM
Black vulture	*Coragyps atratus*	OF
Osprey	*Pandion haliaetus*	CG,MS,MAH
American kestrel	*Falco sparverius*	CB,CG
Northern bobwhite	*Colinus virginianus*	MF
King rail	*Rallus elegans*	SAM
American oystercatcher	*Haematopus palliatus*	BD,MUS
Snowy plover	*Charadrius nivosus*	BD,MUS
Wilson's plover	*Charadrius wilsonia*	BD,MUS
Killdeer	*Charadrius vociferus*	CB
Semipalmated plover	*Charadrius semipalmatus*	BD,MUS
Black-bellied plover	*Pluvialis squatarola*	BD,MUS
Spotted sandpiper	*Actitis macularia*	OF
Black-necked stilt	*Himantopus mexicanus*	BD,MUS,SAM
Willet	*Catoptrophorus semipalmatus*	BD,MUS
Ruddy turnstone	*Arenaria interpres*	BD,MUS
Sanderling	*Calidris alba*	BD,MUS
Red Knot	*Calidris canutus*	BD,MUS
Herring gull	*Larus argentatus*	BD,MUS
Ring-billed gull	*Larus delawarensis*	BD,MUS
Laughing gull	*Larus atricilla*	BD,MUS
Roseate tern	*Sterna dougallii*	MUS
Least tern	*Sterna antillarum*	MUS
Royal tern	*Sterna maxima*	MUS
Sandwich tern	*Thalasseus sandvicensis*	MUS
Black skimmer	*Rynchops niger*	BD,MUS
Mourning dove	*Zenaida macroura*	CS,DV,RD
Common ground-dove	*Columbina passerina*	CS,RD
Chuck-will's-widow	*Caprimulgus carolinensis*	RD
Belted kingfisher	*Ceryle alcyon*	OF
Northern flicker	*Colaptes auratus*	MF
Pileated woodpecker	*Dryocopus pileatus*	MAH
Red-bellied woodpecker	*Melanerpes carolinus*	CS,MAH,DV
Downy woodpecker	*Picoides pubescens*	CS,DV

*** Non-native Species**

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Hairy woodpecker	*Picoides villosus*	CS
Gray kingbird	*Tyrannus dominicensis*	CS,DV,RD
Eastern phoebe	*Sayornis phoebe*	MF
Great crested flycatcher	*Myiarchus crinitus*	CS,MAH,RD
Tree swallow	*Tachycineta bicolor*	OF
Barn swallow	*Hirundo rustica*	OF
Purple martin	*Progne subis*	OF
Blue Jay	*Cyanocitta cristata*	,MEH
Fish crow	*Corvus ossifragus*	CS,RD,DV
Marsh wren	*Cistothorus palustris*	SAM
Carolina wren	*Thryothorus ludovicianus*	MAH,MF
Northern mockingbird	*Mimus polyglottos*	CB,CS,RD,DV
Gray catbird	*Dumetella carolinensis*	CS,MAH,RD
Blue-gray gnatcatcher	*Polioptila caerulea*	CS,MAH,MF,RD,DV
White-eyed vireo	*Vireo griseus*	CS,MAH
Orange-crowned warbler	*Vermivora celata*	MAH
Northern parula	*Parula americana*	MAH,MF
Pine warbler	*Dendroica pinus*	MAH
Prairie warbler	*Dendroica discolor*	MS
Yellow-throated warbler	*Dendroica dominica*	MAH
Yellow-rumped warbler	*Dendroica coronata*	MAH,MF
Common yellowthroat	*Geothlypis trichas*	MF
Black-and-white warbler	*Mniotilta varia*	MAH,MF
Red-winged blackbird	*Agelaius phoeniceus*	CS,MS,SAM,RD
Common grackle	*Quiscalus quiscula*	MTC
Brown-headed cowbird	*Molothrus ater*	CB,RD
Northern cardinal	*Cardinalis cardinalis*	MTC
Indigo bunting	*Passerina cyanea*	CB
Eastern towhee	*Pipilo erythrophthalmus*	MF,SCF

MAMMALS

Little brown bat	*Myotis lucifugus*	CB
Eastern cottontail	*Sylvilagus floridanus*	MTC
Raccoon	*Procyon lotor*	MTC
River otter	*Lutra canadensis*	MTC
Bobcat	*Felis rufus*	MTC
West Indian manatee	*Trichechus manatus*	MUS
Coyote	*Canis latrans*	MTC

***** **Non-native Species**

Common Name	*Scientific Name*	Primary Habitat Codes (for imperiled species)
Wild pig	*Sus scrofa*	MTC
Atlantic bottle-nosed dolphin	*Tursiops truncatus*	MUS

***** **Non-native Species**

Addendum 6—Imperiled Species Ranking Definitions

The Nature Conservancy and the Natural Heritage Program Network (of which FNAI is a part) define an element 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 element occurrence (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

G1 ..... Critically imperiled globally 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 fabricated factor.

G2 ..... Imperiled globally 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.

G3 ..... Either 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.

G4 ..... apparently secure globally (may be rare in parts of range)

G5 ..... demonstrably secure globally

GH ..... of historical occurrence throughout its range may be rediscovered (e.g., ivory-billed woodpecker)

GX ..... believed to be extinct throughout range

GXC ..... extirpated from the wild but still known from captivity or cultivation

G#? ..... Tentative rank (e.g.,G2?)

G#G# .....range of rank; insufficient data to assign specific global rank (e.g., G2G3)

G#T# .....rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1)

G#Q .....rank 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#Q .....same as above, but validity as subspecies or variety is questioned.

GU .....due to lack of information, no rank or range can be assigned (e.g., GUT2).

G? .....Not yet ranked (temporary)

S1.....Critically 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.

S2.....Imperiled 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.

S3.....Either 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.

S4.....apparently secure in Florida (may be rare in parts of range)

S5.....demonstrably secure in Florida

SH .....of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker)

SX.....believed to be extinct throughout range

SA .....accidental in Florida, i.e., not part of the established biota

SE.....an exotic species established in Florida may be native elsewhere in North America

SN .....regularly occurring but widely and unreliably distributed; sites for conservation hard to determine

SU .....due to lack of information, no rank or range can be assigned (e.g., SUT2).

S?.....Not yet ranked (temporary)

N .....Not 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.

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.

C .....Candidate 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.

EXPE, XE.....Experimental essential population. A species listed as experimental and essential.

EXPN, XN .....Experimental non-essential population. A species listed as experimental and non-essential. Experimental, nonessential populations of endangered species are treated as threatened species on public land, for consultation purposes.

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.

SSC.....Listed 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.