St. Joseph Bay State Buffer Preserve

Management Plan • June 2016

St. Joseph Bay State Buffer Preserve
3915 State Road 30A • Port Saint Joe, FL 32456-7542
850.229.1787

Florida Department of Environmental Protection
Florida Coastal Office
3900 Commonwealth Blvd., MS #235, Tallahassee, FL 32399
www.floridacoasts.org

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This management plan has been developed in accordance with Chapters 253 and 259, Florida Statutes, including all provisions for public involvement.

June 2016

The Buffer Preserve provides an essential buffer to St. Joseph Bay that helps protect the bay's water quality, natural productivity and critical habitats.

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A pair of nesting bald eagles.

Mission Statement

The mission of the Florida Coastal Office in relation to Florida's 41 aquatic preserves, three National Estuarine Research Reserves, National Marine Sanctuary and Coral Reef Conservation Program is: Conserving and restoring Florida's coastal and aquatic resources for the benefit of people and the environment.
The St. Joseph Bay State Buffer Preserve mission statement is: Conserving, preserving and restoring our natural and cultural resources while enhancing public appreciation.

The management goals of the St. Joseph Bay State Buffer Preserve are to:

1. conserve and preserve natural values of ecosystems;
2. provide public access and recreation that is compatible with natural and cultural resource conservation;
3. protect and preserve wetlands, natural and water resources of adjacent aquatic preserves, parks and other special management areas administered by either the Department or other state, federal, or local government authorities;
4. protect and preserve native plant and animal species and natural communities, particularly any that are endangered or threatened;
5. restore natural communities and original ecosystem functions, which have been historically degraded;
6. protect cultural resources; and
7. enhance public appreciation for natural and cultural diversity.

(Chapter 18-23, Florida Administrative Code)

Executive Summary

St. Joseph Bay State Buffer Preserve Management Plan	
Lead Agency:	Florida Department of Environmental Protection's (DEP) Florida Coastal Office (FCO)
Common Name of Property:	St. Joseph Bay State Buffer Preserve (Buffer Preserve)
Location:	Gulf County, Florida
Acreage Total:	5,019 acres
Acreage Under Lease:	5,019 upland acres under FCO lease
Acreage Breakdown for FCO Management Units According to Florida Natural Areas Inventory (FNAI) Natural Community Types	
FNAI Natural Communities	*Total Acreage according to GIS*
Xeric Hammock	4
Sandhill	92
Scrub	76
Wet Flatwoods	410
Mesic Flatwoods	1,464
Maritime Hammock / Shell Mound	16
Scrubby Flatwoods	196
Beach Dune	1
Coastal Grassland	4
Wet Prairie	809
Shrub Bog	556
Depression Marsh	68
Basin Marsh	290
Coastal Interdunal Swale	12
Dome Swamp	300
Basin Swamp	137
Salt Marsh	640
Blackwater Stream	10
Pine Plantation	76
Ruderal	86
Total Acreage:	**5,247 GIS acres (5,019 lease acres)**
Lease/Management Agreement Numbers: Lease number 4119	
Designated Use: Single use for Conservation and Preservation	
Legislative or Executive Directives that Constrain the Use of the Property: None	
Management Agency:	DEP's FCO
Designation:	State Buffer Preserve
Sublease(s):	Sublease #4119-004 to Gulf County for parking on the Deal Tract for beach access.
Encumbrances:	None
Type Acquisition:	The primary funding source for the acquisition of parcels within the Buffer Preserve was from the Preservation 2000 program.

St. Joseph Bay State Buffer Preserve Management Plan	
Unique Features:	This area is part of the Apalachicola Delta District, a complex and very interesting mosaic of very recently exposed relic lagoons, barrier islands, cuspate deltas, and low river terraces. The Apalachicola Delta District is known as a biodiversity hotspot with several federal-listed plants that are endemic to the region. The Buffer Preserve, and surrounding region, contains one of the highest concentrations of rare plants in the Southeast. Within this highly dissected mosaic of upland and lowlands, natural communities maintain their ecological viability with frequent, cool, growing-season fires that were historically caused by lightning and Native Americans. Money Bayou, an unusual tidal creek empties directly into the Gulf of Mexico. The ancient dune/swale system and topography of the Buffer Preserve, along with a remarkably stable sea level along its coast, make the Buffer Preserve uniquely suited for research on both features.
Archaeological/Historical Sites:	The Department of State's Division of Historical Resources has 20 sites recorded for the Buffer Preserve in the Master Site File. The sites date from prehistoric cultures to the 20th century American and include important native American, shell midden, prior settlements and burial sites.
Management Needs / *See Management Issues and Goals*	
Ecosystem Science:	Natural resource protection on the Buffer Preserve requires a general understanding of the resource location and extent, as well as species interactions with the resources and specific species management needs. Monitoring of resources and listed species is critical to measuring resource health and the progress of management activities intended to enhance quality. Science-based management is ensured through resource mapping, modeling, monitoring, research and scientific oversight. This enables managers to more effectively prioritize restoration and resource protection goals.
Resource Management:	Resource management of Buffer Preserve uplands centers primarily around the reintroduction and routine application of fire and the preservation and/or restoration of hydrological patterns that sustain wetland ecosystems and St. Joseph Bay. Strong partnerships with non-governmental organizations such as The Nature Conservancy, and state agencies including the Florida Fish & Wildlife Conservation Commission and Florida Forest Service are critical to successfully applying prescribed fire to fire-dependent or fire-adapted communities Restoration of upland natural communities through fire typically results in a concurrent reappearance of listed plant species. Management may then develop species-specific management protocols and better respond to potentially harmful activities adjacent to or near the Buffer Preserve. The Buffer Preserve also works with the U.S. Fish & Wildlife Service and numerous universities to conduct biological monitoring of rare species and conduct a variety of ecosystem studies.
Education and Outreach:	Public workshops held at the Buffer Preserve Center provide educational opportunities for the local community. The Buffer Preserve Center provides a venue for public workshops and training opportunities to increase public awareness and promote informed stewardship of the regions natural resources. Visiting researchers and scientists from around the world utilize the Center as they conduct ongoing research within the Buffer Preserve. In addition, the Friends of the St. Joseph Bay Preserves raise funds, host festivals, provide volunteer services, and promote environmental awareness of the preserves. Information brochures, trail maps and educational kiosks area also available on site.
Public Use:	Public use of the Buffer Preserve is limited to those activities that are compatible with resource management and protection goals. Hiking and nature appreciation are two such examples.
Acquisition Needs/Acreage:	Parcels have been identified to close a gap between the Buffer Preserve boundary and the nearby Apalachicola National Estuarine Research Reserve as well as Box-R Wildlife Management Area, to consolidate small inholdings on the bay and to support resource management by enhancing fire management efforts and controlling invasive exotics.
Surplus Lands/Acreage:	None

St. Joseph Bay State Buffer Preserve Management Plan	
Public Involvement:	Public support is vital to the success of government conservation programs. The goal is to foster understanding of the problems facing these fragile ecosystems and the steps needed to manage this important resource of the state. The public had an opportunity to comment on the draft Buffer Preserve management plan at the June 12, 2012 public meeting hosted at the Buffer Preserve. The draft management plan was available on line and by hard copy at least 30 days prior to the public meeting. The public was encouraged to give comments at the public meeting or in writing up to one week after the public meeting. The management plan was further reviewed by the Buffer Preserve Management Plan Advisory Committee, composed of various representatives (designated in Chapter 259.032, Florida Statutes), at the June 13, 2012 advisory committee meeting. Comments from the public and advisory committee meetings were incorporated into the management plan where appropriate. An additional public meeting was held in Tallahassee June 17, 2016, when the Acquisition and Restoration Council reviewed the management plan.

Issues

Increases in population numbers over the past few decades have resulted in unparalleled growth and high-intensity development pressures, particularly in coastal areas. Florida is now the fourth most populous state in America. Northwest Florida has traditionally been far less densely developed than South Florida, and undeveloped areas are available for coastal conservation. However, recent years have clearly indicated that it is only a matter of time before the state's "forgotten coast" experiences those challenges associated with more populous southern and central areas. Fortunately, Florida's ambitious conservation land acquisition programs (P-2000 and Florida Forever) over the past two decades have succeeded in setting aside a far higher proportion of undeveloped coastline than was possible elsewhere in the state. However, these fragile coastal environments still face development pressures thus adding natural lands adjacent to the Buffer Preserve would be very beneficial to the Florida Coastal Office and its mission.

Successful stewardship of public conservation lands includes but is not limited to addressing issues such as: habitat loss to development and encroachment, fire management, invasive species, increasing pressure on aquifers, biological monitoring, habitat and resource restoration, resource protection, public outreach and other conservation strategies. Success is achieved by partnering with a diverse array of agencies and other groups who contribute resources necessary to achieve the goal at hand.

Goals

In order to best address the management issues faced by the Buffer Preserve and other coastal areas, the Buffer Preserve has established goals centering around research, monitoring, direct management, utilizing modern instrumentation and tools including aerial photography, Geographic Information Systems (GIS) Light Imaging, Detection and Range (LIDAR) and other scientific methods to best build a more complete understanding of the natural and cultural resources being managed. The continued evolution of the prescribed fire program is an integral goal, with the intent of continuing to learn and adjust management activities to best serve the resources.

CAMA/BTIITF Approval

FCO approval date: February 25, 2016 **Trustee approval date:** June 17, 2016

ARC approval date: June 17, 2016

Comments:

Acronym List

Abbreviation	Meaning
ABAP	Apalachicola Bay Aquatic Preserve
ANERR	Apalachicola National Estuarine Research Reserve
ARC	Acquisition and Restoration Council
CAMA	Office of Coastal and Aquatic Managed Areas
CARL	Conservation and Recreation Lands
CSO	Citizen Support Organization
DEP	Florida Department of Environmental Protection
DHR	Division of Historical Resources
EEL	Environmentally Endangered Lands
F.A.C.	Florida Administrative Code
FCO	Florida Coastal Office
FFS	Florida Forest Service (formerly Florida Division of Forestry)
FLEPPC	Florida Exotic Pest Plant Council
FNAI	Florida Natural Areas Inventory
F.S.	Florida Statutes
FTE	Full Time Employee
FWC	Florida Fish and Wildlife Conservation Commission
GIS	Geographic Information System
LATF	Land Acquisition Trust Fund
NERR	National Estuarine Research Reserve
NOAA	National Oceanic and Atmospheric Administration
NWFWMD	Northwest Florida Water Management District
OFW	Outstanding Florida Waters
OPS	Other Personal Services
USF	University of South Florida
USFWS	U.S. Fish and Wildlife Service

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The St. Joseph Bay State Buffer Preserve is home to a variety of both rare and common flowering foliage.

Part I

Basis for Management

Chapter One

Introduction

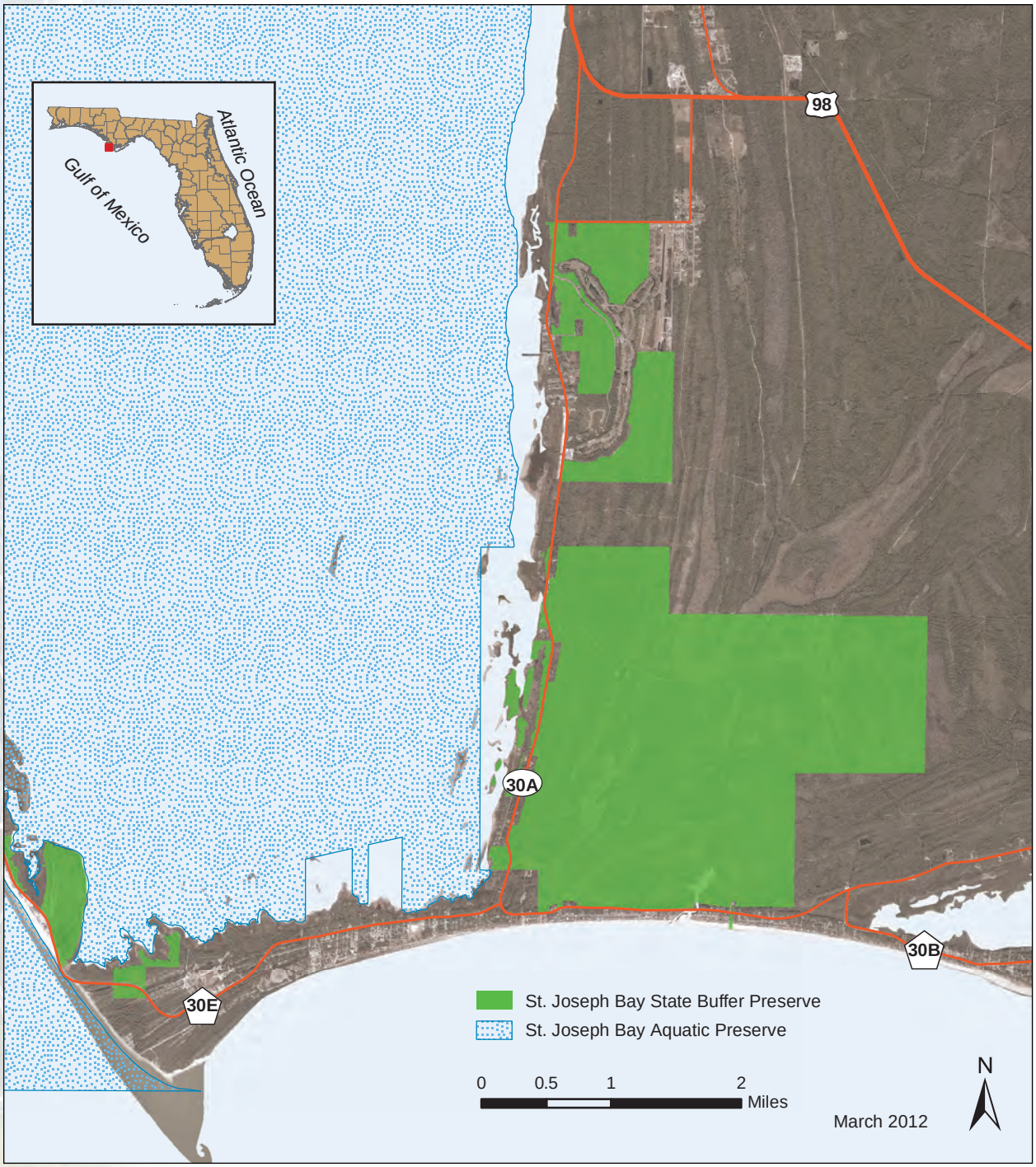
The St. Joseph Bay State Buffer Preserve (Buffer Preserve) is administered on behalf of the state by the Florida Department of Environmental Protection's (DEP) Florida Coastal Office (FCO) as part of a network that includes 41 aquatic preserves, three National Estuarine Research Reserves (NERRs), a National Marine Sanctuary, the Coral Reef Conservation Program and the Florida Oceans and Coastal Council. This provides for a system of significant protections to ensure that our most popular and ecologically important underwater ecosystems are cared for in perpetuity. Each of these special places is managed with strategies based on local resources, issues and conditions.

Florida's extensive coastline and wealth of aquatic resources attracts millions of residents and visitors annually, as well as the businesses that serve them. Florida's submerged lands play important roles in maintaining good water quality, hosting a diversity of wildlife and habitats (including economically and ecologically valuable nursery areas), and supporting a treasured quality of life for all. In the 1960s, it became apparent that the ecosystems that had attracted so many people to Florida could not support rapid growth without science-based resource protection and management. To this end, state legislators provided extra protection for certain exceptional aquatic areas by designating them as aquatic preserves.

Title to submerged lands not previously conveyed to private landowners is held by the Board of Trustees of the Internal Improvement Trust Fund (Trustees). The Governor and Cabinet, sitting as the Trustees, act as guardians for the people of the State of Florida (§253.03, Florida Statutes [F.S.]) and regulate the use of these public lands. Through statute, the Trustees have the authority to adopt rules

related to the management of sovereignty submerged lands (Florida Aquatic Preserve Act of 1975, §258.36, F.S.). A higher layer of protection is afforded to aquatic preserves which include areas of sovereignty lands that have been "set aside forever as aquatic preserves or sanctuaries for the benefit of future generations" due to "exceptional biological, aesthetic, and scientific value" (Florida Aquatic Preserve Act of 1975, §258.36, F.S.).

This tradition of concern and protection of these exceptional areas continues, and now includes: the Rookery Bay NERR in Southwest Florida, designated in 1978; the Apalachicola NERR in Northwest Florida, designated in 1979; the Guana Tolomato Matanzas NERR in Northeast Florida, designated in 1999. In addition, the Florida Oceans and Coastal Council was created in 2005 to develop Florida's ocean and coastal research priorities, and establish a statewide ocean research plan. The group also coordinates public and private ocean research for more effective coastal management. This dedication to the conservation of coastal and ocean resources is an investment in Florida's future.

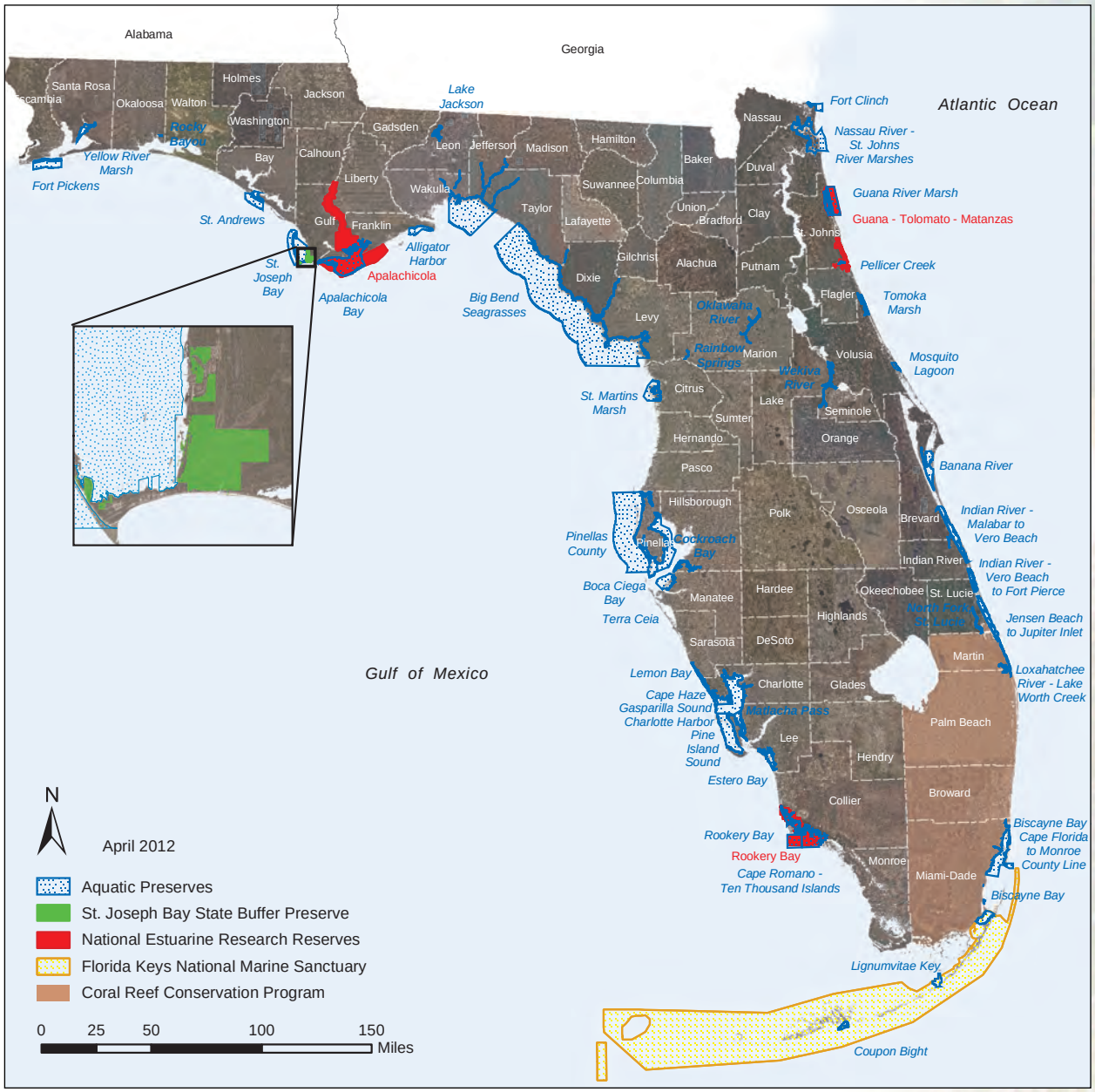


Map 1 / St. Joseph Bay State Buffer Preserve location and boundaries.

1.1 / Management Plan Purpose and Scope

With increasing development, recreation and economic pressures, the resources have the potential to be significantly impacted, either directly or indirectly. These potential impacts can reduce the health and viability of the ecosystems that contain them, requiring active management to ensure the long-term health of the entire network. Effective management plans are essential to address this goal and each site's own set of unique challenges. The purpose of these plans is to incorporate, evaluate and prioritize all relevant information about the site into a cohesive management strategy, allowing for appropriate access to the managed areas while protecting the long-term health of the ecosystems and their resources.

Management plan development and review begins with collecting resource information from historical data, research and monitoring and includes input from individual FCO managers and staff, area stakeholders, and members of the general public. The background data, public comment and cooperating agency information is then used to identify management issues and threats affecting the present and future integrity of the site, its boundaries and adjacent areas. This information is used in the development and review of the management plan, which is examined for consistency with statutory authority and intent. Each management plan is evaluated periodically and revised as necessary to allow for strategic improvements. Intended to be used by site managers and other agencies or private



Map 2 / Florida Coastal Office system.

groups involved with maintaining the natural integrity of these resources, the plan includes scientific information about the existing conditions of the site and the management strategies developed to respond to those conditions.

To aid in the analysis and development of the management strategies for the site plans, four comprehensive management programs are identified. In each of these programs, relevant information about the specific site is described in an effort to create a comprehensive management plan. It is expected that the specific needs or issues are unique and vary at each location, but the four management program areas will remain constant. These areas are:

- Ecosystem Science
- Resource Management
- Education and Outreach
- Public Use

In addition, unique local and regional issues are identified, and goals, objectives and strategies are established to address these issues. Finally, the program and facility needs required to meet these goals are identified. These components are all key elements in an effective coastal management program and for achieving the mission of the sites.

*1.2 / **Public Involvement***

FCO recognizes the importance of stakeholder participation and encourages their involvement in the management plan development process. FCO is also committed to meeting the requirements of the Sunshine Law (§286.011, F.S.):

- meetings of public boards or commissions must be open to the public;
- reasonable notice of such meetings must be given; and
- minutes of the meetings must be recorded.

Several key steps are to be taken during management plan development. First, staff compose a draft plan after gathering information of current and historic uses and resources, cultural and historic sites, and other valuable information regarding the property and surrounding area. Staff then organize an advisory committee comprised of key stakeholders and conduct, in conjunction with the advisory committee, public meetings to engage the stakeholders for feedback on the draft plan and the development of the final draft of the management plan. An additional public meeting is held when the plan is reviewed by the Acquisition and Restoration Council for final approval. For additional information about the advisory committee and the public meetings refer to Appendix C - Public Involvement.

The tower on the Deal Tract is open to the public during select special events.

Chapter Two

The Florida Department of Environmental Protection's Florida Coastal Office

2.1 / ***Introduction***

The Florida Department of Environmental Protection (DEP) protects, conserves and manages Florida's natural resources and enforces the state's environmental laws. The DEP is the lead agency in state government for environmental management and stewardship and commands one of the broadest charges of all the state agencies, protecting Florida's air, water and land. The DEP is divided into three primary areas: Regulatory Programs, Land and Recreation, and Water Policy and Ecosystem Restoration. Florida's environmental priorities include restoring America's Everglades; improving air quality; restoring and protecting the water quality in our springs, lakes, rivers and coastal waters; conserving environmentally-sensitive lands; and providing citizens and visitors with recreational opportunities, now and in the future.

The Florida Coastal Office (FCO) is the unit within the DEP that manages more than four million acres of submerged lands and select coastal uplands. This includes 41 aquatic preserves, three National Estuarine Research Reserves (NERRs), the Florida Keys National Marine Sanctuary, the Coral Reef Conservation Program and the St. Joseph Bay State Buffer Preserve (Buffer Preserve). The three NERRs, the Florida Keys National Marine Sanctuary and the Coral Reef Conservation Program are managed in cooperation with the National Oceanic and Atmospheric Administration (NOAA).

FCO manages sites in Florida for the conservation and protection of natural and historical resources and resource-based public use that is compatible with the conservation and protection of these lands. FCO is a strong supporter of the NERR system and its approach to coastal ecosystem management. The State of Florida has three designated NERR sites, each encompassing at least one aquatic preserve within its boundaries. As with the aquatic preserve adjacent to the Buffer Preserve, these aquatic preserves provide discrete areas designated for additional protection beyond that of the surrounding uplands and may afford a foundation for additional protective zoning in the future. Each of the Florida NERR managers serves as a regional manager overseeing multiple other aquatic preserves in their region. This management structure advances FCO's ability to manage its sites as a part of the larger statewide system.

2.2 / *Management Authority*

In 1967, the Florida Legislature passed the Randall Act (Chapter 67-393, Laws of Florida), which established procedures regulating previously unrestricted dredge and fill activities on state-owned submerged lands. That same year, the legislature provided the statutory authority (§253.03, Florida Statutes [F.S.]) for the Trustees to exercise proprietary control over state-owned lands. Also in 1967, government focus on protecting Florida's productive water bodies from degradation due to development led the Trustees to establish a moratorium on the sale of submerged lands to private interests. An Interagency Advisory Committee was created to develop strategies for the protection and management of state-owned submerged lands.

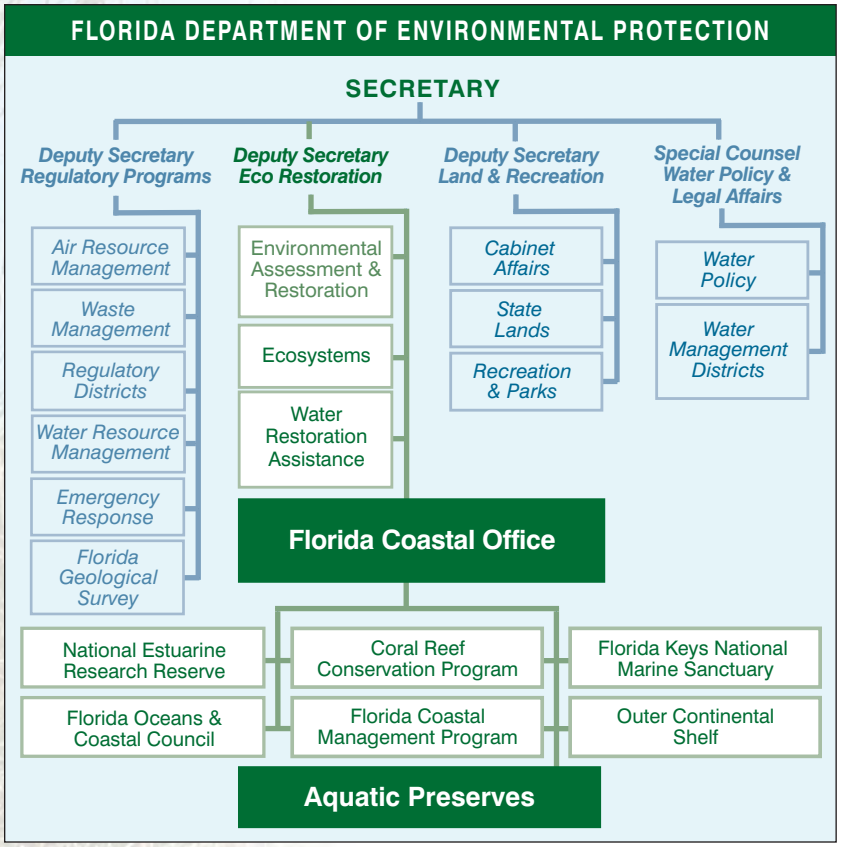


Figure 1 / State management structure.

In 1968, the Florida Constitution was revised to declare in Article II, Section 7, the state's policy of conserving and protecting natural resources and areas of scenic beauty. That constitutional provision also established the authority for the legislature to enact measures for the abatement of air and water pollution. Later that same year, the Interagency Advisory Committee issued a report recommending the establishment of 26 aquatic preserves.

The Trustees acted on this recommendation in 1969 by establishing 16 aquatic preserves and adopting a resolution for a statewide system of such preserves. In 1975 the state Legislature passed the Florida Aquatic Preserve Act of 1975 (Act) that was enacted as Chapter 75-172, Laws of Florida, and later became Chapter 258, Part II, F.S. This Act codified the already existing aquatic preserves and established standards and criteria for activities within those preserves. Additional aquatic preserves were individually adopted at subsequent times up through 1989.

In 1980, the Trustees adopted the first aquatic preserve rule, Chapter 18-18, Florida Administrative Code (F.A.C.), for the administration of the Biscayne Bay Aquatic Preserve. All other aquatic preserves are administered under Chapter 18-20, F.A.C., which was originally adopted in 1981. These rules apply standards and criteria for activities in the aquatic preserves, such as dredging, filling, building docks and other structures that are stricter than those of Chapter 18-21, F.A.C., which apply to all sovereignty lands in the state. These rules are intended to be cumulative, meaning that Chapter 18-21, F.A.C., should be read together with Chapter 18-18, F.A.C., or Chapter 18-20, F.A.C., to determine what activities are permissible within an aquatic preserve. If Chapter 18-18, F.A.C.,

or Chapter 18-20, F.A.C., are silent on an issue, Chapter 18-21, F.A.C., will control; if a conflict is perceived between the rules, the stricter standards of Chapter 18-18, F.A.C., or Chapter 18-20, F.A.C., supersede those of Chapter 18-21, F.A.C.

This plan is in compliance with the Conceptual State Lands Management Plan (Appendix A.1), adopted March 17, 1981 by the Board of Trustees of the Internal Improvement Trust Fund and represents balanced public utilization, specific agency statutory authority, and other legislative or executive constraints. The Conceptual State Lands Management Plan also provides essential guidance concerning the management of uplands, sovereignty submerged lands and aquatic preserves and their important resources, including unique natural features, seagrasses, endangered species and archaeological and historical resources.

Through delegation of authority from the Trustees, the DEP and FCO have proprietary authority to manage the sovereignty lands, the water column, spoil islands (which are merely deposits on sovereignty lands), and some of the natural islands and select coastal uplands to which the Trustees hold title.

NERR sites and the Buffer Preserve include state-owned uplands in addition to sovereignty lands. Florida's first acquisition program was born in 1963 as the Land Acquisition Trust Fund (LATF), which funded the Outdoor Recreation and Conservation Program to purchase park and other recreational areas. The Environmentally Endangered Lands (EEL) program was created in 1972.

In 1979, the current Division of State Lands was created within the Florida Department of Natural Resources, a predecessor agency to the DEP. The same year the legislature substantially amended Chapter 253, F.S., pertaining to the use and management of state lands and created the Conservation and Recreation Lands (CARL) program to replace EEL. CARL and its successors were eventually codified in Chapter 259, F.S. 1981 saw the establishment of the Save Our Coast (SOC) program, which augmented the LATF to focus on coastline purchases. CARL eventually subsumed the responsibilities of both SOC and LATF.

The Preservation 2000 program was started in 1990 to fund CARL and other land acquisition initiatives. Preservation 2000 was intended as a 10-year program and was succeeded by the Florida Forever Program at the end of its course. Florida Forever has replaced CARL and continues to provide for the evaluation of land for acquisition and inclusion within the boundaries of Florida's NERRs and the Buffer Preserve.

Enforcement of state statutes and rules relating to criminal violations and non-criminal infractions rests with the Florida Fish and Wildlife Conservation Commission (FWC) law enforcement and local law enforcement agencies. Enforcement of administrative remedies rests with FCO, the DEP Districts and Water Management Districts.

2.3 / ***Statutory Authority***

The fundamental laws providing management authority for FCO managed uplands are contained in Chapter 253, Florida Statute (F.S.). Of critical importance, Section 253.86 grants FCO the explicit authority to promulgate rules for the management of uplands assigned to its management. Additionally, management must take into account Chapter 259, F.S., which authorizes and governs acquisition and use of lands to conserve and protect important habitats, wildlife, water resources and archaeological sites in accordance with the Land Conservation Act of 1972. Land managing agencies must prepare management plans in compliance with guidelines established in Chapter 259, F.S. Once again, the Trustees fulfill the proprietary management overview role, with management responsibilities assigned to staff acting as "agents" of the Trustees, pursuant to delegations of authority, management agreements and other legal mechanisms. Typically, a lease agreement with the Trustees delegates management authority for the uplands assigned to the DEP and FCO. Leases for Trustees' lands within the Buffer Preserve are included in Appendix E.

Many provisions of the Florida Statutes that empower non-FCO programs within DEP or other agencies may be important to the management of FCO sites. For example, Chapter 403, F.S., authorizes DEP to create rules concerning the designation of Outstanding Florida Waters (OFWs), a program that provides aquatic preserves with additional regulatory protection. Chapter 370, F.S., regulates saltwater fisheries, and provides enforcement authority and powers for law enforcement officers within FWC. Likewise, Chapter 372, F.S., provides similar powers relating to wildlife management.

2.4 / ***Administrative Rules***

Chapter 18-21, F.A.C., is the administrative rule directly applicable to the management of sovereignty lands. Originally codified in 1982, Chapter 18-21, F.A.C., is meant "to aid in fulfilling the trust and fiduciary responsibilities of the Board of Trustees of the Internal Improvement Trust Fund for the administration, management and disposition of sovereignty lands; to insure maximum benefit and use of sovereignty lands for all the citizens of Florida; to manage, protect and enhance sovereignty lands so that the public may continue to enjoy traditional uses including, but not limited to, navigation, fishing and swimming; to manage and provide maximum protection for all sovereignty lands, especially those important to public drinking water supply, shellfish harvesting, public recreation, and fish and wildlife propagation and management; to insure that all public and private activities on sovereignty lands which generate revenues or exclude traditional public uses provide just compensation for such privileges; and to aid in the implementation of the State Lands Management Plan."

To that end, Chapter 18-21, F.A.C., contains provisions on general management policies, forms of authorization for activities on sovereignty lands, and fees applicable for those activities. "Activity," in the context of the rule, includes "construction of docks, piers, boat ramps, boardwalks, mooring pilings, dredging of channels, filling, removal of logs, sand, silt, clay, gravel or shell, and the removal or planting of vegetation" (Rule 18-21.003, F.A.C.). To be authorized on sovereignty lands, activities must be not contrary to the public interest (Rule 18-21.004, F.A.C.).

Chapter 18-21, F.A.C., also sets policies on aquaculture, geophysical testing (using gravity, shock wave and other geological techniques to obtain data on oil, gas or other mineral resources), and special events related to boat shows and boat displays. Of particular importance to FCO site management, it additionally addresses spoil islands, preventing their development in most cases.

Chapters 18-2, 18-23 and 18-24, F.A.C. are applicable to state-owned uplands. Chapter 18-2, F.A.C., establishes policies concerning use of uplands owned by the Trustees and managed by state entities. Originally codified in 1996, this rule expands upon the guidelines set forth in the Conceptual State Lands Management Plan. It requires that uses of the uplands be not contrary to the public interest and mandates that direct and indirect impacts and cumulative effects be considered as part of the public interest determination.

Chapter 18-23, F.A.C., supplements Chapter 18-2, F.A.C., by establishing guidelines and criteria specifically for uplands managed by FCO. It limits certain activities on these uplands, such as hunting and admission of pets, "to conserve, preserve and restore the natural and cultural resources and ensure the safety and enjoyment of visitors" (Subsection 18-23.007(2), F.A.C.). The rule provides a schedule of fines for violations of these policies, which are considered non-criminal infractions.

Chapter 18-24, F.A.C., delineates procedures specific to the use of monies from the Florida Forever Trust Fund for the acquisition and restoration of uplands. It also prescribes the procedures that are to be followed by the Acquisition and Restoration Council (ARC) in advising the Trustees in administering the Florida Forever program.

The Buffer Preserve is in Florida's Coastal Lowlands within the Northern Zone of the state. More specifically, it is in the Gulf Coastal Lowlands, adjacent to the Western Highlands and the Marianna Lowlands.

Chapter Three

The St. Joseph Bay State Buffer Preserve

3.1 / ***History of the St. Joseph Bay State Buffer Preserve***

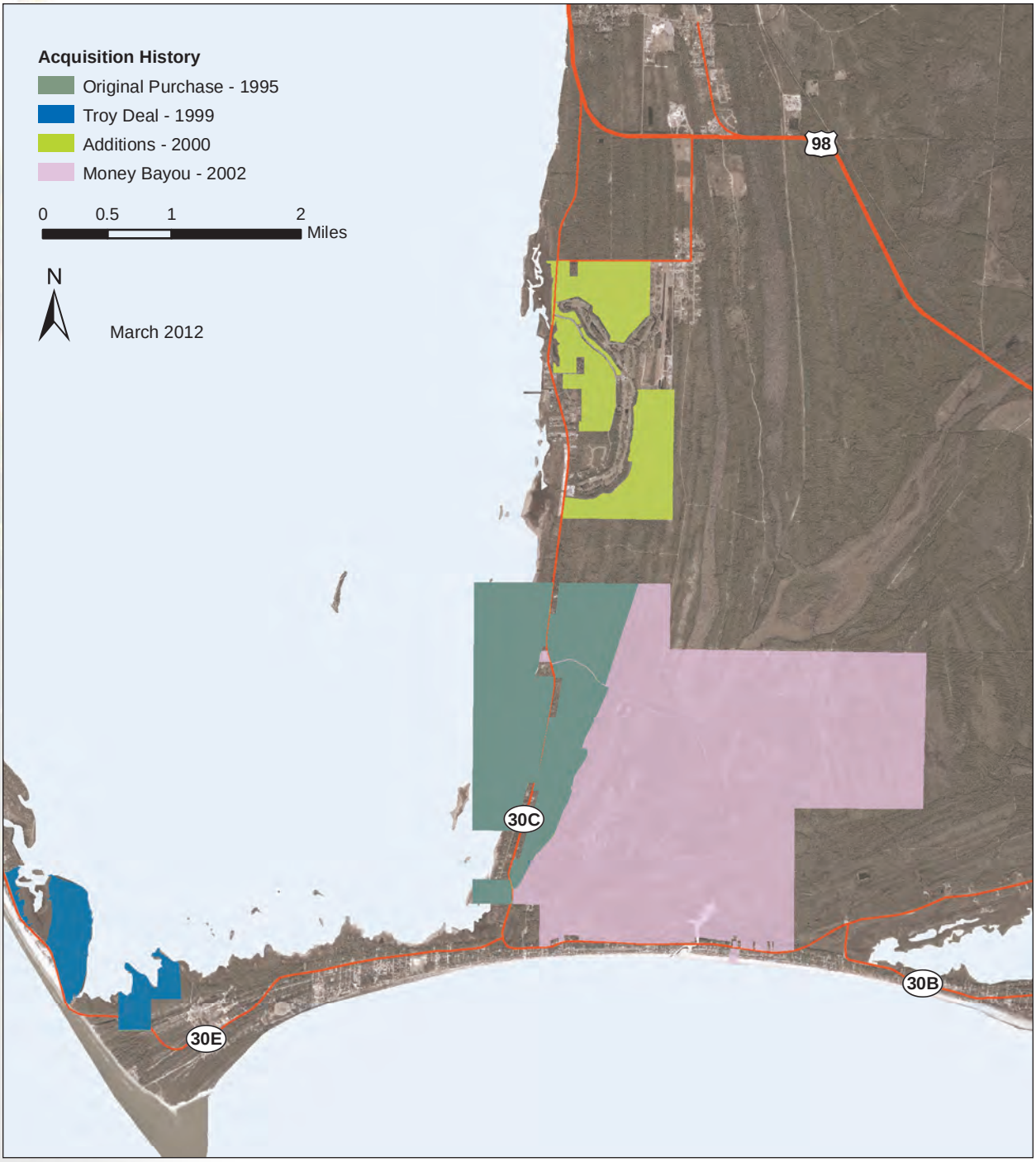
The St. Joe Bay Buffer project was placed on the Conservation and Recreation Lands (CARL) acquisition list in 1990. The first parcel was acquired by the State in 1995. The Florida Department of Environmental Protection's (DEP) Florida Coastal Office (FCO) was given management authority in 1996. There have been several additional purchases since the original acquisition in 1995. The purchase of 235 acres from Troy M. Deal was completed in October 1999. An additional 639 acres of the project was acquired in October 2000 from multiple owners. Purchase of the Money Bayou Tract in 2002 added 3,442 acres to the St. Joseph Bay State Buffer Preserve (Buffer Preserve).

In 1999 the St. Joe Timberland project was created. This resulted in a majority of the remaining acreage within the St. Joe Bay Buffer project, in the ownership of St. Joe Timberland Company, being transferred to the new project. In November 2001 the project was amended to include an additional 2,880 acres. Currently 5,019 acres are in public ownership and managed by FCO as the Buffer Preserve. The St. Joe Bay Buffer project was removed from the Florida Forever list in 2005 as substantially complete. However, there remain several important tracts with significant natural and cultural resources to acquire including the tract that was combined with the St. Joe Timberlands project.

Use

Conservation and preservation is the designated single use of the property. However, the management agency shall have the option of including in its management program compatible secondary purposes that will not detract from or interfere with the primary management purpose. Management activities will be directed toward the preservation of resources. Other than fishing, consumptive uses will not be permitted except as necessary to carry out resource management goals and objectives.

The Buffer Preserve was established to provide protection for the aquatic resources of St. Joseph Bay Aquatic Preserve and for the conservation and restoration of environmentally sensitive ecosystems. Access to natural and cultural resources for public recreation and education are limited to uses that are compatible with the goals of the Buffer Preserve. DEP and FCO encourage the use of the Buffer Preserve in accordance with the intent of Chapter 253.03, Florida Statutes (F.S.), and in a manner that does not compromise or degrade the resources. Certain activities shall be prohibited if they diminish the natural or cultural value of the Buffer Preserve or the safety or recreational experience of its visitors.



Map 3 / History of St. Joseph Bay State Buffer Preserve.

Tract Name	Acreage	Acquired	Lease #4119 / Year Added
Treasure Shores Limited	701.98	1995	Originating Purchase / 1996
Troy Deal	234.90	1999	Amendment 1 / 2000
Miller #3 *(Parcels 3A, B & C)*	20.16	2000	Amendment 2 / 2001
Capital City Trust #6 *(Parcels 6A, B, C, D & E)*	357.25	2000	Amendment 2 / 2001
St. Joseph Bay Estates #9 *(Parcels 9A & B)*	261.97	2000	Amendment 2 / 2001
Treasure Shores / Money Bayou	3,442.42	2002	Amendment 3 / 2002
Total	**5,018.68**		

Table 1 / Acquisition history for St. Joseph Bay State Buffer Preserve.

Prohibited activities include but are not limited to:

- possession and consumption of alcoholic beverages;
- hunting or trapping of wildlife except as provided by Subsection 18.23.005(13), Florida Administrative Code (F.A.C.);
- the use of firearms of any type or weapons potentially dangerous to wildlife and human safety, except when authorized by the Buffer Preserve manager. The erection of structures for the purpose of concealment is also prohibited. Shooting into Buffer Preserve areas from beyond Buffer Preserve boundaries is prohibited;
- dumping of trash, refuse, waste, litter, or other debris;
- the admission of domestic or unleashed animals, except service animals, and horses and pack animals brought in for equestrian trail use;
- the removal, disturbance, pollution, collection or destruction of property – historic, cultural and natural resources, including plants, animals, minerals, or artifacts except when authorized by the Buffer Preserve manager for scientific and educational purposes.

Hiking, bicycling and horseback riding are available utilizing current firebreaks and interior roads. At this time no areas have been designated for camping. However, as visitor access and trails are developed, the activity will be considered and designated areas may be provided.

The management goals of the Buffer Preserve are to:

1. conserve and preserve natural values of ecosystems;
2. provide public access and recreation that is compatible with natural and cultural resource conservation;
3. protect and preserve natural resources of adjacent aquatic preserves, parks and other special management areas administered by either DEP or other state, federal, or local government authorities;
4. protect and preserve native plant and animal species and natural communities, particularly any that are endangered or threatened;
5. restore natural communities and original ecosystem functions, which have been historically degraded;
6. protect cultural resources; and
7. enhance public appreciation for natural and cultural diversity.

Cultural History

First peoples (100 to 10,000 years ago)

The first use of this land by humans was probably as early as 12,000 to 13,000 years ago, when people first reached Florida. Since the Ice Age meant that the sea water was tied up in thick glaciers, ice sheets over the northern part of the continent, sea level was 100 meters lower and Florida was twice as wide as it is now; St. Joseph Bay did not yet exist.

Native Americans probably began to inhabit the St. Joseph Peninsula as soon as it formed, some 5000 years ago, but so far, the earliest evidence found for human occupation of the area dates from the Early Woodland period, about 2500 to 2000 years ago. They gathered shellfish for meals from the bay's shallow, clear waters. Sea levels may have begun stabilizing around this time, or else sea level rise slowed considerably, so people could take advantage of the rich estuarine resources. Burial mounds first appear during the Early Woodland, and the height of their construction was during the Middle Woodland period, about 300-650 A.D. The fancy grave goods and exotic materials in the mounds indicate extensive long-distance trade networks (N. White, personal communication, April 17, 2015).

Woodland-period peoples utilized shellfish, fish, deer, and nuts as primary food resources. The Mississippian Culture developed by 1000 A.D., with politically centralized Native American chiefdoms and mound centers. Inland, these were surrounded by agricultural villages, while on the coast, subsistence continued to emphasize the seafood harvest (N. White, personal communication, April 17, 2015).

The shell middens around St. Joseph Bay contain remains of whelks, conchs and other mollusks that thrived in the bay waters. Richardson's Hammock, located on the Buffer Preserve's Deal Tract, contains a shell midden that dates to both the Early Woodland period, with Swift Creek-early Weedon Island ceramics, and the Fort Walton period, the local variant of Mississippian. The Lighthouse Bayou site has individual shell piles that date to late Fort Walton (1200-1600 A.D.) and protohistoric Lamar (1600-1700 A.D.) periods. Testing by the University of South Florida (USF) at these sites revealed dark post molds in the sands there, suggesting these early people built structures where they temporarily camped (N. White, personal communication, April 17, 2015).

The Fort Walton peoples seem to have disappeared right after European contact began in the sixteenth century, and the Lamar material culture, as well as the extensive amounts of Native American ceramics and other artifacts at Fort San Jose, on the tip of the St. Joseph Peninsula, represents historic Indian peoples whose identities we do not yet know. St. Joseph Bay appears on European maps as early as 1584. Fort San Jose was occupied by the Spanish in 1701, and again from 1719 to 1721 in order to prevent the French from interrupting the Spanish supply route to Pensacola. We know little of the natives and other peoples who lived in the region after that time, until the founding of the short-lived town of old St. Joseph, from 1836-1841 (N. White, personal communication, April 17, 2015).

A small coastal community, which is presently known as Port St. Joe, historically called St. Joseph, is rich in both history and resources. St. Joseph was founded in 1835 on the shores of St. Joseph Bay. As no rivers flowed into St. Joseph Bay, two railroads were built connecting St. Joseph with the Apalachicola River in an attempt to siphon off some of the cotton and lumber being shipped down the river to the Port of Apalachicola. By 1837, St. Joseph had become the largest town in the Territory of Florida, with approximately 6,000 residents. In 1838, the town hosted the first Constitutional Convention for Florida, which shaped the constitution used when Florida became a state in 1845. In 1839 a lighthouse began operating at the tip of the spit and guided local shipping. St. Joseph became known as the "Constitutional City" and even transferred the name to the new Port St. Joe. The town served as a seaport until 1841 when a ship docked with occupants carrying yellow fever. More than 75 percent of the town died of the disease and the rest of the population fled, abandoning the city only seven years after it was founded. In 1843, a hurricane destroyed the abandoned city. The lighthouse ceased operation in 1847 and was leveled by another hurricane in 1851. This same storm forced the grounding of the *S.S. Florida* on the east side of the St. Joseph Peninsula. Only the metal firebox remains in the bay waters (DEP, n.d.). The historical town of St. Joseph remained uninhabited for the rest of the 19th century.

In the early 20th century, Port St. Joe was founded about two miles north of the site of old St. Joseph. The only remains of old St. Joseph are tombstones in the old St. Joseph Cemetery in present-day Port St. Joe. The cemetery is a historical site and serves as a grim reminder of the yellow fever epidemic and the hurricane that destroyed the town known as St. Joseph. Today, many of the streets in Port St. Joe are named after the prominent citizens that perished in these events (Gulf County Tourism Development Council, 2006).

In the Panhandle, as elsewhere, real estate development was inextricably linked with transportation improvements. The revival of the town along the shores of St. Joseph Bay where the old town of St. Joseph had briefly flourished was directly tied to the arrival in 1909 of a new railroad, the Apalachicola Northern Railroad. The railroad went 99 miles from River Junction, just south of present-day Chattahoochee (where it connected with the east-west line to Pensacola) to St. Joseph Bay, by way of Apalachicola. Its cars carried lumber from the Panhandle's longleaf pine forests to markets on the East Coast and abroad. The railroad was essential to both developing and serving deep-water docks that revived the shipping trade at St. Joseph Bay. With the addition of docks, St. Joseph Bay presented a nearly perfect shipping harbor protected by the St. Joseph Peninsula from severe weather in all directions except due north and lacking inflowing rivers that would deposit silt that interfered with navigation. By July 1, 1913, when the settlement was incorporated with the new name of Port St. Joe, local trade products included sawn lumber, tobacco, sugar cane, fish oil, rosin, pitch, and turpentine. The town had a large sawmill, an ice plant, and an oyster packing house. Sunday was the prime day, when the train would bring hundreds of day-trippers to picnic, swim, fish, crab, scallop and enjoy the shore. Large slides and a merry-go-round set up in the water provided early water-park amusement for children and adults. Like other parts of the rural South however, the region struggled with the poverty,

disease and limited educational opportunities that went hand-in-hand with geographical isolation and a slow economy (Ziewitz & Wiaz, 2004).

In 1925 Gulf County was created and named for the Gulf of Mexico. Port St. Joe, the largest city in Gulf County, serves as the county seat. In the early 20th century, a bathhouse was constructed at Eagle Harbor by T. H. Stone so that tourists from the mainland could change clothes for swimming and sailing. Fish camps arose on the east side of the peninsula and a house for local bar pilots was built near the tip (Ziewitz & Wiaz, 2004).

First European/African American Settlement. Extractive Period. 1900-1950.

Settlers of European origin first moved into the land that is now the Buffer Preserve to take advantage of the valuable resin of the vast stands of longleaf and slash pines. This land was first privately owned by a naval stores/turpentine operation, the Lagoon Company (with partners McNeill, Higgins, Hollinger and Rhodes) who purchased 16,000 acres directly from the government between 1902 and 1904.

The turpentine era on the Buffer Preserve (approximately 1902-1934) was a period of intense human use and occupation. Dirt roads threaded throughout the property and were used by mule and oxen carts to transport work crews and haul out resin. A turpentine still that processed resin from the area was located just east of the Buffer Preserve boundary and north of County Road 30-A and Indian Pass Road. The building that is the present Indian Pass Raw Bar at the turn to Indian Pass Road was once located near the still and served as the turpentine camp commissary.

To extract resin, the trees were cut to make an open wound where the resin was collected. Different methods of extracting resin were used throughout this time period and each method had different effects on the trees. In Florida before 1903, large cavities (known as box cuts) were chopped into the base of the pine tree to gather resin. This usually resulted in the death of the tree after a few years and increased susceptibility of trees to high winds. After 1903, Charles Herty of the University of Georgia introduced a new method of gathering resin using cups. It was widely adopted in Florida (Kendrick & Walsh, 2007). Shallow open faces (known as catfaces) were cut on trees with containers attached to the tree to collect the resin. This method was less destructive to the trees and they could produce resin for years and still survive.

There is much evidence of turpentine extraction across the Buffer Preserve, Many older trees have catface scars and some still contain the hardware used to attach resin cups. Old resin collecting pots are also commonly found on the ground. Other artifacts of this era are the many ditches linking wetlands that were dug by hand to drain the land faster and facilitate travel.

The turpentine era was probably the first time there was large-scale human control of fires. Naturally occurring frequent fires have occurred on Buffer Preserve lands for centuries, forming a landscape of open pine forests with a diverse herbaceous groundcover. Wildfires were a common occurrence. Fires could travel long distances and last for weeks at a time because they were impeded only by wetlands and rivers. These fires occurred more frequently in the spring. Regional weather patterns of an extended dry period in the spring, combined with high lightning strike frequency during that time made growing season fires most likely. The resin-soaked, open catfaces of the pines were extremely vulnerable to fire. Fires hitting the open catfaces could kill the tree, or ruin that year's harvest of resin. Clearing all flammable fuels within three feet of the tapped trees helped control natural fires. Turpentine crews also put out wildfires, which often burned at the driest times of the year. They also prevented uncontrolled fires through burning in the fall and winter, reducing fuel levels for lightning season. The turpentiners typically burned an area annually or biennially. This kept fuels low and prevented damage to vulnerable cat-faced trees. The McNeill family directed the turpentine operations in the region until approximately 1929 or 1930 when the lease was sold. Operations continued until around 1935 when a fire burned the still and the turpentine era on the Buffer Preserve came to an end.

Timber harvest

Once turpentine operations ended in the 1930s, the surviving timber was cut. The cutting of the original old-growth longleaf and slash pines of the Buffer Preserve occurred from the mid-1930s through the mid-1940s. Timber was sent to a sawmill that was operating in Port St. Joe during the 1930s. After the large timber was cut, smaller trees were harvested for pulpwood.

Open range cattle

During the turpentine era (approximately 1902-1934) the land was also used for open range grazing of cattle. Cattle ranged across this area and out onto Cape San Blas and the St. Joseph Peninsula. Cattle were periodically rounded up but the entire region was open range. Cattle grazing ended during

attempts to eradicate the Texas Tick Fever. Cattle had to be rounded up frequently to be dipped in pesticide to kill the ticks. This was too labor intensive and cattle were rounded up to be driven all the way to Apalachicola to the railroad. The dipping vat on Cattle Dip Road was a reminder of this period. Cattlemen also used fire to improve the range for cattle in this region and often burned in the late winter and early spring.

Settlement and landscape modifications

Many landscape modifications including road development and extensive ditching, occurred during the settlement period. The road that ran from Apalachicola to Port St. Joe passed through the gap between Money Bayou and Depot Creek and ran across the present Buffer Preserve property. In 1932, the current highway, State Road 30-A, was constructed. Turpentining operations required hard labor and did not pay well therefore hunting was intense in remote areas. Other than the temporary turpentine camps, settlement during this period was very minor due to minimal employment opportunities. The McNeill family, who owned the property, had a homestead just east of the current Buffer Preserve and several houses were beginning to be built in the Indian Pass area. There were also a few homesteads along St. Joseph Bay and a settlement of African-American former turpentine workers along Money Bayou.

Post-extractive period 1950-2000

After the pines and cypress had been cut and open range cattle were gone, few extractive resources remained on the land. Jimmy McNeill attempted to manage the land for silvicultural purposes, planting thousands of slash pines in the late 1940s and early 1950s. The peninsula was used by the U.S. Army as a training facility for gunnery and bombing practice during World War II.

In 1954, a wildfire burned thousands of acres in the area, killing many of the slash pines. During the 1940s and 1950s, part of the land was burned every year between October and December for forestry. “Fish baiters,” or worm-grunters, also set fires in the growing season.

In the 1960s, the property was sold. As timber resources rapidly declined, stumps from the original longleaf pines were harvested for their valuable resins – a common practice during this period in the southeastern United States. However much of the Buffer Preserve was spared of the intensive harvest techniques which included dynamiting. Valuable pre-settlement fire frequency information has been garnered from examining these stumps (Huffman, 2006).The new owners set up a commercial hunting operation with many varieties of pigs including Russian wild boars. They did not burn frequently on the Treasure Shores Tract but prescribed burning and wildfire were frequent on the Money Bayou Tract. The land was stocked with thousands of hogs that were confined by fences surrounding the property. Hogs were fed corn to maintain high population levels and soil disturbance from rooting was extensive.

From the late 1980s to 2000, very little prescribed burning occurred on the Buffer Preserve. Wildfires, however, were frequent resulting in fire plow scars throughout the property.

Twenty-first Century

Over the years, Gulf County has experienced relatively slow growth accompanied by a minimal tourism base, which can be attributed to large land ownership patterns and minimal employment opportunities. In the past, the county’s economy was dominated by the paper mill in Port St. Joe until the early 1990s when several mills experienced shutdowns and the Port St. Joe mill was closed in 1998. Soon after, Governor Jeb Bush designated Gulf County as a “rural area of economic concern.” Since the 1990s however, the shift in the county’s economy from a paper production related industry to a tourism industry has resulted in a steady increase in the number of tourists. The increase in tourism has brought about a demand for homes. Coastal development within Gulf County is primarily related to the construction of beach vacation homes that are typically used as rental property throughout much of the year. In the mid-1990s the St. Joseph Peninsula State Park saw a 50 percent increase in number of annual visitors and in 2002, the park was named America’s Best Beach by Dr. Stephen Leatherman (Dr. Beach). Promotional marketing has brought about slogans such as, Florida’s Forgotten Coast, Florida’s Great Northwest, and Pearl of the Panhandle. Increasing national familiarity has continued to bring visitors to the area and the population continues to steadily increase. For six decades, the St. Joe Paper Company grew and harvested pines in the Panhandle and turned them into pulp at its mill in Port St. Joe. The company’s shift to real estate dates back to the 1980s and began in Walton and Okaloosa counties (Ziewitz & Wiaz, 2004). Environmental impacts caused by development and other conflicting uses of adjacent lands can be expected to worsen with the continued development of the coastal zone.

*3.2 / **General Description***

International/National/Regional/State Significance

The Florida Panhandle is one of the nation's six "biological hot spots," along with Hawaii, the southern Appalachians, the San Francisco Bay area, the Death Valley region, and southern California, which have many rare species that are only found in small areas. The highest biodiversity of species in the United States is found specifically within the central Florida Panhandle, along the Apalachicola River. The Apalachicola River drainage basin supports more than 40 amphibian and 80 reptilian species (DEP [ANERR], 1998). In addition, more than 788 native vertebrate species and more than 2,000 native plants inhabit the Florida Panhandle from the Perdido River eastward to the Suwannee River (Northwest Florida Environmental Conservancy, n.d.).

One of the primary objectives for the acquisition of Buffer Preserve lands is to aid in the conservation and protection of nearby or adjacent aquatic resources. St. Joseph Bay lies directly adjacent to the Buffer Preserve. This marine ecosystem of statewide significance is an important nursery ground for many recreational and commercially valuable species, fish and invertebrates, sea turtles, scallops and birds. St Joseph Bay was designated as an aquatic preserve in October 1969 and is protected by the 1975 Florida Aquatic Preserve Act. St. Joseph Bay is also designated as an Outstanding Florida Waters (OFW), Class II Shellfish Harvesting waterbody and a U.S. Environmental Protection Agency (EPA) Gulf of Mexico Ecological Management Site. St. Joseph Bay Aquatic Preserve is 55,000 acres of mostly pristine submerged and wetland areas within St. Joseph Bay and adjacent to St. Joseph Peninsula in the Gulf of Mexico. The local economy of Port St. Joe is largely dependent on the health of this system for commercial and recreational fishing as well as eco-tourism (DEP, 2008).

Buffer Preserve lands are of special biological significance and were acquired to preserve a full range of threatened coastal natural habitats and communities. Three globally imperiled plant species, pinewoods aster (*Aster spinulosus*), Chapman's rhododendron (*Rhododendron chapmannii*) and Telephus spurge (*Euphorbia telephioides*), along with numerous other confirmed rare, endangered or threatened species occur within the Buffer Preserve. Public ownership and essential land stewardship programs have helped to insure the protection and survival of the rare species and critical natural habitats found within the Buffer Preserve.

The Buffer Preserve protects significant archaeological sites that provide scientists with information regarding past environmental conditions and changing landscapes of the Gulf Coast. These sites also provide researchers and the general public with insights into historic cultures and civilizations.

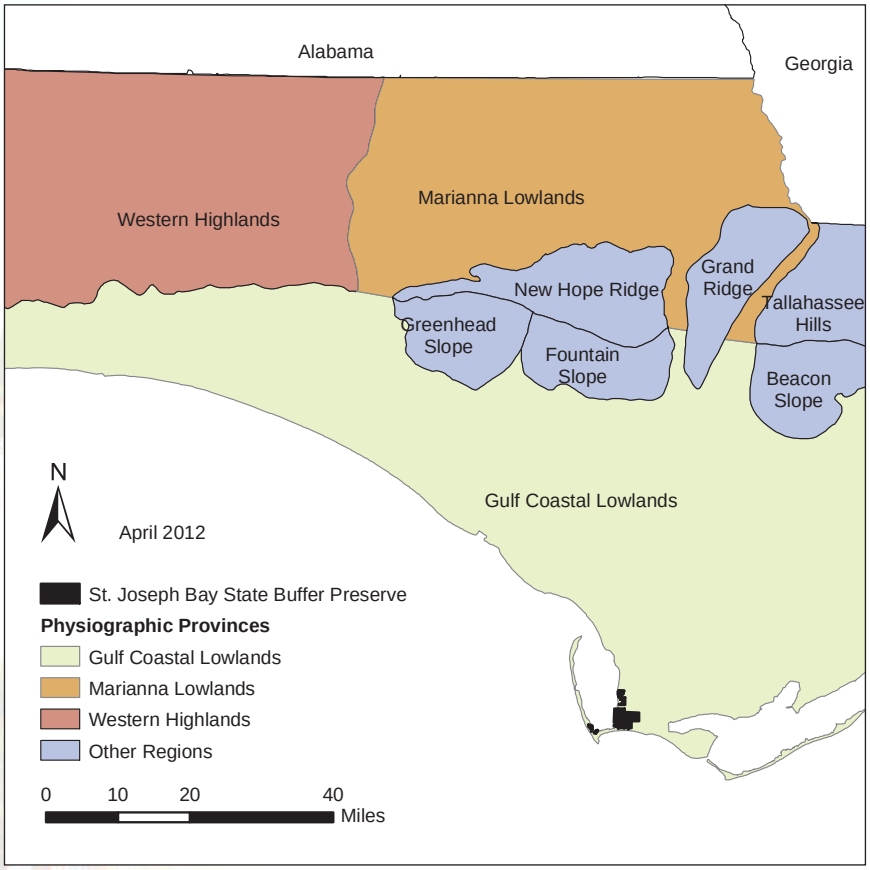
Location/Boundaries

The Buffer Preserve is located in Gulf County, about five miles southeast of the town of Port St. Joe, which is approximately 35 miles southeast of Panama City and approximately 100 miles southwest of Tallahassee. It is located south of U.S. Highway 98 along State Road 30-A. Buffer Preserve lands are bound by urban residential development, pine plantations, the Gulf of Mexico and St. Joseph Bay. The Deal and Lighthouse Bayou tracts are located west of State Road 30-A on State Road 30-E on St. Joseph Peninsula.

*3.3 / **Resource Description***

Surrounding Population Data and Future Projected Changes

Port St. Joe is a small, predominately rural community in southern Gulf County. According to the U.S. Census Bureau in 2010, southern Gulf County, including unincorporated areas, had a population of 15,863 with a population density of approximately 24 persons per square mile. The population of the county increased 19 percent between 2000 and 2010 (U.S. Census Bureau, 2014). However, there are many second homes in the area that would not be counted on a census poll. Tourism is a vital element in the economy of Gulf County, and will continue to grow for years to come. The Port St. Joe Master Plan describes future plans for the development of a waterfront village that includes large-scale, residential, commercial, and resort development surrounded by green space. This may include a 50 wet-slip and 300 dry-slip marina. Plans to develop a commercial deepwater port are also proceeding. The projected population is expected to increase to 17,400 by 2020 (University of Florida, 2014). As tourism to the area and population continues to rise, visitation to the Buffer Preserve is expected to increase. The environmental impacts of increased urban development adjacent to the Buffer Preserve and the increased recreational and educational uses will have to be managed appropriately.



Map 4 | Physiographic provinces near St. Joseph Bay State Buffer Preserve.

Topography and Geomorphology

The Buffer Preserve is in Florida's Coastal Lowlands within the Northern Zone of the state. More specifically, it is in the Gulf Coastal Lowlands, adjacent to the Western Highlands and the Marianna Lowlands. Topographic features in the Gulf Coastal Lowlands are generally low in elevation and poorly drained (Florida Natural Areas Inventory [FNAI], 2004). These features are usually coast parallel, indicating a close control of their shape and form by marine forces. Landforms that comprise these lowlands near the coast of Florida include barrier islands, lagoons, estuaries, coastal ridges, sand dune ridges, and relict spits and bars with intervening coast-parallel valleys (Puri & Vernon, 1964). Elevations of the Buffer Preserve range from about 20 feet above mean sea level in the interior portion to less than one foot along the immediate coastal zones (Rink & Lopez, 2010). Alterations to the topography of the Buffer Preserve include ditches, raised roads, fire plow scars, man-made ponds and borrow pits.

Geology

The underlying geology of the area belongs to the recent Pleistocene series marked by several lower marine and estuarine terrace deposits. The geologic formations in this area are among the latest sediments to be deposited in Florida and include alluvial and freshwater marls, peats and muds. Partially as a result of this landform, many of the most widely ranging terrestrial and palustrine natural communities in this region have soils that are often saturated or even inundated for several months during the year. Conspicuous topographic features in this area of Florida include a series of relict sand bars, dunes and spits that now often support patches of scrub, scrubby flatwoods or sandhill vegetation. The overall topography is marked by a pronounced dune ridge/swale system running in parallel fashion oriented with the coastlines.

Geological layers directly under the Buffer Preserve are composed of marine and fluvial sands (some with shelly horizons) as well as silts and muds of the Holocene age. Deeper layers are composed of units from the Pleistocene age. These layers were deposited in a coastal environment much like that of today, with shoreline position fluctuation through time due to changing sea level throughout the late Pleistocene and up until about 5,000 years ago when sea level is thought to have stabilized near its present position. Around that same time, as sea level was rising and becoming stable, the present suite of barrier islands in and around the Buffer Preserve began to form. Buffer Preserve lands on Cape San Blas are clearly dune ridges that were parts of either old sand spits or barrier islands that have formed since sea level stabilized. Inland portions of the Buffer Preserve are also characterized by ancient ridge sets in an upland environment. Recent dating of these ridges indicates they are well over 100,000 years old (Rink & Lopez, 2010).

Minerals

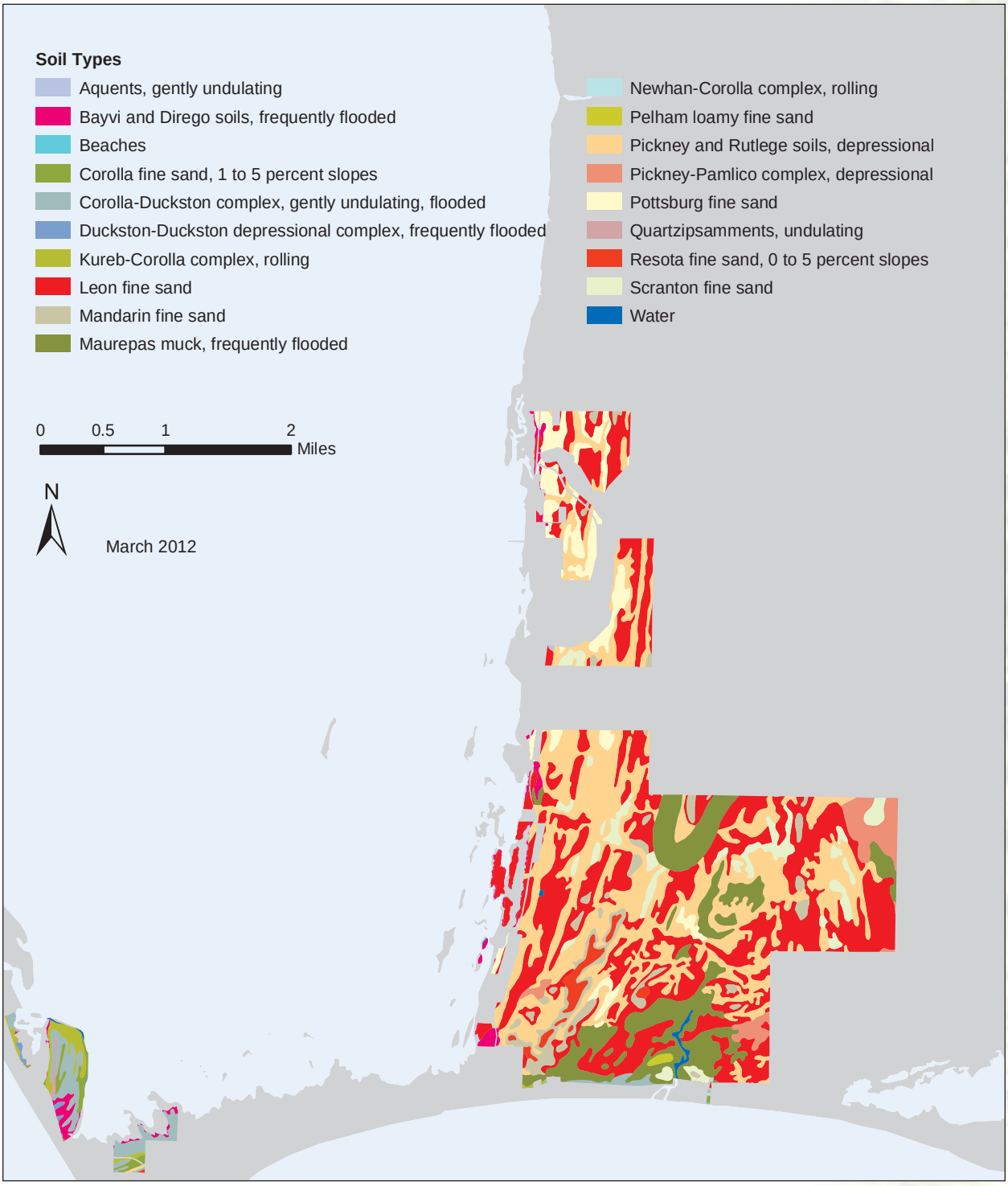
There are no known commercially viable mineral resources in this area of the Panhandle.

Soils

Eighteen soil types have been identified within the Buffer Preserve (Map 5). Soils range from the wet Bayvi and Dirego soils found in salt marshes and tidal bays along the coast to the dry Kureb-Corolla complex found on remnant coastal dunes and swales. According to the U.S. Department of Agriculture, Natural Resources Conservation Service, by way of the Northwest Florida Water Management District (NWFWMD)(Schuster et al., 2001), the following soil types are found on the Buffer Preserve:

Hydrology and Watershed

Two major watersheds and one minor watershed converge on Buffer Preserve lands. These include the St. Andrews Bay Watershed, the Apalachicola River Basin, and the Money Bayou Watershed (Map 6). Drainages that occur in the westernmost portions of the Buffer Preserve flow directly into



Map 5 / Soils of St. Joseph Bay State Buffer Preserve.

Soil Type	Acreage
Aquents, gently undulating	1.3
Bayvi and Dirego soils, frequently flooded	68
Beaches	0.2
Corolla-Duckston complex, gently undulating, flooded	122
Corolla fine sand, 1 to 5 percent slopes	31
Duckston-Duckston depressional complex, frequently flooded	6
Kureb-Corolla complex, rolling	44
Leon fine sand	1668
Mandarin fine sand	197
Maurepas muck, frequently flooded	566
Newhan-Corolla complex, rolling	0.3
Pelham loamy fine sand	8
Pickney-Pamlico complex, depressional	136
Pickney and Rutlege soils, depressional	1553
Pottsburg fine sand	249
Quartzipsamments, undulating	6
Resota fine sand, 0 to 5 percent slopes	59
Scranton fine sand	193
Water	12
Waters of the Gulf of Mexico	2

Table 2 | Soil types and acreages in the Buffer Preserve.

St. Joseph Bay, part of the St. Andrews Bay Watershed. The northernmost portion of the Buffer Preserve drains into Depot Creek, which begins near the town of Port St. Joe, flows south onto the Buffer Preserve then turns sharply northeast flowing through Lake Wimico before emptying into the Apalachicola River and eventually into the Gulf of Mexico near Apalachicola.

Money Bayou originates within the Buffer Preserve, which contains nearly the entire drainage basin. Wetlands in the center and southern portions of the Buffer Preserve drain into Money Bayou heading south approximately one mile to the Gulf of Mexico between Cape San Blas and Indian Pass. The eastern portion of the Money Bayou Tract is characterized by a series of ancient dune swales, now wetlands that are aligned in roughly a northeast-southwest orientation parallel to the St. Joseph Bay shoreline. These wetlands drain into St. Joseph Bay, Depot Creek, or Money Bayou. Money Bayou also contains a large basin marsh that is intermittently tidal when connected to the Gulf of Mexico, but consists of freshwater when it is sealed off from the Gulf by a berm of sand at the mouth of the bayou.

There has been hydrological disruption that occurred from the early 1900s to the present. From the early 1900s through the 1940s, ditches were dug connecting wetlands to hasten the flow of water off of the land, making it more suitable for cattle and naval stores operations. Ditches were dug through the salt marshes to St. Joseph Bay from the 1950s through the 1970s in an attempt to control mosquito populations. Beginning in the 1960s, ditches were dug near and through the northern area of the current Buffer Preserve boundary to drain the adjacent land for the development of a golf course, air strip and residential development. Also, a major ditch was constructed to link Money Bayou with Indian Lagoon in an attempt to bring more freshwater into the lagoon. Additionally, raised road beds with miles of ditches were constructed across the Money Bayou portion of the Buffer Preserve in anticipation of a residential development.

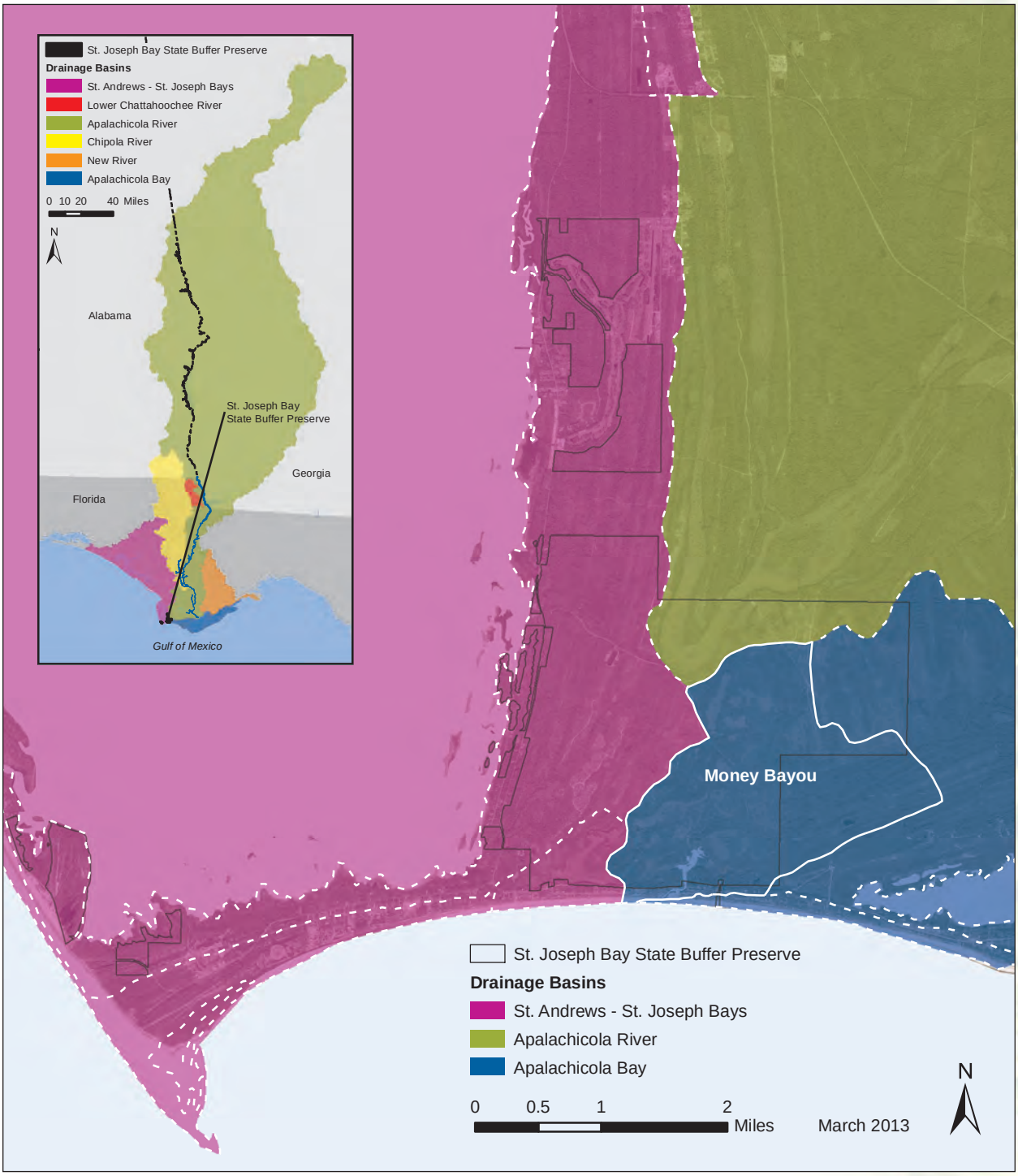
In addition to ditches, fire plow lines on the Buffer Preserve, created to suppress wildfires, affect the surface water hydrology, alter the local vegetation composition, act as vectors for edge and exotic species, and are physical barriers to both small animal movement and prescribed fire. Restoration of the wildfire suppression fire lines, where feasible, will facilitate the natural hydrologic flow and vegetative composition.

Two public water supply wells that supply water for southern Gulf County occur immediately adjacent to the Buffer Preserve in very close proximity to St Joseph Bay and the Gulf of Mexico. Public water supply for both Gulf County and neighboring Franklin County is withdrawn from the Floridan Aquifer. The increased pressure from residential and commercial growth concentrated along the coast has given rise to concerns of saltwater intrusion in the area's water supply. A portion of southern Gulf County, from just north of Port St. Joe to the Gulf of Mexico and extending east to Franklin County, has been designated as an Area of Special Concern by NWFWMD (NWFWMD, 2007).

Climate

The climate of Gulf County is largely determined by its proximity to the Gulf of Mexico, the northern continental land mass, and its temperate latitude. Generally, the warm waters help create warm, humid summers and mild winters. Hurricanes and tropical storms occasionally influence the late summer and fall weather of the region, bringing extremes in wind, rainfall, and tide. Over a 500-year period it is estimated that a total of 90 land falling hurricanes will occur within a distance of 270 nautical miles of

Gulf County (Dean & Chiu, 1985). Average annual rainfall is about 60 inches. Convection-type storms are the predominant source of rainfall in the summer and frontal storms are the typical source in the winter. Peak rainfall typically occurs from late June through September, when there are thunderstorms, and from December through March, when rainfall is associated with frontal systems moving across the region. Long rain-free intervals occur from April through June, and from October through November (Huffman, 2006). Lightning flash densities are lowest from November-February, increase from March-May, peak during June-September, and decrease again in October (Hodanish, Sharpe, Collins, Paxton, & Orville, 1997). The average low temperature is approximately 55°F, while the average high temperature is 79°F. Seasonal and annual temperatures vary greatly however, ranging from the upper 90s in the summer to the lower 20s in the winter. Prevailing winds are generally from a southerly direction during the summer and from a northerly to easterly direction during the winter months. Local winds, however, may change abruptly due to sea breeze shifts, thunderstorms and the movement of fronts through the area.



Map 6 | Drainage basins associated with St. Joseph Bay State Buffer Preserve.

Natural Communities

The natural community classification system used in this plan was developed by the Florida Natural Areas Inventory (FNAI) and the Florida Department of Natural Resources, now DEP. The community types are defined by a variety of factors, such as vegetation structure and composition, hydrology, fire regime, topography and soil type. According to the natural community map created by FNAI in 2010, there are 18 listed community types on the Buffer Preserve (see Table 3). Several criteria are used by FNAI to determine the relative rarity and threat to each community type. Global (G) or State (S) rankings are assigned based on these criteria.

The description below of natural communities found within the Buffer Preserve is followed by discussion of the distribution of the primary ecosystems and location of the FNAI natural communities within them. The FNAI descriptions are taken from the Guide to FNAI Natural Community, 2010 (FNAI, 2010).

Scrub – (synonyms: sand pine scrub, Florida scrub, sand scrub, rosemary scrub, oak scrub). Scrub is a community composed of evergreen shrubs, with or without a canopy of pines, and is found on dry, infertile, sandy ridges. The signature scrub species –myrtle oak (Quercus myrtifolia), sand live oak (Q. geminata), Chapman's oak (Q. chapmanii) Florida rosemary (Ceratiola ericoides) and sand pine (Pinus clausa) – are common to scrubs throughout the state. The dominance of these species, however, is variable from site to site. The most common form is oak scrub, dominated by those three species of shrubby oaks plus rusty staggerbush (Lyonia ferruginea) and saw palmetto (Serenoa repens). Florida rosemary and sand pine may also be present. While scrub is a fire-maintained community, it is not easily ignited. Scrub is thought to have burned less frequently than communities with a more easily ignited grassy groundcover, such as sandhill and mesic flatwoods. The variety of sand pine in Panhandle scrubs (P. clausa var. immuginata, or the Choctawhatchee variety) is open-coned and is therefore capable of maintaining its populations in the absence of fire (Parker, Hamrick, Parker, & Nason, 2001). Sand pines are highly susceptible to being killed by salt spray and wind throw from coastal storms. Storm-related disturbances in sand pine scrub along the Panhandle coast play a significant role in stimulating stand regeneration in this region (Huck et al., 1996).

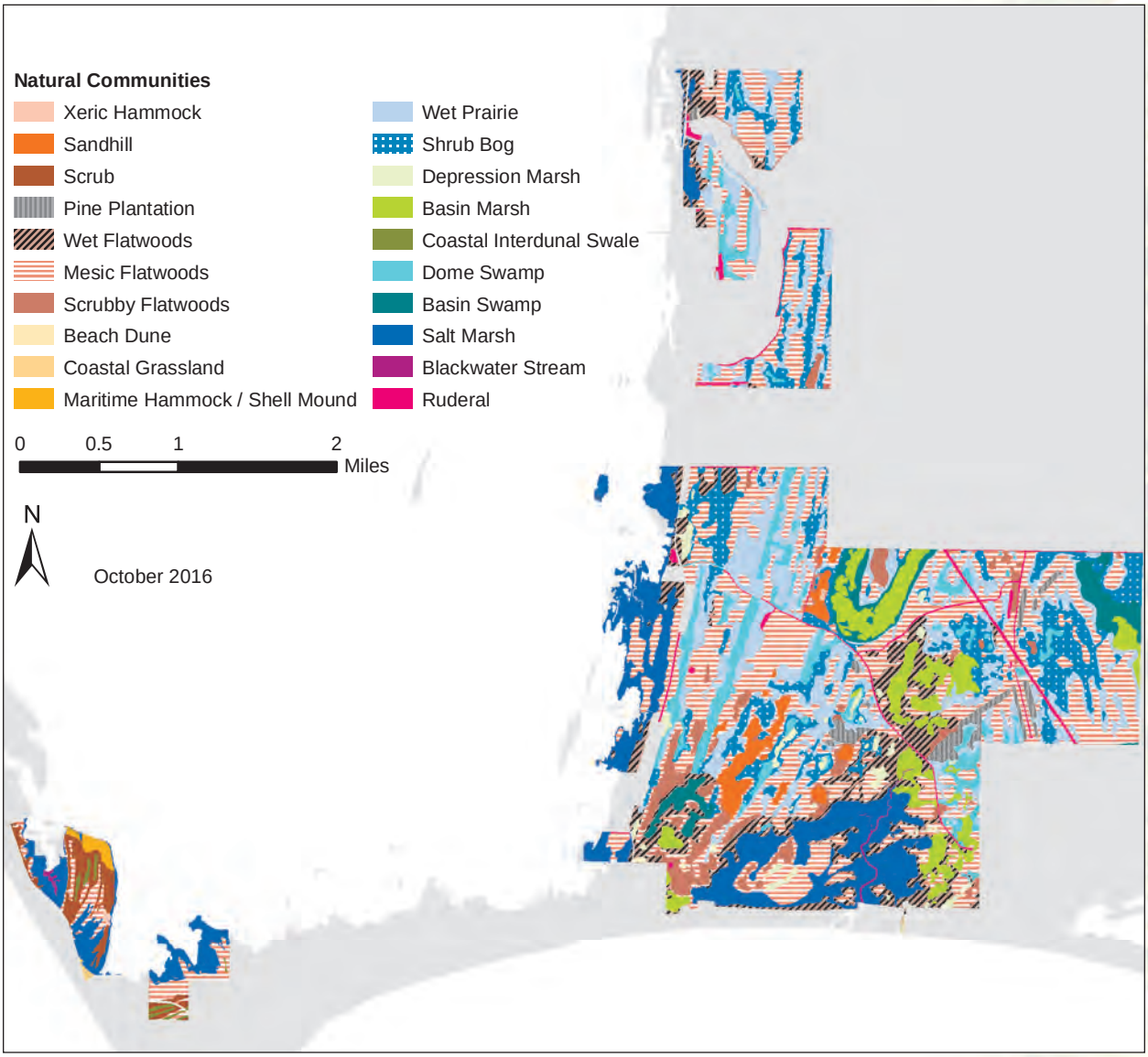
FNAI Natural Community Type	# Acres	Federal Rank	State Rank	Recommended Fire Return Interval
Basin Marsh	290	G4	S3	2-10 years (FNAI, 2010)
Basin Swamp	137	G4	S3	Occasional or rare fire (FNAI, 2010)
Beach Dune	1	G4	S4	Rare or no fire (FNAI, 2010)
Blackwater Stream	10	G4	S2	n/a
Coastal Grassland	4	G3	S2	Occasional fire (FNAI, 2010)
Coastal Interdunal Swale	12	G2	S2	Rare or no fire (FNAI, 2010)
Depression Marsh	68	G4	S4	Allow to burn with adjacent community that needs most frequent fire (FNAI, 2010)
Dome Swamp	300	G4	S4	Allow to burn with adjacent community that needs most frequent fire; Money Bayou marsh (FNAI, 2010)
Maritime Hammock / Shell Mound	16	G2	S2	Rare or no fire (FNAI, 2010)
Mesic Flatwoods	1,464	G4	S3	1-4 years (DEP, 2013)
Pine Plantation	76			Not classified as a natural community; Being restored through prescribed fire
Ruderal	86			Not classified as a natural community
Salt Marsh (FNAI change from tidal)	640	G5	S4	Occasional or rare fire (FNAI, 2010)
Sandhill	92	G3	S2	1-3 years (FNAI, 2010)
Scrub	76	G2	S2	4-20 years (FNAI, 2010)
Shrub Bog	556	G4	S3	10-20 years (FNAI, 2010)
Scrubby Flatwoods	196	G2	S2	3-14 years (DEP, 2013)
Wet Flatwoods	410	G4	S4	2-5 years (DEP, 2013)
Wet Prairie	809	G2	S2	2-3 years (FNAI, 2010)
Xeric Hammock	4	G3	S3	2-10 years (FNAI, 2010)

Table 3 / Summary of natural communities on St. Joseph Bay State Buffer Preserve.

Wildlife species endemic to scrub and other xeric habitats in northwest Florida include the gopher tortoise (*Gopherus polyphemus*) and more than 400 associated commensals, including eastern diamondback rattlesnakes (*Crotalus adamanteus*) and eastern indigo snakes (*Drymarchon corais couperi*). Gopher tortoises are present on Buffer Preserve lands, but very little is known about their population or status.

The Deal Tract includes approximately 76 acres of scrub habitat, most of which is in excellent condition and some of which is in maintenance condition. This scrub grades into mesic flatwoods and maritime hammock / shell mound. The Deal Tract provides very rich migratory bird habitat that brings in professional birders from all over the world. The Deal Tract is also part of the Great Florida Birding Trail. There has been a concerted effort to preserve scrub through land acquisition at the local, state, and federal levels beginning in the late 1980s. At that time, range-wide surveys indicated Florida scrub-jay populations were in decline and rare plant species (including a number of newly described species) were not uniformly distributed in scrubs (Christman & Judd, 1990). Many scrubs have been preserved through the state land acquisition program which identified projects containing scrub on the Lake Wales Ridge, the Atlantic Coastal Ridge and the Panhandle coast (DEP, 2004).

Coastal Grassland - (synonyms: overwash plain, coastal savannah, coastal strand, dunes and maritime hammocks -transition zone). Coastal grassland is a predominantly herbaceous community occupying the drier portions of the transition zone between beach dunes on the immediate coast and communities dominated by woody species further inland. Coastal grassland is a low flat area behind the foredunes that is found on broader barrier islands, capes, spits, and is best developed along the Gulf Coast. It



Map 7 / Florida Natural Areas Inventory natural communities of St. Joseph Bay State Buffer Preserve.

may be periodically flooded by saltwater and covered with sand and debris during major storms. The specialized dune building grasses of the beach dune community - sea oats (*Uniola paniculata*), bitter panicgrass (*Panicum amarum*) and saltmeadow cordgrass (*Spartina patens*), are usually present along with a variety of other herbaceous species typically found on more stable soils. Coastal grassland is well-developed in the Panhandle where it includes a number of rare or endemic plants including the dominant grass, Gulf bluestem (*Schizachyrium maritimum*) and Gulf Coast lupine (*Lupinus westianus*), although the Gulf Coast lupine is not present in the Buffer Preserve.

The Buffer Preserve contains four acres of coastal grassland habitat within its boundaries on the St. Joseph Peninsula. Three rare shorebirds may nest in this natural community- the snowy plover (*Charadrius alexandrinus*), Wilson's plover (*C. wilsonia*), and American oystercatcher (*Haematopus palliatus*). Coastal grasslands are also habitat for the federally-endangered St. Andrews beach mouse (*Peromyscus polionotus peninsulari*), although they have not been documented at the Buffer Preserve. The coastal grassland is in good maintenance condition within the Buffer Preserve. This community is bordered by St. Joseph Bay Aquatic Preserve's canoe/kayak launch road to the southeast and is protected by a fence that prohibits the public from driving on it. St. Joseph Bay storm surges do wash over the community during large tropical storms, creating small areas of bare sand. However, due to the protection from the adjacent rock sea wall to the west, the coastal grasslands recover quickly. This sea wall is an area of continuous maintenance due to storm surges and was reinforced in early 2015.

Maritime Hammock / **Shell Mound** – (synonyms: shell mound, maritime forest, coastal tropical hammock, midden). Maritime hammock is a predominantly evergreen hardwood forest growing on stabilized coastal dunes lying at varying distances from the shore. From the Georgia border to north of Cape Canaveral, live oak, cabbage palm (*Sabal palmetto*) and red bay (*Persea borbonia*) combine to form a dense canopy. The low, streamlined profile deflects winds and generally prevents hurricanes from uprooting the trees. Additional canopy species include pignut hickory (*Carya glabra*) and southern magnolia (*Magnolia grandiflora*). Characteristic subcanopy species are red cedar (*Juniperus virginiana*) and American holly (*Ilex opaca*). Yaupon (*Ilex vomitoria*), tough bully (*Sideroxylon tenax*), wax myrtle (*Myrica cerifera*), and saw palmetto are typical shrubs. The herb layer is sparse to absent.

On the Florida Panhandle coast, the forested portions of barrier islands are largely occupied by pine-dominated communities such as scrub, scrubby flatwoods, and mesic flatwoods, and maritime hammock is found only in isolated pockets, often where shell is mixed with the sandy substrate.

Shell mounds are small hills, usually in coastal locations, composed entirely of shells (clams, oysters, whelks) discarded by generations of Native Americans which support an assemblage of calciphilic plant species. Archaeological evidence indicates they were occupied at the time Europeans first landed in Florida. A rich calcareous soil develops on the deposited shells which supports a diverse hardwood forest on undisturbed mounds. Shell mounds in the Florida Panhandle support temperate canopy trees such as live oak and cabbage palm as well as calcium-loving temperate species not found in nearby maritime hammocks on sand, including soapberry (*Sapindus saponaria*) and Carolina buckthorn (*Rhamnus caroliniana*) (Johnson, Muller, & Bettinger, 1992).

The Deal Tract on Cape San Blas contains an isolated pocket of maritime hammock / shell mound, consisting of approximately 16 acres. This community has been threatened by wildfires in the recent past because of lightning strikes and human causes, and has also suffered disturbance due to illegal digging. Rehabilitation is underway to restore the fire plow scars from wildfire suppression efforts and monitoring for illegal digging is ongoing. Illegal digging can result in loss of historical resources and allow exotic species to invade. The rest of the community is in good condition.

This community on the Deal Tract occurs on moderately alkaline quartz sands mixed with shell fragments. This community serves as a crucial resting and foraging area for songbirds during their fall and spring migrations to and from the tropics. Due to their coastal location, fires are naturally rare in this community. Fires may weaken the canopy trees making them more susceptible to damage by other coastal stresses, such as salt spray and storm winds.

Scrubby Flatwoods – (synonyms: scrubby, xeric, or dry flatwoods; longleaf pine - scrub oak; southern mixed forest, pine flatwoods).

Scrubby flatwoods have an open canopy of widely spaced pine trees and a low, shrubby understory dominated by scrub oaks and saw palmetto, often interspersed with areas of barren white sand. Principal canopy species are longleaf pine (*Pinus palustris*) and slash pine (*P. elliottii*). The shrub layer consists of one or more of the four scrub oaks, sand live oak, myrtle oak, Chapman's oak and scrub oak (*Quercus inopina*), and typical shrubs of mesic flatwoods including saw palmetto, gallberry (*Ilex glabra*), rusty staggerbush,

fetterbush (*Lyonia lucida*), coastalplain staggerbush (*L. fruticosa*) and deerberry (*Vaccinium stamineum*). The shrub layer of scrubby flatwoods is not solely comprised of oaks; grasses and dwarf shrubs make up a substantial portion of the cover. Grasses include wiregrass (*Aristida stricta* var. *beyrichiana*), broomsedge bluestem (*Andropogon virginicus*), and little bluestem (*Schizachyrium scoparium*); dwarf shrubs include dwarf live oak (*Quercus minima*), runner oak (*Q. elliottii*), dwarf huckleberry (*Gaylussacia dumosa*), gopher apple (*Licania michauxii*), and shiny blueberry (*Vaccinium myrsinites*). A variety of forbs, many typical of drier types of mesic flatwoods, are present including coastalplain honeycomb-head (*Balduina angustifolia*), narrowleaf silkgrass (*Pityopsis graminifolia*), October flower (*Polygonella polygama*), and sweet goldenrod (*Solidago odora*). Bare sand openings are often present but are generally small. Scrubby flatwoods are inhabited by many of the same rare animal species found in scrub. These include Florida mouse and gopher tortoise and more than 400 associated tortoise commensal species.

Because there is a more continuous ground cover, scrubby flatwoods burn more readily than scrub (United States Fish and Wildlife Service [USFWS], 1999) and somewhat less readily than mesic flatwoods. Variability in season and frequency of prescribed fires to produce a mosaic of burned and unburned patches would be most desirable for maintaining high biotic diversity in this community. Invasive exotic plants that can displace native species in disturbed scrubby flatwoods include natal grass (*Melinis repens*) and cogon grass (*Imperata cylindrica*).

At the Buffer Preserve, scrubby flatwoods are one of the higher, more xeric sites (after scrub) and this natural community grades down into mesic and wet flatwoods. The flatwoods are maintained ecologically by fire and are dominated by longleaf pines, oaks (*Quercus* spp.), saw palmettos, wax myrtle, blueberries (*Vaccinium* spp.), and gallberry in the shrub layer. A very species-diverse shrub and herbaceous layer occurs in both the flatwoods and the wet prairies in the landscape, and around wetlands. Here, scrubby and mesic flatwoods provide habitat for telephus spurge, with Chapman's rhododendron occupying ecotones between the scrubby flatwoods and lower, wetter habitats. This community type still needs habitat improvement by the reintroduction of fire. There are resource management zones that have no fire history in them, although progress is being made. Most of the community is in good condition and restoration efforts are underway. These restoration efforts will improve old fire plow scars and rehabilitated fire containment lines that are no longer needed because of the management zones being in good fire maintenance condition.

Mesic Flatwoods – (synonyms: pine flatwoods) Mesic flatwoods is characterized by an open canopy of tall pines and a dense, low ground layer of low shrubs, grasses, and forbs. Mesic flatwoods is the most widespread natural community in Florida, covering the flat sandy terraces left behind by former high stands of sea level during the Plio-Pleistocene. The soils are alternately droughty during dry periods and saturated, or even inundated, after heavy rains. Longleaf pine is the principal canopy tree. Although slash pine is more common than longleaf pine in mesic flatwoods in northern Florida, this is a result of invasion by slash pine after logging of longleaf pine followed by a long period of fire exclusion in the early part of the 20th century (Garren, 1943). Characteristic shrubs include saw palmetto, gallberry, coastal plain staggerbush, and fetterbush. Rhizomatous dwarf shrubs, usually less than two feet tall, are common. The herbaceous layer is predominantly grasses plus a large number of showy forbs.

Many rare plants endemic to Florida are found in mesic flatwoods in the Panhandle including pine-woods aster, scare-weed (*Baptisia simplicifolia*), Telephus spurge, white birds-in-a-nest (*Macbridea alba*), pineland false sunflower (*Phoebanthus tenuifolius*), pine-woods bluestem (*Andropogon arctatus*), many-flowered grass-pink (*Calopogon multiflorus*), and Florida beargrass (*Nolina atopocarpa*).

Rare animals in mesic flatwoods include the reticulated flatwoods salamander (*Ambystoma bishopi*), eastern diamondback rattlesnake, Bachman's sparrow (*Aimophila aestivalis*), red-cockaded woodpecker (*Picoides borealis*), and Florida black bear (*Ursus americanus floridanus*).

Mesic flatwoods require frequent fire (one to four year intervals) to control hardwood and off-site pine invasion. Red-cockaded woodpeckers, which nest in cavities in mature living pines, will abandon a nesting site if the midstory becomes too tall and dense when fire is excluded for too long (Conner & Rudolph, 1989). The flatwoods salamander prefers a grassy border to its breeding ponds which is maintained against encroaching shrubs by frequent fire (Drewa, Platt, & Moser, 2002). Fire stimulates flowering in many flatwoods herbs and frequent fire (one to three years) increases species richness and abundance of herbs (Lemon, 1949).

Wiregrass often does not withstand ground disturbance associated with planting pine plantations for commercial purposes. In some cases where the goal is to restore pine plantations to mesic flatwoods, there may not be enough wiregrass remaining to restore the herbaceous ground cover by frequent fire

Pine savanna within the Buffer Preserve.

and natural seeding (Platt, 1999; Kirkman, Coffey, Mitchell, & Moser, 2004). In such cases direct seeding may be required to restore the wiregrass ground layer. Care should be taken that the wiregrass and other seed used for restoration is not only from the same geographic area but also the same habitat type as the restoration site to maintain geographic genetic diversity (Walters, Decker-Walters, & Gordon, 1994) and to improve chances of survival (Kindell, Winn, & Miller, 1996; Gordon & Rice, 1998).

Invasive exotic plants that may cause problems in mesic flatwoods include cogon grass, Japanese climbing fern (*Lygodium japonicum*), camphor tree (*Cinnamomum camphora*) and natal grass; all listed as Category I exotics (capable of displacing native species) by the Florida Exotic Pest Plant Council (FLEPPC).

The Buffer Preserve consists of 1,464 acres of mesic flatwoods that need to be burned frequently to (1) reduce competition from hardwoods; (2) create soil conditions suitable for germination of seeds of some species; (3) turnover litter, humus and nutrients; and (4) increase the vigor in populations of some species. Nearly all flora and fauna in this habitat depend, at least during some portion of their life cycle, on fire. Without fire, mesic flatwoods will become hardwood dominated and lead to heavy buildup of pine litter. This dense litter may retard pine production encouraging succession to hardwoods. If fire is too frequent or too hot, it may eliminate pine recruitment leading to succession to dry prairie. This community type still needs habitat improvement by the introduction of fire. There are resource management zones that have no fire history in them, although progress is being made. These communities have been subject to lightning fires in the past which required large equipment to contain the fire. This introduction of large equipment caused plow scars across the landscape which are currently healing themselves, although it will take many years. Any new plow scars are being immediately rehabilitated by the Buffer Preserve staff as they happen and to their best effort. Many-flowered grass-pink and Florida beargrass have not been documented on the Buffer Preserve yet, but may return with continued prescribed fire and further surveys.

Basin Swamp - (synonyms: gum swamp, bay, bayhead, swamp). Basin swamp is a basin wetland vegetated with hydrophytic trees and shrubs that can withstand an extended hydroperiod. This natural community typically occurs in any type of large landscape depression such as old lake beds or river basins, or ancient coastal swales and lagoons that existed during higher sea levels. Basin swamps are highly variable in size, shape, and species composition. While mixed species canopies are common, the dominant trees are pond cypress (*Taxodium ascendens*) and swamp tupelo (*Nyssa sylvatica* var. *biflora*). Other typical canopy and subcanopy trees include slash pine, red maple (*Acer rubrum*), dahoon (*Ilex cassine*), swamp bay (*Persea palustris*), sweetbay (*Magnolia virginiana*), loblolly bay (*Gordonia*

lasianthus), swamp laurel oak (*Quercus laurifolia*), water oak (*Q. nigra*), sweetgum (*Liquidambar styraciflua*), green ash (*Fraxinus pennsylvanica*), American hornbeam (*Carpinus caroliniana*) and American elm (*Ulmus americana*). Depending on the hydrology and fire history, shrubs may be found throughout a basin swamp or they may be concentrated around the perimeter. The herbaceous layer is also variable and includes a wide array of species. Sphagnum moss (*Sphagnum* spp.*)* often occurs in patches where the soil is saturated but not flooded (Monk & Brown, 1965). Vines may be present.

Basin swamp provides important foraging and nesting grounds for several rare animals including reticulated flatwoods salamander, swallow-tailed kite (*Elanoides forficatus*) and wood stork (*Mycteria americana*).

Fire intervals are variable and depend on dominant vegetation, fire exposure, and drought. The interior of basin swamps may go without fire for decades or even centuries while the exposed outer edges can be more susceptible to frequent fire. Without fire, bays and hardwoods increase in density and peat accumulates more rapidly. Cypress and pines are tolerant of light surface fires, but muck fires burning into the peat can kill the trees, lower the ground surface, and transform a swamp into a pond, lake, marsh, or shrub bog.

Basin swamps can suffer from regional hydrological modifications, logging, nutrient enrichment, pollution from agricultural runoff, and exotic species invasion (USFWS, 1999; Fowlkes, Michael, Crisman, & Prenger, 2003). Conversion of adjacent uplands to pasture, development, or agriculture impedes natural fire and alters hydrologic inputs to basin swamps (Kirkman, Golladay, Laclaire, & Sutter, 1999). Extended hydroperiods can limit tree growth and prevent reproduction. Shortened hydroperiods can permit the invasion of shrubs and hardwoods, and increase fire potential (Ewel, 1990). It is important to maintain natural hydroperiods and natural (both seasonal and long term) fluctuations in water level. Invasive exotic plant species can be a problem in basin swamps through competition for light and nutrients. Species of particular concern include Japanese climbing fern and Chinese tallow (*Triadica sebifera* [syn. *Sapium sebiferum*]).

Most cypress trees in the southeast were harvested in the late 19th and early 20th centuries (Brandt & Ewel, 1989). Unlike most pine plantations, cypress harvested in Florida generally is cut from natural stands and few areas are ever replanted. Although cypress trees are capable of regenerating, or resprouting from cut stumps, cypress regeneration is usually from seed. Dry periods give seed an opportunity to germinate. It is important that a few seed trees be left in place for canopy regeneration.

The Buffer Preserve contains 137 acres of basin swamp, much of which borders Depot Creek. The basin swamps are only found within four of the resource management zones. These areas remain wet throughout the year unless there is an extreme drought. The last extreme drought allowed access into these wet areas and a couple fire lines were installed. These firelines have become ditches that hold water and are very problematic to the sheet flow movement through this area. Restoration efforts are on hold within these areas because of the current wet conditions.

Depression Marsh – (synonyms: isolated wetland, flatwoods pond, St. John's wort pond, pineland depression, ephemeral pond, seasonal marsh). Depression marsh is characterized as a shallow, usually rounded depression in sand substrate with herbaceous vegetation zones or bands of vegetation that are related to length of the hydroperiod and depth of flooding. They form when the overlying sands slump into depressions dissolved in underlying limestone. These marshes also frequently form an outer rim around swamp communities such as dome swamps. The outer, or driest, zone is often occupied by sparse herbaceous vegetation. Floating-leaved plants, such as white waterlily (*Nymphaea odorata*), may be found in open water portions of the marsh. Depending on depth and configuration, depression marshes can have varying combinations of these zones and species within each zone. Depression marshes often burn with the surrounding landscape and are seasonally inundated.

Rare plant species found in depression marshes include: Elliott's croton (*Croton elliottii*), karst pond xyris (*Xyris longisepala*), white meadow-beauty (*Rhexia parviflora*), and Panhandle meadow-beauty (*R. salicifolia*), all endemic to the Panhandle.

Rare animal species include several amphibians, particularly those that require breeding sites that are free of predatory fishes (Moler & Franz, 1987); these include the reticulated flatwoods salamander, tiger salamander (*A. tigrinum*), striped newt (*Notophthalmus perstriatus*) and gopher frog (*Lithobates capito*). More than a dozen other species of frogs and salamanders also breed regularly in depression marshes, and these constitute an important part of the food supply of wading birds and snakes, including the southern hognose snake (*Heterodon simus*) and rare eastern indigo snake (Moler & Franz, 1987). Other rare species using this habitat include the round-tailed muskrat (*Neofiber alleni*). Wading birds, in addition to feeding in depression marshes, use clumps of willows or other trees in the center for roosting or nesting (C. Nesmith, personal communication, 2008).

Depression marshes are generally thought to be maintained as herbaceous communities against woody invasion by hydrologic fluctuations or by fire or by both (Kirkman, Goebel, West, Drew, & Palik, 2000; Casey & Ewel, 2006). Fires in surrounding communities should be allowed to burn into depression marshes and extinguish naturally or burn through them. Physical disturbance, particularly from hog rooting, livestock, or vehicles (e.g., "mud bogging") can cause serious damage in marshes; these activities can destroy native species and churn the soil which is often then colonized by pure stands of weedy species. Such physical disturbances can allow invasive exotic plants to get a foothold.

The Buffer Preserve contains approximately 68 acres of this natural community. These communities are scattered throughout the Buffer Preserve. Most of this community is in good condition and has greatly benefited from prescribed fire. The rest of this community has no fire history, although progress is being made. Most of the community is in good condition and maintenance efforts are underway. Karst pond xryis and Panhandle meadow-beauty have not been documented on Buffer Preserve lands, but may return or be discovered after further restoration and additional surveys.

Depression marshes are seasonally inundated, but periodic drying is essential to maintain the community. These marshes are shallow (<1m), small (4-300 m across) and often occur within larger ecosystems. Within the Buffer Preserve these marshes are found adjacent to mesic and wet flatwoods. Fire is an important element in the maintenance of these depression marshes, being surrounded by fire dependent communities. Although fire is rare within the wetter interior region of the marsh, fire in the outer bands with a return interval of 5-25 years is necessary to restrict the invasions of shrubs and trees.

Dome Swamp – (synonyms: isolated wetland cypress dome, cypress pond, gum pond, bayhead, cypress gall, pine barrens pond). Dome swamp is an isolated, forested, depression wetland occurring within a fire-maintained community such as mesic flatwoods. Dome swamps are often formed when poor surface drainage causes water to move downward and dissolve the limestone bedrock. These swamps are generally small, but may also be large and shallow. The characteristic dome shape is created by smaller trees that grow in the shallower waters of the outer edge, while taller trees grow in the deeper water in the interior of the swamp. Pond cypress often dominates, but swamp tupelo, may also form pure stands or occur as a co-dominant. Shrubs are typically sparse to moderate, but often are absent in dome swamps with a high fire frequency or dense in swamps where fire has long been absent. Herbaceous species can be dense or absent and include a wide variety of ferns, graminoids, and herbs. Vines such as eastern poison ivy (*Toxicodendron radicans*) and epiphytes such as Spanish moss (*Tillandsia usneoides*) can be common in dome swamps. The center of the dome swamp contains the largest cypress trees and the understory can be open with deeper water and floating and emergent species. Two variants exist: gum pond and stringer swamp. Gum ponds are depressions dominated by swamp tupelo instead of cypress and found primarily in the Florida Panhandle, commonly occurring within upland pine communities. These swamps are underlain by a clay lens, have a longer hydroperiod and lower fire frequency than cypress-dominated dome swamps (Ewel, 1990). Stringer swamps are narrow linear swamps dominated by pond cypress occurring within a pyrogenic community along an intermittent stream that only flows during times of heavy rainfall. Stringer swamps often burn with the adjoining uplands.

Dome swamps can host rare species including Henry's spider-lily (*Hymenocallis henryae*) and white meadow-beauty. Dome swamps provide important habitat for many wildlife species (Casey & Ewel, 1998), including several rare animals. They provide critical breeding habitat for flatwoods salamanders and are important roosting sites for wading birds such as white ibis (*Eudocimus albus*) and wood stork.

Fire is essential for maintaining the structure and the species composition of a dome swamp community (Ewel & Mitsch, 1978). Without periodic fires, cypress may become less dominant as hardwood or bay canopy species increase and peat accumulates. Cypress have fairly thick, fire-resistant bark and are tolerant of light surface fires, but catastrophic fires burning into the peat can kill cypress trees, especially when fire has long been absent. The consumption of muck fuels from such a catastrophic wildfire can lower the ground surface and transform a dome swamp into a pond, wet prairie, or shrub bog. Since fire is important in the ecology of dome swamps, it should be allowed to burn into dome swamps from the adjacent uplands and extinguish naturally. The practice of putting firebreaks around dome swamps has been used in Florida to prevent fire from entering dome swamps, mostly in an effort to control peat fires. This practice negatively affects the structure and function of the dome swamp by altering drainage from adjoining uplands (Means, 2008), degrading the wet prairie buffer, and impeding fire.

Dome swamps often suffer from anthropogenic alterations or influences such as regional hydrological modifications (Rochow, 1985), logging, nutrient enrichment, pollution from agricultural runoff, and invasive species (USFWS, 1999; Fowlkes et al., 2003). Conversion of the adjacent uplands to pasture,

development, or agriculture impedes natural fire and alters the hydrology of dome swamps that are left unconverted (Kirkman et al., 1999). The hydroperiod also may be substantially shortened through ditching, or conversely increased by impoundment. It is important to maintain natural hydroperiods and natural (both seasonal and long term) fluctuations in water level in dome swamps.

Dome swamps are scattered throughout the Buffer Preserve. Most of this community is in good condition and has greatly benefited from prescribed fire and the installation of low water crossings which has improved the hydrology immensely. The rest of this community has no fire history, although progress is being made. Invasive non-native plant species of particular concern include Japanese climbing fern and Chinese tallow.

Blackwater Stream – (synonyms: blackwater river, blackwater creek). Blackwater streams are characterized as perennial or intermittent seasonal watercourses originating deep in sandy lowlands where extensive wetlands with organic soils function as reservoirs, collecting rainfall and discharging it slowly to the stream. The tea-colored waters are laden with tannins, particulates, and dissolved organic matter and iron derived from drainage through swamps and marshes. They generally are acidic (pH = 4.0 - 6.0), but may become circumneutral or slightly alkaline during low-flow stages when influenced by alkaline groundwater. The dark-colored water reduces light penetration and inhibits photosynthesis and the growth of submerged aquatic plants. Emergent and floating aquatic vegetation may occur along shallower and slower moving sections, but is often reduced because of typically steep banks and considerable seasonal fluctuations in water level. Typical plants include goldenclub (*Corontium aquaticum*), smartweed (*Polygonum* spp.), sedges and grasses. Typical animals include gizzard shad (*Dorosoma cepedianum*), threadfin shad (*D. petenense*), redfin pickerel (*Esox americanus*), chain pickerel (*E. niger*), ironcolor shiner (*Notropis chalybaeus*), weed shiner (*N. texanus*), blacktail shiner (*Cyprinella venustus*), chubsucker (*Erimyzon sucetta*), channel catfish (*Ictalurus punctatus*), flier (*Centrarchus macropterus*), banded sunfish (*Enneacanthus obesus*), redbreast sunfish (*Lepomis auritus*), dollar sunfish (*L. marginatus*), spotted bass (*Micropterus punctulatus*) , black crappie (*Pomoxis nigromaculatus*), darters (*Etheostoma* spp.*),* Alabama waterdog (*Necturus alabamensis*), river frog (*Rana heckscheri*), alligator (*Alligator mississippiensis*), snapping turtle (*Chelydra serpentina*), alligator snapping turtle (*Macrochelys temmincki*), river cooter (*Pseudemys concinna*), stinkpot (*Sternotherus odoratus*), red-belly water snake (*Nerodia erythrogaster erythrogaster*), beaver (*Castor canadensis*) and river otter (*Lutra canadensis*).

Very few blackwater streams have escaped disturbances and alteration. Clear-cutting in adjacent forested lands is one of the more devastating alterations for this community. Additionally, the limited buffering capacity of blackwater streams intensifies the detrimental impacts of agricultural and industrial effluents.

The Buffer Preserve contains ten acres of blackwater stream along Money Bayou. Money Bayou is influenced by two different water patterns, freshwater inflow and tidal up flow. The freshwater inflow comes from the Buffer Preserve during a normal rain event. This may be augmented by freshwater from Depot Creek during a multi-day heavy rain event which causes the banks of Depot Creek to overflow and causes large amounts of water, in the form of sheet flow, to run into the Money Bayou drainage basin. Money Bayou empties into the Gulf of Mexico and is therefore influenced by tide levels around the mouth of Money Bayou. When the tide is high, the water up flows into the mouth of Money Bayou, turning the freshwater into brackish water. This makes public access for canoeing or kayaking up the bayou, dependent on the tide levels. This community type is in good condition and hydrological restoration (i.e. ditch and road restoration, low water crossing installation) is ongoing to improve the sheet flow.

Basin Marsh – (synonyms: wet prairie, freshwater marsh). Basin marshes are regularly inundated freshwater herbaceous wetlands that may occur in a variety of situations. Species composition is heterogeneous both within and between marshes but can generally be divided into submersed, floating-leaved, emergent, and grassy zones from deepest to shallowest portions; shrub patches may be present within any of these zones. Common species found in the floating-leaved zone of basin marshes include white waterlily and American lotus (*Nelumbo lutea*); the emergent zone may have pickerelweed (*Pontederia cordata*), bulltongue arrowhead (*Sagittaria lancifolia*), southern cattail (*Typha domingensis*), sawgrass (*Cladium jamaicense*), and bulrush (*Scirpus* spp.). During droughts, exposed marsh and lake beds may be colonized by large native weedy species.

Rare plants found in basin marshes include Florida corkwood (*Leitneria floridana*) and piedmont water milfoil (*Myriophyllum laxum*). Rare animal species found in basin marshes include American alligator, black rail (*Laterallus jamaicensis*), numerous species of wading birds and round-tailed muskrat.

Natural fires probably occasionally burned basin marshes at the end of the dry season. Dense sawgrass and maidencane marshes will burn even when there is standing water. Frequency of fire varies depending on the hydrology of the marsh and its exposure to fire from surrounding areas. Natural seasonal and

longer-term fluctuations in water level are important for maintaining the diversity of marsh vegetation. If the water level is artificially stabilized, species such as cattail that can tolerate long periods of inundation will tend to dominate. Ditching and cutting of canals to drain water lowers the water table and alters the natural fluctuations of water levels in the marsh, altering the vegetation. A lowered water table allows shrubby species such as coastalplain willow to invade the marsh, shading out the herbaceous vegetation.

The Buffer Preserve contains 290 acres of basin marsh, mostly within Depot Creek and the Money Bayou drainage. The basin marshes within the Buffer Preserve are only located in six resource management zones within the heart of the Buffer Preserve. These zones are continually wet unless there is a very severe drought. This community helps with the freshwater inflow of Money Bayou. Overall this community is in good condition and restoration efforts are ongoing to increase the sheet flow and improve the hydrology for this community.

Coastal Interdunal Swale – (synonyms: interdune area, transition zone). Coastal interdunal swales are marshes, moist grasslands, dense shrubs, or damp flats in linear depressions formed between successive dune ridges as sandy barrier islands, capes, or beach plains build seaward. Dominant species are quite variable depending on local hydrology, substrate, and the age of the swale. Wetter areas are often dominated by sawgrass, cattail (*Typha* spp.) or needlerush (*Juncus roemerianus*), while shallower areas have a diverse mixture of herbs. Shrubby areas are often dominated by wax myrtle, with coastal plain willow (*Salix caroliniana*) or St. John's wort (*Hypericum reductum*). Moist grasslands may be dominated by hairawn muhly (*Muhlenbergia capillaris*), lovegrass (*Eragrostis* spp.), sand cordgrass (*Spartina bakeri*) or saltmeadow cordgrass. Nearer the shore, where swales are exposed to occasional salt water intrusion, they may be dominated by halophytic species. Hurricanes and tropical storms can flood swales with salt water, after which they are colonized for a time by more salt tolerant species.

Salt water intrusion and sand burial during storm overwash may leave coastal interdunal swales vulnerable to invasion by exotic species, principally torpedo grass (*Panicum repens*) and Chinese tallow.

The Buffer Preserve has six acres of coastal interdunal swale at Richardson Hammock and six acres on the Lighthouse Bayou. This community has had wildfires in the recent past because of lightning strikes and human causes. Rehabilitation work is underway to restore the fire plow scars that affected a section of this community. The rest of the community is in good condition.

Beach Dune – (synonyms: sand dunes, beaches, coastal strand). Beach dune is a predominantly herbaceous community of wide-ranging coastal specialist plants on the vegetated upper beach and first dune above the beach (foredune). Water and wind movement exert the primary environmental forces that shape the ecology of beach dunes. Plants on the foredune are regularly exposed to salt spray and sand burial; plants on the upper beach are subject to these stresses plus occasional inundation by high seasonal or storm tides and periodic destruction by waves. The plants of the beach dune community are adapted to either withstand these stresses or to rapidly re-colonize from seed or vegetative parts following destruction. This community is usually built by sea oats, whose stems trap the sand grains blown off the beach, building up the dune by growing upward to keep pace with sand burial. Other grasses that can tolerate some sand burial include bitter panicgrass and saltmeadow cordgrass. Gulf bluestem, which is dominant in the adjacent coastal grassland community, can also be found on the inland slope of the foredune. The upper beach area seaward of the foredune is a less stable habitat and is continually re-colonized by annuals, trailing species and salt-tolerant grasses. Rare plant species found in the beach dune community include Godfrey's golden aster (*Chrysopsis godfreyi)* and Gulf Coast lupine.

Beach dune is also foraging and primary nesting habitat for beach mice, numerous shorebirds and marine turtles, including many rare and endangered species. Many rare shorebirds use Florida beaches for nesting. These include the state-listed snowy plover, American oystercatcher, black skimmer (*Rynchops niger*) and least tern (*Sternulus antillarum*). The federally listed piping plover (*C. melodus*), which breeds further north, winters along Florida beaches. FNAI-listed shorebirds using beaches include Wilson's plover, royal tern (*S. maxima*), and sandwich tern (*S. sandvicensis*). Florida beaches are one of the three major nesting areas in the world for loggerhead turtles (*Caretta caretta*). Other rare sea turtles that nest in Florida are the green sea turtle (*Chelonia mydas*) and Kemp's ridley (*Lepidochelys kempii*).

Certain procedures intended to make the beach more pleasant or accessible for recreational use can interfere with natural processes. Raking seaweed off the beach deprives the plants of nutrients needed for luxuriant growth following storms. In areas with strong onshore winds and stable communities protected by the foredune, paths through the sea oats dunes at right angles to the beach can promote blowouts, allowing a wave of sand to move inland burying existing stable vegetation. This can be prevented by using dune walkovers, or winding paths parallel to the shore. If restoration plantings are used, care should be taken not to plant coastal endemics outside their range.

A natural community along the shore of St Joseph Bay.

The Buffer Preserve has one acre of beach dune adjacent to the Gulf of Mexico. Most of this dune community is in good condition although this land is starting to see the negative effects of population increase. The dune community is starting to get trash washing up on its shore line and blowing into the dunes, along with unauthorized public trails. Management efforts are currently underway to curb some of the negative effects and help restore this beautiful beach dune community. There have been numerous sightings of a range of wildlife such as bald eagle (*Haliaeetus leucocephalus*), an assortment of migratory birds and different land animals all inhabiting this small piece of land.

Xeric Hammock - (synonyms: xeric forest, sand hammock, live oak forest, oak woodland, oak hammock). Xeric hammock is an evergreen forest on well-drained sandy soils. The low canopy is more or less closed and dominated by sand live oak, although Chapman's oak, turkey oak (*Q. laevis*), bluejack oak (*Q. incana*), sand post oak (*Q. margaretta*), and laurel oak (*Q. hemisphaerica*) may also be common. An emergent canopy of pine, either sand pine, slash pine, or longleaf pine, may be present. Hammocks that are intermediate with mesic hammock may have some live oak (*Q. virginiana*) in the canopy.

The understory is usually open and consists of shrubs characteristic of either sandhill or scrub, depending on the origin of the hammock. Common understory plants include saw palmetto, myrtle oak, rusty staggerbush, fetterbush, sparkleberry (*Vaccinium arboreum*), deerberry, black cherry (*Prunus serotina*), American beautyberry (*Callicarpa americana*), common persimmon (*Diospyros virginiana*), scrub palmetto (*Sabal etonia*), Hercules' club (*Zanthoxylum clava-herculis*), wild olive (*Osmanthus americanus*) or scrub wild olive (*O. megacarpus*), garberia (*Garberia heterophylla*), Florida rosemary and yaupon. The herb layer is generally very sparse or absent, but may contain some scattered wiregrass, sandyfield beaksedge (*Rhynchospora megalocarpa*), witchgrass (*Dichanthelium* spp.), or forbs such as sweet goldenrod. Muscadine (*Vitis rotundifolia*) and earleaf greenbrier (*Smilax auriculata*) are common vines. The epiphytes Spanish moss and ballmoss (*T. recurvata*) are often abundant.

Xeric hammock typically develops on well-drained sands where fire-exclusion allows for the establishment of an oak canopy. This may occur naturally, when the area has significant barriers to fire, or more commonly, as the result of human intervention. In these areas, xeric hammock can form extensive stands or can occur as small patches within or near sandhill or scrub. Xeric hammock can also occur on high islands within flatwoods or even on a high, well-drained ridge within a floodplain. Xeric hammock can occur on barrier islands and in other coastal situations, as an advanced successional stage of scrub. Xeric hammock is not considered to be critical habitat for any rare plants tracked by FNAI, although some species adapted to scrub or sandhill communities may persist in hammocks.

Several rare animals commonly utilize xeric hammocks for nesting or foraging. These include gopher frog, gopher tortoise, eastern diamondback rattlesnake, Florida pine snake (*Pituophis melanoleucus mugitus*), Cooper's hawk (*Accipiter cooperii*), short-tailed hawk (*Buteo brachyurus*), and Florida black bear.

Xeric hammock is an advanced successional stage of scrub or sandhill. The variation in vegetation structure is predominantly due to the original community from which it developed. In all cases, however, the soils consist primarily of deep, excessively-drained sands that were derived from old dune systems. The paucity of herbs and the relatively incombustible oak litter preclude most fires from invading xeric hammock. When fire does occur, it is nearly always catastrophic and may revert xeric hammock into another community type. Xeric hammock only develops on sites that have been protected from fire for 30 or more years. Xeric hammocks are often associated with and grade into scrub, sandhill, upland mixed forest or slope forest. The species composition of xeric hammock is also often similar to prairie hammock and maritime hammock. Xeric hammock is often considered the climax community on sandy uplands.

Xeric hammock occurs generally as isolated patches that rarely cover extensive areas. Mature examples are rare, and scrub derived types have always been scarce. Because of its general location on high ground with big trees, xeric hammock is prime residential property, especially when near the coast. Remaining tracts of xeric hammock require protection from development.

The Buffer Preserve has four acres of xeric hammock located on the Deal Tract. This rare community has been able to reach its climax condition due to the lack of fire within this part of the Deal Tract. The Deal Tract has been threatened by wildfires in the recent past because of lightning strikes and human causes although due to its location, this community is more protected.

Sandhill - (synonyms: longleaf pine - turkey oak, longleaf pine - xerophytic oak, longleaf pine - deciduous oak, high pine). Sandhills are characterized as a forest of widely spaced pine trees with a sparse understory of deciduous oaks and a fairly dense ground cover of grasses and herbs on rolling hills of sand. The most typical associations are dominated by longleaf pine, turkey oak, and wiregrass. Other typical plants include bluejack oak, sand post oak, sparkleberry, persimmon, pinewoods dropseed (*Sporobolus junceus*), lopsided Indian grass (*Sorghastrum secundum*), wild buckwheat (*Eriogonum tomentosum*), bracken fern (*Pteridium aquilinum*), Florida milk-pea (*Galactia regularis*), wild indigo (*Baptisia calycosa*) and gopher apple. Typical animals include tiger salamander, barking treefrog (*Hyla gratiosa*), spadefoot toad (*Scaphiopus holbrookii holbrookii*), gopher frog, gopher tortoise, worm lizard (*Rhineura floridana*), fence lizard (*Sceloporus undulates*), mole skink (*Eumeces egregious*), indigo snake, coachwhip snake (*Masticophis flagellum*), Florida pine snake, short-tailed snake, eastern diamondback rattlesnake, bobwhite (*Colinus virginianus*), ground dove (*Columbina passerine*), red-headed woodpecker (*Melanerpes erythrocephalus*), rufous-sided towhee (*Pipilo erythrophthalmus*), fox squirrel (*Sciurus niger*) and pocket gopher (*Geomys pinetis*).

Sandhills occur on hilltops and slopes of gently rolling hills. Their soils are composed of deep, marine-deposited, yellowish sands that are well-drained and relatively sterile. The easily leached soil nutrients are brought back to the surface by the burrowing habits of some sandhill animals. Sandhills are important aquifer recharge areas because the porous sands allow water to move rapidly through with little runoff and minimal evaporation. The deep sandy soils help create a xeric environment that is accentuated by the scattered overstory, which allows more sunlight to penetrate and warm the ground. The absence of a closed canopy also allows sandhills to cool more rapidly at night and to retain less air moisture. Thus, temperature and humidity fluctuations are generally greater in sandhills than in nearby closed canopy forests.

Fire is a dominant factor in the ecology of this community. Sandhills are a fire climax community, being dependent on frequent ground fires to reduce hardwood competition and to perpetuate pines and grasses. The natural fire frequency appears to be every one to three years. Without frequent fires, sandhills may eventually succeed to xeric hammock. Unburned or cutover sandhills may be dominated by turkey oak. Sandhills are often associated with and grade into scrub, scrubby flatwoods, mesic flatwoods, upland pine forest, or xeric hammock. Sandhills were widespread throughout the coastal plain, but most have been degraded by timbering, overgrazing, plowing, fire exclusion, and other disturbances. Much of Florida's sandhill communities have been converted to citrus groves, pastures, pine plantations, or residential and commercial developments. Thus, the importance of properly managing the remaining tracts is accentuated.

The Buffer Preserve contains 92 acres of sandhill. These sandhill communities spread across two management zones. This community is in good condition and prescribed burning happens within the natural fire frequency. An additional 76 acres were converted to pine plantation prior to acquisition as conservation lands and are being restored to sandhill, mesic flatwoods or scrubby flatwoods through the reintroduction of fire.

Wet Flatwoods - (synonyms: low flatwoods, moist pine barren, hydric flatwoods, pond-pine flatwoods, pocosin, cabbage palm/pine savanna or flatwoods). Wet flatwoods are characterized as relatively open-canopy forests of scattered pine trees or cabbage palms with either thick shrubby understory and very sparse ground cover, or a sparse understory and a dense ground cover of hydrophytic herbs and shrubs. Several variations exist between these extremes.

Typical plants include pond pine (*Pinus serotina*), slash pine, sweetbay, spikerush, beakrushes, sedges, dwarf wax myrtle (*Myrica cerifera* var. *pumila*), gallberry, titi (*Cyrilla racemiflora*), saw palmetto, greenbrier, bluestem (*Andropogon* spp., *Schizachyrium* spp.) and pitcher plants (*Sarracenia* spp.). Typical animals include oak toad (*Anaxyrus quercicus*), cricket frog (*Acris gryllus*), southern chorus frog (*Pseudacris nigrita*), black racer (*Coluber constrictor*), yellow rat snake (*Pantherophis obsoleta quadrivittata*), diamondback rattlesnake, pigmy rattlesnake (*Sistrurus miliarius*), red-shouldered hawk (*Buteo lineatus*), bobwhite, opossum (*Didelphis virginiana*), cottontail rabbit (*Sylvilagus floridanus*), cotton rat (*Sigmodon hispidus*), cotton mouse (*Peromyscus gossypinus*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), bobcat (*Lynx rufus*) and white-tailed deer (*Odocoileus virginianus*).

Wet flatwoods occur on relatively flat, poorly drained terrain. The soils typically consist of one to three feet of acidic sands generally overlying an organic hardpan or clay layer. Cabbage palm flatwoods tend to occur on more circumneutral sands (pH 6.0 - 7.5) underlain by marl or shell beds. The hardpan substantially reduces the percolation of water below and above its surface. During the rainy season, water frequently stands on the surface, inundating the flatwoods for one or more months per year. During the drier seasons, ground water is less accessible for many plants whose roots fail to penetrate the hardpan. Thus, many plants are under the stress of water saturation during the wet seasons, and under the stress of dehydration during the dry seasons. Another important physical factor in wet flatwoods is fire. Natural fires probably occurred every two to five years during pre-Columbian times. Nearly all plants and animals inhabiting this community are adapted to periodic fires, and several species depend on fires for their continued existence. Without relatively frequent fires, wet flatwoods succeed into hardwood dominated forests whose closed canopy would essentially eliminate the ground cover herbs and shrubs. In fact, much of the variation in community structure is probably associated with fire frequency. Thus, the longer the period of time since the last fire, the more developed will be the understory shrubs. If the understory is allowed to grow for too long, the accumulation of needle drape and the height of flammable understory shrubs will increase the probability of a catastrophic canopy fire.

Wet flatwoods are closely associated with and often grade into hydric hammock, mesic flatwoods, wet prairie, or basin swamp. Wet flatwoods may also grade into dome swamp or strand swamp, but the absence of a wet prairie ecotone suggests that the hydrology has been disturbed. Although wet flatwoods may have been an abundant biological community of the coastal plain at one time, examples with an intact overstory and understory, without exotics, and with the potential for future maintenance by fire are rare. They are relatively resilient to overstory damage but recover poorly when the ground cover or hydrology has been disturbed. Wet flatwoods are vulnerable to disruptions of fire and hydrological regimes.

The Buffer Preserve contains 410 acres of wet flatwoods. This community type still needs habitat improvement by the reintroduction of fire. There are resource management zones that have no fire history in them, although progress is being made. Most of the community is in good condition and maintenance efforts are underway. These efforts will improve old fire plow scars and rehabilitated fire containment lines that are no longer needed because of the good fire maintenance condition.

Wet Prairie - (synonyms: sand marsh, savannah, coastal savannah, coastal prairie, pitcher plant prairie). Wet prairie is an herbaceous community found on continuously wet, but not inundated, soils on somewhat flat or gentle slopes between lower lying depression marshes, shrub bogs, or dome swamps and slightly higher wet or mesic flatwoods, or dry prairie. It is typically dominated by dense wiregrass (*Aristida stricta* var. *beyrichiana*) in the drier portions, along with foxtail club-moss (*Lycopodiella alopecuroides*), cutover muhly (*Muhlenbergia expansa*), yellow-flowered butterwort (*Pinguicula lutea*), and savannah meadow-beauty (*Rhexia alifanus*). In the wetter portions, wiregrass may occur with, or be replaced by, species in the sedge family, such as plumed beaksedge (*Rhynchospora plumosa*), featherbristle beaksedge (*R. oligantha*), Baldwin's nutrush (*Scleria baldwinii*), or slenderfruit nutrush (*S. georgiana*), plus longleaved threeawn (*Aristida palustris*). Also common in wetter areas are carnivorous species, such as pitcher plants (*Sarracenia* spp.), sundews (*Drosera* spp.), butterworts (*Pinguicula* spp), and bladderworts (*Utricularia* spp.). Other characteristic species in this community include toothache grass (*Ctenium aromaticum*), pineland rayless goldenrod (*Bigelowia nudata*), flattened pipewort (*Eriocaulon compressum*), water cowbane (*Oxypolis filifolia*), and coastalplain yellow-eyed grass (*Xyris ambigua*). Typical animals include cricket frog, chorus frog, little grass frog (*Pseudacris ocularis*), black racer, cottonmouth (*Agkistrodon piscivorus*), pigmy rattlesnake, northern harrier (*Circus cyaneus*), southeastern kestrel (*Falco sparverius*

paulus), killdeer (*Charadrius vociferus*), marsh wren (*Cistothorus palustris*), red-winged blackbird (*Agelaius phoeniceus*), marsh rabbit (*Sylvilagus palustris*), cotton rat and cotton mouse.

Wet prairie occurs on low, relatively flat, poorly drained terrain of the coastal plain. Soils typically consist of sands often with a substantial clay or organic component. The most important physical factors are hydrology and fire. Wet prairie is seasonally inundated or saturated for 50 to 100 days each year and burns every two to three years. Wax myrtle quickly invades and will dominate wet prairies with longer fire intervals. Generally, wet prairies have a much shorter hydroperiod than other herbaceous wetlands and are subject to regular and prolonged desiccation during the dry season due to their flat topography.

Wet prairie is closely associated with and often grades into wet flatwoods, depression marsh, seepage slope, mesic flatwoods, or dry prairie. Several other biological communities have somewhat similar species compositions or overlap in characteristics, including swale, seepage slope, basin marsh, floodplain marsh and marl prairie.

Wet prairies were probably common throughout the coastal plain at one time. Few high-quality, intact examples remain and some types, e.g. pitcher plant prairies, are becoming increasingly rarer. Wet prairie is vulnerable to hydrological and fire regime alterations, overgrazing, and soil disturbances by off-road vehicles. Recovery from disturbances is often poor and slow.

Wet prairies in northern Florida are some of the most diverse communities in the United States, with an average of more than 20 species per square meter in some places and more than 100 total species in any given stand. There are 809 acres of wet prairie scattered throughout the Buffer Preserve which are the swales of old relic dunes. At the Buffer Preserve, the wet prairies provide habitat for Godfrey's butterwort (*Pinguicula ionantha*), especially in the wettest portions of the wet prairie, and in the ecotone around creeks. This community type still needs habitat improvement by the reintroduction of fire. There are resource management zones that have no fire history in them, although progress is being made. Most of the community is in good condition and maintenance efforts are underway. These efforts will improve old fire plow scars and rehabilitated fire containment lines that are no longer needed because of the good fire maintenance condition. The Panhandle is a hotspot for rare plants of the wet prairie community with 25 out of the 30 rare species found in this type of community; 12 of these are endemic to the Panhandle and 10 can be found within the Buffer Preserve.

1. Southern milkweed (*Asclepias viridula*)- Endemic to Florida Panhandle and northeast Florida, State Threatened
2. Tropical waxweed (*Cuphea aspera*)- Endemic to Florida Panhandle, State Endangered
3. Wiregrass gentian- Endemic to Florida Panhandle, State Endangered
4. Thick-leaved water-willow (*Justicia crassifolia*)- Endemic to Florida Panhandle, State Endangered
5. West's flax (*Linum westii*)- Endemic to Florida Panhandle and northeast Florida, State Endangered
6. Bog tupelo (*Nyssa sylvatica* var. *biflora*)- Endemic to Florida Panhandle, FNAI listed
7. Godfrey's butterwort - Endemic to Florida Panhandle, Federal Threatened/ State Endangered
8. White birds-in-a-nest (*Scutellaria floridana*)- Endemic to Florida Panhandle, Federal Threatened/ State Endangered
9. Chapman's crownbeard (*Verbesina chapmanii*)- Endemic to Florida Panhandle, State Threatened
10. Godfrey's false dragonhead (*Physostegia godfreyi*)- Endemic to Florida Panhandle, State Threatened

Shrub Bog - Shrub bog consists of dense stands of broadleaved evergreen shrubs, vines, and short trees, one to five meters tall depending on time since fire, with or without an overstory of scattered pine or bay trees, growing in mucky soil where water is usually less than a foot deep. Characteristic shrubs include titi (*Cyrilla racemiflora*), black titi (*Cliftonia monophylla*), fetterbush (*Lyonia lucida*), large gallberry (*Ilex coriacea*), gallberry (*I. glabra*), wax myrtle (*Myrica cerifera*), and sweet pepperbush (*Clethra alnifolia*), often laced together with laurel greenbrier (*Smilax laurifolia*). Taller pines, either pond (*Pinus serotina*), slash (*P. elliottii*), or loblolly (*P. taeda*), may be present. Dense clumps of slash pine may be present in long unburned stands. Other occasional trees that may extend above the shrub layer are loblolly bay (*Gordonia lasianthus*), sweetbay (*Magnolia virginiana*), swamp bay (*Persea palustris*), pond cypress (*Taxodium ascendens*), and stunted red maple (*Acer rubrum*).

Shrub bog is found on the border of swamps, in streamhead drainages, and in flat, poorly drained areas between rivers. It often forms the border between the mesic or wet flatwoods communities and dome swamp, basin swamp, or hydric hammock communities. Soils of shrub bogs frequently have an organic muck layer of varying depth at the surface underlain by sand or loamy sands. Sphagnum moss (*Sphagnum spp.*) is common on the ground surface.

Fires starting in the surrounding pinelands burn to the edges of shrub bogs, but burn through them only during drought periods, probably on the order of every 10-20 years. The shrubs and bay trees respond

to fire by re-sprouting, either from root crowns or rhizomes. During droughts the peat may become dry enough to burn completely, killing the shrubs and producing a mosaic of open water areas and sedge-dominated marshes alternating with shrub bogs.

The Buffer Preserve contains 556 acres of shrub bog. Shrub bogs are within many of the resource management zones. Some are narrow and linear in form, while others are irregular islands both large and small, creating a mosaic of dense shrubs amongst open pine savannas. These areas stay wet most of the year, but with good growing season prescribed fires over the years the dense vegetation that makes up shrub bogs has slowly been thinned along the edges.

Salt Marsh - is a largely herbaceous community that occurs in the portion of the coastal zone affected by tides and seawater and protected from large waves, either by the broad, gently sloping topography of the shore, by a barrier island, or by location along a bay or estuary. The width of the intertidal zone depends on the slope of the shore and the tidal range. Salt marsh may have distinct zones of vegetation, each dominated by a single species of grass or rush. Salt marsh cordgrass (*Spartina alterniflora*) dominates the seaward edge and borders of tidal creeks, areas most frequently inundated by the tides. Needlerush dominates higher, less frequently flooded areas (Eleuterius & Eleuterius, 1979). Other characteristic species include Carolina sea lavender (*Limonium carolinianum*), perennial salt marsh aster (*Symphyotrichum tenuifolium*), wand loosestrife (*Lythrum lineare*), marsh fimbry (*Fimbristylis spadicea*), and shoreline sea purslane (*Sesuvium portulacastrum*). The landward edge of the marsh is influenced by freshwater influx from the uplands and may be colonized by a mixture of high marsh and inland species, including needlerush, sawgrass, saltmeadow cordgrass, Gulf cordgrass (*Spartina spartinae*) and sand cordgrass, among others. A border of salt-tolerant shrubs, such as groundsel tree (*Baccharis halimifolia*), saltwater false willow (*B. angustifolia*), marsh elder (*Iva frutescens*) and christmasberry (*Lycium carolinianum*), often marks the transition to upland vegetation or low berms along the seaward marsh edge (Clewell, 1997). Salt marsh soils range from deep mucks with high clay and organic content in the deeper portions to silts and fine sands in higher areas. The organic soils have a high salinity, neutral reaction, and high sulfur content; soil properties of salt flats on higher portions of the marsh are little studied (Coultas, 1997).

While there are no data on natural fire frequency in salt marshes, fires probably occurred sporadically, either by spreading from nearby uplands or from lightning strikes in the marsh itself. Needlerush re-sprouts vigorously after fire but, if burned on an annual basis, declines and is replaced by upland species. Seaside sparrows (*Ammodramus maritimus*) can quickly re-colonize following small-scale fires; however catastrophic fires may kill even adult birds. Natural barriers such as tidal creeks and salt barrens would probably have limited the area burned in each fire, allowing unburned marsh to serve as a refuge for species dependent on marsh habitat.

The Buffer Preserve contains approximately 640 acres of salt marsh habitat, with the majority found adjacent to St. Joseph Bay and inside the Money Bayou tidal creek area. This community has seen little to no burn history and can sometimes be used as a natural fire break during prescribed burns. Visitors can see an array of different bird species that thrive in this community type and they can be easily viewed from the Money Bayou bridge on County Road 30A.

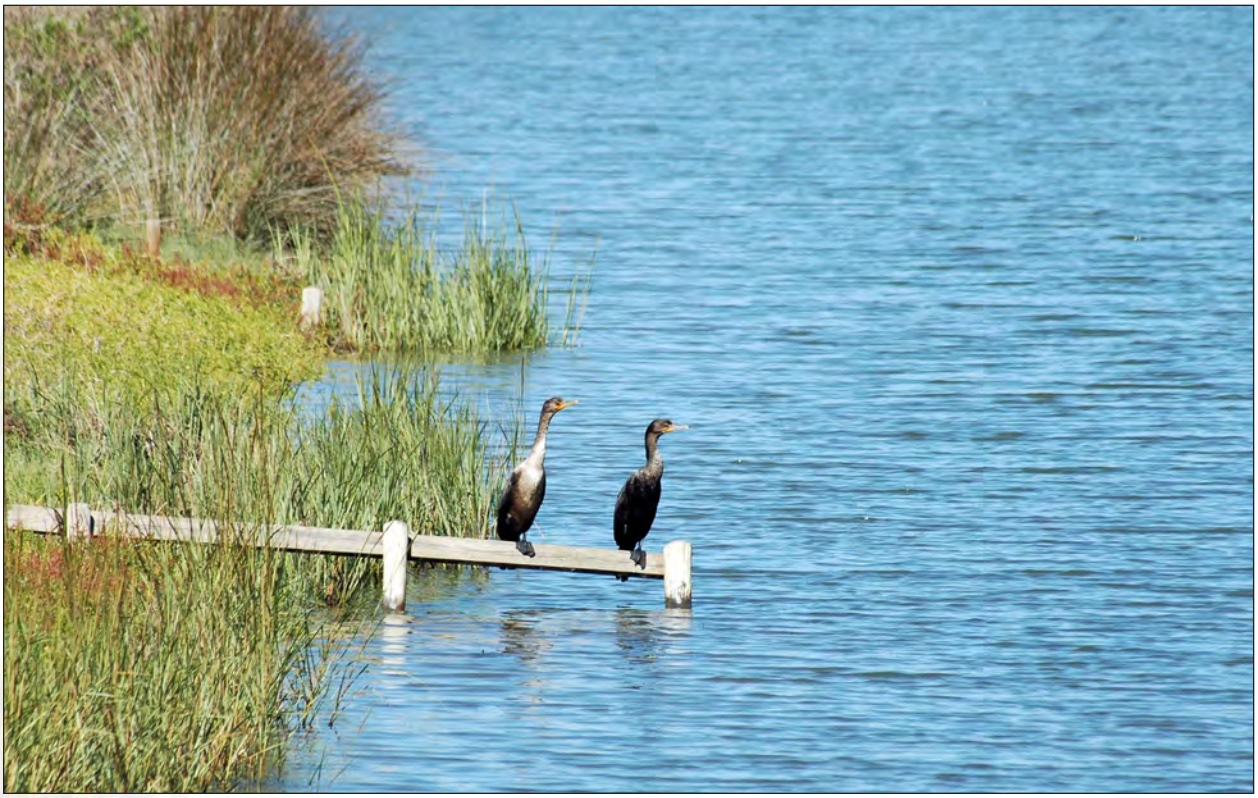
Native Species

The Buffer Preserve provides protection for the Apalachicola River and Bay watershed, St. Joseph Bay and the Gulf of Mexico. The natural communities found within the Buffer Preserve support a wide range of plant and animal species. Many of them are endemic species that only occur in the Apalachicola River Basin region. Although a minimal number of surveys have been conducted, the existing information illustrates a high diversity of plants that are found within the Buffer Preserve.

More than 1,300 plant species have been identified within the Apalachicola drainage basin with 103 of them listed as threatened or endangered. This region also contains more than 40 species of amphibians and 80 species of reptiles. This is the highest diversity of these animal groups in the United States and Canada (Edmiston, 2008). In addition, there are more than 50 species of mammals found in the Apalachicola basin.

Approximately 500 species of plants have been documented to occur on Buffer Preserve lands (Bridges, 2005), of which approximately30 are listed as threatened or endangered. Nearly 400 faunal species are known to exist on or adjacent to the Buffer Preserve. Approximately 30 of these species are listed as threatened, endangered or species of special concern. An inventory of species, including threatened and endangered species, can be found in Appendix B.4.

Over the next ten years, additional surveys of flora and fauna are needed in order to better understand the Buffer Preserve's natural resources and to properly manage the site. Staff will continue to document the occurrence and abundance of these species through regular surveys and map creation in a Geographic Information System (GIS).



Cormorant is one of a variety of waterfowl that can be seen at St. Joseph Bay State Buffer Preserve.

Listed Species

Statutorily-recognized lists of rare and endangered species are produced at the federal level by the USFWS and the National Marine Fisheries Service. FWC and the Florida Department of Agriculture and Consumer Services provide state level lists. FNAI also produces a list of rare and endangered species, and maintains a database of occurrences of these species in Florida. The Buffer Preserve provides important habitat for numerous species listed by federal and state agencies, but loss of habitat from coastal development and its associated impacts on water quality are of critical concern to the protection of these threatened and endangered species. Future land acquisition and management activities that focus on the protection of the Buffer Preserve's resources and water quality will help to ensure the survival of these species.

Listed Plant Species

The Buffer Preserve contains twenty-three flora species listed as rare by the federal or state government. Of these, five are federally listed as threatened or endangered. The state lists those five species as well as 18 others as threatened or endangered. FNAI currently lists bog tupelo as a rare plant, but it is not federally or state listed. Drummond's yellow-eyed grass (*Xyris drummondii*) was recently (but not currently) tracked by FNAI as a rare plant but is not officially listed either. Additionally, three species (pine lily (*Lilium catesbaei*), yellow-flowered butterwort and parrot pitcher-plant (*Sarracenia psittacina*)) found on the Buffer Preserve are listed as threatened by the state, but are not tracked by FNAI. The cinnamon fern (*Osmunda cinnamomea*) is also listed by the state due to threat of commercial exploitation, but is not considered rare by the state.

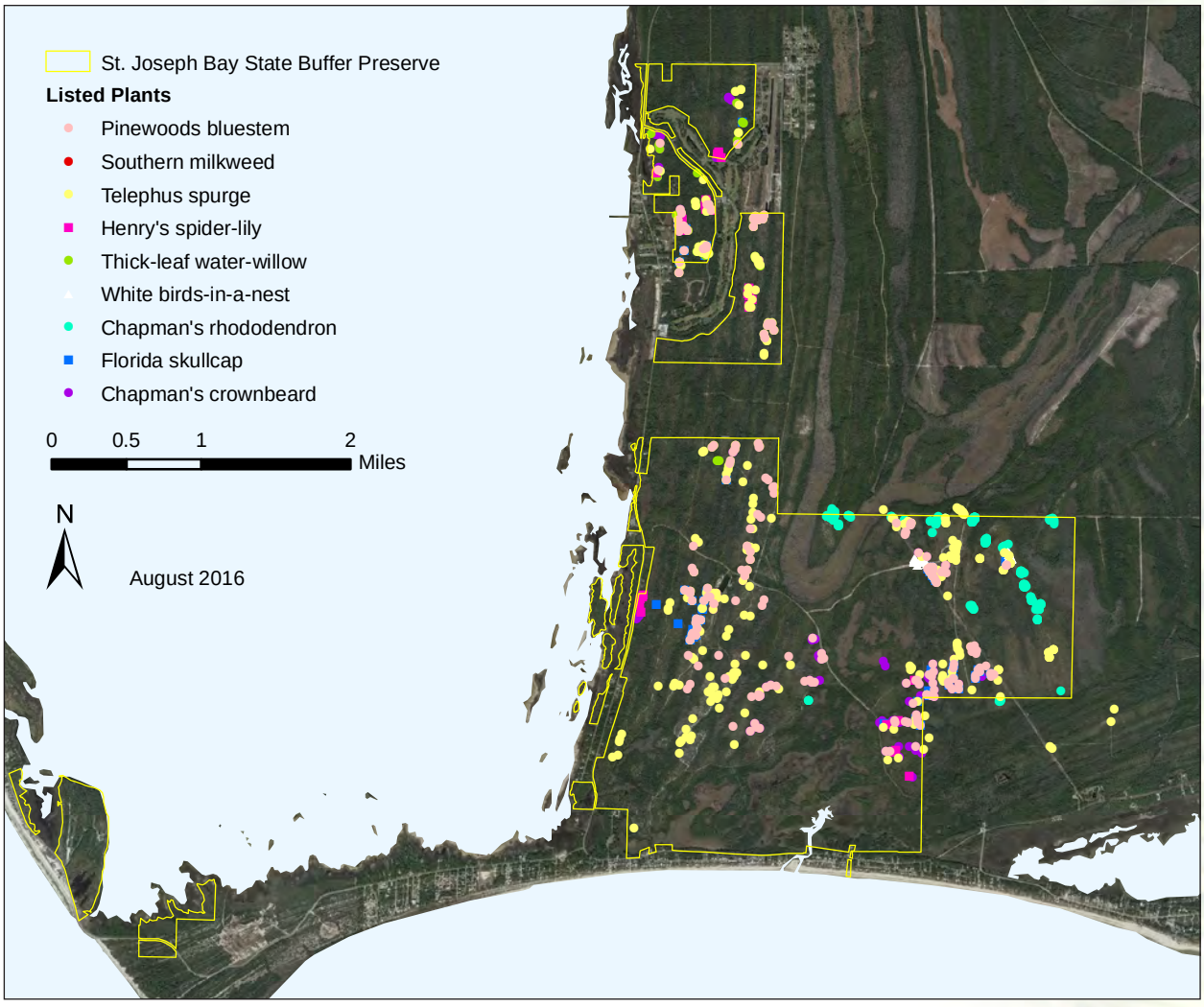
The most notable of the listed plant species known to occur on the Buffer Preserve can be divided into three categories; globally/locally rare and habitat specific, globally rare/locally frequent and relatively habitat specific or narrow endemic/locally common and not habitat specific with few protected sites. Pinewoods aster is a species found in a very narrow range and restricted to grassy areas in mesic pine flatwoods. This species may be dormant or suppressed except shortly after prescribed burning or other disturbances. As of 2000, pinewoods aster was not known to occur on any other protected lands. Tropical waxweed and Chapman's rhododendron are locally common on Buffer Preserve lands but are globally imperiled. The largest known population on public lands of Chapman's rhododendron occurs on the Money Bayou Tract. Habitat loss and degradation may have caused the populations of this species to become fragmented. The Buffer Preserve is the only known protected site for this species in the coastal part of its range. Tropical waxweed is frequent in burned, grassy wetland savannas. However,

few examples of this habitat exist within this species' range and it is not known to occur on conservation lands other than the Buffer Preserve. Although Telephus spurge, thick-leaved water-willow and bog tupelo are narrowly endemic, they are locally common to the Buffer Preserve. The number of listed species is expected to grow as the Buffer Preserve's prescribed fire program and other management activities are implemented. Map 8 illustrates some of the rare plants found within the Buffer Preserve's boundaries.

Chapman's rhododendron, Godfrey's butterwort and Telephus spurge are three examples of rare plants on the Buffer Preserve that are in need of land protection where they are known to occur. More importantly, they are in need of fire-maintained habitat for their recovery. All three species are undergoing population losses due to habitat loss and degradation, especially on private lands. To recover from their current population declines these plants need regularly occurring, low-intensity, growing season fires that open up their habitat.

Chapman's rhododendron - This plant grows in and on the edge of xeric, "scrubby" longleaf pine flatwoods and its ecotone with more mesic and wet habitats at the Buffer Preserve and an adjacent parcel. It benefits from prescribed fire and vigorously resprouts after fire and logging activities. It is most easily seen during flowering and was the target of the 2010 Spring Quick-Survey. One known population consisting of around 12 clumps of plants exists on an adjacent parcel.

Chapman's rhododendron is found only in three widely disjunct and distinct populations in north Florida (USFWS, 2010). The population in Gulf County at the Buffer Preserve and in an adjacent parcel represents most of the western most population in Florida. One of the Buffer Preserve's sub-populations is described as stable and benefitting from a present, aggressive prescribed fire program at the Buffer Preserve (USFWS, 2010). As many as 800 individuals (in 1997) have been found in past surveys there. The survey in 2007, revealed 283 newly found individuals. However, the majority of the Buffer Preserve has not been comprehensively surveyed. The adjacent parcel contains around 12 clumps of plants, all growing near each other, and represents the majority of plants in the southern portion of the Gulf County



Map 8 / Rare plants of St. Joseph Bay State Buffer Preserve.

populations. With the possible future purchase of the adjacent parcel by the state, it would be merged with and managed by the Buffer Preserve. Here, prescribed fire would be applied to the landscape on a three to five year cycle, helping to stabilize and enhance the viability of the population's southern portion. Being private land, the adjacent parcel has never been thoroughly surveyed for this species and based on habitat it is likely to occur elsewhere on the property. The 2010 Spring Quick-Survey was extremely brief and did not cover all suitable habitats there.

Godfrey's butterwort - This is an interesting carnivorous, wetland plant endemic to the Apalachicola Delta District. A large population was found on the adjacent parcel in the 2010 Spring Quick-Survey. The plant does not tolerate encroaching woody vegetation as a result of fire suppression and many populations have been lost when wetlands have been converted (USFWS, 2009). The overall numbers of populations in Florida is declining (estimated 26 percent decline since 1956) as well as the numbers of plants (estimated 46 percent decrease since 1956). Only an estimated 11,671 individuals now are known in the five county area where this plant grows in Florida. In the 2009 5-Year Review of the Godfrey's Butterwort (USFWS, 2009), it is noted that this plant has nine populations that are on public lands, including the population on the Buffer Preserve and recommended that designating land for this species is critical for survival and recovery. Protecting the large population on the adjacent parcel would help with the species' Recovery Actions aimed at securing populations on public lands.

The large population of Godfrey's butterwort on the adjacent parcel consisted of more than 75 plants, found in the 2010 Spring Quick-Survey. They were discovered in a wet prairie habitat that was grading into a small drain. The area was open enough for the plants to survive, but was in need of prescribed fire. This individual subpopulation is larger than all of the known subpopulations on the Buffer Preserve, but is part of a known population on Buffer Preserve. Because only a small portion of the adjacent parcel was informally surveyed (southern half), it is highly probable more populations exist on the parcel.

Telephus spurge - This plant grows on scrubby to wet-mesic longleaf pine flatwoods in just three counties (Bay, Gulf, and Franklin) in Florida. It has a long tuberous root to help it resprout after frequent fires. In the three counties in which it occurs, all known populations are within four miles of the Gulf coast, making it a species in direct competition for coastal development (USFWS, 2008). It can be locally abundant and found on sunny roadsides and disturbed areas, as well as on well-managed, upland and slightly wet habitats. 2007 surveys for the plant have increased the number of populations in Florida (estimated at 18,650+ plants in Bay County, 16,323+ plants in Gulf County, and about 2,723 plants in Franklin County), however the plants are well known to inhabit roadsides that are prone to disturbance (widening, construction, etc.) (USFWS, 2008).

Large populations of telephus spurge were documented (well in excess of 1,000 - 2,000 plants total in a privately-owned adjacent parcel) in the 2010 Spring Quick-Survey. The plants were quite abundant, especially in most of the upland habitats and this is obviously a stronghold for the species in this area. The scrubby and mesic flatwoods habitat was open enough for the plants to survive, but was in need of prescribed fire. Points were not taken for every plant, because of the very high numbers. It would be hard to accurately come up with a total number of plants because of its ubiquitous presence and its tendency to put out shoots for long distances.

Amphibians and Reptiles

Loss of habitat from coastal development and its associated impacts on water quality are of critical concern to the protection of the threatened and endangered species occurring on or near the Buffer Preserve. The Buffer Preserve and adjacent St. Joseph Bay Aquatic Preserve have eleven known listed amphibian/reptile species. Among these species are the reticulated flatwoods salamander and the gopher tortoise. Additional formal surveys are needed as the species list for the Buffer Preserve is relatively incomplete when compared to fauna known from the immediate surrounding region. In addition, a large population of federally endangered juvenile green sea turtles inhabits the adjacent aquatic preserve year-round, feeding on the lush seagrass bed and then "hibernating" during the colder months of December and January. Federally listed Kemp's ridley sea turtles also feed on the mollusks and crustaceans in the bay.

Gopher tortoises - Gopher tortoises are long-lived reptiles that occupy upland habitat throughout Florida including pine forests, agricultural lands, and commercially and residentially developed areas. They dig deep burrows for shelter and forage on low-growing plants. According to FWC, gopher tortoises share these burrows with more than 400 other species, and are therefore referred to as a keystone species. Conservation of gopher tortoises depends not only on the efforts of FWC and other conservation groups, but also on Florida's citizens. There are many ways to co-exist with these gentle land tortoises. In Florida, the gopher tortoise is listed as threatened. Both the tortoise and its burrow are protected under state law. Gopher tortoises must be relocated before any land clearing or development takes place, and property owners must obtain permits from FWC before capturing and relocating tortoises.

Birds

The Buffer Preserve, along with the Apalachicola drainage basin, serves as one of the most important bird habitats in the southeastern United States. This area of the Panhandle lies on the eastern fringe of the Mississippi flyway, thus receiving large numbers of birds from both the Midwest and Atlantic Seaboard during migratory periods. Fifteen species of listed birds are known to occur on the Buffer Preserve. A wide variety of passerine species that breed in the area and many other species who continue onward depend upon Buffer Preserve lands for resting and refueling before or after undertaking long and risky migratory journeys across the Gulf of Mexico. Because the Buffer Preserve is immediately adjacent to the Gulf of Mexico, it and nearby barrier islands and peninsula are the first option birds have for completing the transmigration trips and the relatively pristine natural communities found here provide necessary habitats critical for survival and reproduction including food, shelter and nesting habitat.

Bald eagle - The dramatic recovery of the bald eagle in the past 35 years represents one of the great conservation success stories in our nation's history. The bald eagle has made a tremendous recovery over the past several decades thanks largely to the Endangered Species Act (ESA). In June of 2007, the USFWS announced the removal of the bald eagle from the list of species protected by the Endangered Species Act. The announcement marked a successful milestone in the species' recovery from the brink of extinction.

Since their removal from the Endangered Species Act, bald eagles remain protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. The Bald and Golden Eagle Protection Act and its implementing regulations prohibit the take of bald eagles, which includes activities that are likely to interfere with eagles' breeding, feeding or sheltering behavior, or result in injury, death, or nest abandonment. The Migratory Bird Treaty Act further protects bald eagles and their eggs, nests and feathers by prohibiting killing, taking, or possession of eagles without a permit from the USFWS. Five nests have been documented on the Buffer Preserve in the past few years, four are believed to be active, and there are several other nests in nearby lands including proposed acquisition parcels.

Invasive Non-native Species

With its subtropical climate, island-like topography, and pressures of a rapidly expanding human population, Florida is especially vulnerable to invasion by non-native (exotic, alien) species. Coupled with this threat is a lack of awareness by citizens and tourists alike about the invasiveness of non-native plants introduced into the Florida environment. Invasive non-native plant species, lacking control by their native diseases and predators, spread explosively and may outcompete and replace vital native species on public and private land. Nearly one-third of the plants found growing naturally in Florida's environment are introduced non-native species. While only a small percentage (approximately 10 percent) of these plants have become a problem, the resulting infestations have diminished wildlife habitat, decreased recreational resources, and negatively affected the natural health and economy of the state (DEP, 2002). Once invasive plants become established in native habitats, eradication is difficult, if not impossible, to achieve, therefore, continuous treatment of invasive non-native plants is needed to sustain wildlife habitat and ecosystem function.

The major direct effect of non-native plant invaders on Florida's ecosystems is the adverse alteration of native habitats. Such invaders change the composition, structure, and/or processes of native plant and animal communities, often with significant ripple effects throughout the larger system. Most easily observed are the obvious examples of displacement, for instance, the invader forms a dense one-species stand (monoculture) where once there was a rich assembly of native species, resulting in a loss of biodiversity. A number of populations of Florida's rarest plants have been lost in this fashion. Other invaders modify habitat processes, for example, by changing the natural flow or percolation of water or by increasing the chance of fires in habitats not adapted to fire. Some non-native species have both effects. Florida encompasses approximately 36 million surface acres, with approximately 8.5 million acres in public ownership owned and managed for natural resource protection. Invasive non-native plants have invaded approximately 15 percent of these public conservation lands, affecting an ecotourism economy valued at more than $7.8 billion annually (DEP, 2002). Recognizing the ecological and economic threat of invasive non-native plants, the 1993 Legislature charged DEP with establishing a program to control invasive non-native plants on public conservation lands (§369.252, F.S.). In FWC, the Invasive Plant Management Section is the designated lead agency responsible for coordinating and funding the statewide control of invasive non-native plants. Florida's aquatic plant management program is one of the oldest invasive species removal programs in the world, with its beginnings dating back to the early 1900s. In 1994, the predecessor of the Invasive Plant Management Section published An Assessment of Invasive Non-Indigenous Species in Florida's Public Lands (Schmitz & Brown, 1994), which documented the severity of the problems caused by these invaders and provided information on the spread of invasive non-native plants across the state.

The management of cultural resources is often complicated because these resources are irreplaceable and extremely vulnerable to disturbances.

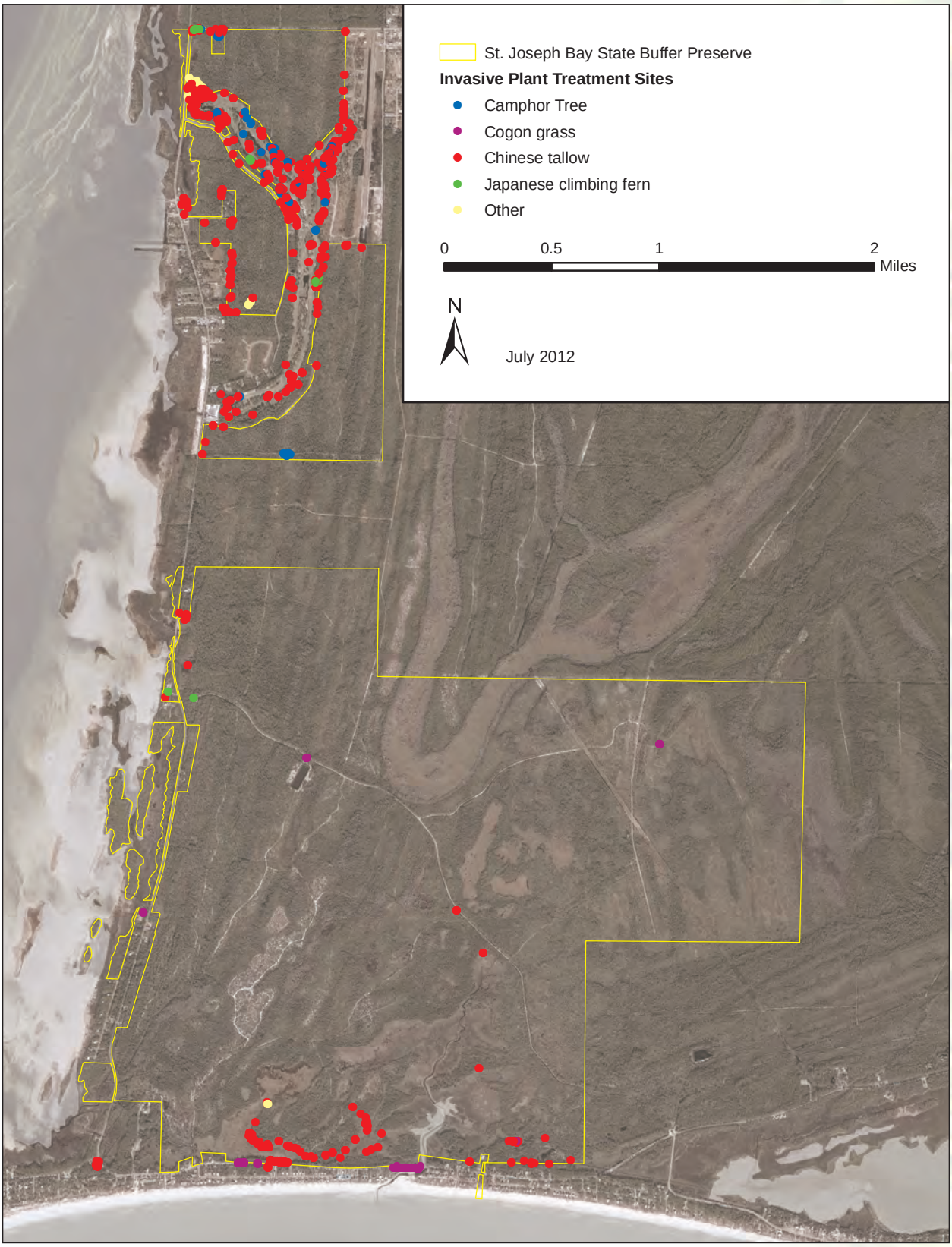
FLEPPC compiles invasive species lists that are revised every two years. Professional botanists and others perform exhaustive studies to determine invasive non-native plants that should be placed on the lists. Category I invasive plants are invasives that are altering native plant communities by displacing native species, changing community structures and ecological functions, or hybridizing with natives. This definition does not rely on the economic severity or geographic range of the problem, but on the documented ecological damage caused. Category II invasive plants are invasives that have increased in abundance or frequency, but have not yet altered Florida plant communities to the extent shown by Category I species. These species may become ranked Category I, if ecological damage is demonstrated (FLEPPC, 2013).

According to FLEPPC's list many of the invasive plant species that occur on the Buffer Preserve are considered Category I invasives including camphor tree, Japanese climbing fern, Chinese tallow and cogon grass. Numerous other Category I invasive species exist in close proximity to the Buffer Preserve, including Chinese privet (*Ligustrum sinense*), mimosa or silk tree (*Albizia julibrissin*) and torpedo grass. Additional Category I species may exist within south Gulf County but have not yet been documented by or brought to the attention of staff. Category II species, which have been documented from the Buffer Preserve include Chinese brake fern (*Pteris vittata*). Species such as purple sesban or rattlebox (*Sesbania punicea*), bottlebrush (*Callistemon viminalis*) and Chinese wisteria (*Wisteria sinensis*), have been documented on nearby private lands and the invasion potential for other regionally common invasive species such as chinaberry (*Melia azedararch*) and many other species remains high.

Invasive non-native plant species in the Buffer Preserve are a significant management issue and at present are largely confined to the perimeter of the Buffer Preserve in residentially developed areas. These species have the ability to radically disrupt and alter the native biodiversity of the Buffer Preserve's natural communities if not treated and eradicated. It will be critical to continue vigilant treatment of existing species while partnering with Buffer Preserve neighbors and the local community to reduce the potential for new infestations of already established species or invasions by new species. Populations

of some invasive non-native species, known to occur on the Buffer Preserve, are shown on Map 9 and a comprehensive list of invasive species may be found in Appendix B 4.2.

Cogon grass is an aggressive, rhizomatous, perennial grass that is distributed throughout the tropical and subtropical regions of the world. It has become established in the southeastern United States within the last fifty years, with Alabama, Mississippi, and Florida having extensive acreage of roadway and pasture infested with cogon grass. Cogon grass first appeared in the area around Grand Bay, Alabama



Map 9 / Invasive plant treatment sites of St. Joseph Bay State Buffer Preserve.

as an escape from Satsuma orange crate packing in 1912. It was intentionally introduced from the Philippines into Mississippi as possible forage in 1921. Cogon grass was introduced into Florida in the 1930s and 1940s as potential forage and for soil stabilization purposes (Sellers, Ferrell, MacDonald, Langeland, & Flory, 2012). However, it was revealed that cogon grass was of little economic (forage) benefit and could become a serious pest. Consequently, it was placed on the noxious weed list, which prohibits new plantings. Unfortunately, cogon grass was spread by illegal plantings and inadvertent transport in forage and in soil during roadway construction. It does not survive in cultivated areas but becomes established along roadways, in forests, parks, and mining areas. It is now found throughout Florida from the Panhandle well into south Florida.

Chinese tallow is a small to medium sized tree native to China. It was introduced into the United States as an ornamental in the 18th century. Since its escape from cultivation it has invaded a wide range of natural communities from wetland to upland habitats. Chinese tallow is adaptable to growing in most soils and readily colonizes low-lying areas as well as upland sites and even closed-canopy forests. This species' ability to adapt to a broad range of natural communities combined with its rapid growth rate makes it one of the most threatening invasive non-native species to the Buffer Preserve's diverse flora. It is wide spread throughout Florida especially along ditches, streams and coastal areas, where it forms dense thickets displacing native vegetation. Primary seed vectors are birds and moving waters. The growing number of nearby populations and the ground disturbing activities associated with the recent coastal development of the area pose a significant management concern for Buffer Preserve staff.

Japanese climbing fern is a highly invasive plant that forms dense tangled masses over ground cover and shrubs as well as climbing into the tops of trees. These dense mats of vegetation shade out and eliminate the vegetation below. It was likely introduced as an ornamental in 1932. This invasive non-native species is rapidly spreading in northern and western Florida. Nearby populations found along Department of Transportation right-of-ways pose a significant threat to Buffer Preserve lands. Right-of-way maintenance activities dramatically increase opportunities for the spread of this species especially along the Buffer Preserve's boundary fire lanes and fence lines. The presence and spread of this species pose management challenges for the Buffer Preserve's prescribed fire program. Risk of spot-overs and the spread of wildfires increases when Japanese climbing fern is present.

Other invasive non-native species are likely to occur in developed areas near Buffer Preserve boundaries. Careful attention needs to be paid to ensure other problematic species which have been documented in Gulf and surrounding counties do not become established (e.g. Chinese privet, lantana (*Lantana camara*), torpedo grass).

Feral hogs (*Sus scrofa*), feral cats (*Felis catus*) and fire ants (*Solenopsis invicta*) are the most significant management concerns with regards to invasive animals. Feral hogs were introduced into Florida with early colonists. Prior to acquisition, hogs were specifically introduced to Buffer Preserve lands in the 1960s for hunting. As lands that comprise the Buffer Preserve were acquired, an attempt was made to remove hog populations to adjacent private property. A small population of hogs persists, in addition to hogs from adjacent lands migrating back and forth along the northern and eastern boundaries. Feral hogs can have significant impacts on native vegetation and wildlife. They have been known to prey on sea turtles, amphibians, snakes, gopher tortoises and shorebirds and to destroy species-rich habitats such as wet prairies and seepage slopes. In addition, feral hogs can transmit a variety of diseases such as pseudorabies, eastern equine encephalitis and bacterial brucellosis to both native and domestic animals.

Another non-native mammal is the feral cat which preys on native birds, small mammals, reptiles and amphibians. Populations of feral cats probably began shortly after colonization of Florida. The feline panleucopenia virus was introduced into populations of bobcats and Florida panthers by feral or free-ranging cats. They are also known to transmit rabies to native and domestic animals as well as humans.

Florida does not have an official invasive non-native animal species list, but at least 270 non-native animal species are known to occur in Florida. The extent of non-native species infestations on Buffer Preserve lands is not completely known. A survey of non-native species will be accomplished through on-going staff observations and control plans will be developed and initiated as the need arises.

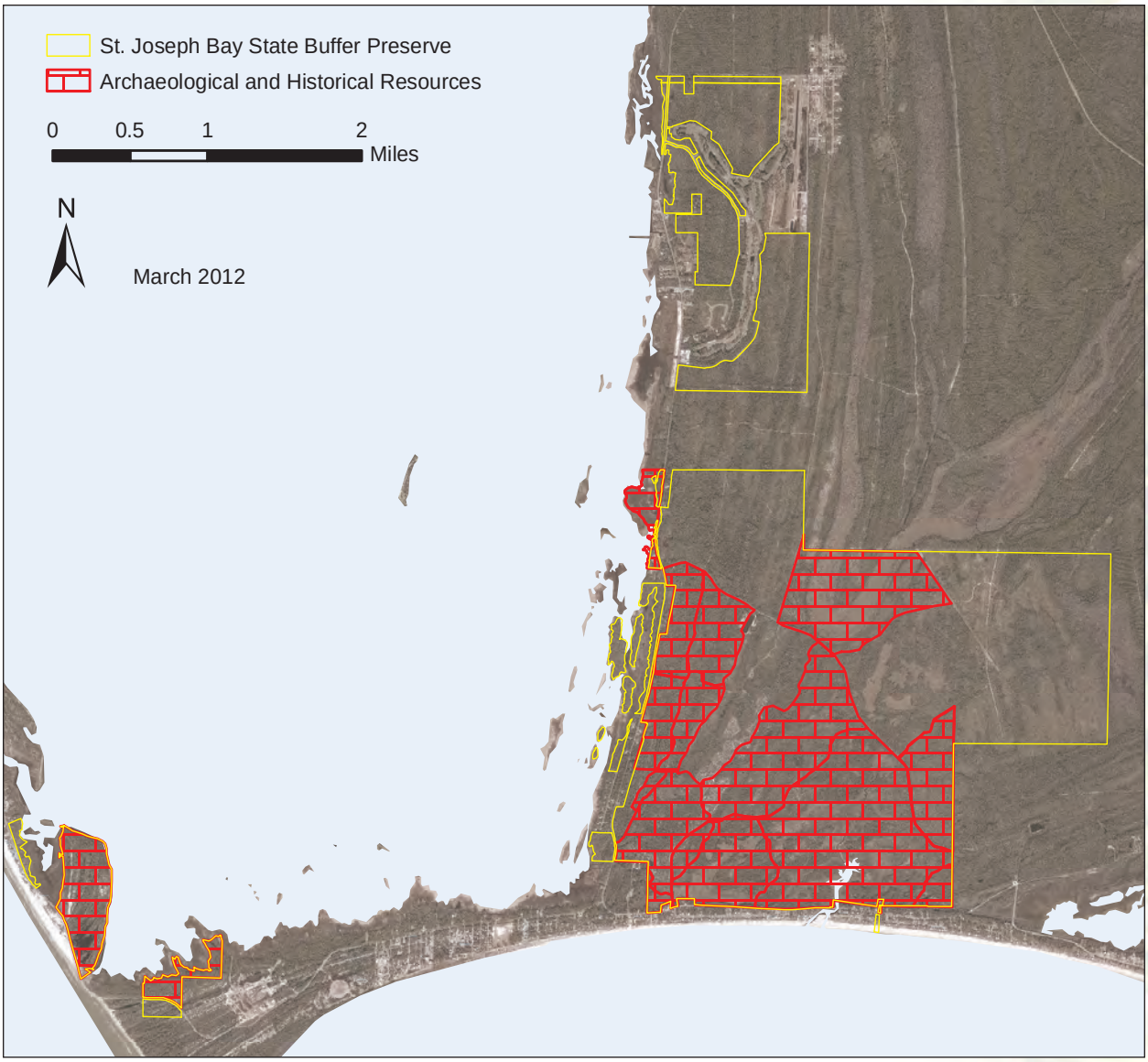
Forest Resources

Sustainable forestry is an important component of Florida's economy and can provide funds for management of lands. Chapter 253, F.S., requires that plans for parcels larger than 1,000 acres contain an analysis of multiple-use potential, to include a professional forester's assessment of the resource conservation and revenue-producing potentials of the tract's forests. FCO considers forest management consistent with the purposes for acquisition of this property when the activities contribute to restoration management. A Timber Management Assessment was conducted for the Buffer Preserve in August 2013

(see Appendix B.6). Timber management activities may be utilized to promote healthy ecosystems or to reduce heavy fuel loads resulting from years of fire exclusion. Previous timber management activities have complied with the most up to date version of the Silviculture Best Management Practices Manual, Public Lands section, developed by the Florida Forest Service and available at www.floridaforestservice.com/forest_management/index.html. However, there are proposed acquisition parcels that, if acquired, would be prime candidates for timber stand improvement cuts to restore ecosystem health. Restoration and maintenance of the native ecosystems that occur on the Buffer Preserve are primary goals of management activities. Any timber management activities that might be used to restore or maintain natural habitats in the future will comply with the Silviculture Best Management Practices Manual and will be designed to protect the water quality of aquatic resources, the fragile natural communities, and archaeological resources that occur in the Buffer Preserve.

Archaeological and Historical Resources

Florida's coastal areas, especially uplands contiguous with water, often have a rich history of human settlement. 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 Florida Department of State, Division of Historical Resources (DHR) for review and comment prior to undertaking the proposed project. DHR maintains the Florida Master Site File that documents many of Florida's archaeological and historical features. A review of the Florida Master Site File in July 2016, disclosed 19 archaeological and historical sites within or near



Map 10 | Cultural resources within St. Joseph Bay State Buffer Preserve.

the Buffer Preserve (N. White, personal communication, July 25, 2016). It should be noted that listed sites are often comprised of multiple cultural occupations and host a variety of different site types at the same location.

Formal surveys of the Richardson's Hammock and Lighthouse Bayou archaeological sites, conducted by USF archaeologists, began in the summer of 2000 and were completed during the summer of 2002. Archaeological and historical investigations continued in 2002 with a preliminary field survey of remaining Buffer Preserve lands. This formal survey continued in the summer of 2003. Information gained from this work was used to establish baseline data for these sites, and to assist in the planning of management activities that would protect and preserve these resources. Funding for this research was partially provided by a Historic Preservation Grant awarded by DHR's Bureau of Historic Preservation. In addition, the Apalachicola National Estuarine Research Reserve (ANERR) provided considerable logistical support, dormitory facilities, staff and equipment.

The Richardson's Hammock site contains domestic and ritual evidence from two different time periods in prehistory. The north end of the peninsula has a mound dating to the Middle Woodland (Swift Creek-early Weeden Island) period of about A.D. 300 - 500. Superimposed upon this first site and extending southward is a later cultural component from the Fort Walton time period dating between A.D. 1000 – 1400. Looting occurred at the mound during the 1970s – 1980s. Protection of this site is of critical concern because of easy access by boaters, hikers, guided eco-tour groups and the high visibility of archaeological deposits from the eroding shoreline.

Inspection of the Lighthouse Bayou site revealed 16 discrete piles of large gastropods left by an unknown, but apparently historic Native American group. Research and processing of materials obtained from the site continues by USF archaeologists. Further information regarding this site and the Richardson's Hammock site is available in the report submitted to DHR by Dr. Nancy White (White, Rodriguez, Smith, & Fitts, 2002).

Surface inspection of exposed/disturbed areas and shovel testing in high probability areas on the Money Bayou Tract resulted in the identification of at least seven archaeological sites. Five of these sites appear to be prehistoric camps, probably ephemeral occupations. Historic sites include a possible turpentine workers' homestead and an early 20th century burial ground. Further investigations on the Money Bayou Tract continued as part of a formal survey completed in the summer of 2003.

When necessary, FCO will utilize the services of the DHR archaeologists or regional experts such as Dr. Nancy White of the University of South Florida to locate and evaluate unknown resources and to make recommendations in the management of those resources. Prior to road maintenance, firebreak plowing and other activities within the Buffer Preserve that may cause damage to archaeological sites, the targeted area will be reviewed for known sites. The area will then be inspected afterwards to be sure no new remains are unearthed. Known archaeological and historical sites have been identified on maps provided to law enforcement and state personnel to aid in protecting these sensitive sites. All significant ground disturbing projects that are not specifically identified in an approved management plan will be sent to DHR and FNAI for review. Recommendations outlined in the Management Procedures for Archaeological and Historical Sites and Properties on State Owned or Controlled Lands (Appendix E.4) will be followed.

Additional Natural Resources

Perhaps the Buffer Preserve's most remarkable and unique resource characteristic lies in the Money Bayou Tract. The dune/swale system that is clearly evident in the near-shore region of this site is perhaps the most stable and clearly defined such topographic feature. The frequency of fire in this coastal habitat and the stability of adjacent sea levels contribute to its desirability as a research destination.

Money Bayou:

Money Bayou is a tidal creek that flows through the Buffer Preserve and empties directly into the Gulf of Mexico. The Money Bayou drainage basin occupies more than 1,800 acres within the Buffer Preserve including hundreds of acres of emergent estuarine and freshwater marsh that grade into wet prairie interspersed with cypress strands and islands of pine flatwoods in a complex mosaic of habitats. The watershed of the creek is contained within the boundaries of the Buffer Preserve except for the final 1,800 feet of the creek as it runs toward the Gulf. This portion of Money Bayou runs through coastal dunes and strand and is lined with marsh until it reaches the beach. The outlet of Money Bayou is a dynamic system, alternately open to the Gulf or closed by sands at the mouth of the creek at the beach. During periods of high freshwater flow the outlet opens and remains open until sands accumulate at the mouth of the creek temporarily blocking flow. The channel of Money Bayou as it moves to the Gulf

is not stable. Historical aerials show that it has moved east and west across the beach from the State Road 30A bridge to the Gulf of Mexico over the last 50 years. Not only is this area important for the health of the surrounding natural systems and species, but it is also a popular recreational spot for the local community. Recreational fishing, crabbing and cast-netting for bait, bird watching, picnicking and general nature observation are enjoyed here regularly. Locals and tourists alike often stop near the State Road 30A bridge to take in the sights and share an appreciation for the scenic beach and marsh setting. Money Bayou also has historical significance as the first African-American owned beach resort (Williams, 2009). The beach front of the Money Bayou basin has remained relatively undeveloped until the last 10-20 years. The final stretch of Money Bayou is not currently protected and, despite seemingly large challenges to development, there have recently been plans to develop the parcels near the mouth of Money Bayou.

FMSF#	Site Name	Description	Culture
Gu2	Gotier Hammock Mound	burial mound, low-density oyster shell midden 200 m W of mound on shore	Middle Woodland (radiocarbon date A.D. 650); shell midden also Fort Walton (radiocarbon dates A.D. 1350, 1500)
Gu10	Richardson Hammock	prehistoric shell midden, burial mound	Fort Walton, Middle Woodland burial mound, Early Woodland (range= 1000 B.C.-A.D. 1500)
Gu20	Conch Island	prehistoric shell midden	Early-Middle Woodland, Fort Walton (-A.D. 1-1500)
Gu99	Hog Heaven	artifact scatter	Indeterminate Woodland (A.D. 300-1000) 20th- century American (Herty cup from turpentining)
Gu114	Lighthouse Bayou	prehistoric and protohistoric shell midden (16 individual shell piles)	Fort Walton (A.D. 1000-1500) and Lamar (A.D. 1700, indeterminate historic Indians
Gu126	Baby Oak	artifact scatter-low density	Indeterminate prehistoric (worked shell); American, 1821-present (metal frags)
Gu127	Bumblebee	artifact scatter-low density	Indeterminate prehistoric (plain pottery)
Gu128	Cattle Dip	historic (subterranean) structure	20th century American, early 20th century
Gu129	Deer Moss	artifact scatter-low density	Indeterminate prehistoric (worked shell, plain pottery)
Gu130	Lost Crew	artifact scatter	Indeterminate prehistoric (worked shell, plain and check-stamped pottery)
Gu131	Treasure Shores Turpentine Workers	housing area	Early 20th-century American; possibly also an indeterminate prehistoric component (worked shell)
Gu132	Yellow Flower	artifact scatter-low density	Indeterminate prehistoric (worked shell, check-stamped pottery
Gu139	Firetower South	shell midden (6 separate shell piles)	Indeterminate prehistoric (post 1000 B.C.) worked shell, plain and check-stamped pottery
Gu140	New Firebreak	artifact scatter	Indeterminate prehistoric (post 1000 B.C.)
Gu141	Pine Cone	artifact scatter-low density	Indeterminate prehistoric (check-stamped pottery)
Gu142	Liveoak Homestead	residence	Early to mid-20th- century home; possible prehistoric component too (worked shell)
Gu143	St. Joe Buffer Preserve Cemetery	cemetery, 1918 flu victims	Early 20th-century, possibly African-American
Gu181	CSB-07-01	campsite (prehistoric)	Early Woodland 1000 B. – A.D. 300 (not relocated by later survey; maybe gone?)
Gu229	Wildfire	shell midden (large gastropod)	Fort Walton (A.D. 1350); Lamar (indeterminate historic Indian, ca. A.D. 1700)

Table 4 | Major prehistoric and historic cultural sites found within and adjacent to St. Joseph Bay State Buffer Preserve.

*3.4 / **Values***

The lands within the Buffer Preserve are of special biological significance and were acquired to preserve a full range of threatened coastal habitats and species and to protect the water quality of St. Joseph Bay. Three globally imperiled plant species; pine woods aster, Chapman's rhododendron and telephus spurge, along with 21 other confirmed rare, endangered, or threatened plant species occur within the Buffer Preserve. Public ownership and essential land stewardship programs help to insure the protection and survival of the many rare species and critical natural habitats found within the Buffer Preserve. The natural and aesthetic values of the landscapes and wildlife within the Buffer Preserve represent a significant economic contribution to the coastal communities of the Florida Panhandle. With annual visitation to Gulf County increasing, interest in the Buffer Preserve for recreational purposes has also increased. The visual character of the Buffer Preserve provides a quality setting for nature observation, scenery appreciation and nature photography. The Buffer Preserve also provides an ideal setting for a variety of recreational activities, including hiking, bird watching, biking, kayaking and nature study. Outdoor recreation plays a key role in public awareness and appreciation of our coastal habitats.

The Buffer Preserve is a premier example of coastal Florida native landscapes. The relict dune/ridge swale topography of the Buffer Preserve provides for a great diversity of natural communities and one of the most concentrated occurrences of rare and endemic species in the southeast. Intact natural landscapes of relict dune/ridge swales and coastal creeks are rare because of the intensity of development along the coast and the prevalence of planted pines on undeveloped land. The Buffer Preserve protects a rare example of a coastal landscape including an entire coastal creek (Money Bayou) and its watershed.

The Apalachicola Bay Aquatic Preserve (ABAP), also an OFW, can be found to the southeast of the Buffer Preserve. The ABAP is part of ANERR. While the ABAP is not directly adjacent to Buffer Preserve lands, watersheds within the Buffer Preserve eventually flow into this OFW. Pending grants may put lands that fall between or are adjacent to the ABAP and the Buffer Preserve under the management of Buffer Preserve staff.

Site Name	Managing Agency	Distance
Apalachicola Bay Aquatic Preserve	DEP, Florida Coastal Office	2 miles
Apalachicola National Estuarine Research Reserve	DEP, Florida Coastal Office	2 miles
Apalachicola River Water Management Area	Northwest Florida Water Management District	20 miles
Apalachicola River Wildlife and Environmental Area	Florida Fish and Wildlife Conservation Commission	10 miles
Billy Joe Rish Park	State of Florida, Agency for Persons with Disabilities	2 miles
Box-R Wildlife Management Area (formerly known as Edward Ball Wildlife Management Area)	Florida Fish and Wildlife Conservation Commission	6 miles
Constitution Convention Museum State Park	DEP, Division of Recreation and Parks	2 miles
Deal Tract Parking Area	Gulf County	within
Eglin Air Force Base Test Site	U.S. Department of Defense	adjacent
Salinas Park	Gulf County	1/6 mile
St. Joseph Bay Aquatic Preserve	DEP, Florida Coastal Office	adjacent
St. Vincent National Wildlife Refuge	U.S. Fish and Wildlife Service	1/6 mile
TH Stone Memorial St. Joseph Peninsula State Park	DEP, Division of Recreation and Parks	4 miles
Tyndall Air Force Base Tracking System	U.S. Department of Defense	16 miles

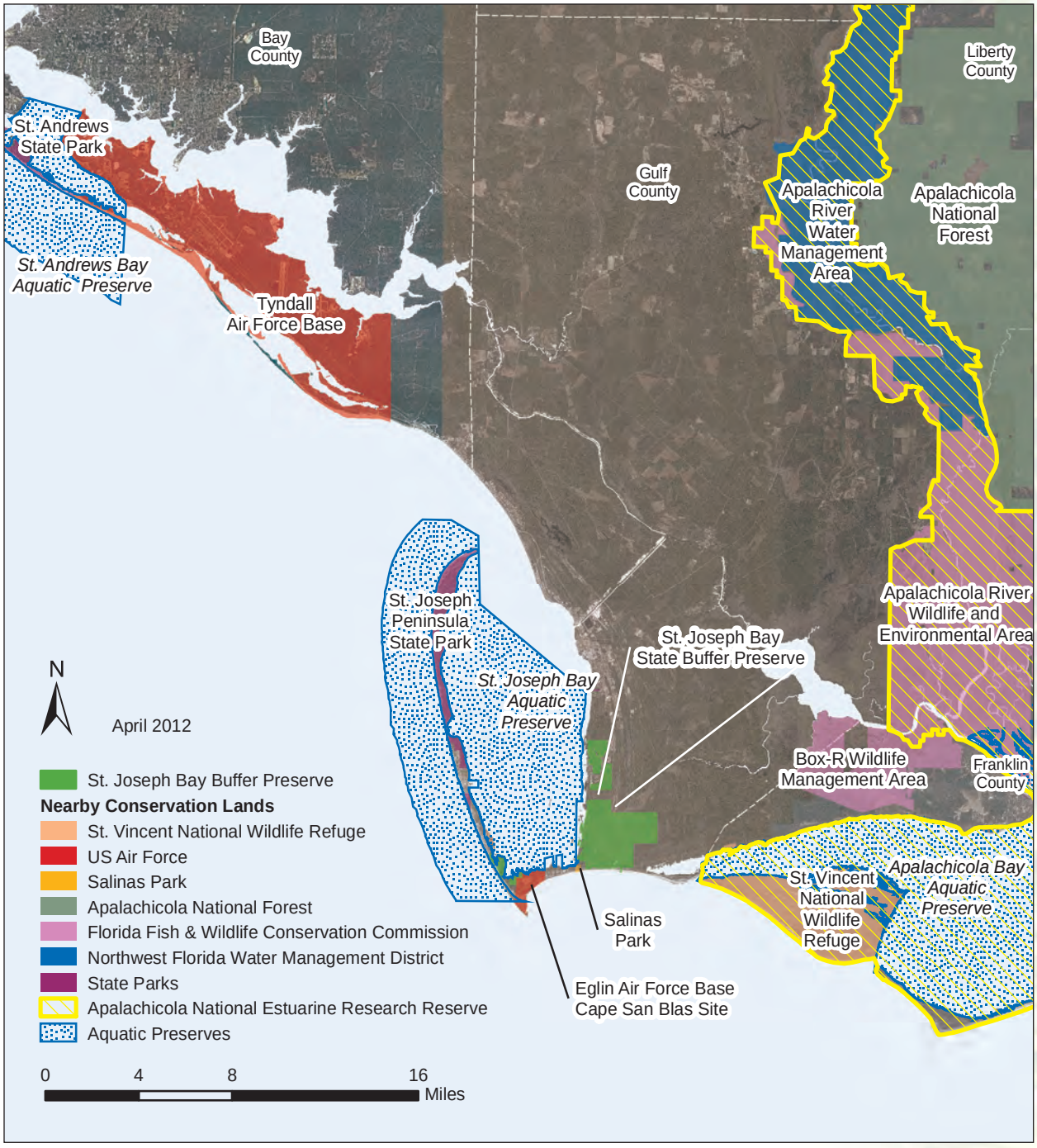
Table 5 / Conservation and public lands.

Real estate, eco-tourism and a multi-million dollar seafood industry are the economic mainstays of small towns from Port St. Joe to Carrabelle. The economic importance of a healthy bay ecosystem further strengthens the need for exceptional land and aquatic resource management.

*3.5 / **Citizen Support Organization***

In 1969 the St. Joseph Bay Aquatic Preserve was established to protect the important natural resources of St. Joseph Bay. Recognizing the importance of the protection of surrounding uplands to the preservation of the outstanding water quality and natural resources of the bay, the St. Joseph Bay State Buffer Preserve was created in 1995 with the initial purchase of 702 acres. Buffer Preserve acreage currently totals approximately 5,019 acres. Together, the aquatic and buffer preserves help protect a regionally significant natural area with outstanding ecological, economic and historical/cultural values.

The Friends of the St. Joseph Bay Preserves, Inc. is a nonprofit 501(c)(3) Citizen Support Organization that was established in 2003 to protect, preserve, and support the St. Joseph Bay State Buffer Preserve

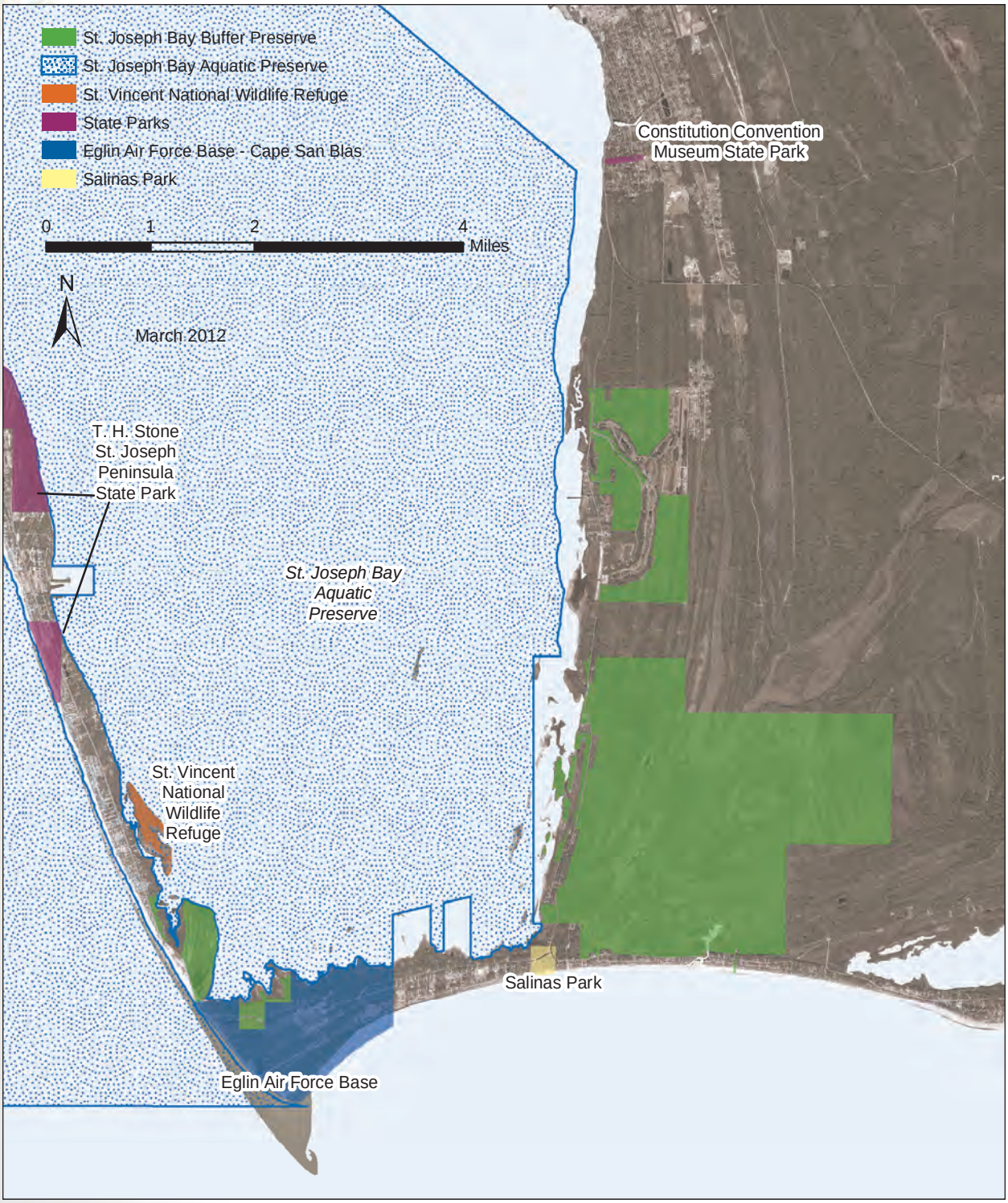


Map 11 / St. Joseph Bay State Buffer Preserve and public lands in neighboring counties.

and the St. Joseph Bay Aquatic Preserve. The Friends group raises funds, provides volunteer services, and promotes environmental awareness of the aquatic and buffer preserves, relying on citizens who help by volunteering. Opportunities are available for a wide variety of interests and expertise. Becoming a member, and making a donation or memorial gift, are other ways that the public's generosity will benefit the Buffer Preserve. For more information please visit The Friends of St. Joseph Bay Preserves website at: www.stjosephbaypreserves.org.

*3.6 / **Adjacent Public Lands and Designated Resources***

Several federal, state and local public properties lie within Gulf County or in adjacent Franklin County. These nearby facilities, along with the primary managing agency, are listed below.



Map 12. St. Joseph Bay State Buffer Preserve and adjacent public lands in Gulf County.

Gulf County

Gulf County operates a number of parks throughout the county facilitating a variety of outdoor recreation and leisure opportunities. For more information please visit www.gulfcountygovernment.com/countyparks.cfm.

The Apalachicola Bay Aquatic Preserve and the Apalachicola National Estuarine Research Reserve

These conservation areas are located approximately 28 miles east of Port St. Joe. ANERR is one of 28 sites around the United States designated by the National Oceanic and Atmospheric Administration (NOAA) as a National Estuarine Research Reserve (NERR). ANERR consists of more than 234,000 acres which includes barrier island, estuarine, riverine, floodplain and upland environments that are closely interrelated and influenced by each other. Apalachicola Bay is an exceptionally important nursery area for the Gulf of Mexico. More than 95 percent of all species harvested commercially and 85 percent of all species harvested recreationally in the open Gulf have to spend a portion of their life in these estuarine waters.

Billy Joe Rish Park

Billy Joe Rish Park is a state-owned 100-acre park located on Cape San Blas Road, approximately three miles south of the T.H. Stone Memorial St. Joseph Peninsula State Park entrance. Rish Park is managed by the Agency for Persons with Disabilities. The park is accessible to persons with disabilities and hosts several camps and events throughout the year. Rish Park is open year round for people with disabilities and their family members, guardians and caregivers. The park is closed to the general public.

St. Joseph Bay Aquatic Preserve

St. Joseph Bay Aquatic Preserve is an Outstanding Florida Water, and borders the Buffer Preserve's western boundary. The Buffer Preserve provides an essential buffer that helps to insure water quality, and protection of the aquatic preserve's natural productivity and critical habitat. St. Joseph Bay Aquatic Preserve is host to a number of endangered or threatened aquatic species including the green sea turtle, Kemp's ridley turtle and the Atlantic loggerhead turtle (*Caretta caretta caretta*). The St. Joseph Bay ecosystem is viewed by many as one of the most diverse, productive, and important natural areas in Florida. The crystal clear waters of the bay support an abundant biologically diverse ecosystem. Seagrasses cover approximately one-sixth of the bay bottom and virtually the entire rim of the bay is bordered by salt marsh habitat.

St. Vincent National Wildlife Refuge

St. Vincent National Wildlife Refuge in Franklin and Gulf counties is composed of an undeveloped barrier island just offshore from the mouth of the Apalachicola River, a small mainland section adjacent to Indian Pass Sound and a second island, Pig Island, which consists of 45 acres in St. Joseph Bay. The islands are accessible by boat only. The refuge was established in 1968 and consists of approximately 12,490 acres. The refuge is managed by USFWS to preserve its highly varied plant and animal communities and public use opportunities including fishing, hunting, wildlife observation, hiking and photography.

T.H. Stone Memorial St. Joseph Peninsula State Park

T.H. Stone Memorial St. Joseph Peninsula State Park offers miles of white sand beach, remarkable dune formations, heavily forested interiors and favorable climates for year-round recreation. The park encompasses 2,516 acres and was ranked as America's Top Beach in 2002 by Dr. Stephen Leatherman (Dr. Beach) because it consists of the finest, whitest sand in the world and is not overdeveloped. The park is bounded on two sides by the waters of St. Joseph Bay and the Gulf of Mexico. Recreational activities include fishing, boating, sunbathing, snorkeling, swimming, surfing, kayaking, canoeing, camping, hiking, bicycling, wildlife viewing and birding (more than 240 species have been sighted in the park). The number of visitors to the park has continued to increase since the mid-1990s.

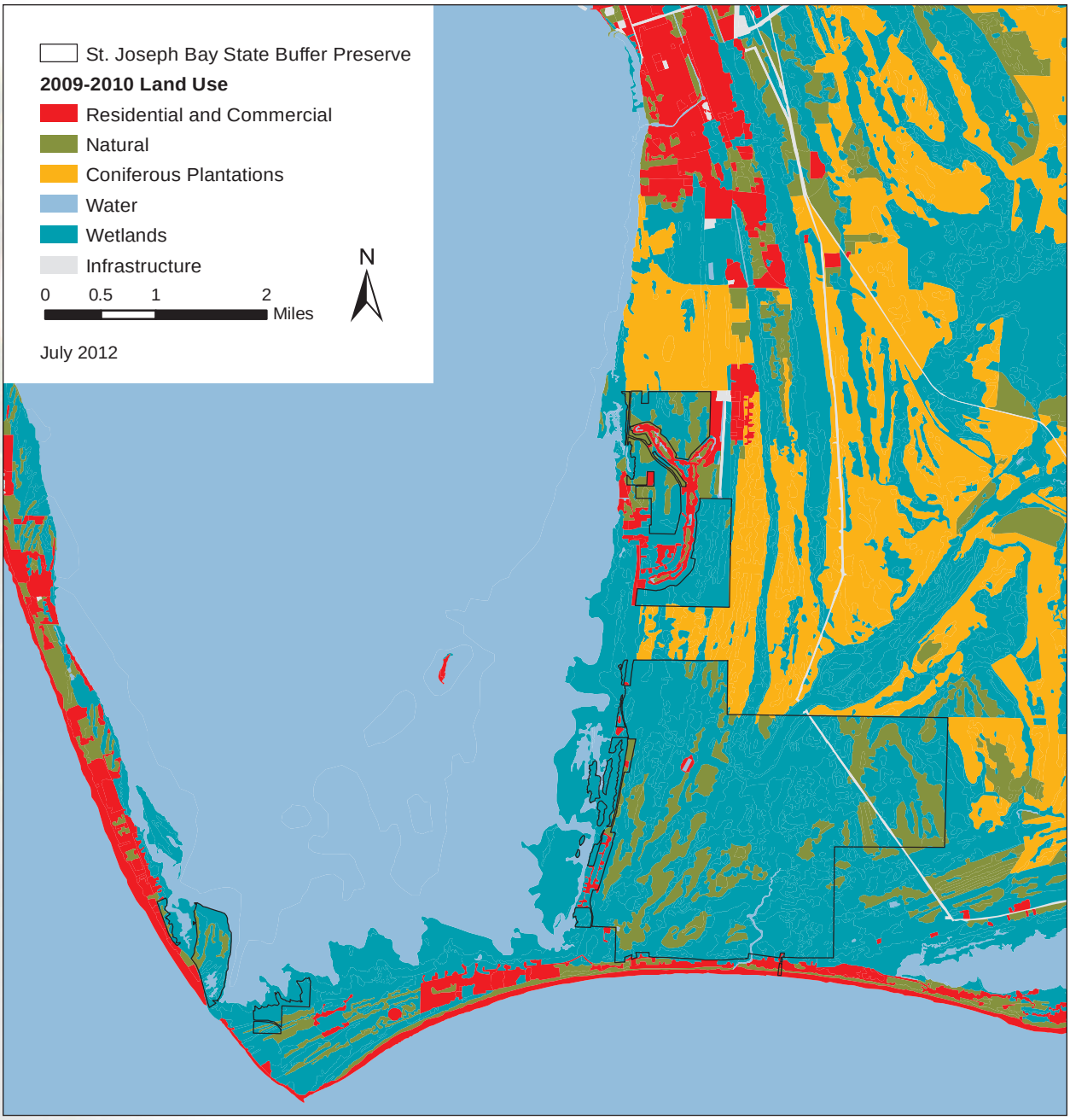
*3.7 / **Surrounding Land Use***

Currently, adjacent land uses include silviculture, seafood harvesting, eco-tourism, and coastal residential/resort development. While some of these uses pose little or no impact on management activities, others pose significant management concerns. Development adjacent to the Buffer Preserve and in the upper watershed that involves ditching and drainage (e.g. golf course, silviculture and residential development) can severely affect the Buffer Preserve lands. This drainage can result in altered hydrology including shorter hydroperiods in wetland communities, changes in timing and quantity of water moving through the watersheds that occur on the Buffer Preserve, and changes in water quality.

Potential impacts from the use of herbicides, pesticides and fertilizers on adjacent lands should be addressed and minimized through outreach and education efforts. Existing and future development will impact prescribed fire activities because of smoke management concerns. Environmental education initiatives, particularly as it relates to the use of prescribed fire, will help to ensure public support of the Buffer Preserve's prescribed fire program. Finally, the introduction of invasive non-native species has accompanied nearby development. The introduction or spread of invasive species may also be mitigated through outreach and public awareness.

Land Use	Acres	Percent
Agriculture (including silviculture)	24,737	66.26
Commercial	22	.01
Conservation	50,116	13.57
Industrial	321	.09
Mixed Commercial /Residential	6,339	1.72
Mixed Use Agriculture	31,327	8.48
Municipal	10,075	2.73
Public	1,307	.35
Recreation	1,077	.29
Residential	12,334	3.34
Water	11,719	3.17

Table 6 | Current land use in Gulf County. Source Gulf County, 2010.



Map 13 | Land use surrounding St. Joseph Bay State Buffer Preserve.

The primary focus of Ecosystem Science Management Program is to support an integrated approach (research, education and stewardship) for adaptive management of each site's unique natural and cultural resources.

Part II

Management Programs and Issues

Chapter Four

The Florida Coastal Office's Management Programs

The work performed by the Florida Coastal Office (FCO) is divided into components called management programs. In this management plan all site operational activities are explained within the following four management programs: Ecosystem Science, Resource Management, Education and Outreach, and Public Use.

4.1 / The Ecosystem Science Management Program

The Ecosystem Science Management Program supports science-based management by providing resource mapping, modeling, monitoring, research and scientific oversight. The primary focus of this program is to support an integrated approach (research, education and stewardship) for adaptive management of each site's unique natural and cultural resources. FCO ensures that, when applicable, consistent techniques are used across sites to strengthen the State of Florida's ability to assess the relative condition of coastal resources. This enables decision-makers to more effectively prioritize restoration and resource protection goals. In addition, by using the scientific method to create baseline conditions of aquatic habitats, the Ecosystem Science Management Program allows for objective analyses of the changes occurring in the state's natural and cultural resources.

4.1.1 / ***Background of Ecosystem Science at St. Joseph Bay State Buffer Preserve***

Research is the foundation of resource management. It provides information about natural processes and the effects of our activities thus helping to provide the knowledge we need to make effective resource management decisions. Monitoring helps recognize changes or trends over time and by regularly measuring specific environmental conditions, early detection of improvement or decline to resources is possible. Research and monitoring programs conducted within St. Joseph Bay State Buffer Preserve (Buffer Preserve) are developed based on the uses of and potential impacts to the natural resources and vary based on the issues and priorities that currently confront the Buffer Preserve-managed lands.

The Buffer Preserve's research and monitoring efforts have included limited, internal research projects, research projects lead by other agencies, and contracts with outside entities to accomplish necessary research. Much of the historical research in the Buffer Preserve has been conducted by graduate students or professors from several different universities.

Research that expands our understanding of the Buffer Preserve's natural and cultural resources will be encouraged and relevant work will be contracted as funding permits. Any research or other activity that involves the collection of plant or animal species on Buffer Preserve property requires proper coordination with and permission of the Buffer Preserve manager and staff. Permits from the Florida Fish and Wildlife Conservation Commission (FWC), the Department of Agriculture and Consumer Services, or USFWS may be required. Visiting researchers utilize the Buffer Preserve Center lodging facilities as they conduct ongoing research within the Buffer Preserve and in St. Joseph Bay. Researchers from institutions throughout the U.S. and Canada have produced numerous theses, dissertations and published papers in many fields including plant ecology, geology, archaeology and marine ecology. Examples of student researchers that have been supported by Buffer Preserve staff and facilities include:

- Rae Crandall, Louisiana State University. Dissertation: Effects of multiple disturbances on congeneric reseeders and resprouters (*Hypericum* spp.) along Gulf coast ecoclines.
- Jean Huffman, Louisiana State University. Dissertation: Historical fire regimes in Southeastern pine savannas.
- Jane Indorf- University of Miami. Dissertation: Phylogeography of the marsh rice rat, *Oryzomys palustris*, in wetlands of the southeastern United States.
- Brian Balmer, University of North Carolina. Master's Thesis: Seasonal abundance and distribution patterns of common bottlenose dolphins (*Tursiops truncatus*) near St. Joseph Bay, Florida, USA.
- Antonio Cano- Valdosta State University. Senior B.S. Thesis: Ridge and swale microtopography in the St. Joseph Bay State Buffer Preserve, Gulf County, Florida.
- Pablo Munguia- Florida State University. Dissertation: Diversity patterns in pen shell (*Atrina rigida*) communities.

Rare Plant Inventory

The Buffer Preserve contracted the first formal surveys for rare plants in the Buffer Preserve in 2003 and 2005. These surveys were conducted by Edwin Bridges and Steve Orzell. Because most rare plants do not flower when the areas where they grow are fire-suppressed, surveys were most productive the year of, or the year following, a prescribed burn. All zones that were burned were surveyed as well as unburned zones. Since these surveys, Buffer Preserve staff and volunteers have continued surveys for additional rare plant locations throughout the Buffer Preserve. Systematic resurveys of zones give valuable information on trends of these rare species and are completed as staff time allows.

A complete survey of all Chapman's rhododendron was also conducted in one management zone of the Buffer Preserve in 2003. Each plant was marked and all stems of each plant were counted and measured for height. A resurvey of these plants was conducted in 2009 by Vivian Negron-Ortiz, botanist for the U. S. Fish and Wildlife Service (USFWS). Negron-Ortiz is updating the USFWS recovery plan for this species. This pilot program will give valuable information on the phenology and individual plant response to fire, as well as valuable data on population response to management treatments, as the sites are monitored over the years. USFWS also monitors a population of Telephus spurge in close proximity to a population of Chapman's rhododendron. In addition, Buffer Preserve staff began monitoring two sites of white birds-in-a-nest and one of pinewoods aster with volunteer assistance in 2008.

Herpetofaunal Survey

In June 2002 and January 2003, herpetofaunal surveys were completed by the late Joseph T. Collins and colleagues (emeritus Professor and Director of the Center of North American Herpetology (www.cnah.org).

Bird Surveys

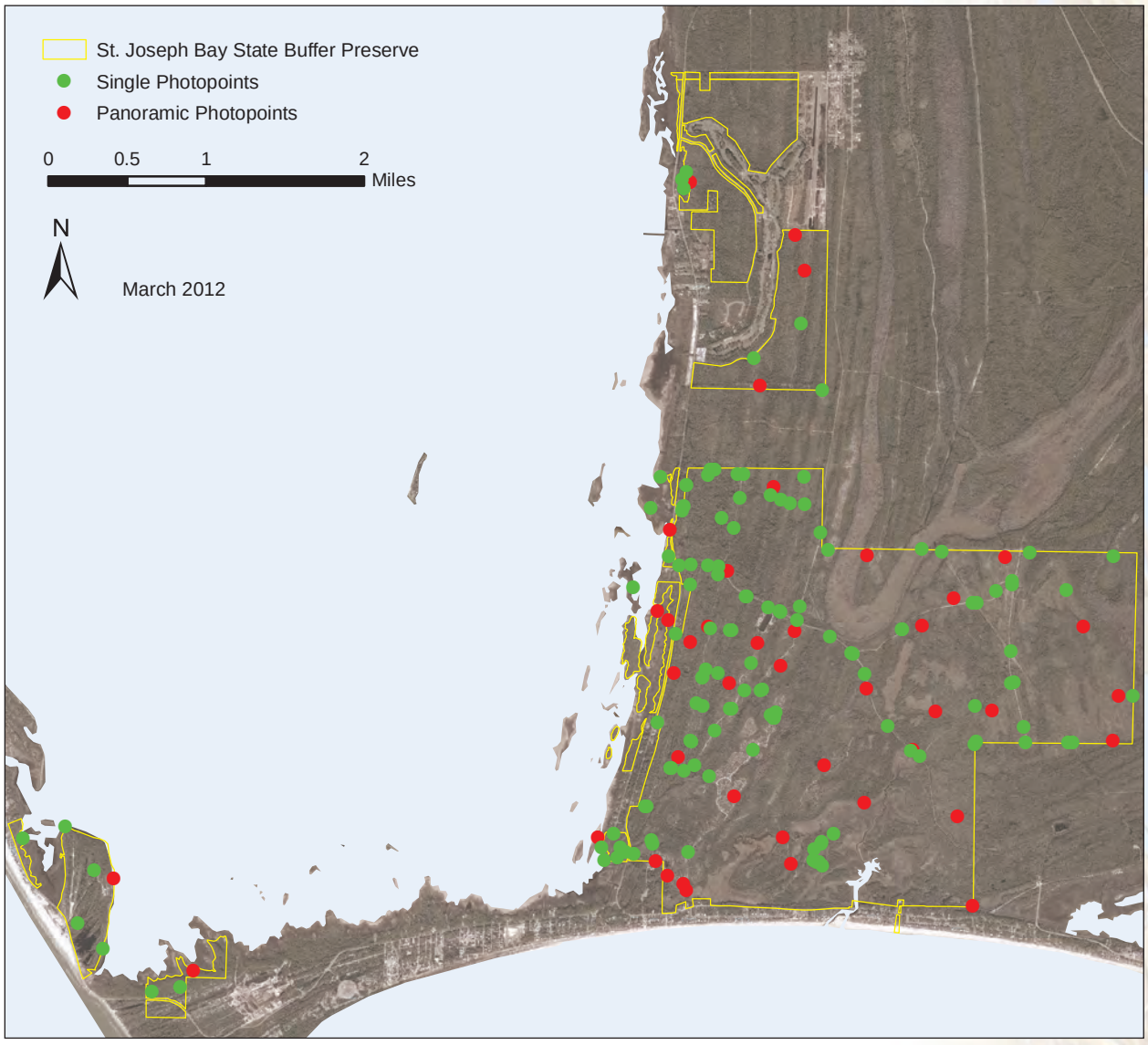
Over the last several years the Buffer Preserve has been utilized by various biologists conducting research on coastal bird populations. Buffer Preserve staff has assisted FWC and USFWS with these surveys and has participated in numerous Christmas bird counts at the Preserve and on other conservation lands located in Franklin, Gulf, Bay and Walton counties. In addition, Buffer Preserve staff have established point count study sites in order to record information regarding breeding bird use of Buffer Preserve lands.

4.1.2 / Current Status of Ecosystem Science at St. Joseph Bay State Buffer Preserve

In order to establish an efficient research and monitoring program that provides the information necessary for natural resource protection, it is essential to have a good understanding of the resources, as well as the issues and problems that affect them. Recent research projects have examined a wide range of topics including mangrove ecology, seagrass ecology, dendrochronology and plant ecology. The Buffer Preserve was recently renovated, expanding its facilities to support visiting researchers.

Habitat Monitoring with Photopoints

Since 2002, Buffer Preserve staff have been monitoring natural resources using photopoint monitoring techniques. Photopoints are utilized to capture landscape scenes and provide a system for these pictures to be taken as a single image or as a 360°panoramic series of photographs. Each site that is monitored has a fixed metal base in the ground into which a rod with a camera attached is inserted. This



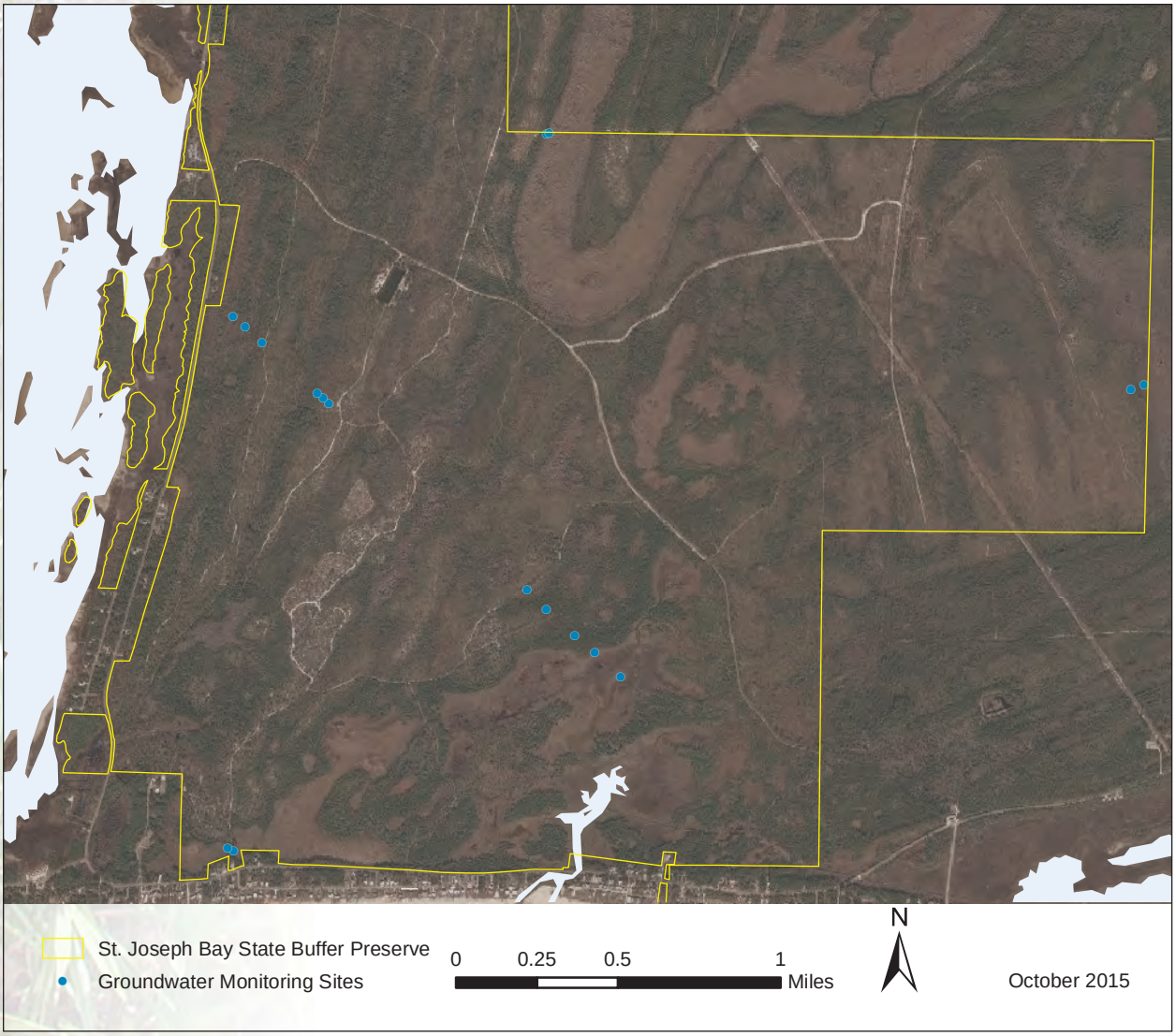
Map 14 / St. Joseph Bay State Buffer Preserve photopoints.

system allows Buffer Preserve staff to easily reproduce a photograph of a specific site taken at an earlier date. The monitoring system in the Buffer Preserve currently includes 97 single and 18 360° photopoints. Photopoint monitoring and the series of photographs produced are an important part of documenting land management activities and changes within the Buffer Preserve over time.

Surface Water Level Monitoring

Two public water supply wells that supply water for southern Gulf County occur immediately adjacent to the Buffer Preserve in very close proximity to St Joseph Bay and the Gulf of Mexico. The increased pressure from residential and commercial growth concentrated along the coast has given rise to concerns of saltwater intrusion in the area's water supply. In 2007, staff deployed surface water level monitoring stations at strategic wetlands locations on the Buffer Preserve. These shallow, 1.5 meter deep, surface water level monitoring stations are located at Depot Creek and at the western Money Bayou marsh as well as in two of the linear wetland strands on the Buffer Preserve - Pond Road and Cattle Dip Road. Two transects were chosen to encompass mesic flatwoods, wet prairie ecotone, and cypress/pine/titi habitat while two other stations encompass sawgrass dominated basin marshes.

Stations were established to 1) to obtain data regarding baseline water levels and the range of variation in water levels that could be used to assess future changes in hydrology (such as changes in flows of Depot Creek or changes caused by water withdrawals), 2) to assess the water levels in wetlands in relation to burning – record how dry or wet the wetlands are and to what level they are flooded so a determination can be made on how fire will behave in relation to the wetlands when planning a prescribed burn, staff can also look back and assess fire effects in relation to wetland water levels and 3) these data could be used to characterize the hydroperiods of the various habitats within the Buffer Preserve (mesic flatwoods, wet prairie/wet savanna, cypress/pine/titi forested wetlands and basin marsh).



Map 15 / Groundwater monitoring sites in St. Joseph Bay State Buffer Preserve.

Listed Plant Species Research and Monitoring

With increasing development in the area, there is a future need to continue to monitor population trends of listed species within the Buffer Preserve by direct or indirect research. Priority species will be chosen based on their listing and their susceptibility to impacts due to habitat alterations. Efforts will continue to provide technical and logistical support to research and monitoring projects and to provide educational information to citizens, coastal decision-makers, and government agencies on these species and the habitat they utilize within the Buffer Preserve.

Research that expands our understanding of the Buffer Preserve's natural and cultural resources will be encouraged and relevant work will be contracted as funding permits. Any research or other activity that involves the collection of plant or animal species on Buffer Preserve property requires coordination with the Buffer Preserve manager. Permits from FWC, the Department of Agriculture and Consumer Services, or USFWS may be required. Staff and volunteers continue to map and monitor rare plant locations throughout the Buffer Preserve on an annual basis and following prescribed burn events.

Other Ecosystem Science Efforts

Wildlife Stranding Response

Since 2001, sea turtle cold-stunning events have been documented in St. Joseph Bay by the St. Joseph Bay Aquatic Preserve. "Cold-stunning" is a process that causes sea turtles to become immobile due to the dramatic decrease in water temperature. When the water temperature drops below 50 degrees, sea turtles are at risk of becoming cold stunned. Their bodies cannot withstand such cold conditions and they become paralyzed, helplessly floating near the surface where they are vulnerable to scavengers and illness. A cold-stunned turtle may appear to be dead, but may actually be alive.

The Buffer Preserve facility has served as a central meeting location to hold and transfer turtles to Gulf Marine World in Bay County for rehabilitation. The Buffer Preserve will continue to assist with cold-stun stranding events and will coordinate with the appropriate agencies on procedures for documenting these events. The Buffer Preserve will also continue to support visiting scientists who are assisting with these events. To report dead, sick or injured wildlife including, sea turtles and marine mammals, as well as fish kills and red tide events please contact FWC's 24-hour Wildlife Hotline at 888-404-3922.

4.2 / The Resource Management Program

The Resource Management Program addresses how FCO manages the Buffer Preserve and its resources. The Buffer Preserve's resource management projects and activities are guided by FCO's mission statement: "To protect Florida's coastal and aquatic resources." FCO accomplishes resource management by physically conducting management activities on the resources for which they have direct management responsibility, and by influencing the activities of others within and adjacent to their managed areas and within their watershed. Watershed and adjacent area management activities, and the resultant changes in environmental conditions, affect the condition and management of the resources within their boundaries. FCO managed areas are especially sensitive to upstream activities affecting water quality and quantity. FCO works to ensure that the most effective and efficient techniques used in management activities are used consistently within our sites, throughout our program, and when possible, throughout the state. The strongly integrated Ecosystem Science, Education and Outreach, and Public Use programs provide guidance and support to the Resource Management Program. These programs work together to provide direction to the various agencies that manage adjacent properties, our partners and our stakeholders. The Buffer Preserve also collaborates with these groups by reviewing and participating in various conservation lands management review process. . The sound science provided by the Ecosystem Science Program is critical in the development of effective management projects and decisions. The nature and condition of natural and cultural resources within the Buffer Preserve are diverse. This section explains the history and current status of our Resource Management efforts.

4.2.1 / Background of Resource Management at St. Joseph Bay State Buffer Preserve

The Buffer Preserve's stewardship activities were developed and initiated in the late 1990s to address the stewardship, restoration, and land acquisition needs for the Buffer Preserve. Prior to this time, staff from the Apalachicola National Estuarine Research Reserve (ANERR) served as interim Buffer Preserve staff as no positions were assigned to the Buffer Preserve. Since that time, this program has made significant progress in restoring habitats and rare plants through the reintroduction of fire and hydrological restoration.

Historically, the role of the Buffer Preserve in resource management has included: 1) to restore natural communities and original ecosystem functions, to the greatest extent possible; 2) to maintain or increase populations of listed plants and animals occurring on the Buffer Preserve; 3) to eradicate exotic species, to the greatest extent practical; 4) to protect archaeological and historic resources and enhance public appreciation for elements of natural and cultural diversity; 5) to aid improvement of water quality in St. Joseph Bay; 6) to provide for public visitation, recreation, ecotourism, and environmental education to the extent that such activities are consistent with protection of natural and cultural resources and are consistent with Chapter 253, Florida Statutes (F.S.).

Four basic natural communities were identified in the initial purchased parcel of the Buffer Preserve (Treasure Shores Tract); mesic flatwoods, basin swamp, bogs, and salt marsh. The planned uses of the property were to conserve and restore environmentally sensitive ecosystems. Specific activities to achieve these objectives included developing a prescribed fire management program which also encompassed wildfire response; posting and securing boundaries; establishing a partnership with local law enforcement officers; regular boundary patrols to note any damage; listed species monitoring surveys; exotic species management; providing recreational opportunities for the public; monitoring visitation; minor hydrological restoration; and working with other institutions, agencies and entities to perform valuable research projects on the Buffer Preserve.

Frequent fires are necessary to maintain the natural communities of the Buffer Preserve. Frequent fires have occurred on these lands for thousands of years and all elements of the natural communities are adapted to these fires. This is especially well documented for Southeastern plants that are found within the Buffer Preserve (Platt, 1999). Fire suppression on these lands has resulted in many negative consequences. Without fire, woody shrubs being to choke the understory forming thickets. Eventually, hardwood and pine trees form a dense canopy. Herbaceous plants are shaded out and replaced by woody plants. Animals that once thrived in the open landscape begin to disappear as the herbaceous plants disappear. In addition, unnaturally high levels of flammable plant material (fuel) accumulate. Eventually, this fuel is likely to burn, through arson or lightning ignitions. When a fire does occur on a site that has had fire exclusion for a long period of time the fire is much hotter and more intense than those that occurred naturally and can cause damage to the natural communities. These fires may also threaten houses adjacent to wildlands. Also, the shift from herbaceous to woody plant cover (caused by fire exclusion) can negatively affect the quality, quantity and timing of water runoff (Huffman, 2006).

Prescribed ecological burning is vital to maintain the natural plant and animal communities, prevent wildfires and also to maintain the quality and quantity of water run-off as well as the overall ecological integrity of natural lands in the Southeast, Florida and St. Joseph Bay State Buffer Preserve in particular.

The Buffer Preserve is the only site in Florida that has a record of past fire regimes extending back to the early 1700s. In 2006, Dr. Jean Huffman used dendrochronologically dated fire scars from stumps of old growth longleaf pines in a large coastal, mainland pine savanna and from dead slash pines on a small, coastal barrier island in north Florida to explore past fire regimes. This time period includes the earliest European settlement and provides valuable information regarding the frequency and seasonality of historic fire regimes on the Buffer Preserve. The results of this study show clearly that pre-settlement fire regimes consisted of lightning season fires. According to Huffman's dissertation, the mainland savanna, had 71 different fires occur from 1592-1883, based on a composite record of 109 fire scars from six fire-scarred trees. Almost all (95 percent) scars occurred during the middle growing season. Only three fires, all in the 1800s after European settlement of the local area, occurred during the dormant season. There was a two to three year fire return interval between 1679 and 1868. Variability in fire return intervals was low, with 92 percent of all fires occurring at less than five year intervals (Huffman, 2006). This information, along with climate models, gives a very strong basis for determining prescribed fire intervals in pine savanna and can serve as a guideline for fire frequency intervals and variance in fire frequency intervals for prescribed fire in upland pine savanna (Huffman, 2006).

Prior to 2000, the Buffer Preserve was unburned and being plowed at a rapid rate from fire suppression. In 2003, after the State acquired a full time manager position, significant progress was made in establishing a comprehensive natural resource management program which included restoring habitats and rare plant species through the introduction of fire and hydrological restoration. Since 2000, there has been a successful effort to reintroduce fire to long unburned habitats. The focus of restoration for these habitats is to restore wet prairie habitat for rare plants. Between 2000–2002, three or four small burns were conducted. Since 2003, when the Buffer Preserve received a full-time manager, excellent progress has been made in reintroducing fire; resulting in prescribed burns covering more than half (52 percent) of the main portion of the Buffer Preserve (2,881 acres) (see Map 17). Each of the initial burns

Prescribed fire is one of the primary tools utilized for the protection, maintenance, and restoration of the Buffer Preserve's native ecosystems.

that were conducted at the Buffer Preserve happened first in long unburned areas with high fuel loads. It took several burns to reduce the accumulated fuels safely and to move the fires further into the wet prairie/rare plant zones along the edge of the wetlands. These wet prairie areas, in particular, were long unburned. Burning off the accumulated organic material in these edges occurred over several burns and sometimes many days of smoldering. The zones are now relatively easy to burn and do not produce a lot of smoke and hazardous smoldering.

In order to complete this burning, fire management zones were created and many miles of fire lines had to be established over the entire Buffer Preserve. Many of these zones have been burned repeatedly during the period of 2000-2015 resulting in 3,095 acres of prescribed burning. Only 1,924 acres remain backlogged. The emphasis of fire management during this time was to begin burning zones that contained rare plants and some surviving groundcover, to reintroduce fire and keep restoration efforts moving forward in those zones by burning them frequently. The goal was to keep a core of well managed (frequently-burned) management units and to introduce fire into additional zones. Tremendous success was made, in spite of many limitations (urban interface, small staff, limited equipment). As a result, populations of rare plants are thriving at the Buffer Preserve.

Unlike previous decades, between 2000 - 2015 few fire plow lines were created at the Buffer Preserve due to a comprehensive effort to manage wildfires. The few that were made were restored to grade immediately. In the summer of 2011, lightning ignited three small wildfires, each in a different parcel on the southern shore of St. Joseph Bay, and each fire (all less than two acres) was plowed. Buffer Preserve staff hope to convert one fire plow line on the Deal Tract and rehabilitate the other two plowed areas in the near future to ensure a comprehensive effort to manage wildfires.

*4.2.2 / **Current Status of Resource Management at St. Joseph Bay State Buffer Preserve***

All facets of resource management activities conducted on Buffer Preserve lands shall be guided by the primary goal of providing protection, conservation, restoration and enhancement of natural resources. Rare plant habitats have been maintained by restoring the hydrologic function throughout the Buffer

Preserve and by filling old fire plow lines and ditches. These activities benefit all wetland habitats including the wet savanna transitions that are home to most of the rare plant species found in the Buffer Preserve. In addition, the program has been extremely successful in restoring the high quality, ancient coastal dune/swale habitat of the Buffer Preserve, and in restoring populations of endangered and threatened rare plants that thrive in wetland transition zones. Restoring the hydrologic function throughout the Buffer Preserve, filling fire plow lines and ditches and re-introducing fire has allowed rare plant populations to flourish. The Buffer Preserve now contains the healthiest and largest populations of three federally-listed rare plants, including one that is only protected on the Buffer Preserve.

FCO's mission is conserving and restoring Florida's coastal and aquatic resources for the benefit of people and the environment. Management activities will be carried out utilizing a stewardship ethic that will assure the availability of these resources for future generations. Ecosystems management is the overall concept used in managing the Buffer Preserve and ensures the sustainability of the natural resources that occur here.

Principles:

- Manage the lands and waters in our care to ensure the protection of the resources
- Focus efforts to address the greatest threats to the ecosystem
- Make decisions based on the best available science and information
- Encourage sustainable public access
- Instill a sense of stewardship in people for their natural resources
- Promote "Leave No Trace" use of public lands
- Seek partnerships to achieve our goals
- Seek consensus to resolve issues
- Treat all people with civility
- Maintain the highest level of integrity

The Buffer Preserve's Resource Management Program is responsible for implementing science-based management strategies to conserve natural biodiversity. This strategy is accomplished through recommending and implementing approved management strategies to:

1. protect the natural and cultural resources of the Buffer Preserve and its watershed
2. identify needed hydrologic and habitat restoration
3. identify and pursue land acquisition
4. restore natural conditions to the fullest extent possible using the best available techniques; and
5. export information on management and restoration activities to environmental managers and decision-makers.

Fire Management

The interaction and frequency/duration of fire and water are the two most important drivers of ecosystem processes within Florida's natural communities. Most of the natural communities that occur on the Buffer Preserve are fire dependent or fire adapted. The Buffer Preserve's fire dependent communities include but are not limited to sandhill, scrub, scrubby flatwoods, mesic flatwoods, wet prairie and wet flatwoods. Prescribed fire is the primary management tool for these communities. Other natural communities are greatly impacted by changes in hydrology and fire frequency. These communities include basin swamp and dome swamp. In addition to the re-introduction of fire, changes in hydrology due to ditching, plow scars, roads and development will be addressed to ensure the health of these natural systems.

Natural communities that are not fire dependent are beach dune, coastal strand and shell mound. These natural systems are immediately coastal and therefore highly vulnerable to development and vehicle or foot traffic. Buffer Preserve staff will work with Division of State Lands acquisition staff as well as other agencies to pursue acquisition of surrounding properties that contain these natural communities.

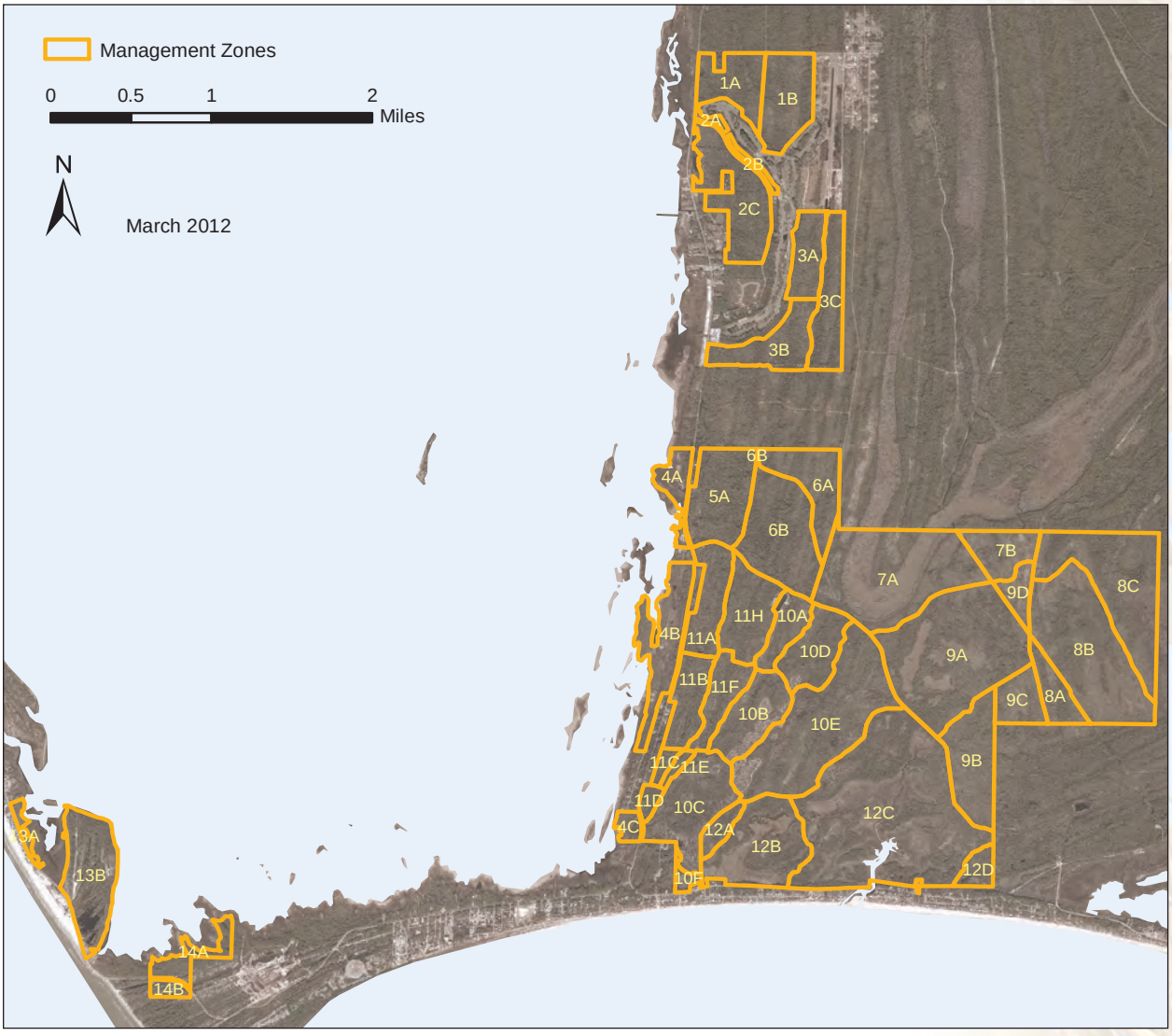
Frequent fire has been a natural process shaping the ecosystems of the Buffer Preserve for centuries and the continuation of frequent fire is essential to maintaining the landscapes, natural communities and diversity of species that occur there. Lightning fires regularly burned across the landscape before settlement. Huffman (2006), analyzed cross sections from old growth longleaf/slash pine stumps located in pine savannas on the Buffer Preserve. Dissertation findings included a fire frequency distribution table, encompassing the almost 300 years between 1592 – 1883. This time period includes the earliest European settlement and provides valuable information regarding the frequency and seasonality of historic fire regimes.

During early settlement (1900s-1940s), no fire exclusion occurred and turpentine workers burned the site frequently. Burning became less frequent during the latter half of the 20th century although small infrequent burning occurred while under hog hunting preserve management during the 1980s and 1990s.

While excellent progress has been made over the years in restoring the Buffer Preserve's pyrogenic communities, the result of fire exclusion and suppression are still evident throughout the Buffer Preserve. Elimination of fires has dramatically changed the structure and species diversity of much of the landscape, including many of the Buffer Preserve's fire dependent communities. Heavy, volatile fuel loads that are able to accumulate contribute to the loss of habitat for many listed plant species and pose a serious wildfire threat to adjacent development. Frequent prescribed fire reduces shrub height and cover, which allows the continued existence of all herbaceous flora, promotes the regeneration of open, uneven-aged pine stands, and reduces dangerous fuel loads.

Prescribed fire is one of the primary tools utilized for the protection, maintenance and restoration of the Buffer Preserve's native natural communities. These communities are described separately in Chapter 3, but they occur as a complex, intertwined mosaic with many subtle transition zones and are not managed separately. Fire is applied to a zone that contains many community types that naturally burn at different frequencies because of varying moisture and fuel conditions. To facilitate fire management, the Buffer Preserve is divided into 43 burn units, with a burn prescription required for each unit (Map 16). Most burn zones are relatively small due to smoke management issues associated with nearby highways and development. The Buffer Preserve has many existing woods roads that facilitated the creation of small burn zones with little additional ground disturbance. In addition, small zones may be combined as fuel loads are reduced. Intended fire frequency for most areas is two to four years. This is slightly more frequent than Florida Natural Areas Inventory (FNAI) guidelines. However, fires need to occur at this slightly higher frequency to address the effects of past fire exclusion.

A comprehensive fire management plan has been developed and is updated annually for the Buffer Preserve. The Buffer Preserve's Fire Management Plan is a "living" document, reviewed annually and

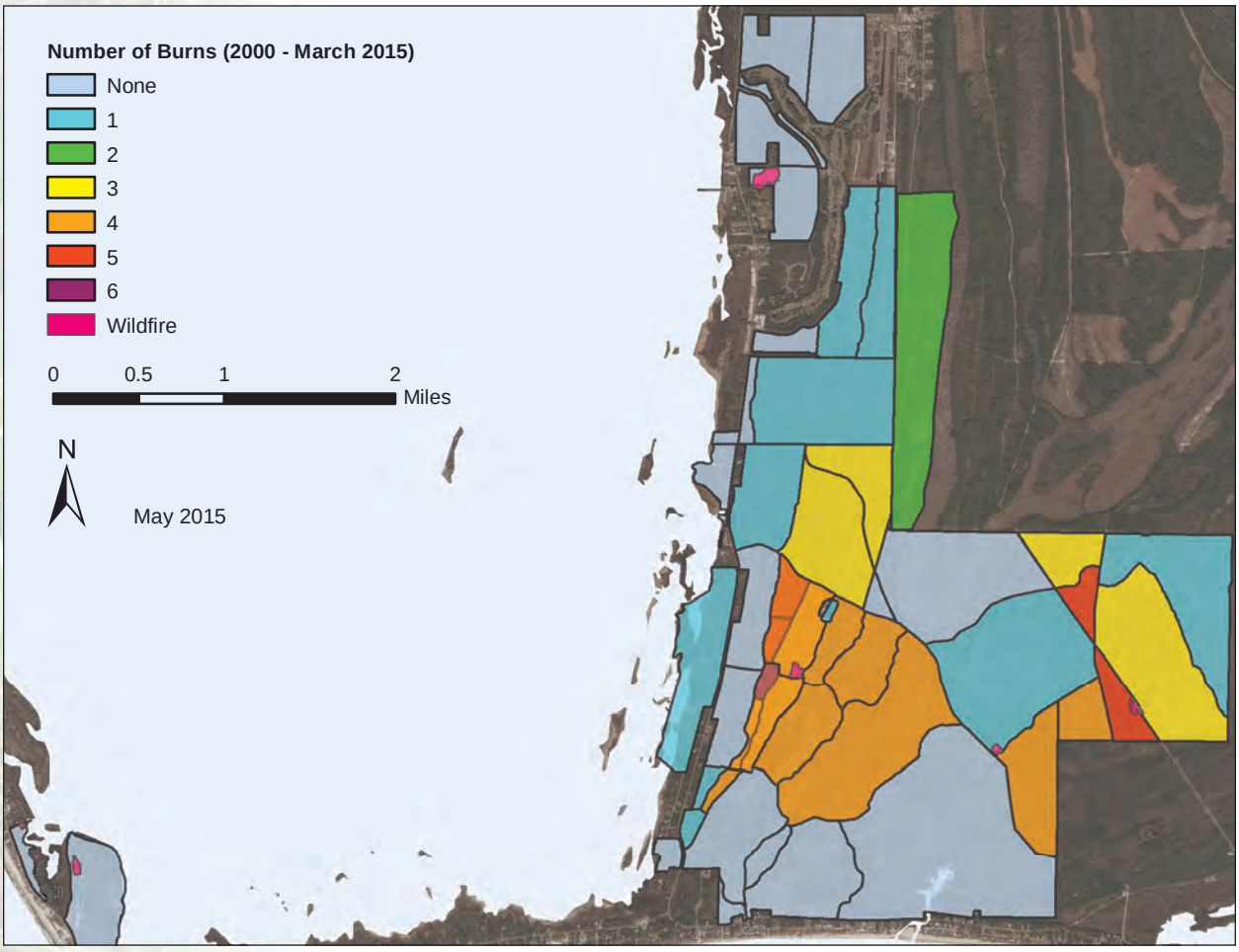


Map 16 / St. Joseph Bay State Buffer Preserve management zones.

revised as needed. Revisions will address changes in nearby residential/commercial development, fuel loads, land acquisitions, and needs of the natural communities or rare species that occur on Buffer Preserve lands. All prescribed fires are conducted with authorization from the Department of Agriculture and Consumer Services, Florida Forest Service (FFS).

Unplanned fires occurring on Buffer Preserve lands are assessed to determine fire behavior, fuel loads and weather conditions. In the event the fire is determined to be beneficial in meeting natural resource management goals, appropriate action is taken to obtain a burn permit from FFS. FCO staff remains on-site to monitor or otherwise manipulate the fire to meet burn objectives. Should the fire be determined to have a potentially detrimental impact on the natural community or is judged to be out of prescription for that area in regards to smoke management, weather conditions, or safety; efforts toward suppression will be taken in cooperation with FFS. Required fire suppression should use the method with the least negative impacts feasible. Use of backfiring, natural fire breaks, water/foam and soft lines are preferred over plow lines or disking. In all cases where the threat of injury or death, loss of private property or liability to the State of Florida exists, immediate suppression by any means is acceptable. FFS personnel are made aware of cultural site locations whenever possible to minimize degradation of cultural resources.

Some fires – usually unplanned fires, but very rarely prescribed fires under extreme conditions – become extremely destructive fires known as wildfires. In the event of a wildfire, suppression strategies employed should be less disruptive to the land than the disturbance caused by the fire itself. Damage to sensitive natural areas or cultural resources should be avoided at all costs and suppression strategies should be closely coordinated with the Buffer Preserve manager and/or staff. Appropriate strategies may range from direct suppression and minimization of acreage burned, to more direct methods such as containment and confinement. Surveillance is appropriate when the wildfire can be expected to remain within a defined area and when minimal damage to critical resources or public safety is expected. The Florida Forest Service has jurisdiction over all wildfires throughout the state of Florida, but where feasible, wildfires may be managed by the Buffer Preserve manager and staff, FFS, regional DEP fire



Map 17 / St. Joseph Bay State Buffer Preserve burn frequency.

trained staff (if available), The Nature Conservancy and South Gulf County Volunteer Fire Department to benefit natural communities and associated flora and fauna.

Care will be taken in the placement of any additional fire lines so as to minimize the impact of critical transition zones where most of the Buffer Preserve's listed plants occur. In addition to fire lines, potential sites for trails, campsites and other visitor use amenities will be surveyed for listed species.

Quality habitat for native plants and animals is rare near the coast in Florida because development is intense. The Buffer Preserve consists of high-quality coastal lands with multiple ancient dune ridge/swales that create an extremely rich habitat. Most of the rare plants in the Buffer Preserve occur only in the grassy, wet savanna transitions zones that lie between pine flatwoods and forested cypress strand wetlands. The focus of restoration of Buffer Preserve lands is reintroducing fire. Special focus should be placed on introducing growing season burns into wetland basins in an effort to aggressively manage the woody shrubs which have escaped the wetland habitats where they naturally occur and have begun invading ecotonal and upland margins where rare plants occur. These actions will likely benefit a suite of amphibians of special concern which prefer frequently burned wetlands with grassy understory habitat as well as rare plant habitat.

Public awareness of the benefits of an active prescribed fire program is essential to ensure public acceptance of the short-term inconveniences such as smoke and road closures. Prescribed burning is recognized by Florida law. Prescribed fire professionals within FCO and our partners have rigorous training standards which must be met to participate and conduct burn operations. Human and public safety is foremost. All burning done by FCO staff must follow Florida's forest fire laws and open burning regulations as set forth in Florida Statutes and Administrative Codes. The Florida Forest Service (FFS) is the agency charged with enforcing these requirements. All staff engaged in fire management within FCO will become familiar with the Fire Management Standard set forth by the DEP Department of Recreation and Parks. The standard contains staff training and experience requirements, prescription and documentation requirements, and general operational procedures to guide the fire program.

Over the last 15 years, 52 percent of the main Buffer Preserve has been under good fire management and has seen significant restoration progress. During 2008-2015, more than 600 acres were burned each year. Repeated burns have resulted in substantial restoration of pine flatwoods, wetlands, especially wet savannas between cypress and pine flatwoods. During this time, the Buffer Preserve has developed a strong working relationship with The Nature Conservancy who has provided crew and equipment to help make burning happen. During this time period, the Buffer Preserve was able to significantly upgrade fire equipment and was able to achieve a much needed timber thinning project in urban interface zones near the highway.

Hydrological Restoration

There has been hydrological disruption on the Buffer Preserve that occurred from the early 1900s to the present. From the early 1900s through the 1940s, ditches were dug connecting wetlands to hasten the flow of water off of the land, making it more suitable for cattle and naval stores operations. Ditches were dug through the salt marshes to St. Joseph Bay from the 1950s through the 1970s in an attempt to control mosquito populations. Beginning in the 1960s, ditches were dug near and through the northern area of the current Buffer Preserve boundary to drain the adjacent land for the development of a golf course, air strip and residential development. Also, a major ditch was constructed to link Money Bayou with Indian Lagoon in an attempt to bring more freshwater into the lagoon. Additionally, raised road beds with miles of ditches were constructed across the Money Bayou portion of the Buffer Preserve in anticipation of a residential development.

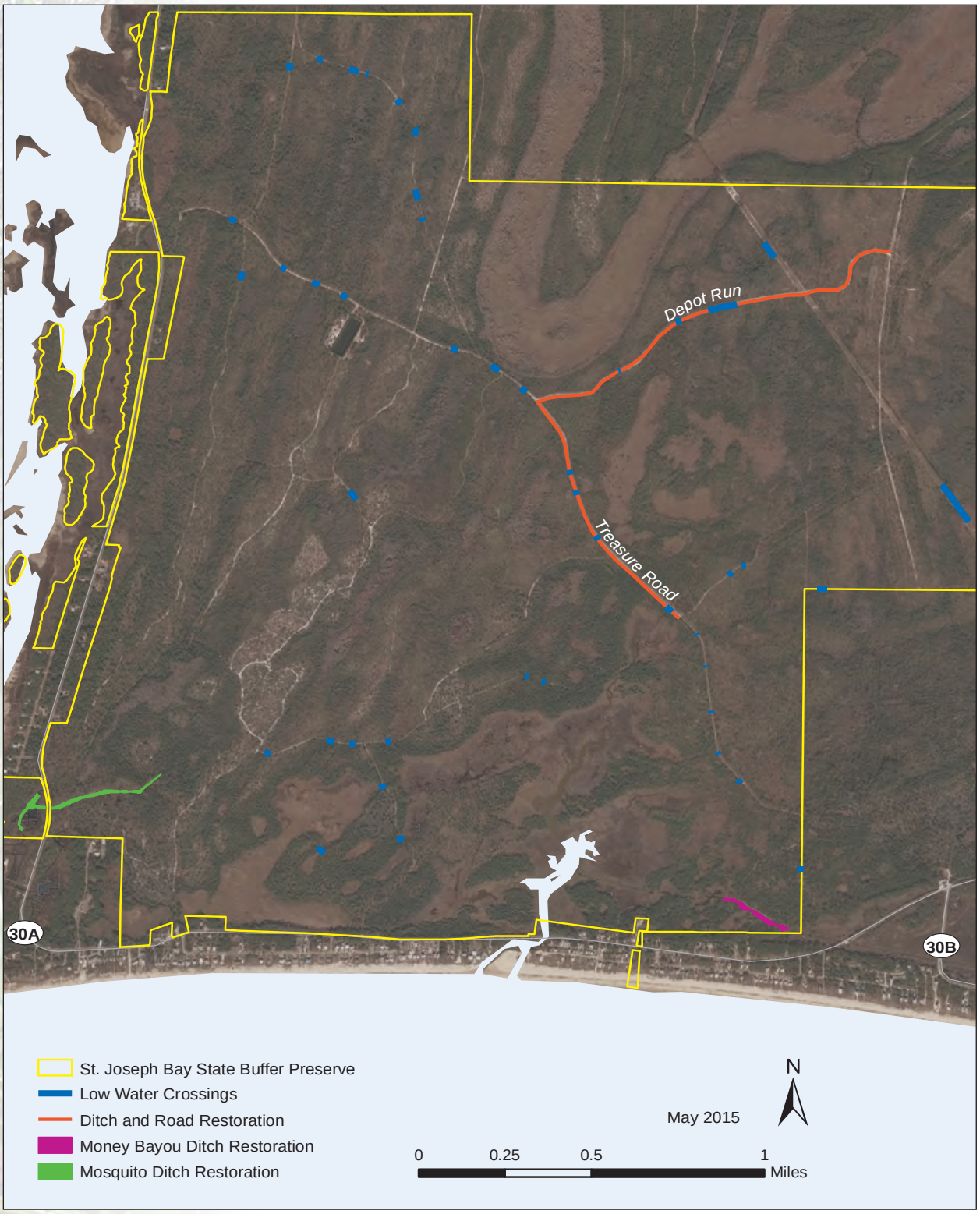
In addition to ditches, fire plow lines on the Buffer Preserve, created to suppress wildfires, affect the surface water hydrology, alter the local vegetation composition, act as vectors for edge and exotic species, and are physical barriers to both small animal movement and prescribed fire. Restoration of the wildfire suppression fire lines, where feasible, will facilitate the natural hydrologic flow and vegetative composition.

Examples of the Buffer Preserve's natural communities that have been greatly impacted by hydrology changes as well as fire frequency include wet prairie, basin swamp and dome swamp. These natural systems are highly vulnerable to loss due to human development as well as vehicle and foot traffic. With proximity immediately adjacent to the shore or coastline, these systems also serve as the first line of defense during severe storms and natural disturbances and serve as pathways for population and communication fluctuation due to climate change. Buffer Preserve staff will work with Division of

State Lands acquisition staff as well as other agencies and non-government organizations such as our Citizen Support Organization to pursue acquisition of surrounding properties that contain these natural communities and/or are adjacent to the shoreline.

Between 2008 - 2015 several activities took place to restore and maintain hydrological functions in much of the Buffer Preserve including;

- Restored natural water flow in much of the Buffer Preserve by leveling two miles of raised roads.
- Restored salt marsh and interior wetland by filling large mosquito ditch.
- Replaced major road crossings at upper Money Bayou and Depot Creek that would wash out the road every time there was a big rain.



Map 18 / St. Joseph Bay State Buffer Preserve hydrologic restoration.

- Replaced almost all culverts in the Buffer Preserve with rock crossings making all major roads all-weather passable.
- Restored grade to miles of old fire-suppression bulldozer and fire plow lines resulting in the growth of many native plants.
- Restored hydrological sheet flow by installing six low water rock crossings on Treasure Road.

Staff will continue to restore, maintain and protect hydrological functions related to the quality and quantity of water resources and the health of associated wetland and aquatic natural communities.

Listed Species Management

The reintroduction of fire to the Buffer Preserve's natural systems is essential to the recovery and survival of all listed species that reside here. Care is taken in the placement of fire lines so as to minimize the impact of critical transition zones where most of the Buffer Preserve's listed plants occur. Potential sites for trails, campsites, and other visitor activities will be surveyed for listed species prior to establishment of facilities. Buffer Preserve staff works in conjunction with FNAI, FFS, USFWS and other partners when the need for specific species management arise. Field observation, research and formal resource surveys are conducted as time and funding allow. Information gathered is used in developing, implementing, and monitoring management activities. Data collected will be maintained in the Buffer Preserve's linked database Geographic Information System (GIS) and shared with appropriate agencies.

Non-native Species Management

Many of the invasive plant species that occur on the Buffer Preserve are Category I species as listed by the Florida Exotic Pest Plant Council (2013). While relatively few populations of these species are known to be present on Buffer Preserve lands, adjacent and nearby private lands are significant threats. Recent increases in ground disturbing activities often associated with residential and commercial development have caused these non-native invasive species to spread rapidly. Right-of-way maintenance, land clearing, and increased use of Buffer Preserve lands for hiking, biking and horses make the spread of invasive exotic species a priority management concern. Buffer Preserve staff utilize best management practices available through FWC for treating invasive non-native species.

FWC's Invasive Plant Management Section as well as other sources will be used to combat the establishment of invasive non-native species. Public outreach and education have been implemented to mitigate the introduction of invasive species to private or state lands. Field observations and formal surveys are conducted, as funding and staffing resources are made available. Data collected is stored and managed in the Buffer Preserve's linked database-GIS and reported to appropriate agencies.

Recent development has increased the numbers and species of invasive plants in the Buffer Preserve. The following species are treated as part of the Buffer Preserve's invasive plant management program: Chinese tallow, Japanese climbing fern, cogon grass and camphor tree. The control program consists of annual herbicidal application, primarily in the fall, as well as mapping and monitoring throughout the year. Other non-native invasive species that occur on the Buffer Preserve and have been controlled include vasey grass (*Paspalum urvillii*), Chinese ladder brake fern and showy rattlebox (*Crotalaria spectabilis*). Vasey grass occurs on roads and road shoulders throughout the Buffer Preserve and spreads very rapidly in disturbed areas. This species has been treated with herbicide but has not been a high priority since it doesn't seem to invade non-disturbed habitat. Chinese ladder brake fern occurs in limestone areas around the shop and has been removed by hand but continues to come back. Showy rattlebox has also occurred in several locations around the shop and pond area. This species expands greatly if untreated. This species has also been removed by hand. Two of the most dominant invasive species are discussed in more detail below.

Cogon Grass

Only two locations of cogon grass have been documented within the Buffer Preserve. One has been eradicated, and the other was treated again in 2013. Cogon grass sites bordering the Buffer Preserve have decreased from four sites to one site from 2009 to 2015. All sites, within and on the boundary of the Buffer Preserve are being treated and monitored. Cogon grass is a threat to natural areas and was first found in the Buffer Preserve in 2005. Sites outside the Buffer Preserve are all located on road shoulders where there has been imported fill; thus spreading cogon grass throughout the county in the last five years. Efforts are underway to work with Gulf County to address these issues before Florida Department of Transportation begins a major road widening and resurfacing project along County Road 30E (Cape San Blas Road) in 2015.

Other Problem Species

Chinese Tallow / Popcorn Tree

Chinese tallow locations were reduced from 800 sites in 2007-2008, to 240 sites in 2009. It was further obliterated by 2015 Chinese tallow spreads from adjacent developed areas including the St. Joseph Bay County Club Golf Course and neighboring home sites onto the Buffer Preserve. As a result, staff has focused on the eradication of Chinese tallow in areas adjacent to the Buffer Preserve. Significant progress has been made at eradicating tallow on the golf course, which is a large seed source running through the middle of Buffer Preserve lands. Staff has also had many adjacent landowners ask for and receive assistance in removing Chinese tallow from their property adjacent to the Buffer Preserve.

Chinese tallow is one of the most threatening invasive species to the Buffer Preserve's diverse flora due to its adaptability and rapid growth rate.

Chinese tallow is especially invasive in coastal marshes and removal efforts are aimed at eradicating it from the extensive Money Bayou marshes where it has invaded the outer zones of the marshes near the Treasure Shores development.

Common Reed

Recently several populations of common reed (*Phragmites australis*) have been observed at numerous locales along roadways adjacent to salt marshes. Maps documenting the severity of the infestations are currently unavailable at this time. Staff plans to conduct sitewide surveys throughout the Buffer Preserve in coming years and along Buffer Preserve boundaries to address this emerging non-native plant and to incorporate the species into the invasive species management program.

Bull Thistle

Bull thistle (*Cirsium vulgare*) is native to other regions of the United States but is a problem species for the Buffer Preserve and is believed to be established on the Buffer Preserve. Maps documenting the severity of the infestations are currently unavailable at this time. Staff plans to conduct sitewide surveys throughout the Buffer Preserve in coming years and along Buffer Preserve boundaries to address this emerging non-native plant and to incorporate the species into the invasive species management program.

Cattails

Recently several populations of existing and emerging cattails (*Typha* sp.) have been observed in numerous ditches, marshes, and wetland restoration projects. Maps documenting the severity of the infestations are currently unavailable at this time. Staff plans to conduct sitewide surveys throughout the Buffer Preserve in coming years and along Buffer Preserve boundaries to address this emerging native, but aggressive plant and to incorporate the species into the problem species program.

As populations of known, suspected species are documented, actions will be taken to bring appropriate attention and treatment to the issue.

Non-native Fauna

Non-native animals that are known to occur on the Buffer Preserve include nine-banded armadillos (*Dasypus novemcinctus*), feral hogs (*Sus scrofa*), feral cats (*Felis catus*), Argentine fire ants (*Solenopsis invicta*), Mediterranean gecko (*Hemidactylus turcicus*) and the brown anole (*Anolis sagrei*). Of these non-native species, feral hogs pose the most significant management concern. Ground disturbance caused by hogs severely damages critical habitats, endangering the survival of listed species, and can damage archaeological sites. This disturbance can sometimes lead to the introduction of invasive, non-native plant species. Buffer Preserve staff manage feral hogs as needed according to the DEP Feral Hog policy.

4.3 / The Education and Outreach Management Program

The Education and Outreach Management Program components are essential management tools used to increase public awareness and promote informed stewardship by local communities. Education programs include on and off-site education and training activities. These activities include field studies for students and teachers; the development and distribution of media; the distribution of information at local events; the recruitment and management of volunteers; and training workshops for local citizens and decision-makers. The design and implementation of education programs incorporates the strategic targeting of select audiences. These audiences include all ages and walks of life; however, each represents key stakeholders and decision-makers. These efforts by the Education and Outreach Program allow the Buffer Preserve to build and maintain relationships and convey knowledge to the community; invaluable components to successful management.

4.3.1 / Background of Education and Outreach at St. Joseph Bay Buffer Preserve

Education and outreach efforts conducted by the Buffer Preserve have been designed to meet the overall program goal of maintaining the Buffer Preserve at its current level of environmental quality for future generations. The target population of education and outreach efforts has concentrated on nearby upland landowners and developers, commercial and recreational resource users, students at all grade levels, organized groups, and local, regional, and state government agencies. The Friends of the St. Joseph Bay Preserves, Inc. is a nonprofit 501(c)(3) Citizen's Support Organization that was established in 2003 to protect, preserve, and support St. Joseph Bay State Buffer Preserve and St. Joseph Bay Aquatic Preserve. The Friends of the St. Joseph Bay Preserves raises funds, provide volunteer services and funding for management projects which benefit the buffer and aquatic preserves, and promotes environmental awareness of the aquatic and buffer preserves.

4.3.2 / Current Status of Education and Outreach at St. Joseph Bay Buffer Preserve

Public outreach programs at the Buffer Preserve are essential in educating the local community and visitors about the management goals of the Buffer Preserve and the importance of protection and conservation of the area's natural resources and ecosystems. Buffer Preserve staff and volunteers work to achieve citizen understanding and enjoyment of these natural areas through a variety of efforts.

The Buffer Preserve Center serves as a venue for numerous public gatherings. The 60-person capacity Buffer Preserve Center is the site of meetings for organizations such as USFWS, FWC and the U.S. Department of Agriculture. Public workshops held at the Buffer Preserve Center commonly provide educational opportunities for the community. These workshops are designed for a range of interests including birding, nature photography and archaeology of the Buffer Preserve. Lectures on bottlenose dolphins, black bears, herpetology, botany and geology by visiting researchers working on site at the Buffer Preserve attract many members of the local community and provide in-depth information on research that is being conducted in the area.

The Buffer Preserve Center's four fully furnished guest rooms can accommodate up to 16 overnight guests. Lodging facilities at the Buffer Preserve Center are utilized by individual teachers and students, as well as classes and student led groups from various educational institutions. Teachers from across the country and Canada come to the Buffer Preserve to provide students with hands-on educational experiences in such fields as geology, biology, archaeology and ornithology. Numerous regional universities have participated in Alternative Spring Break at the Buffer Preserve and Florida State University's Adventure Club have used

the Buffer Preserve Center for eco-volunteerism programs and assisting Buffer Preserve staff in habitat management activities. Between 2008-2011, the Buffer Preserve Center underwent a major renovation which included handicapped access, room renovations, sewer system, updated parking lot, landscaping, plumbing, electric, new shop facility and the addition of an observation tower which offers an exceptional view of the Buffer Preserve and St. Joseph Bay Aquatic Preserve.

The Buffer Preserve has partnered with the Friends of St. Joseph Bay Preserves to install educational kiosks at two public entrances to the Buffer Preserve and one kiosk in front of the Buffer Preserve Center. The South Gate kiosk is a one-panel display providing visitors with information on fire ecology and its importance to the ecosystems within the Buffer Preserve, as well as a trail map with dates of recent fires at the Buffer Preserve encouraging hikers to observe the beneficial effects of prescribed burning. The Deal Tract kiosk is a one-panel display giving visitors a history of the Deal Tract and its relation to the Buffer Preserve and a hiking map. The Deal Tract display also provides visitors with information on the prehistoric Native American artifacts located within the Deal Tract, and the importance of leaving such artifacts undisturbed. The Buffer Preserve Center kiosk is a one-panel display that provides visitors with summaries of the functions of the St. Joseph Bay State Buffer and Aquatic Preserves, a map with all public access points to the preserves, and information on Buffer Preserve facility and trail usage.

Two fundraising events held at the Buffer Preserve Center each year, Fall and Winter Bay Days, give the public an opportunity to explore and learn about the Buffer Preserve and St. Joseph Bay. These events feature lectures on topics such as butterflies, birds, bears and fire ecology, as well as exhibits by local nature photographers. Guided wading and boat tours provide visitors with opportunities to see the extensive habitats of seagrass beds, salt marshes and near shore communities of St. Joseph Bay. Guided walking and riding tours of the Buffer Preserve offer guests an introduction to the natural history of this area and the importance of fire to the resident plants and animals, and an in-depth look at the post-fire flowering of grasses and wildflowers, and the birds and butterflies that are attracted to this area. The Buffer Preserve also offers monthly tram tours, allowing the public to enjoy the Buffer Preserve in the presence of an experienced guide that can discuss the natural resources of the area as well as management activities.

The Buffer Preserve received a grant in 2004 from the Florida Exotic Pest Plant Council to produce a brochure educating the public about the threats posed by Chinese tallow. Buffer Preserve staff have distributed this brochure extensively as part of a public education program about Chinese tallow.

Specific areas of staff involvement in education and outreach efforts have included coordinating volunteer networks, developing informational brochures, designing educational signage, participating in local festivals and events, conducting interpretive tours, conducting lectures, developing public service announcements for television and radio, displaying posters, and participating in a variety of workshops and conferences.

Coordination with Other Agencies

Both The Nature Conservancy and FWC have served as partners in the implementation of prescribed fire planning at the Buffer Preserve. Each has provided logistical and research assistance to Buffer Preserve staff, who have conducted presentations on fire management to restore wet savannas and rare plant habitat to The Nature Conservancy restoration workshop, the Society for Ecological Restoration conference, the Central Florida Fire Council and the Florida Native Plant Society. In recent years Buffer Preserve staff have received national attention for their efforts in restoration through fire management, and researchers and resource managers from around the southeastern United States partner with the Buffer Preserve to conduct a wide variety of ecosystem studies.

*4.4 / **The Public Use Management Program***

The Public Use Management Program addresses the delivery and management of public use opportunities at the Buffer Preserve. The components of this program focus on providing the public recreational opportunities within the site's boundaries which are compatible with resource management objectives. The goal for public access management in FCO managed areas is to "promote and manage public use of our preserves and reserves that supports the research, education, and stewardship mission of FCO."

While access by the general public has always been a priority, the conservation of FCO's sites is the principle management concern for FCO. It is essential for staff to analyze existing public uses and define management strategies that balance these activities where compatible in a manner that protects natural, cultural and aesthetic resources. This requires gathering existing information on use, needs

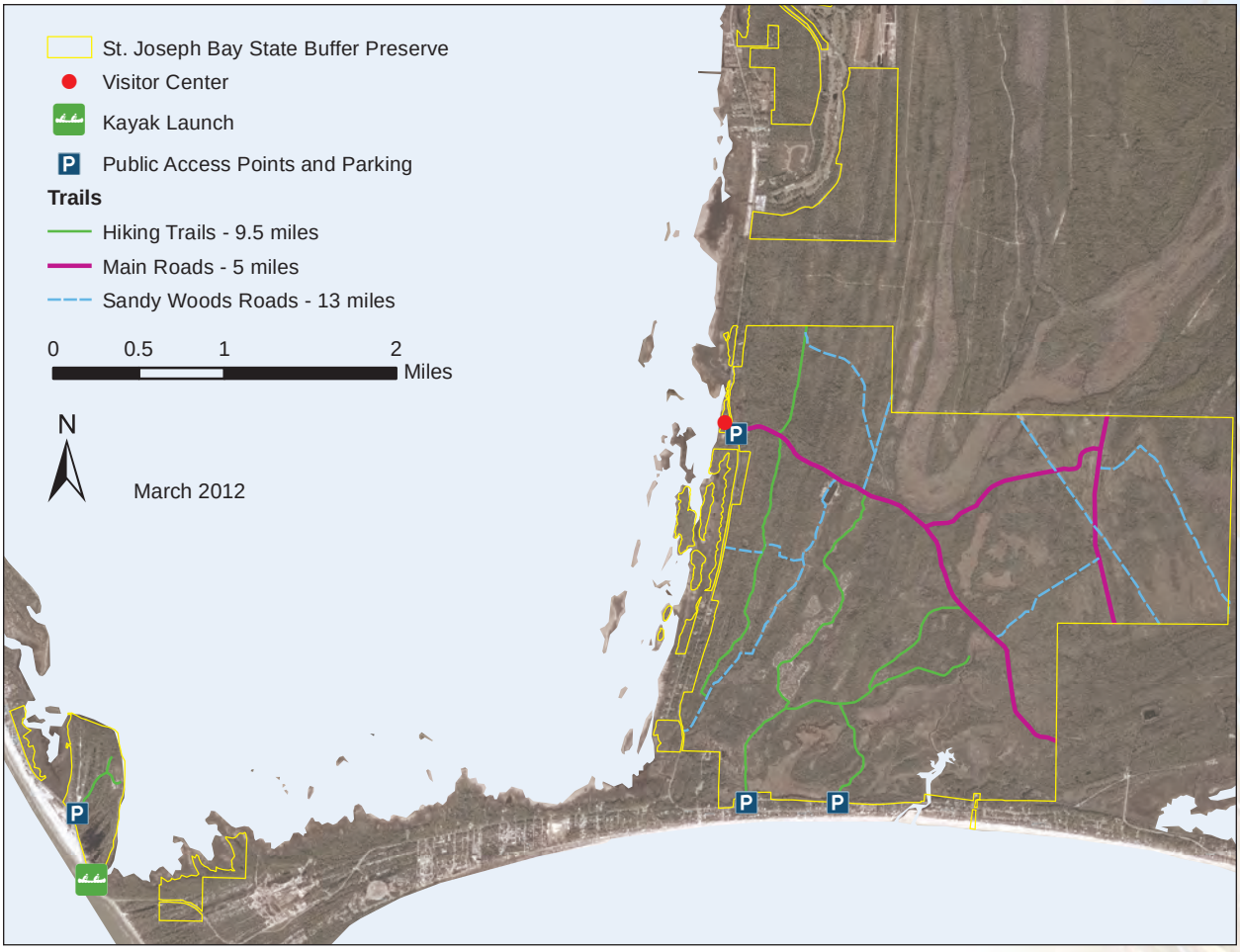
and opportunities, as well as a thorough consideration of the existing and potential impacts on critical upland, wetland and submerged habitats. This includes the coordination of visitor program planning with social science research. One of FCO's critical management challenges during the next ten years is balancing anticipated increases in public use with the need to ensure preservation of site resources.

4.4.1 / Background of Public Use at the St. Joseph Bay State Buffer Preserve

Public Use

Public use that is compatible with natural and cultural resource protection is a priority at the Buffer Preserve along with promoting and encouraging visitors to view the Buffer Preserve as a unique wilderness area with a high degree of aesthetic and natural value that is worth protecting through active stewardship. The Buffer Preserve is managed under the single use concept. The emphasis is on natural systems management including: restoration, maintenance, and protection of all natural communities; identification and protection of species considered endangered, threatened or of special concern; conservation and protection of aquatic resources; identification and protection of cultural resources; control of exotic plants and animals; and the integration of compatible human uses. The area within the Buffer Preserve boundaries provides a variety of outdoor resource based recreational opportunities. These include hiking, birding, kayaking, nature photography, biking and fishing. The Buffer Preserve promotes "Leave No Trace" principles to visitors through educational kiosks and brochures. Staff continually monitors public access and visitor use to assess impacts to environmental conditions and then utilize adaptive management methods to eliminate, avoid, or reduce potential adverse impacts to natural resources.

Areas near the Buffer Preserve providing recreational opportunities include St. Vincent National Wildlife Refuge, T.H. Stone Memorial St. Joseph Peninsula State Park, St. Joseph Bay and Apalachicola Bay aquatic preserves, Box-R Wildlife Management Area as well as several county parks. These areas offer boating, swimming, nature study, beach activities, snorkeling, picnicking, birding, historic interpretation, camping, recreational fishing, and scalloping.



Map 19 / Public use and access points of St. Joseph Bay State Buffer Preserve.

4.4.2 / *Current Status of Public Use at the St. Joseph Bay State Buffer Preserve*

The diversity of natural communities at the Buffer Preserve provides for a rich flora and fauna. Birding and wildflower observation is exceptional on Buffer Preserve lands. The Buffer Preserve's position along the Mississippi flyway brings opportunities to observe a wide range of bird species including neotropical trans-gulf migrants that use this area as a rest stop during their annual journeys as do migrating monarch butterflies and dragonflies. One of the largest concentrations of rare and endemic plant species in the southeast occurs on site. The intact coastal Florida native landscapes found at the Buffer Preserve provide visitors with a unique opportunity to observe plant species that only occur in the Florida Panhandle and at least three species that are globally imperiled – tropical waxweed, Chapman's rhododendron and Telephus spurge.

Visitor access points, which include a small parking area, a gazebo shelter with picnic table, and a kiosk, have been established on the Treasure Shores Tract (across from the Buffer Preserve Center on State Road 30-A) and on the Deal Tract (Cape San Blas Road or County Road 30-E near Stumphole). Both serve as trailheads to a number of primitive trails (see Map 19). Two additional access points exist on the Money Bayou Tract (north side of County Road 30-A). No motorized vehicles are permitted beyond the parking area and these trails are open to hikers, bicyclists and equestrian riders from sunrise to sunset 365 days a year unless posted or during prescribed fire operations. Visitors should take proper safety precautions and be prepared for a variety of weather conditions and potential interaction with wildlife, including but not limited to feral hogs, alligators, venomous snakes, ticks, chiggers, yellowjackets, mosquitoes, gnats, no-see-ums and poison ivy.

Analysis of Multiple-Use Potential

The following actions or activities have been considered under the multiple-use concept as possible uses to be allowed on the site. "Approved" uses are deemed to be in concert with the purposes for state acquisition, with the Conceptual State Lands Management Plan, and with DEP's agency mission, goals and objectives. "Conditional" means the use may be acceptable, but will be allowed only if approved through a process other than the land management plan development and approval process. "Rejected" means the item is not in concert with one or more of these various forms of guidance available for decision-making.

Activity	Approved	Conditional	Rejected
Protection of endangered and threatened species	●		
Ecosystem maintenance	●		
Soil and water conservation	●		
Fishing	●		
Hunting		●	
Wildlife observation	●		
Hiking	●		
Bicycling		●	
Horseback riding		●	
Non-motorized paddlecraft (e.g. kayak/canoe)	●		
Cattle grazing			●
Camping		●	
Apiaries		●	
Linear facilities (utility lines)		●	
Off road vehicle use		●	
Environmental education	●		
Citriculture			●
Preservation of archaeological and historical sites	●		
Timber harvest and mechanical treatments		●	
Primitive camping		●	
Geocaching		●	
Silviculture		●	
Nature photography/painting/illustration	●		
(Other uses as determined on an individual basis)			

Table 7 / Analysis of multiple-use potential for the St. Joseph Bay State Buffer Preserve.

Loss of habitat from coastal development and its associated impacts on water quality are of critical concern to the protection of threatened and endangered species.

Chapter Five

Issues

5.1 / ***Introduction to Issue-Based Management***

The hallmark of the Florida Coastal Office (FCO) is that each site's natural resource management efforts are in direct response to, and designed for unique local and regional issues. When issues are addressed by a specific site it allows for an integrated approach by the Ecosystem Science, Resource Management, Education and Outreach, and Public Use programs. This complete treatment of issues provides a mechanism through which the goals, objectives and strategies associated with an issue have a greater chance of being met. For instance, a site may address declines in water clarity by monitoring levels of turbidity and chlorophyll (Ecosystem Science), planting eroded shorelines with marsh vegetation (Resource Management - habitat restoration), creating a display or program on preventing water quality degradation (Education and Outreach), and offering training to municipal officials on retrofitting stormwater facilities to increase levels of treatment (Education and Outreach).

Not only does issue-based management create a unified direction for St. Joseph Bay State Buffer Preserve (Buffer Preserve) programs, but it allows any number of partners to become involved in addressing an issue. Partnering is invaluable to the Buffer Preserve, and by bringing issues into a broad public consciousness, partners who wish to be involved are able to do so. Involving partners in issue-based management ensures that a particular issue receives attention from perspectives that the Buffer Preserve may not normally address.

This section will explore issues that impact the management of the Buffer Preserve directly, or are of significant local or regional importance so that participation in them may prove beneficial. While an issue may be the same from site to site, the goals, objectives and strategies employed to address the issue

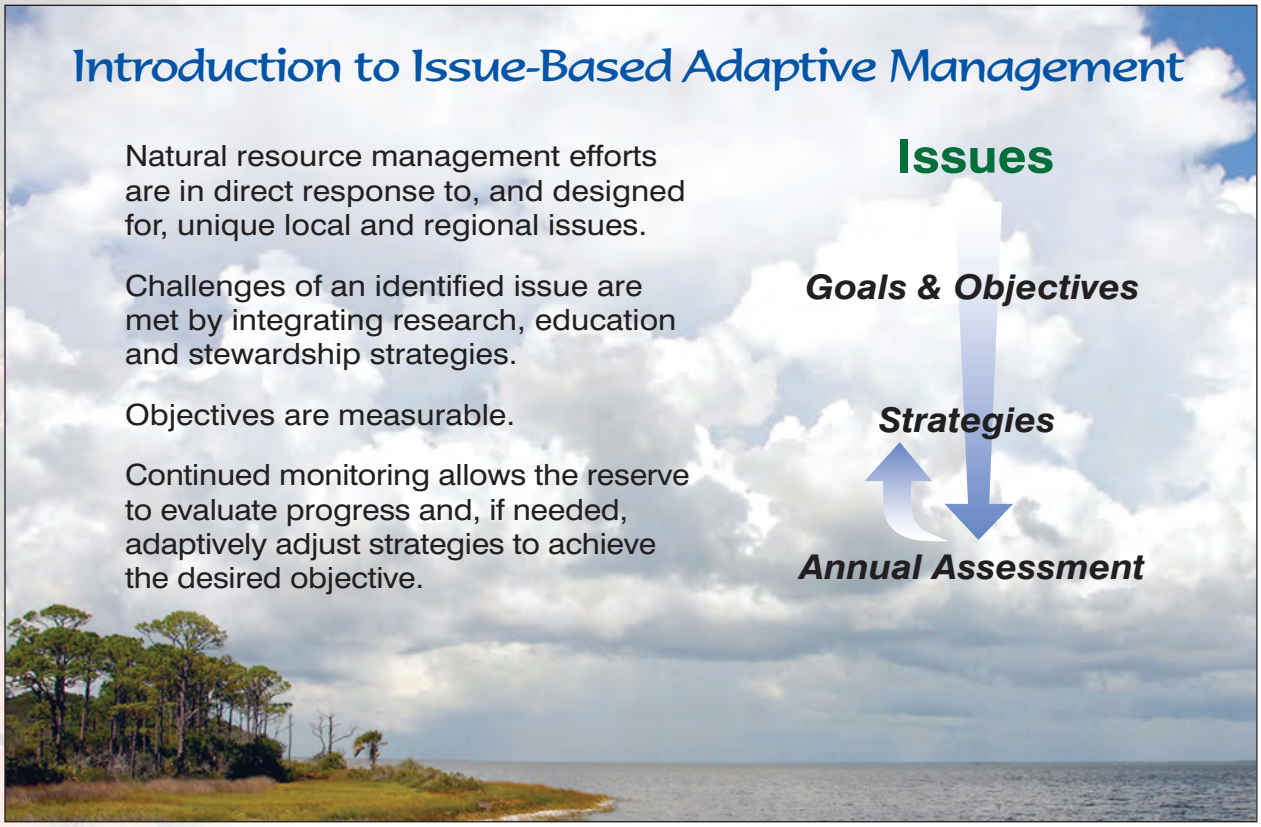


Figure 2 | Issue-based Adaptive Management.

will likely vary depending on the ecological and socioeconomic conditions present within and around a particular site's boundary. In this management plan, the Buffer Preserve will characterize each of its issues and delineate the unique goals, objectives and strategies that will set the framework for meeting the challenges presented by the issues.

Each issue will have goals, objectives and strategies associated with it. Goals are broad statements of what the organization plans to do and/or enable in the future. They should address identified needs and advance the mission of the organization. Objectives are a specific statement of expected results that contribute to the associated goal and strategies are the general means by which the associated objectives will be met. Appendix D contains a summary table of all the goals, objectives and strategies associated with each issue.

*5.2 | **Issues***

Issue One: Restoring Hydrologic Alterations to the Buffer Preserve

Florida has lost more than 50 percent (9 million acres) of its natural wetlands in the past 200 years (Hefner, Wilen, Dahl, & Frayer, 1994). Most of this loss may be attributed to wetland drainage and filling. The natural flow of water across a landscape of natural wetlands is critical to the quality of water finding its way into our rivers, bays and oceans. A priority at the Buffer Preserve is to restore hydrologic function to natural areas by removing disturbances that impact natural water flow or by repairing damage done to the landscape by various activities. Through ditch plugging, road removal or alteration with water crossings, and repair to fire-plow scarred wetlands, the natural slower movement of water is restored. The slower movement of "sheet-flow" water across the landscape naturally polishes the water and allows for slow release into nearby water bodies. Sheet flow, combined with a landscape with restored groundcover, conserves soil and decreases turbidity (U.S. Environmental Protection Agency, 1996).

Most of Florida's native habitats are precisely adapted to natural drainage patterns and seasonal water fluctuations. Depth of the water table, and the timing and length of flooding frequently determine what type of natural community occurs on a site. Even minor changes to natural hydrology can result in the loss of plant and animal species from a site and it is now recognized that ditches, berms, roads, stabilized lake levels and excessive water use can have severe and unwanted impacts on natural lands by altering both the amount of water present and the timing of its availability.

Development adjacent to the Buffer Preserve is often coupled with drastic changes to the landscape (e.g. clearing of vegetation, addition of fill dirt, construction of drainage ditches, impoundment from road construction) which often benefits the owner of the parcel, but which may contribute toward bigger problems at a neighborhood or landscape level.

Goal: Restore, maintain and protect hydrological functions related to the quality and quantity of water resources and the health of associated wetland and aquatic natural communities.

Issue One, Objective One: Complete a comprehensive hydrologic assessment and restoration plan that identifies habitat restoration needs.

Integrated Strategies:

1. Develop a comprehensive hydrological assessment and restoration plan which defines existing hydrological conditions and problems on site, including off-site stormwater impacts and determine best management techniques for completing restoration efforts.
2. Analyze existing data utilizing Geographic Information Systems (GIS) and begin comprehensive wetland inventory with special attention shown to restoration needs and/or potential.
3. Install staff gauges at select wetlands and road crossings.
4. Conduct threatened or declining amphibians survey.
5. Monitor existing health, threats and stability of current and proposed shoreline to be acquired.

Issue One, Objective One - Performance Measures:

1. Complete a hydrological restoration plan that details existing alterations and restoration options available.
2. Track number of staff gauges deployed.
3. Track additional acres enhanced or restored (or lost) on or adjacent to the Buffer Preserve.

Issue One, Objective Two: Restore hydrology to the fullest extent possible using the best available techniques and maintain restored condition to protect water quality and quantity on the Buffer Preserve as well as in neighboring bodies of water (St. Joseph Bay and Gulf of Mexico) and watersheds (Apalachicola River and Depot Creek).

Integrated Strategies:

1. Restore remaining ditches that have altered hydrological functioning.
2. Map, prioritize and restore bulldozer and fire plow lines that have sufficient on-site spoil and that interfere with natural hydrological functioning and with spread of fire across the landscape.
3. Map, prioritize and restore on-site ditches, where possible, and work with neighboring land owners to address ditches which also contribute to observed altered hydrological patterns.
4. Maintain and advance restoration of previously filled ditches by planting appropriate native vegetation where needed.
5. Install and maintain low water crossings and culverts.

Issue One, Objective Two - Performance Measures:

1. Determine linear feet or acres of ditches filled and restored.
2. Determine linear feet or acres of fire plow and bulldozer lines that have been filled.

Issue One, Objective Three: Develop a plan, in coordination with the Northwest Florida Water Management District (NWFWMD) for the monitoring of ground and surface water.

Integrated Strategies:

1. Develop a Hydrologic Monitoring Plan to provide a comprehensive strategy for current and future hydrologic data collection activities for the assessment and characterization of the water resources within the Buffer Preserve.
2. Continue existing surface water level monitoring within the Buffer Preserve to gather a record of baseline water levels and the range of variation in water levels that could be used to assess future changes in hydrology.
3. Expand surface water level monitoring to include additional sites including Money Bayou.
4. Review data annually to identify emerging monitoring issues, evaluate the information collected to identify any data gaps affecting monitoring efforts and data processing improvements.
5. Meet with NWFWMD staff annually to collaborate on monitoring efforts, identify data gaps and any additional monitoring needs for future monitoring as part of the district's regional *Hydrological Monitoring Plan*.
6. Set up system of monitoring ground water in coordination with the NWFWMD to detect potential impacts of water withdrawals.

Fire lines, created to abate a wildfire, alter the hydrology.

Issue One, Objective Three - Performance Measures:

1. Develop and implement a Hydrological Monitoring Plan for ground and surface water resources within the Buffer Preserve.
2. Track number of new monitoring stations established.

Issue Two: Ecological Restoration and Protection of Native Biodiversity and Ecosystem Functions within the Buffer Preserve

The natural systems that occur on Buffer Preserve lands form a complex mosaic of natural communities that are not managed independently of each other. The majority of natural communities that occur on the Buffer Preserve are fire dependent or fire-adapted. The Buffer Preserve's fire dependent communities include sandhill, scrub, scrubby flatwoods, mesic flatwoods, wet flatwoods and wet prairie. The frequent application of prescribed fire is the single most important and cost effective management tool that land managers use to benefit listed species and promote biodiversity in those communities. The reintroduction of fire to the Buffer Preserve's natural systems is essential to the recovery and survival of all of the Buffer Preserve's listed plant species. Public awareness of the benefits of an active prescribed fire program is essential to ensure public acceptance of the short-term inconveniences such as smoke and road closure. All burning done by FCO staff must follow Florida's forest fire laws and open burning regulations as set forth in Florida Statutes and Administrative Codes. FFS is charged with enforcing these requirements. The Buffer Preserve staff are also committed to applying scientific monitoring to understand the implications of its fire management program on habitats and species composition.

Some natural communities are greatly impacted by hydrology changes as well as fire frequency. These communities include wet prairie, basin swamp and dome swamp. Natural communities that are not fire dependent are beach dune, coastal strand and shell mound. These natural systems are highly vulnerable to loss due to human development as well as vehicle and foot traffic. With proximity immediately adjacent to the shore or coastline, these systems also serve as the first line of defense during severe storms and natural disturbances and serve as pathways for population and communication fluctuation due to climate change. Buffer Preserve staff will work with Division of State Lands (DSL) acquisition staff as well as other agencies to pursue acquisition of surrounding properties that contain these natural communities and/or are adjacent to the shoreline.

The reintroduction of fire to the Buffer Preserve's natural systems is essential to the recovery and survival of all listed species that occur there. Care will be taken in the placement of fire lines so as to minimize the

impact of critical transition zones where most of the Buffer Preserve's listed plants occur. Potential sites for trails, campsites, and other visitor activities will be surveyed for listed species prior to establishment of facilities. Buffer Preserve staff will work in conjunction with Florida Natural Areas Inventory (FNAI), FWC and other interested parties should the need for specific species management arise. Field observation, research and formal resource surveys will be conducted as time and funding allow. Information gathered will be used in developing, implementing, and monitoring management activities. Data collected will be maintained in the Buffer Preserve's linked database-GIS and shared with appropriate agencies.

In the event of a wildfire, response actions should be less disruptive to the land than the disturbance caused by the fire itself. Appropriate strategies may range from direct suppression and minimization of acreage burned, to more direct methods such as containment and confinement. Surveillance is appropriate when the fire is expected to be self-contained within a defined area and when minimal drainage to critical resources can be expected. Reported wildfires will be handled by the Buffer Preserve manager and staff, FFS and the local fire department.

Goal: To protect, restore and maintain native ecosystems within the Buffer Preserve by ensuring natural ecosystem processes.

Issue Two, Objective One: Restore natural fire regimes, where feasible, to fire-adapted natural communities through the strategic application of prescribed fire and adaptive wildfire management.

Integrated Strategies:

1. Develop a comprehensive fire management plan which includes contingency, mitigation and restoration strategies for the Buffer Preserve's natural communities and management zones.
2. Maintain and purchase adequate reliable equipment and ensure staff meet FCO burn standards and actively participate in wildland fire training, including wildfire suppression and prescribed burn operations beyond the Buffer Preserve and education courses to sharpen and extend knowledge and experience base.
3. Maintain historically appropriate fire return interval on all fire management zones that are currently in burn rotation. However, emphasis will be on frequent (one to three year return interval) burning in wet prairies and pine flatwoods where many listed and/or rare plant species have been documented.
4. Identify all wildland urban interface management zones and acres directly available for associated mitigation strategies.
5. Use fire as a tool to restore natural processes of critical habitats to support rare and listed species recovery efforts.
6. Increase the number of acres burned annually within the Buffer Preserve until optimal rates of 2,500 to 3,800 acres are burned annually, based on current Buffer Preserve boundaries.
7. Restore fire to long unburned or fire-suppressed zones.
8. Coordinate with other agencies to host training opportunities for wildland and prescribed fire professionals from Florida, the southeast United States and nationally. Doing so may facilitate the opportunity for prescribed fire professionals to train and garner new experiences while conducting burn operations and helping to meet the needs of the Buffer Preserve by helping to execute fuel reduction, reintroduction, maintenance and ecological burning.
9. Initiate and actively meet with local residents, community officials, local fire departments, Emergency Management Services and St. Joseph Peninsula State Park to foster awareness of fire's natural role in maintaining native ecosystems.
10. Produce educational materials that promote Firewise awareness and the benefit of prescribed fire to the Buffer Preserve.
11. Burn between the months of November and June but emphasize maintenance of areas with recent fire history by conducting burn operations from March through June. Areas with little to no recent fire history will be receive reintroduction burns under a narrow set of weather parameters with emphasis on reducing fireline intensity, protecting public safety and natural community tolerance to disturbance severity resulting from an abnormal and hazardous fire.

Issue Two, Objective One – Performance Measures:

1. Track changes in fire frequency for existing fire management zones and for any additional zones incorporated into the fire program.
2. Document acreage of long unburned management zones that are burned and incorporated into prescribed fire rotation.
3. Document change in acreage and/or management zones restored/maintained with a one to three year fire return interval.

View of St Joseph Bay from the Deal Tract tower.

4. Document proportion of management zones burned in each season.
5. Update fire management records annually and produce maps documenting management units and acres burned.
6. Document number of acres in each natural community treated with fire.
7. Document number of "fire awareness" workshops conducted and educational materials generated and distributed.
8. Track number of acres of wildland urban interface acres treated.
9. Maintain all vehicles, fire equipment and maintenance logs.
10. Track number of acres of fire hazard reduced, acres of habitats restored/sustained in a prescribed successional rotation as they relate to the Buffer Preserve's Prescribed Fire Plan.
11. Maintain accurate fire line training logs with emphasis on acceleration and development of fire line leadership of all Buffer Preserve staff.

Issue Two, Objective Two: Restore and protect existing native plant communities by monitoring and restoring dominant or keystone species in areas which are known to have suffered soil disturbance or where natives have been displaced due to infrequent fire.

Integrated Strategies:

1. Develop a site wide ecosystem restoration plan for multiple dominant canopy communities (e.g. longleaf, cypress) based on historical reference conditions.
2. Conduct, inventory and digitize disturbances (e.g. fire suppression plow lines), produce maps and generate and maintain a database of existing disturbance areas and future restoration opportunities.
3. Restore disturbed areas by employing a variety of restoration techniques including mechanical treatment of existing fuel beds, direct seeding, sowing seed or planting appropriate vegetation.
4. Restore longleaf pine dominance by gradual, targeted removal of slash pine and re-establishment of on-site longleaf pine and through direct planting of containerized longleaf pine or longleaf seed capture during mast events.
5. Use a combination of fire and mechanical treatments (i.e. mowing, gyro-tracking) to reduce dense and high shrubs and restore herbaceous dominance to areas that have increased shrub and palmetto dominance resulting from past fire suppression and exclusion.

6. Seek and acquire alternative funding for restoration projects that are high priority management issues and of critical interest to the Buffer Preserve's conservation goals.
7. Evaluate shoreline areas to identify major erosion areas and restoration needs.
8. Conduct annual surveys for longleaf pine masting events.

Issue Two, Objective Two – Performance Measures:

1. Generate database and maps identifying disturbed areas and associated restoration opportunities as well as restoration strategies utilized.
2. Track acres restored and enhanced with regard to groundcover/soil disturbance.
3. Track acres of understory mechanically treated.
4. Document acres of disturbed areas with loss of native vegetation that have been rehabilitated or placed on a restoration trajectory.
5. Document acres of pinelands where longleaf pine dominates the existing or future canopy has begun and acres treated with fire, hand, and or mechanical restoration techniques.
6. Document acres of pinelands where longleaf seed (mast) is captured during land management activities or through direct planting of containerized seedlings.
7. Report on shoreline erosion and restoration needs/results.

Issue Two, Objective Three: Maintain, improve or restore populations of imperiled plant and animal species and habitats and ensure long-term viability of populations of species considered endangered, threatened or of special concern.

Integrated Strategies:

1. Track cubic feet, acres restored and enhancement from groundcover/ soil disturbance.
2. Establish and maintain optimal fire regimes for rare plants (1-3 year frequency, spring when possible, burning into wet prairie transition zone and burning wetlands when dry for restoration purposes).
3. Continue to monitor and map baseline data on imperiled plants that occur within the Buffer Preserve.
4. Complete inventory of imperiled animals that occur within the Buffer Preserve.
5. Where feasible, introduce fire into long-unburned portions of the Buffer Preserve.
6. Investigate the feasibility of red-cockaded woodpecker reintroductions.
7. Conduct field surveys in conjunction with U.S. Fish and Wildlife Service in order to determine the presence/absence of the federally endangered reticulated flatwoods salamander.
8. Promote opportunities to conduct research on wildlife and natural communities within the Buffer Preserve that are relevant to management and restoration.
9. Initiate field survey and historical habitat analyses and studies that will yield information relevant to the documentation, assessment and successful management of all species especially rare, threatened, listed, species of concern or otherwise.
10. Develop customized management plans to protect or benefit specific listed species, if needed.
11. Share species information with U.S. Fish and Wildlife Service, Florida Fish and Wildlife Conservation Commission (FWC), The Nature Conservancy, Florida Forest Service, Florida Natural Areas Inventory and others where appropriate.
12. Pursue grants from U.S. Fish and Wildlife Service, FWC, Florida Forest Service, National Fish and Wildlife Foundation, and other funding sources for land management projects to benefit listed species.
13. Conduct field surveys of the Deal Tract in conjunction with U.S. Fish and Wildlife Service in order to determine the presence/absence of the federally endangered St. Andrews beach mouse.
14. Develop a gopher tortoise monitoring strategy in conjunction with FWC, as staff and funding are available, and report finding to FWC's Gopher Tortoise Program.

Issue Two, Objective Three – Performance Measures:

1. Track acreage of fire reintroduced (or maintained) to wet prairie transition zones and acreage of wet prairie transition zone maintained with frequent fire.
2. Where feasible, introduce fire into long-unburned portions of the Buffer Preserve.
3. Conduct annual surveys for rare plants the year following fire and incorporate new occurrences/ observations in rare plant GIS databases.
4. Develop a map of soils capable of supporting gopher tortoises. As time allows, survey management units with tortoise priority soils immediately after prescribed fire to assess presence or absence of tortoise burrows and/or density.
5. Develop comprehensive GIS layers with wetland specific information.
6. Develop monitoring plans for rare, threatened, imperiled, or listed species.
7. Create a report assessing existing populations of rare, threatened or imperiled species including

investigating the feasibility of introducing specific restoration techniques strategies to address increased reproduction of said species.

8. Continue existing relationship with partners and forge new partnerships to share information regarding listed species management and research findings with pertinent agencies and organizations.
9. Track number of grants/proposals submitted.
10. Develop a wildlife management strategy in conjunction with FWC, as staff and funding are available, to address imperiled fish and wildlife species and associated management prescriptions for their habitats. The strategy will be based on site-specific occurrence, population, and sustainability data.

Issue Two, Objective Four: Conduct ongoing resource inventories and continue proactive management of existing natural and historical communities.

Integrated Strategies:

1. Refine and update current natural community map for the Buffer Preserve.
2. Continue to update resource inventory and develop species specific Management Strategy for key focal taxa including but not limited to: gopher tortoise, flatwoods salamander if found present, and conduct a feasibility study to determine the possibility of reintroduction of red-cockaded woodpecker in subsequent decades especially if the Buffer Preserve boundary is expanded.
3. Demonstrate progress by accelerating compilation of known inventory of existing plants and lichen species, vertebrates, and invertebrates.
4. Conduct a comprehensive inventory of all wetland features on the Buffer Preserve.
4. Conduct threatened or declining amphibian surveys to detect presence/absence of rare species.
5. Coordinate with other agencies and entities and utilize volunteers to conduct frequent BioBlitz events with local experts to identify flora/fauna areas within the Buffer Preserve to conduct resource inventories.
6. Establish an herbarium for researchers and education.

Issue Two, Objective Four – Performance Measures:

1. Production of an accurate and detailed natural communities map.
2. Develop comprehensive wetland database and GIS layers with associated metadata and identifying information.
3. Development of species specific management strategies for focal or keystone species.
4. Track number of species added to resource inventory/collection.
5. Development of species checklists including mammals, birds, amphibians, reptiles and certain invertebrates (e.g. butterflies, dragonflies, ants), fungi and lichen species.
6. Produce a report documenting rare amphibian survey results.
7. Provide resource data to the public through newsletters, annual reports and workshops.
8. Development of an herbarium.

Issue Two, Objective Five: Restore natural communities to promote species diversity and ecosystem integrity and function.

Integrated Strategies:

1. Develop a site wide ecosystem restoration plan for multiple dominant canopy communities (e.g. longleaf, cypress) based on historical reference conditions.
2. Restore longleaf pine in xeric flatwoods sites by gradual removal of slash pine and reestablishment of onsite longleaf pine.
3. Evaluate need for and methods of restoration of degraded cypress strands; implement restoration if needed.
4. Develop a plan for restoring pine plantation sites and other areas with unnaturally high pine canopy density caused by fire exclusion.
5. Seek and acquire alternative funding for restoration projects that are high priority management issues and of critical interest to the Buffer Preserve's conservation goals.
6. Assess shoreline areas to identify major erosion areas and revegetation needs.

Issue Two, Objective Five – Performance Measures:

1. Conduct research and report on historic site conditions.
2. Document acres of mesic and xeric pinelands where longleaf pine is re-established.
3. Report evaluation of existing cypress wetlands in relation to historic reference conditions.
4. Implementation of restoration plan.

A migratory monarch butterfly feeding on a liatris.

Issue Three: Controlling Invasive Plant Species

Goal: Reduce or eradicate populations of invasive species currently documented on the Buffer Preserve while monitoring for new populations and/or new species on and/or adjacent to the Buffer Preserve in order to protect natural communities and the rich biodiversity they harbor.

Issue Three, Objective One: Protect natural communities through the prevention and control of invasive species which pose a significant threat to the rich botanical biodiversity protected within the Buffer Preserve.

Integrated Strategies:

1. Work collaboratively with local government partners to prevent or reduce the establishment of non-native species.
2. Conduct education and outreach programs for targeted audiences, such as landscape/lawn care providers, natural resource managers, city and county staff, and home owners that incorporate the best available science, identification of non-natives, the value of native plants and associated stewardship practices.
3. Continue partnership with Apalachicola Regional Stewardship Alliance's Cooperative Invasive Species Management Area to provide information, tools, and training opportunities to cooperatively address invasive species in this region of the Panhandle.
4. Develop an interpretive exhibit at the Buffer Preserve Center to inform the general public on the detrimental effects of invasive plants and the value of native species.
5. Prevent new invasive species from establishing by minimizing introductions and controlling species early.
6. Work toward control and eventual elimination of invasive species that are established in the Buffer Preserve using best management practices.
7. Document and map populations of invasive species to assist with prioritizing control efforts and to provide a baseline for future monitoring of population levels.
8. Maintain GIS database of invasive species, their distribution and treated sites.
9. Support visiting researchers conducting research on invasive species.
10. Monitor changes in natural biodiversity in sensitive habitats due to invasive, non-native species.
11. Maintain and/or acquire appropriate level of training/licensing.
12. Work with adjacent landowners to control invasive species on private lands.

13. Coordinate with other agencies and entities responsible for the maintenance of electrical utilities and roadside right-of-ways.

Issue Three, Objective One – Performance Measures:

1. Track preventative measures taken to minimize introductions of invasive species. Document instances of control for first occurrences of new invasive species.
2. Track number and area of invasive plants that are successfully treated.
3. Document a negative overall trend in populations of each invasive plant species. Survey for new cogon grass sites and survey of previously treated sites annually. Treat all known cogon grass sites.
4. Evaluate the efficacy of control efforts and identify subsequent needs following initial treatments.

Issue Four: Protection of Cultural and Historical Resources

The lands and waters that make up the Buffer Preserve have a rich history of human occupation. In order to adequately assess and interpret the full range of cultural resources, the Buffer Preserve facilitates and conducts research to serve as a foundation for developing a comprehensive cultural resources management plan starting with a detailed assessment of the location and description of these resources. As the Buffer Preserve's archaeological surveys and artifact collection inventory progresses, this information is incorporated into its education and outreach programs.

The management of cultural resources is often complicated because these resources are irreplaceable and extremely vulnerable to disturbances. Coastal erosion and vandalism threaten the integrity of the Buffer Preserve's cultural resources. This issue is principally associated with coastal erosion and vandalism occurring at Richardson's Hammock on the Deal Tract. The Buffer Preserve will seek advice from other governmental agencies, universities, private groups, and citizens to seek solutions to preserving the cultural heritage of the area.

Regular monitoring of all cultural and historic sites will be implemented on an annual basis to ensure protection of these resources. Additionally, public education and outreach will continue in an effort to mitigate continued removal of artifacts by Buffer Preserve visitors. All land management activities involving ground disturbing components will undergo a cultural resource assessment using best management practices as defined by the Florida Department of State, Division of Historical Resources (DHR).

Goal: Enhance the understanding, interpretation and preservation of the Buffer Preserve's cultural resources.

Issue Four, Objective One: Increase awareness of legal protections and the importance of archaeological sites.

Integrated Strategies:

1. Summarize research information regarding cultural resources for integration into archaeological surveys.
2. Working with partners, pursue grant funding to refine information on known archaeological sites and identify prehistoric settlement patterns.
3. Complete Florida Master Site File forms for all known or discovered, but unrecorded sites.
4. Provide GIS support for archaeological surveys.
5. Interpret the results of archaeological surveys through displays, website, fact sheets, posters, K-12 programming and public outreach activities.
6. Raise public awareness to protect these sites by conducting education, training and outreach programs for targeted audiences that incorporate the value of culture resources, the best available science and appropriate resource management practices (e.g. law enforcement training, eco-tour operator series, cultural resource Best Management Practice training).
7. Assemble a panel of experts and convene a workshop at the Buffer Preserve to determine options available to reduce or deter vandalism of cultural resources.
8. Replace aging signs while strengthening legal protection language at the Deal Tract and other trailheads.

Issue Four, Objective One – Performance Measures

1. Track number of archaeological surveys coordinated with University of South Florida and other entities as appropriate within Buffer Preserve boundaries.
2. Track number of new sites or changes recorded within the Master Site File.
3. Develop an appropriate and compatible database of archaeological information.
4. Track number of educational outreach tools, workshops and publications developed.
5. Track number of signs installed to educate visitors of the importance of archaeological sites.

Issue Four, Objective Two: Enhance opportunities for the public to increase their understanding of the significance of the cultural resources on Buffer Preserve lands. The Buffer Preserve hopes to serve as a

center in the community for a variety of measures affecting a number of topics including archaeology, conservation successes and challenges relating to any matter of resource management.

Integrated Strategies:

1. Build partnerships with groups, organizations and individuals within Florida and the southeastern U.S. archaeological community.
2. Partner with Florida Public Archaeological Network to host regular archaeology symposia/outreach events at the Buffer Preserve.
3. Summarize information regarding cultural resources for integration into the Buffer Preserve's education and stewardship programs. Install adaptable interpretive kiosks and displays to provide up-to-date information on cultural resources for visitors.
4. Seek training for staff and volunteers in cultural resource interpretation.
5. Maintain and expand further development of multi-use trails accompanied by interpretive signs and materials.

Issue Four, Objective Two – Performance Measures

1. Track number of symposia held.
2. Report staff training and interpretive events held as a result of the training.
3. Track number of new trail feet added.
4. Track installation of new kiosks and interpretive signs about archaeology.
5. Develop or fund basic archaeological coursework and monitoring and continue to strengthen partnerships with DHR and other resource archaeology organizations.
6. Document joint projects completed with DHR.

Issue Four, Objective Three: Develop an effective approach to maintain and conserve known archaeological sites and their associated artifact assemblage from vandalism, erosion, and other forms of degradation.

Integrated Strategies:

1. Regularly assess the condition of known cultural resources.
2. Seek professional assistance to document and determine feasibility of relocation, repair or re-creation of historic structures.

Issue Four, Objective Three – Performance Measures

1. Document reduction in new visible damage through time, as measured by photopoints and on-site inspection.
2. Continue current and historical record of cultural resource preservation.
3. Document continued integrity and/or interpretation of known sites.
4. All appropriate Buffer Preserve field staff will complete the Archaeological Resource Management training course.

Issue Five: Maintain, Preserve and Promote Responsible Use of Public Conservation Land Use and Access

Goal: Increase public access opportunities on Buffer Preserve lands while minimizing adverse impacts to natural and cultural resources.

Issue Five, Objective One: Minimize impacts of public use on Buffer Preserve lands.

Integrated Strategies:

1. Clearly mark Buffer Preserve boundaries by posting boundary locations and management information.
2. Design an integrated public access and use plan including a hiking trail system and access to the bay.
3. Install and maintain descriptive signage where appropriate.
4. Establish an enforceable equestrian policy including designated entrances and parking/staging areas and monitoring equestrian use areas for possible introduction of invasive species.
5. Maintain and install gates and fences where access is not desired. Conduct routine boundary patrols to assess any damage to natural or cultural resources.
6. Educate residents/visitors about Buffer Preserve policies through flyers, newsletters and public forums.
7. Determine carrying capacity for sensitive areas and establish a limited use plan.
8. Work with local and state officials to discourage inappropriate use in sensitive areas or where public safety is of concern.

Issue Five, Objective One – Performance Measures

1. Track number of boundary signs posted.
2. Track number of fences/gates installed.
3. Development of equestrian use policy and access points.
4. Track educational pieces developed to educate visitors about proper use.
5. Distribute policies regarding recreation use of sensitive natural areas, safety concerns available to the general public.

Issue Five, Objective Two: Create, maintain and expand sustainable recreational opportunities on the Buffer Preserve managed lands.

Integrated Strategies:

1. Designate areas for public use that are compatible with resource management goals of the Buffer Preserve.
2. Develop and maintain parking areas, trailheads and trails so that visitors can experience a variety of natural communities while minimizing impacts to resources.
3. Continue tram tours so that the public can see and hear about the Buffer Preserve firsthand.
4. Develop a trail at the Deal Tract along the existing fire plow line and include interpretive signage.
5. Create, maintain and expand trails and walkways for nature appreciation, bird watching and photography.
6. Add a spotting scope to new observation tower.
7. Create a loaner optics program.
8. Create visitor use field guides for seasonal flower blooms, common birds, etc. found within the Buffer Preserve.
9. Develop morning bird-watching walks program.
10. Develop primitive camping areas where appropriate for pedestrians and paddlecraft enthusiasts.
11. Utilize Friends of St. Joseph Bay Preserves, students, volunteers and local citizens to engage and develop projects that promote onsite and nearby sustainable recreational opportunities such as birding hikes and trails with interpretive signage.

Issue Five, Objective Two – Performance Measures

1. Track the number of daily visitors and record details of interactions (seeking general or specific questions relevant to Buffer Preserve or merely causal (bathroom use availability or for directions)).
2. Track the number of events scheduled for visitors.
3. Track the number and length of trail additions.
4. Track trail use as counters are installed.
5. Track the number of primitive camping sites.

Issue Six: Promote Scientific Research that Supports the Protection of Native Ecosystems and Natural Community Restoration while Engaging the Local Community to Foster Awareness and Promote Coastal Stewardship.

Preservation of the fragile biodiversity and coastal resources found within Gulf and neighboring counties requires ongoing awareness and promotion of the challenges, trends, efforts, successes, and other factors influencing our ability to sustain current and future population growth. To combat these challenges, the Buffer Preserve plans to partner with scientific researchers, citizens and officials within the local community as well as in the region.

With the Buffer Preserve's multiple, significant features including but not limited to: high natural community diversity, high endemic rare plant diversity, important breeding and migratory bird habitat diversity, significant archaeological resources, and intact coastal landscape, it seems logical to showcase and highlight the Buffer Preserve's natural assets to the scientific and local community and visitors/tourists from throughout the southeast and beyond U.S.A and Canada. The Buffer Preserve already has a strong history of supporting researchers, and hopes to expand the visibility of the Buffer Preserve by employing a number of strategies through increased communication efforts.

The Buffer Preserve hopes to serve the public as a source of information for conservation successes, including opportunities and challenges relating to natural resource management issues in Gulf County and along the Forgotten Coast. An informed public that is aware of environmental issues will have an increased sense of stewardship for the natural resources found within the Buffer Preserve. To that end, the Buffer Preserve continues to host environmental education presentations and meetings.

Goal: Promote community awareness and involvement in coastal stewardship to protect upland and coastal resources.

Issue Six, Objective One: Promote active stewardship by increasing the community's awareness of the value of the Buffer Preserve's natural resources and of opportunities to access and enjoy Buffer Preserve managed lands.

Integrated Strategies:

1. Install and maintain signage within areas that present opportunities for education and outreach about the Buffer Preserve's natural resources.
2. Establish an ongoing educational program that seeks to engage students in the work of the Buffer Preserve.
3. Provide updated information (i.e. publications, websites and interpretive exhibits) at the Buffer Preserve Center to educate the public about responsible coastal stewardship.
4. Establish an Advisory Committee comprised of representatives from local, state, and federal government, universities, non-governmental organizations, interested stakeholders including Friends of St. Joseph Bay Preserves and citizens, and other entities that will provide feedback to staff.
5. Raise awareness of stakeholders and local and state decision makers about Buffer Preserve issues.
6. Continue to enlist volunteers to assist with restoration efforts and other activities.
7. Provide interpretation of St. Joseph Bay and adjacent ecosystems through installation of an interpretive area (exhibits) at the Buffer Preserve Center.
8. Coordinate with Apalachicola National Estuarine Research Reserve's (ANERR) Coastal Training Program coordinator to provide speakers to address community groups and resource managers interested in the relevance and natural history of local ecosystems.
9. Through the Citizens Support Organization (CSO), Friends of St. Joseph Bay Preserves, provide special events and activities, such as Bay Day, for the public designed to highlight the importance and value of Buffer Preserve lands.
10. Improve integration of the ANERR's stewardship, research and education components to support the Buffer Preserve's programs.
11. Increase efforts to interpret coastal habitats through displays, fact sheets, brochures and public outreach activities, and increase the CSO's presence at local festivals/events.
12. Continue to closely coordinate with the CSO.
13. Develop a neighbor notification list to inform adjacent landowners and other area residents of issues of natural resource concern pertaining to the Buffer Preserve and adjacent private lands.

Objective One – Performance Measures

1. Track number of visitors to the Buffer Preserve Center.
2. Track number of volunteers and hours of volunteering.
3. Track number of advisory committee meetings.
4. Track number of meetings held to disseminate information to appropriate audiences.
5. Track number of educational products produced and distributed to the public.
6. Track number of interpretative exhibits installed at the Buffer Preserve Center.

Issue Six, Objective Two: Promote scientific research at the Buffer Preserve that supports the protection of native ecosystems and natural community restoration.

Integrated Strategies:

1. Establish the Buffer Preserve as a research station available to natural resource management professionals from multiple disciplines from across the region and the nation.
2. Encourage scientific professionals and students to conduct research activities within the Buffer Preserve and communicate research needs to the scientific community.
3. Seek grants and other sources of funding to support research and restoration efforts.
4. Continue identifying and evaluating research and restoration needs.
5. Facilitate and support research in the Buffer Preserve conducted by visiting researchers and scientists.
6. Host and facilitate visiting researchers, workshops, symposia, classes, field courses and training academies.

Objective Two: Performance Measures:

1. Track number of phone and written requests for information by visiting researchers.
2. Track and archive reports or published literature developed.

Spectacular sunset over St. Joseph Bay.

Part III

Additional Plans

Chapter Six

Administrative Plans

The St. Joseph Bay State Buffer Preserve (Buffer Preserve) is managed and administered in close concert with the nearby Apalachicola National Estuarine Research Reserve (ANERR). This partnership is a result of physical proximity and mutual administrative requirements. Cooperative staffing and funding maximize efficiencies. As a result, the Administrative Plan for the Buffer Preserve does not stand alone, however, the following staff positions are in place at the Buffer Preserve:

- **Buffer Preserve Manager** (Full Time Equivalent [FTE]): A full time position which directs all the aspects of cultural and natural resource management program, manages budget, administrative tasks, and facilities, and leads the environmental education program including oversight of visiting researchers at the Buffer Preserve.
- **Park Services Specialist** (FTE): Full time position charged with assisting the Buffer Preserve manager with prescribed fire planning, implementation of resource monitoring programs and ecological restoration programs including administrative and other duties as needed.
- **Park Services Specialist** (other personal services [OPS] (limited benefits)): Full time position charged with facility maintenance, shop and heavy equipment maintenance, assisting with prescribed fire and exotic species control program implementation, and other duties as needed.
- A**dministrative Assistant** (OPS): Full time position charged with a variety of administrative duties including but not limited to; greeting visitors, purchasing and bookkeeping, coordinating and facilitating guests entry/departure, assist with reports, answering the phone, also to coordinate and execute fundraisers to benefit the Buffer Preserve.

In order to run an effective program and accomplish the goals in this plan, the Buffer Preserve must retain talented and dedicated staff. Converting one or both of the OPS positions to FTE status would be a benefit for the program and will remain a high priority for the Buffer Preserve. In addition, conversion of the OPS Park Service Specialist to an Environmental Specialist will attract higher quality applicants with skills more suited to the duties of the Buffer Preserve. The cost of living in Franklin and Gulf counties is increasing due to present development pressures and will continue to increase as the planned development increases.

Projected Staffing Needs

Over the next ten years as development increases along the coast, additional staff may be necessary to continue adequate research and monitoring efforts within the Buffer Preserve. At present, proposed additions to the Buffer Preserve boundaries total more than 50,000 upland acres (ca. ten times the current size), including the Florida Forever projects near completion and possible land acquisition transactions in the discussion stage as of 2015. As funds become available these additional positions are needed:

- **Park Services Specialist** (FTE): Full time position charged with facilities and equipment maintenance, prescribed fire and exotic species control program implementation and other duties as needed including administrative.
- **Environmental Specialist I** (FTE): Full time position dedicated to archaeological and cultural resource research, monitoring and education/outreach activities.
- **Environmental Specialist I** (FTE): Full time position which would be dedicated to volunteer coordination, grant acquisition, public outreach and environmental education. The position would assist with development and curriculum programming and delivery for the Buffer Preserve.
- **Environmental Specialist I** (FTE): Full-time position which would be dedicated to prescribe burning and resource management and would have biological monitoring and GIS skills to further fulfill the resource management needs of the Buffer Preserve. This position would serve as a DEP burn boss and assist manage additional acres acquired.
- **Park Services Specialist (OPS)**: Full time position charged with facility maintenance, prescribed fire and invasive species control program implementation and other field resource duties as needed.

Each of the existing staff positions is currently state-funded. Expanding staffing levels will require additional legislative funding. In challenging economic times, Buffer Preserve staff may pursue external funding sources to hire additional staff. Cooperative agreements with other natural resource management agencies will also be investigated to determine if positions could be co-administered among partners.

Volunteers

In addition to state funded positions, the Buffer Preserve is fortunate to have a strong history of partnering with volunteers to meet resource management objectives. The Buffer Preserve has initiated talks with local community organizations and plans to approach high schools to offer short-term intern (unpaid) positions which benefit both the individual/organization and the Buffer Preserve. In recent years, several universities have provided volunteer assistance (groups consist of approximately one dozen students) during spring break as part of the Alternative Spring Break program. In addition, the Buffer Preserve Center includes two recreational vehicle host sites (electric and sewer provided) which long-term volunteers may utilize while generously donating 20 hours a week of their time to assist with management efforts. Both the Buffer Preserve and St. Joseph Bay Aquatic Preserve benefit from an established Citizen Support Organization, which provides volunteers, funding and outreach assistance to meet management goals.

The Friends of St. Joseph Bay Preserves was established in 2003 to protect, preserve, and support the St. Joseph Bay State Buffer Preserve and the St. Joseph Bay Aquatic Preserve. Two annual Bay Day events provide tours, good food, and educational opportunities.

Chapter Seven

Facilities Plans

The St. Joseph Bay State Buffer Preserve (Buffer Preserve) office is currently housed in the St. Joseph Bay State Buffer Preserve Center which is located approximately five miles south of the town of Port St. Joe on the southeastern shore of St. Joseph Bay.

The Buffer Preserve Center is made of three separate buildings connected by an elevated deck totaling 5,500 square feet. The center building which has a large capacity kitchen serves as a conference room, meeting hall and dining room for festivals, conferences and environmental education classes, and is a self-service interpretive education hall. Recreational events such as reunions and weddings are not permitted at this time, however may be possible in the future. In addition to office space, the two buildings on either side of the center building have dorm-style rooms that are used by visiting researchers and volunteers with 20 beds available for guests. A small kitchen provides storage space and is utilized when guest lodging is at maximum capacity. Another room is currently used for facility maintenance and storage. There is also a small storage shed adjacent to the Buffer Preserve Center which serves as storage for bulky items, such as tables, chairs and an ice machine.

The Buffer Preserve installed two recreational vehicle sites with electrical and sewer connection which long-term volunteers use while donating time to the Buffer Preserve. The Buffer Preserve Center recently completed construction of an observation tower. It is operable and the tower is available to the public during office hours. The Deal Tract, an isolated parcel of the Buffer Preserve, is located on the southwestern shore of the bay. A canoe and kayak launch, providing free bay access to the general public is located on the southwest corner of the Deal Tract.

The facility also includes a shop/maintenance area consisting of one wooden pole barn, one metal storage shed, five metal covered car ports, one metal shop building measuring 30' X 50', and three small storage sheds located about three quarters of a mile east of the Buffer Preserve Center.

Repair, replacement and completion of current capital improvement projects are ongoing. As funding allows, modification of current facilities or building additional spaces/structures for the purpose of delivering environmental education in Gulf County to local citizens and tourist is desirable. Funding sources under consideration for education hall renovations are grants and a legislative budget request.

Natural Hazard Planning

In the event of a hurricane, staff will follow the procedures in the Emergency Action Component of the Buffer Preserve Protection Plan, for the Buffer Preserve Center and relocation of all vehicles to the high elevation shop area. The hurricane plan will be updated yearly.

Non-capital Equipment

There is an on-going need for repair and replacement of vehicles, heavy equipment, and small equipment. Currently three additional vehicles are needed to carry fire pumps: F-550 to carry 500 gallon water tank, one-ton truck to carry a 300 gallon water tank, 2.5 ton with a 12' flatbed to carry an 800 gallon water tank.

Vehicles:

- 1997 GMC 3500 4WD one ton pickup is used as an all-purpose work truck for towing, hauling, and moving equipment. It is in usable condition. It is the only truck on the Buffer Preserve capable of hauling the gooseneck trailer with heavy equipment. This truck has 142,815 miles on it as of March 31, 2015.
- 2005 Ford F150 4WD pickup truck is used for prescribed burns and all other resource management work. It is in good condition and kept permanently at the Buffer Preserve. This truck has 140,251 miles on it as of March 31, 2015.
- M35 2.5 ton cargo truck has limited use; must by driven by experienced driver only. Currently only usable off road due to not having any brakes and lights. The cargo truck is used for prescribed burns exclusively. This truck has 39,230 miles on it as of March 31, 2015.

<u>All-Terrain Vehicles (ATV) and Utility Task Vehicle (UTV)</u>

- 1999 Polaris Ranger 6x6 UTV is used for a variety of land management activities including prescribed and wildfire activities as they are capable of going off-road quickly. It has 550.0 hours on it as of March 31, 2015 and is in good condition.
- 2005 Polaris Ranger 6x6 UTV is used for a variety of land management activities including prescribed and wildfire activities and is capable of going off-road quickly. It has 609.0 hours on it as of March 31, 2015 and is in good condition.
- 2010 Kubota RTV, UTV diesel is used for prescribed fire and general transportation where off-road capability is required. It has 443.0 hours on it as of March 31, 2015 and is in good condition.
- 2011 Polaris Ranger 6x6 UTV is used for a variety of land management activities including prescribed and wildfire activities. It has 219.2 hours on it as of March 31, 2015 and is in good condition.
- 2004 Polaris ATVs (x2) are in good condition as of March 31, 2015. They're used for a variety of land management activities including prescribed fires and personnel movement.

Fire Pumps

- 40-70 gallon slip-on units (x4) are used for firefighting and mop up and are equipped to fit in the back of UTVs
- 200 gallon slip-on unit is used for firefighting and mop up.
- 300 gallon slip-on unit is used for firefighting and mop up.
- 500 gallon slip-on unit is used for firefighting and mop up
- 800 gallon slip-on unit is used for firefighting and mop up.
- Floating fire pump is used for drafting from ponds to tanks.
- Vanguard portable fire pump/no tank is used for drafting from ponds to tanks.
- Honda portable fire pump/no tank is used for drafting from ponds to tanks.

Heavy Equipment

- 2003 New Holland TL100 tractor is used routinely for a variety of land management activities. It has 1,088.8 hours on it as of March 31, 2015.
- 2003 ASV Posi-track is used for a variety of land management activities including brush mowing and fire line installation. It has 1316.1 hours on it as of March 31, 2015 and is in good condition.

Trailers

- 16 foot utility trailer (heavy duty dual axles) is used as a general utility trailer. It is an older model and is in good condition.
- 16 foot utility trailer (heavy duty dual axle) is used as a tram for Buffer Preserve tours. It is in good condition.
- Nine foot utility trailer (light duty single axle) is used for hauling equipment and debris.
- Nine foot utility trailer (light duty single axle) fuel trailer stores diesel, gas, burn fuel mix for motorized equipment and prescribed fire ignition equipment.
- 20 foot trailer (heavy duty dual axles) is used as a utility trailer and for hauling Buffer Preserve equipment such as UTVs and fire pumps.
- 34 foot gooseneck trailer (heavy duty dual axles) hauls the tractor and Posi-track and other heavy weight loads.

Chain Saws

- The chainsaws are all in good condition.

Miscellaneous Equipment

- 700-gallon water holding tank; used to fill all fire pumps quickly in an emergency situation.
- Honda generator EB 6500 (portable); used at shop area for filling 700-gallon water tank and other miscellaneous uses.
- Shop generator; located in main 30 x 50 shop building.
- Portable air compressor; gasoline engine.
- Air compressor Ingersoll Rand; located in main shop.
- Blower/weed eater Stihl FS 460; used for trail and shop maintenance and fire line construction.
- Heavy-duty weed eater (x2) Stihl FS 460; used for trail maintenance, brush clearing and fire line construction.
- 2014 Hustler FasTrak Super Duty lawnmower; used for grounds maintenance. This has 21.8 hours on it as of March 31, 2015 and is in great condition.

The St. Joseph Bay Aquatic Preserve was designated as an aquatic preserve for its exceptional biological, aesthetic and scientific value.

Chapter Eight

Land Acquisition Plans

In 1969, the St. Joseph Bay Aquatic Preserve was designated as an aquatic preserve for its exceptional biological, aesthetic and scientific value. In 1990, the St. Joseph Bay Buffer project was placed on the Conservation and Recreation Lands acquisition list to protect the water quality and productive seagrass beds of the bay by establishing a buffer of undeveloped land around the bay. Protecting the undeveloped land around the bay also ensures the survival of dozens of rare plants, protects well preserved archaeological sites within the Buffer Preserve (White, 2005), and gives the public opportunities to enjoy the natural beauty of the bay. The pine flatwoods, swamps, and scrub on the shore of St. Joseph Bay, with their concentration of rare plants, have largely escaped the residential development that is filling the nearby coast with vacation homes.

The first parcel of the St. Joseph Bay Buffer project was acquired in 1995 by the Board of Trustees of the Internal Improvement Trust Fund and was leased to the Florida Department of Environmental Protection's (DEP) Florida Coastal Office (FCO) to manage in 1996. The parcel, Treasure Shores Limited, was 701.98 acres of uplands and jurisdictional wetlands. The Treasure Shores Limited acquisition was followed by acquisition of the Troy Deal parcel (234.9 acres) in 1999, Miller parcels (20.16 acres) in 2000, Capital City Trust parcels (357.25 acres) in 2000, St. Joseph Bay Estates (261.97 acres) in 2000 and Treasure Shores / Money Bayou parcel (3,442.42 acres) in 2002, totaling 5,018.68 acres.

Year	Benchmark
1990	St. Joe Bay Buffer project placed on Conservation and Recreation Lands acquisition list
1995	First parcel acquired
1996	Management authority given to the Office of Coastal and Aquatic Managed Areas
1999	St. Joe Timberland Project created
1999-2002	4,322 acres acquired - Florida Forever Annual Report
2001	2,880 acres added to boundary
2005	St. Joe Bay project removed from Florida Forever list as 90% complete

Table 8 / Benchmark status for St. Joseph Bay State Buffer Preserve

Potential Surplus Lands

An evaluation was conducted of lands for potential surplus. The evaluation consisted of reviewing all parcels and looking for those that were isolated or not conducive toward the overall management of St. Joseph Bay State Buffer Preserve (Buffer Preserve). No surplus lands were identified at this time.

Staff have identified properties totaling approximately 8,486 acres for addition to the Buffer Preserve. These properties are necessary to provide the optimum boundary for the protection of resources within the Buffer Preserve. These additions are proposed to buffer and protect the extensive investment of the state to date. As additional needs are identified through use, development, and research, and as adjacent land uses continue to change on private properties, the optimum boundary for this site may be modified for the enhancement of natural and cultural resources, recreational values, and/or management efficiency. Land acquisition that is suitable for increased public access to water and recreation, and the necessary parking to accompany the access is a high priority.

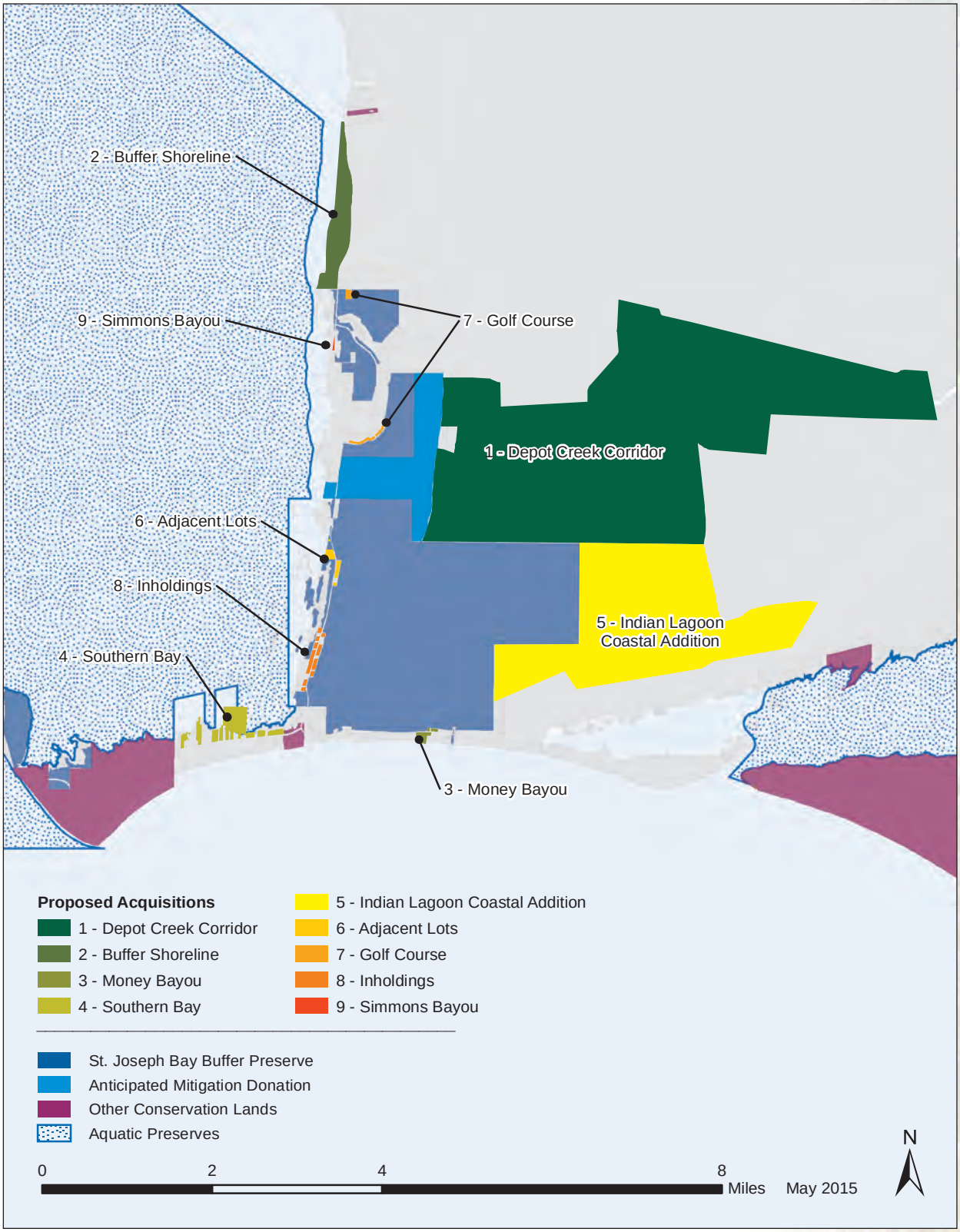
Identification of prospective land acquisitions is solely for planning purposes and not for regulatory purposes. A property's identification as a prospective acquisition is not meant to be used by any party or other government body to reduce or restrict the lawful right of private landowners. Identification of these lands does not empower or require any government entity to impose additional or more restrictive

Priority	Parcel Name (Inhouse)	Florida Forever Project Name	Acres
1.	Depot Creek Corridor	St. Joe Timberland: St. Joe Bay Buffer Site & St. Vincent Sound-to-Lake Wimico Ecosystem Site	5,793
2.	St. Joseph Bay Buffer Shoreline/ Coastal	St. Joe Timberland: St. Joe Bay Buffer Site	228
3.	Money Bayou (north and south sides of County Road 30-A)		15
4.	Southern portion of St. Joseph Bay (vacant parcel along shoreline)		104
5.	Indian Lagoon Coastal Addition	St. Joe Timberland: St. Joe Bay Buffer Site & St. Vincent Sound-to-Lake Wimico Ecosystem Site	2,287
6.	Lots adjacent to Buffer Preserve Center and Buffer Preserve (lots directly north and south of the Buffer Preserve Center and along St. Joseph Bay shoreline)		16
7.	Golf course inholdings		15
8.	Inholdings along State Road 30A between the lodge and Cape San Blas Road		26
	Coastal Simmons Bayou		2
		Total	**8,486**

Table 9 / Priority parcels for land acquisitions.

environmental land use or zoning regulations. Identification is not meant to be used as the basis for permit denial or the imposition of permit conditions.

Since FCO does not have a separate inholdings and additions fund as some agencies and divisions, acquisition of these lands is dependent on Florida Forever or grant funds. The Buffer Preserve has actively sought grants and has secured two grants for the acquisition of inholdings. One grant was funded by the National Coastal Wetlands Conservation program which is administered by the United States Fish and Wildlife Service. The grant was for $831,990 and required a match of 25 percent from the



Map 20 / Prospective land acquisitions for St. Joseph Bay State Buffer Preserve.

Money Bayou is a unique tidal creek that flows through the Buffer Preserve and empties directly into the Gulf of Mexico.

state. This grant was returned to the federal government as undistributed funds because the state was unsuccessful in acquiring the parcels in question.

An additional grant of approximately $1.2 million was secured in partnership with the Florida Forest Service. The grant would protect populations of three endangered plant species by acquiring approximately 758 acres from the St. Joe Company. In addition, it would enhance fire management opportunities and the implementation of prescribed fire to long unburned tracts. It will likely also yield additional information regarding populations of rare, listed and/or pyrogenic species. Due to unforeseen circumstances, the parcel was not acquired and the grant funds were not expended.

1) Depot Creek Corridor (5,793 acres): This area is of high priority for the Florida Forever land preservation project. This site includes much of Depot Creek and the associated drainage to Buffer Preserve land. The site is known to contain endangered plant species including Chapman's rhododendron. Additionally the site protects the St. Joseph Bay shoreline and contains a significant archaeological site. The benefits of acquisition will be water quality protection, wildlife habitat and travel corridors linking the Buffer Preserve to the FWC-managed Box-R Wildlife Management Area, rare species protection, enhanced/increased fire and natural resource management abilities and providing public access opportunities.

2) St. Joseph Bay Buffer shoreline/coastal (155 acres): The project is within a category of Florida Forever projects classified as Climate Change Lands. The benefits of acquisition at this site include protection of submerged resources in the bay as well as habitat and water quality protection. It will provide a migration path for salt marsh habitat along a low elevation/relief coastline. Its proximity, adjacent to the current Buffer Preserve boundary, offers valuable coastal shoreline conservation and wildlife habitat protection (bald eagles, shorebirds, sea turtles) while preserving fragile marine habitats. Additionally the site could provide public access for kayaking and primitive campsites.

3) Money Bayou parcels, north and south sides of County Road 30-A (15 acres): The benefits of acquisition at this site include additional water quality protection, preservation of cultural heritage, preservation of wildlife habitat, improvements in fire management capabilities and protection of rare shorebird nesting habitat.

4) Southern portion of St. Joseph Bay (40 acres): These sites offer protection to the last large undeveloped parcels along the southern shore of Gulf County. One parcel is adjacent to Gulf County's Salinas Park. The benefits of acquisition include protection of submerged resources in the bay, water quality protection and wildlife habitat.

5) Indian Lagoon Coastal Addition (2,287 acres): These parcels lie within a larger, high priority Florida Forever project (St. Joe Timberland, St. Vincent Sound-to-Lake Wimico Ecosystem Site) and are lands of very high conservation value. Acquiring the Indian Lagoon Coastal Addition is a high priority for the Buffer Preserve and would allow manageable fire management zones instead of boundary lines that cut through deep wetlands. These parcels contain extensive wetlands that drain into the Indian Lagoon which is a commercial oyster harvest area. They are adjacent to an existing public land/natural area so they could be managed at very low cost with existing infrastructure. These lands contain many species of state listed endangered and threatened plants as well as federally listed, such as Godfrey's butterwort and telephus spurge. In addition, there are extensive areas of wet savanna, a dwarf cypress strand with old growth cypress, and coastal longleaf pine flatwoods, all of which are rare in this region. The site has high recreational value in that it would allow for the development of hiking trails that would go from Indian Lagoon along the ancient dune ridges. This trail system could link existing trails in the Buffer Preserve and provide additional coastal hiking, biking, and horseback riding opportunities.

6) Lots adjacent to Buffer Preserve Center and Buffer Preserve, directly north and south of the Center and along the St. Joseph Bay shoreline (7 acres): These parcels offer protection to submerged resources in the bay, water quality protection and wildlife habitat. They provide easy public access to conservation lands and waters and preserve a major scenic, wild and undeveloped shoreline/waterbody.

7) Golf course inholdings (15 acres): These additional parcels would complete the boundary, enhance fire management and control of invasive species.

8) Inholdings along State Road 30A between the lodge and Cape San Blas Road (26 acres): Acquisition of these parcels would provide water quality protection, enhanced natural resource management opportunities and aid in fire management.

9) Coastal Simmons Bayou (2 acres): This parcel will complete a boundary and enhance water quality and fire management opportunities.

Acquisition Via Potential Land Swaps

Geographies of public conservation lands and or government lands abutting the Buffer Preserve may cause interruption in executing the safest or most efficient resource management. In areas where an intergovernmental exchange of acres for acres would benefit the Buffer Preserve and the other governmental landholder, to create contiguous holdings, swaps may be explored.

The Buffer Preserve is a premier example of coastal Florida native landscapes.

List of Appendices

CONCEPTUAL STATE LANDS MANAGEMENT PLAN

Adopted

March 17, 1981

7/07/1981 and 3/15/1983 Revisions Incorporated

By the Board of Trustees of the Internal

Improvement Trust Fund

Governor Bob Graham
Secretary of State George Firestone
Attorney General Jim Smith
Comptroller Gerald A. Lewis
Treasurer Bill Gunter
Commissioner of Agriculture Doyle Conner
Commissioner of Education Ralph D. Turlington

Prepared by the
Bureau of State Lands Management

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Department of Natural Resources

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Division of State Lands

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PREFACE: A Legal Perspective

Prior to discussing the activities affecting the utilization of lands vested in the Board of Trustees of the Internal Improvement Trust Fund, it is essential to examine the legal concepts surrounding such trust arrangements.

Important concepts warranting definition and discussion include: (l) trust, (2) trustees, (3) cestui que trust, and (4) fiduciary. For the purposes of discussion, Blacks' Law Dictionary has been used for all definitions.

(1) Trust - "A right of property, real or personal, held by one party for the benefit of another." It is also defined as "a fiduciary relation with respect to property subjecting person by whom the property is held to equitable duties to deal with the property for the benefit of another person which arises as the result of a manifestation of an intention to create it."

(2) Trustee - "The person appointed, or required by law, to execute a trust; one in whom an estate, interest, or power is vested, under an express or implied agreement to administer or exercise it for the benefit or the use of another called the cestui que trust."

(3) Cestui que trust -"The person for whose benefit a trust is created or who is to enjoy the income or the avails of it."

(4) Fiduciary - "A person holding the character of a trustee, or a character analogous to that of a trustee, in respect to the trust and confidence involved in it and the scrupulous good faith and candor which it requires. "The "trust", per se, is established pursuant to Chapter 253, Florida Statutes, and generally consists of those state-owned lands in which title is vested in the Board of Trustees of the Internal Improvement Trust Fund. The trust also includes those "fruits" of the trust that have been generated and returned to the trust for administration by the Board. The beneficiary or "cestui que trust" of the trust is the state, which, by extension, is the general citizenry of Florida. "State" has been defined as "a people permanently occupying a fixed territory bound together by common-law habits and custom into one body politic exercising, through the medium of an organized government, independent sovereignty and control over all persons and things within its boundaries... (Emphasis added). Therefore, management of state-owned lands is for the benefit of all the citizens of Florida; and to this end, a fiduciary relationship exists with this general public. The Florida Constitution (Article II, Section 7 and Article IX, Section 11), Chapter 253, Florida Statutes, and certain other statutes provide specific guidance in relation to the trust and fiduciary obligations. Statutory direction such as "The Board of Trustees of the Internal Improvement Trust Fund is hereby authorized and directed to administer all state-owned lands and shall be responsible for the creation of an overall and comprehensive plan of development concerning the acquisition, management and disposition of state-owned lands, so as to insure maximum benefit and use" (Section 253.03(7), Florida Statutes) must, therefore, be executed within the confines of this fiduciary relationship.

In addition to the more commonly recognized obligations imposed upon the Board by its fiduciary relationship with the citizens of Florida, it is also bound by factors delineated by court decisions: To wit: "The relations and duties involved (in a fiduciary relationship) need not be legal, but may be moral, social, domestic, or merely personal" (Trustees of Jesse Parker William Hospital v. Nisbet, 191 Ga. 821, 14 S.E. 2nd 64, 76). The Board of Trustees of the Internal Improvement Trust Fund must necessarily, by virtue of its fiduciary responsibilities, consider a broad array of public interest factors before authorizing activities affecting the trust.

The following narratives, goals, objectives, and policies were drafted with these responsibilities in mind. Professional planning and resource management recommendations have been melded with both the expressed and implied obligations inherent in the management of an active public trust.

I. INTRODUCTION: The Management Concept And Evaluation Process

The Conceptual State Lands Management Plan represents completion of the first phase of the p1anning effort mandated by Section 253.03(7), Florida Statutes. This conceptual plan is intended as a management overview or outline whereby the Board of Trustees of the Internal Improvement Trust Fund establishes, for the first time, a comprehensive set of policies governing the real properties under its ownership and control.

Acceptance of this document by the Board will set the stage for more specific planning and management, such as the development of administrative rules and parcel-specific management evaluations and recommendations. This multi-faceted planning and management process will provide philosophical direction for the Board's staff, while remaining flexible enough to accommodate future legislative, judicial, or Board directives. The total of the Conceptual State Lands Management Plan, administrative rules, supplemental legislation, and parcel specific management procedures, evaluations, data and recommendations will constitute the overall state lands management program.

The management evaluation process is a staff effort whereby the Board is provided a synopsis of projected effects (both positive and negative) that are anticipated to occur should the Board authorize certain activities involving real property under its ownership and control. It is through this process that the philosophical directions embodied in the Conceptual State Lands Management Plan (hereafter referred to as the Plan) and the resultant procedures established as administrative rules are brought together to develop parcel-specific management evaluations and recommendations pursuant to Section 253.034, Florida Statutes.

The Plan provides basic policy guidance for the formulation of management evaluations and recommendations, but the information in the Plan is far from exhaustive. In fact, most management evaluations involve the use of a series of data collection and assessment steps. These evaluation steps generally fall into the following categories: legal, physical, environmental, recreational, socio-cultural, aesthetic, and economic. Most of the assessment data routinely come from existing sources.

A typical management evaluation would begin with an examination of the degree of title interest held by the Board. This title examination would determine the existence of any restrictive convenants, outstanding title reservations or other encumbrances that may affect the management of a given parcel.

Next, staff would consider any constraints that may have been placed on the property by legislative direction, statutory prohibitions, or executive instructions at acquisition. In addition to revealing the more obvious results of these limitations, such analysis would indicate the possibility of multiple use management of the parcel being evaluated, consistent with Section 253.034, Florida Statutes.

The next step would involve the delineation of the physical, environmental, and cultural features characterizing the property. This information is obtained from a number of available sources such as topographic maps, aerial photographs, soil maps, field inspection reports, and similar aids. In cases where an agency has or will have management responsibility, this information may be provided as part of the management plan.

One of the most significant and readily available sources of parcel-specific physical and cultural data is the Department's computer system. This data system (SLAMIS) must be continually updated to reflect current management conditions of Board-owned and controlled real property.

Once the legal, physical, environmental, and cultural profile of the property is established, staff will consult the policies in the Plan and potential managing agencies and prepare a recommendation encompassing both opportunities and constraints to management. This recommendation will frequently contain references to other federal, state, and local plans and programs potentially affecting anticipated management activities. The final staff recommendation will list those general management actions that

can be accommodated without inordinately detracting from the basic public values of that land and identify whether any of a certain parcel may be surplus to public needs. Any specific intended use for the subject property will be compared with the list of preferred management activities, and rated accordingly.

The Plan, like the ongoing management program, must remain flexible enough to accommodate necessary changes. A static plan would soon become an anachronism as new legislative and administrative directions are implemented. To avoid this problem, provisions must be made to establish an orderly process for continuous updating of the adopted Plan.

The preferred update process would involve placing additions, deletions, or modifications on the normal Board Agenda for policy-level direction and guidance. This would provide the most timely Plan modification system, while maximizing public notice and input. Such modifications could be proposed by either the public, departmental staff, or directly by the Board. Affirmative Board action on such Agenda items would effectively accomplish the required modification.

II. GOALS

A. Achieve full proprietary responsibility for the management of those state-owned lands vested in the Board of Trustees of the Internal Improvement Trust Fund.

Chapter 253.03, Florida Statutes, establishes the legal basis for the Board of Trustees to assume an active role in the administration of those state-owned lands vested in the Board of Trustees. Section 253.03(7), Florida Statutes, directs the Board of Trustees "...to administer to all state-owned lands...so as to insure maximum benefit and use." In a legal context the word "Administer" means "to superintend the execution, use, or conduct of; to manage affairs; to take charge of business.

The Board of Trustees, in meeting its obligations as both title holder and administrator of certain state-owned lands, must assert a proprietary role in the acquisition, management, and disposition of those lands. State-owned lands should be managed with recognition that land is a resource and not a commodity. Consistent with this concept, state-owned lands should be treated with equal or greater proprietary respect than that usually afforded privately owned lands.

B. Achieve internal program consistency in the management of state-owned lands.

One of the essential ingredients of a successful land management program is a high degree of internal consistency between the various management functions. This is especially true when the management evaluations and proposed management activities are predicated upon a resource-based methodology.

The present management authorities of the Board of Trustees do not necessarily ensue from the same statutory directives. As a result, leases of submerged lands, for example, were not evaluated and processed in the same manner as the leases of upland property. This situation resulted from a traditional management bias that attached greater importance to upland property than to submerged land. Consequently, implementing consistent management policies for all state-owned lands will require certain statutory and administrative rule amendments.

All activities affecting title to state-owned lands not directly attributable to, or authorized by the Board of Trustees, are potential encumbrances on title. Therefore, for management consistency, the Board should control all activities affecting title on those lands to which they hold title. In the absence of such a comprehensive management system, the Board of Trustees may find its management authorities curtailed on given parcels by unrecognized but legally defensible encumbrances by other entities.

C. Develop a state lands management program that provides for a parcel-specific determination of "maximum benefit and use"

The statutory phrase " . . .to insure maximum benefit and use" should set the philosophical direction of the Plan. This directive has been interpreted by some as calling for a determination of the "highest and

best use" of each parcel. Care must be taken, however, to insure that this phrase is not defined in an unnecessarily restrictive manner. Such action could deter the development of a truly comprehensive management plan.

The traditional connotation of "highest and best use" has been associated with market place economics. In this context, a given parcel is categorized according to the highest economic return that can be expected from the use of that property. This narrow interpretation of "highest and best use" is not suited for the management of state-owned lands.

For the purposes of managing state-owned lands, it would appear reasonable to interpret "maximum benefit and use" as "balanced public utilization". The term "balanced public utilization" implies that parcel-specific management decisions are predicated upon a broad array of factors, including environmental constraints, economics, recreation, sociological and aesthetics. The form and funding of acquisition, such as the Chapter 259 and 375 programs, will also influence management decisions.

The fully developed state lands management program should contain sufficient implementation procedures to insure that each parcel of land is managed according to the concept of "balanced public utilization". Conversely, the system should discourage management activities that do not provide "maximum benefit and use", and prohibit incompatible activities, which lack "overriding public value".

III. OBJECTIVES

A. Develop a state land management program that adequately accommodates the scope and directives of existing state law.

Chapter 253, Florida Statutes, requires that the Plan address, at a minimum, "acquisition, management and disposition of state-owned lands so as to insure maximum benefit and use".

This statute also establishes a number of management responsibilities and processes for state-owned lands vested in the Board of Trustees. It is imperative that the state lands management program address fully the statutory constraints and directives outlined in Chapters 197, 270, 258, and 259, Florida Statutes, as well as Chapter 253, Florida Statutes, and other appropriate statutes.

B. Encourage the identification and resolution of statutory conflicts affecting the management of state-owned lands.

Over the years, a number of special-purpose legislative actions affecting state-owned lands have become law and influence the management of those lands. Murphy Act Lands, for instance, have to be treated somewhat different than other state lands because of differing statutory requirements. In the interest of updating and improving the statutory basis for state land management decisions, the statutes should be reviewed periodically and brought into conformity with current public attitudes and professional management criteria.

C. Formulate a general planning approach that will accommodate a large amount of parcel-specific data.

Although state-owned lands should be managed under a generalized approach, day-to-day management decisions involving the use of state-owned lands should be predicated upon parcel-specific data. Development of a parcel-specific database that includes the physical/cultural profile of the state-owned property is under way. The adequacy of the parcel-specific database is the most important facet of the state lands management program. The database covers past and present land use, physiography, environmental factors, and current encumbrance information. This information is the basis for an initial recommendation of management practices for parcels of state-owned lands.

The Board must evaluate the proprietary constraints of each parcel as well as the more traditional management factors. These constraints arise from such things as prior leases and/or easements, legislative

and/or executive directives, and statutory limitations. These management constraints do not occur in any uniform manner, nor are they predictable.

Development of the parcel-specific database involves the implementation and maintenance of a computerized data storage and retrieval system, including the continuous update of the state-lands inventory. New entries are documented on coding forms in preparation for computer input. Information regarding leases, easements, mineral rights, submerged lands, and uplands is a part of the parcel-specific management data.

D. Structure the planning process to provide direction for state lands management decisions.

The Plan must reflect a fully integrated management system that encompasses all program areas affecting the use and protection of state lands. The management evaluation process has been ongoing concurrent with the planning program. As part of the overall management process, a procedural and organizational framework is being established to improve the existing procedures.

E. Adopt a planning framework that will accommodate policies contained in the State Comprehensive Plan and other Legislatively mandated Plans to minimize potential management conflicts.

One of the most important objectives of the Plan is to avoid duplication. Therefore, it is important that all staff planning activities be conducted with the full knowledge of, and coordinated with, other public agencies planning efforts.

It is desirable to utilize, to the extent practicable, general natural systems data and recommended policies developed by other state programs. The rationale behind this proposal includes a desire to economize on staff expertise and time, and to produce a plan that is philosophically compatible with other legislatively mandated plans.

F. Use a planning process that allows for input from affected state agencies, local government, and the general public.

The development and implementation of the Plan will have broad implications. To avoid many of the potential problems associated with programs of this type, the Board must be committed to program coordination on several distinct, but interrelated levels. Where compatible and appropriate, state lands management should help to accomplish other statutory objectives of the State.

There are several reasons for including state agencies in a coordination program. First, state agencies such as the Department of Agriculture and Consumer Services, and the Department of General Services originally acquired many of the lands to which the Board presently holds title, or are actively engaged in some type of management arrangement with the Board. Also, many agencies have broad planning and/or management responsibilities that need to be considered during the development of the Plan. These agencies include the Department of Environmental Regulation, the Division of Archives, History and Records Management, and the Executive Office of the Governor/Planning and Budgeting. State agency coordination has been achieved through an inter-agency work group established by the Division of State Lands staff.

On January 22, 1980, the Board authorized staff to submit the draft Plan to the public for review and comment. Staff sent twenty copies of the draft Plan to each of the eleven regional planning councils and requested that these regional planning councils make the Plan available to those local governmental bodies and other local interests that would be affected by the eventual finalization of the Plan. Public workshops were held in Miami, Panama City, Jacksonville, and Orlando, to maximize geographical equality and public input.

Additionally, the staff provided each of the State's 67 County Commissions with review copies of the Plan. These commissions were requested to review the Plan and to provide comments, observations, and

recommendations. Other review copies were made available to various special interest such as conservation and development groups.

G. <u>Develop a plan that will result in consistent management decisions and greater predictability of governmental action.</u>

The Plan will provide the overall program superstructure for the protection and management of state–owned lands.

The state-owned lands management program encourages those activities that will provide a net return to the public while maintaining the basic values and functions of the natural environmental systems.

The Plan establishes clearly discernable management processes that are, to the extent practicable, internally consistent in their approach. The end result is a greater public awareness of the management process conducted in the stewardship of state lands.

IV. RESOURCE AND PROGRAM ELEMENTS

The evaluation of proposed management activities on state-owned land must consider the existing natural conditions and potential program impacts. In keeping with this concept the following categories have been established. These categories are intended to highlight certain public values associated with the physical situation of many parcels of state-owned land, and applicable program elements. In numerous cases, these public values have been formally recognized by legislative and executive action.

The following categories and policies are intentionally general, and are designed to provide an overall philosophical direction to state lands management. The categories are not exhaustive, nor are they inherently suited to parcel-specific decision making. They are, however, suitable for the establishment of state-wide consistency in the management of state-owned lands, regardless of geographic location, natural conditions, or intended use.

It is envisioned that these broad categories will form the framework into which will be inserted more detailed parcel-specific policies and recommendations. These site-specific evaluations and recommendations will be tailored to meet the individual characteristics of each parcel of land, and will provide the basis for determining the advisability of committing public resources.

V. RESOURCE ELEMENT POLICIES

A. Upland Vegetation

Upland vegetation is, to a great extent, determined by the underlying soils and prior land uses. It represents a changing and often overlooked resource that must be managed to insure its perpetuation in a desirable condition.

Based upon inventory information and projected utilization of specific parcels, a direction should be established to manage vegetation for a variety of benefits (aesthetics, wildlife habitat improvement, watershed management, recreation, forage, and timber management). Where appropriate in single and multiple-use management, agencies will be encouraged to incorporate all of the above disciplines into one management philosophy--management that will be of the greatest benefit, to the largest number of people, over the longest period of time.

<u>Policies</u>

1. Manage state-owned lands in a manner that maintains a desirable vegetation cover while providing multiple-use benefits to the citizens of the State of Florida.

2. Require multiple-use management of all state-owned land where appropriate.
3. Encourage, when appropriate, the use of silvicultural activities, which maintain a healthy, stable vegetative, cover, (prescribed burning, tree planting, removal of diseased trees, etc.).
4. Prohibit the use of off-road vehicles on all state-owned lands, except in such areas specifically designated in approved agency land use plans or by administrative rules adopted by the Board for use by such vehicles.
5. Encourage the harvesting and sale of timber products from appropriate state-owned timber-lands, whenever such harvesting and sale are compatible with program priorities and the provisions of Section 253.034, Florida Statutes.
6. Encourage the use of management practices on state-owned land, which are endorsed as Best Management Practices for minimizing non-profit source pollution.
7. Encourage the establishment or reestablishment and management of plant species that are indigenous to specific sites (i.e., emphasize hardwood management on hardwood sites; manage for pines on areas where fire would normally retard hardwoods; encourage both hardwoods and conifers on suitable sites)
8. Encourage the protection of endangered and threatened plants, and plants and plant communities which serve as important food sources and habitat for endangered and threatened animal species.
9. Encourage the location and removal of noxious exotic plant species.

B. Soils

Soils are a resource having tremendous influence over the active management of state-owned lands. As such, it is important that the parcel-specific database contain as much up-to-date soils information as is available.

Soil types and associations physically and economically affect various types of management activities, ranging from agricultural uses to the construction of public buildings. Therefore, each parcel-specific management evaluation and recommendation should rely heavily upon inherent characteristics, suitabilities, and limitations.

Due to their public significance, soils categorized as "prime" or "unique" agriculture lands should receive special consideration. The state lands management program should discourage those management activities that would preempt future agricultural use of state-owned parcels containing "prime" or "unique" agricultural soils.

Policies

1. Encourage the use of detailed soils surveys and interpretations in determining parcel-specific management recommendations.
2. Encourage management activities that recognize natural topographic features and avoid extreme slope and site modification.
3. Encourage conservation practices in all management activities that will minimize erosion and sedimentation.
4. Maintain water levels as high as feasible on organic soils to reduce oxidation, consistent with balanced management programs.
5. Prohibit off-road vehicular traffic in areas sensitive to damage.

6. Discourage activities that will effectively preclude future agricultural use of "prime" and/or "unique" soils on state-owned lands.

C. Archeological and Historical Resources

Archaeological and historical resources represent tangible links with our past. Florida, due to its environmental amenities and colorful history, contains numerous archaeological and historical sites of public importance. Each of these sites contains unique and irreplaceable information concerning our cultural heritage.

Sites on state-owned lands should be managed as valuable public resources. Adequate protection of these resources can be best achieved through a coordinated effort between the Board and the Department of State, Division of Archives, History and Records Management.

Policies

1. Coordinate all proposals for changes in the character or use of state lands, with the Division of Archives, History and Records Management, in order to mitigate potential damage or disturbance of, or to preserve, archaeological and historical sites and properties.
2. Encourage the systematic location and evaluation of all significant archaeological and historical sites on state-owned lands.
3. Prohibit the disturbance of archaeological and historical sites on state-owned lands, unless prior authorization has been obtained from the Division of Archives, History and Records Management.

D. Water Resources (Quality and Quantity)

In Florida, the availability and quality of water often influence the type and number of management options available for a parcel of land. In recognition of this situation, the state lands management program should fully consider potential impacts upon water resources prior to making a parcel-specific determination of "maximum benefit and use".

The management evaluation process must address water resources from at least two perspectives. The first consideration should delineate those natural systems that require a certain quantity, and/or periodicity of water for their control existence and productivity. (Examples of this type pf natural system would include coastal estuarine and riverine wetlands).

The second consideration is an evaluation of the sustained availability of water for water-consumptive management activities such as agricultural irrigation and certain mining operations. The amount of water available for such activities is difficult to quantify, but it is a valid management criterion that should be considered.

Water quality classifications also must be included in the determination of all management recommendations. These classifications often represent potential constraints for management, especially when Class I, Class II, and Outstanding Florida Waters are involved. Management activities on state-owned lands should comply with State water quality standards and classifications and their intent.

Policies

1. Coordinate state lands acquisition, planning and management with water management programs to insure the long-range maintenance and improvement of water quantity and quality.
2. Encourage the retention and storage of surface water in naturally occurring storage areas, such as lakes and wetlands, consistent with the maintenance of the area’s long-term productivity and stability.

3. Utilize management practices, which prevent the over-drainage of land and soils.
4. Require agricultural and industrial users of state-owned lands to conduct their activities in a manner consistent with sound water management and conservation practices.
5. Encourage the provision of sufficient water and maintenance of natural hydroperiods to insure the long-term productivity and stability of self-maintaining natural ecosystems on state-owned lands.
6. Manage state-owned lands in a manner that provides maximum protection for the waters of the State especially those used for public drinking water supply, shellfish harvesting, public recreation, fish and wildlife propagation and management.
7. Encourage waste water re-use wherever possible to relieve pressure on water resources.
8. Encourage the use of nonstructural water management strategies for flood control and water supply to protect and enhance natural resources and conserve energy.
9. Require, at a minimum, that management activities on state-owned land comply with State water quality standards and classifications and their intent.

E. Fish and Wildlife Resources

Fish and wildlife are important components of Florida's appeal as a tourist state and as a place to live. Fish and wildlife habitat is diminishing in quantity and quality due to the direct and indirect effects of urbanization, and also due to land and water management activities, which do not adequately address this resource. state-owned lands will play an increasingly important role as enclaves of habitat diversity and as public outdoor recreational areas.

Policies

1. Where significant fish and wildlife habitat exists, encourage those management activities, which maintain a natural diversity of habitats and balanced fish and wildlife population.
2. Coordinate proposed management activities potentially affecting significant tracts of fish and wildlife habitat with the Game and Fresh Water Fish Commission.
3. Encourage the public use, either consumptive or non-consumptive, of the fish and wildlife resources on state lands where compatible with management goals.
4. Continue and, where possible, accelerate the inventory of fish and wildlife habitats on state-owned lands.

F. Endangered Species

In the recent past, many of Florida’s indigenous plants and animals have seriously diminished in number and in some cases have disappeared completely. In most cases, the elimination of these plants and animals has resulted from the unintentional side-effects of increased urbanization and associated changes in land use and land cover.

As population growth continues in Florida, the availability of natural habitat for many plants and animals is reduced. In light of this situation state-owned lands, especially large acreage tracts, are increasing in importance as enclaves and refuges for endangered species. Consequently, management of state-owned lands should be conducted in a manner that recognizes the importance of maintaining endangered species habitat.

Policies

1. Provide for the continued protection of threatened and endangered species habitat on state-owned lands.
2. Encourage the location, identification, and protection of presently unknown areas of threatened and endangered species habitat located on state-owned lands.
3. To minimize adverse effects, coordinate proposed management activities involving endangered plants and animals with the Division of Forestry and Plant Industry, Florida Department of Agriculture and Consumer Services and the Game and Fresh Water Fish Commission.
4. Encourage the re-establishment and restoration of endangered species and habitat.

G. Beaches and Dunes

Florida's beaches and dunes are important economic and environmental assets. They serve dual purposes as sources of recreational activity and as protective barriers from storms.

Beaches and dunes play a prominent role in creating and maintaining the "tourism image" Florida enjoys. The tourist industry forms one of the cornerstones of the state's economy and a majority of these tourists visit beaches.

From an environmental perspective, beaches and their associated dune systems are vital to the well-being and integrity of Florida’s coastal areas. These systems, under natural conditions, provide for sand transport, depletion, and accretion, which is essential to the maintenance of these beaches and dunes. In addition to the primary function of shoreline stabilization, beaches and dunes provide a protective buffer against storm tides and winds.

In some areas, the beaches and associated dune systems are experiencing severe erosion. These erosion problems are the result of man-made modifications to the beach and dune system and natural erosion such as hurricanes. The Department of Natural Resources has the statutory responsibility to remove unnecessary structures that adversely affect Florida's beach and dune systems, to control construction of all new structures affecting these systems, and to assist in beach nourishment and coastal protection programs designed to return beach and dune systems to their natural equilibrium. Management of state-owned lands should recognize these statutory responsibilities and ensure the future protection and enhancement of state-owned beaches and dunes.

Policies

1. Encourage management activities that will ensure that continued protection of the physical and environmental integrity of state-owned beaches and dunes.
2. Encourage the non-structural use of state-owned beaches and dunes for purposes such as public recreation (protection structures such as sand, fences and dune walkovers excepted)
3. Support, when justified by comprehensive analysis, dune stabilization and beach protection and restoration projects in areas where significant erosion and damage have occurred.
4. Require placement of all beach compatible dredge materials on beaches, whenever possible.

H. Natural Hazard Areas

Throughout the State of Florida, certain areas contain natural conditions that constrain development. Additionally, these areas, if improperly utilized, may adversely affect human health and welfare.

Examples of natural hazard areas include river flood plains, the 100-year hurricane flood zone, barrier islands, and areas with active sinkhole potential. state-owned lands classified as natural hazard areas should be managed in a manner that discourages structural development, unless such structures are specifically designed and built to compensate for the hazard factors. It is especially important to discourage permanent or semi-permanent human habitation in such areas, and the use of state lands for such purposes should generally be prohibited. Allowable management activities within natural hazard areas may include, consistent with other natural and institutional factors, agricultural and timber production, outdoor recreation, and other nonstructural uses.

Policies

1. Control the use and construction of public buildings and other structures within state-owned natural hazard areas to insure structural integrity, resource protection, and public safety.
2. Encourage the utilization of natural hazard areas for nonstructural purposes (e.g. timber production, recreation).

I. Submerged Grass Beds

Submerged native grasses are valuable public resources. They occur throughout the state's marine, estuarine, and fresh water bodies.

Submerged grasses perform a number of "free" environmental services of public benefit, including water quality maintenance, natural turbidity control, bottom stability, and they offer habitat for aquatic organisms. Due to their location, they are also one of the most difficult resources to inventory and protect.

Submerged grasses are fairly fragile and are easily adversely impacted by man's activities. Changes in water quality, quantity, and periodicity, increased turbidity, and competition from non-native aquatic vegetation, can significantly affect this resource.

Management of state-owned lands should recognize the natural values associated with submerged grass beds. Proposed activities requiring a commitment of submerged lands and upland development activities on state-owned lands that will potentially impact water bodies containing submerged grasses, should be strongly discouraged. Projects that will adversely impact significant submerged grass beds should be prohibited unless the project is determined to be of overriding public importance with no reasonable alternatives and adequate mitigation measures are included.

Policies

1. Encourage the location and evaluation of submerged grass beds in state ownership.
2. Control the use of submerged lands to maintain essentially natural conditions and protect the values and functions of submerged grass beds.
3. Prohibit development activities that adversely impact significant beds of submerged grasses, unless determined to be of overriding public importance with no reasonable alternatives, and adequate mitigation measures are included.
4. Encourage the continuation of control programs for noxious and non-native species of aquatic vegetation.
5. Encourage, whenever practical, the use of physical and biological removal techniques rather than chemical applications in aquatic weed control programs.

J. Swamps, Marshes, and Other Wetlands

In recent years, environmental researchers have become increasingly aware of the values associated with swamps, marshes, and other wetlands. These wetlands function as natural filtration for upland run-off, natural water storage areas, and natural hydroperiod control devices. They also provide shoreline stability and protection, and are excellent wildlife habitat. The detrital production of these wetlands are a major component of riverine and estuarine food chains.

Historically, wetlands have been viewed as wastelands', useful only for filling, ditching, and draining for development. Such treatment of wetlands is no longer acceptable. Management of state-owned lands must recognize the functions and public values associated with the protection and maintenance of wetlands.

Policies

6. Require management activities on state-owned lands to protect wetlands and to maintain essentially natural conditions.
7. Encourage the re-establishment of previously modified wetlands in state ownership, where practical.
8. Prohibit the draining of wetlands on state-owned lands for agricultural, forestry, and other purposes.
9. Discourage the removal of natural shoreline vegetation.

K. Mineral Resources

The State of Florida contains quite a diversity of mineral resources that make a significant contribution to the state's economy. The most notable resources, insofar as revenue potential is concerned, include oil and gas, phosphate, clays and limestone. Other minerals present include dolomite, sand, gravel, aggregates, and heavy minerals (zircon, ilmenite, rutile, monazite).

Management of state-owned mineral resources should be subject to more careful scrutiny than is normally the case for the other types of natural resources. The stewardship of these nonrenewable resources must insure that their extraction and utilization serves the best long-range public purposes. Additionally, active extraction of many types of minerals often results in drastic changes to the physical integrity of a parcel of land. A decision to mine must be made with the full realization that most future management options available for that parcel of property will be eliminated.

State-owned mineral resources should be treated as public reserves, and should not be necessarily subject to general market considerations. This is especially true for oil, gas, and phosphate, which are essential for the production of food and fiber. Extraction and utilization of the public mineral resources should attempt to insure their availability for essential products such as pharmaceutical supplies, fertilizers, and pesticides.

Policies

1. Encourage detailed inventories and evaluation of state-owned mineral resources.
2. Control management activities on state-owned land that would preclude or seriously impair the ability to extract significant mineral resources.
3. Allow extraction of state-owned mineral resources in environmentally sensitive areas only upon demonstration that the extraction is of overriding public importance, that all reasonable steps will be taken to minimize adverse environmental impacts, and that there are no reasonable alternatives.
4. Discourage all future releases of state-owned mineral reservations, excepting right-of-entry and exploration.

5. Require that all state-owned lands subjected to mining be reclaimed or restored and left in such condition so as to maximize future public uses and values.

L. Unique Natural Features

This is a generalized resource category designed to accommodate certain natural areas and features. The primary public significance of these features is that they are uncommon in Florida.

Unique natural features include such things as coral reefs, natural springs and their associated runs, caverns and large sinkholes, virgin timber stands, scenic vistas, exceptional vegetation and habitat areas, scenic natural rivers and streams, coquina outcrops, and bird rookeries. The management of state-owned lands should recognize the public values associated with these unique resources and seek to protect their integrity.

Policies

1. Encourage the location and evaluation of unique natural features on state-owned lands.
2. Discourage management activities on state-owned land that will adversely impact unique natural features.
3. Encourage public utilization of unique natural areas consistent with the protection of the natural values and functions.

M. Ecological Reserves

Ecological Reserves are designated as outstanding examples of native Florida landscapes. They contain relatively unaltered flora, fauna, and geologic conditions, and preservation from the adverse influences of human activity will permit the biophysical systems to function and interact naturally. The primary value and present use of ecological reserves is the preservation of the systems and their functions, leaving all options open for future use of resources and research.

The components of ecological reserves are:

Research Natural Areas where natural processes are allowed to dominate, and the only management is to preserve a given ecosystem or feature, or to allow natural succession. Such areas must be protected against activities that directly or indirectly modify ecological processes or alter the ecosystem being preserved. The only activities allowed in these areas would be collection of baseline data and monitoring of ecosystem function.

Experimental Ecological Areas where experiments or management techniques can be carried out on wildland ecosystems to provide new scientific knowledge of those systems. Research and management must be essentially non-disruptive.

During the management evaluation process, state lands would be assessed for potential as ecological reserves, using these criteria:

*Ecological reserves must contain outstanding, or the only remaining, examples of Florida landscapes.

Recognizing that very little of Florida can be considered pristine, ecological reserves must be areas where natural systems predominate or where restoration of the native systems is economically and ecologically feasible.

*Ecological reserves should be of a size and configuration that allow natural processes to be the dominant management tools. Ideally, it should be possible to buffer them from intensive land use areas.

Policies

1. Preserve examples of natural ecosystems on state-owned land.
2. Preserve the full range of genetic diversity in native plant and animal populations.
3. Encourage collection of baseline data on natural ecosystems, which will aid in detecting environmental changes that result from human activity.
4. Provide research and educational opportunities for scientists and advanced students within the framework of a planned research program on applicable state-owned land.

VI. PROGRAM ELEMENT POLICIES

A. State Land Acquisition

Section 253.03(7), Florida Statutes requires that acquisition of state-owned lands be specifically addressed in the plan. Under most circumstances, other state agencies purchase or otherwise obtain lands for various purposes, and title is taken in the name of the Trustees, consistent with the provisions of Section 253.025, Florida Statutes.

Upon completion of acquisition, the original deed and title insurance policy are transmitted to the Bureau of State Lands Management for permanent filing. When this information is received, the new acquisition is entered upon the State-Owned Lands Inventory, and documents are prepared to assign the newly acquired property to the appropriate management agency or agencies.

Effective October 1, 1979, voluntary negotiated acquisitions of land, title to which will vest in the Board of Trustees of the Internal Improvement Trust Fund, became subject to specific acquisition and review procedures established pursuant to Chapter 79-255, Laws of Florida (Section 253.025, Florida Statutes)[1]. This law strengthens the Board's administrative supervision over title acquisition, and provides an opportunity for all interested and affected parties to coordinate their land needs and intended management activities with the Division of State Lands, acting for the Board.

Policies

1. Establish and implement an evaluation process to determine relative assets and liabilities of each parcel of property to be obtained by state agencies prior to acquisition and formal acceptance of title by the Board of Trustees.
2. Require that future state agency acquisition of lands, to which title will be vested in the Board, be for specific public purposes as outlined by Legislative Act, executive directive, and/or formally approved work programs and plans.
3. Require state agencies to coordinate projected land needs with the Board to insure that these needs are adequately considered in the acquisition process.
4. Require state agencies to meet their land needs, whenever practical, through the use of existing state-owned lands where the intended use is compatible with the approved uses and natural characteristics of the land.

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[1] *Florida Statutes have been revised substantively since 1979. See chapters 253 and 259, F.S., for current acquisition, management and administrative procedures for lands titled to the Board of Trustees.*

B. Dispositions

Public land sales may be initiated by the Board either upon its own initiative or pursuant to application. Sales are accomplished by negotiation between a prospective purchaser and the Board, or by sealed bids to the highest qualified bidder.

Murphy Act land sales may also be initiated either upon the Board's own initiative or pursuant to application. All such sales are to the highest bidder by sealed bids, except the cases where an applicant qualifies as a hardship applicant.

Before a sale is consummated, all state agencies and the appropriate county and municipal bodies are notified to determine if there is a public need for the subject parcel.

The sale of sovereignty submerged lands falls into two categories: lands riparian to uplands, and lands not riparian to uplands. Purchase of sovereignty lands riparian to uplands is normally by the upland owner. Sale of non-riparian sovereignty lands, including sovereignty islands, sand bars, and exposed tidal flats, must be by competitive bid. All sales of sovereignty lands must be determined by the Board to be in the public interest, and upon such terms, prices, and conditions, as the Board deems appropriate. In addition, the Board will determine to what extent a sale of sovereignty land will interfere with normal marine activity and the maintenance of essentially natural conditions, and will consider any other factors, immediate or long-range, affecting the public interest.

In all land sales by the Board, excepting those transactions referenced in Section 253.62, Florida Statutes, there shall be reserved for the Board and its successors, an undivided three-fourths interest in, and title to all the phosphate, minerals, and metals that are or may be in, on, or under the said land, and an undivided one-half interest in all the petroleum that is or may be in, or under the said land with the privilege to mine and develop the same (Section 270.11, Florida Statutes).

Exchanges

Exchanges of public land may be initiated by the Board, either upon its own initiative or pursuant to application. The Board is authorized to pay or receive a sum of money in order to equalize an exchange. Exchanges, like other public conveyances, must satisfy the applicable public interest requirements, and the Board must receive, at a minimum, properties and/or other considerations, worth no less than the property relinquished in the exchange.

In all disposition transactions, the Board should assume a positive negotiating posture and exercise its proprietary responsibilities in regard to accepting or setting the terms and conditions of each transaction affecting state land. Since it is counter to present disposition policy to sell state lands for the purpose of generating revenue, it should be demonstrated that all dispositions of state lands are in the public interest.

As a method for disposition, land exchanges are usually preferred and should be the first option explored. The state benefits by such transactions and does not diminish its capital assets because of the equal-terms minimum requirement. Land exchanges also provide a viable management vehicle for the consolidation and enhancement of the state-owned land inventory. For example, many small or otherwise unmanageable parcels can be offered in exchange for tracts adjacent to existing state landholdings.

Sales of state-owned lands should be considered only after all possible land exchange proposals have been exhausted, and the Board is satisfied that the sale as not contrary to the public interest, or in the case of sovereignty lands, that the sale is in the public interest. Historically, the Board, in the interest of internal improvement, has sold millions of acres of state land to private citizens, railroads, and other corporations. This effort to attract new citizens and to develop the State of Florida by the sale of public land is no longer necessary or desirable. Under certain conditions, land sales can prove beneficial by reducing the management liabilities of the Board, while supplementing a county tax roll. Also, situations may occur in which the disposition or leasing of land for institutional, industrial and research and development parks would further such State objectives as creating and building Florida industries and

encouraging permanent employment for citizens. When considering a land sale, the Board should regard the appraised value of the parcel as the base bid or negotiable price, and agree only to those transactions that benefit the people of Florida.

Policies

1. Land exchanges shall be the first disposition option considered by the Board so as to consolidate the state-owned land inventory and to protect the public's proprietary interests.
2. Outright sales of state land should be directed at reducing the management liabilities of the state-owned land inventory, and utilized only after the land exchange option has been exhausted.
3. In all disposition transactions, the appraised value of the subject state land parcel shall constitute the base price of any bidding or negotiating procedure.
4. In all dispositions of state land, the Board shall endeavor to retain 100% interest in, and title in and to, all of the minerals and petroleum products that are or may be in, on, or under said land with right of ingress and egress and the privilege to mine and develop the same.

C. Sale or Release of Reserved Title Interest

(minerals, road rights-of-way, canal rights-of-way)

Reserved title interests are commodities of value. Section 253.02(7), Florida Statutes calls for a management plan for state-owned lands that will "insure maximum benefit and use" of each parcel of land. A shift from the traditional situation of releasing mineral reservations for a set fee to a process of acquisition and/or subordination based upon potential mineral value more appropriately reflects the statutory directives of Section 253.02(7), Florida Statutes. The Board now issues releases of rights-of-entry and exploration instead of granting full releases. Provisions for the outright purchase of reserved mineral interest are available should the release of rights-of-entry and exploration be insufficient for the surface owners' purpose.

Procedures for releasing reserved road and canal rights-of-way are being evaluated to determine if any changes should be made. The primary areas of evaluation center around existing statutory authorities and ensuring that the procedures adequately reflect sound management principles, and are not counter to the public interest (i.e. achieve "maximum benefit and use")

Policies

1. Encourage public recognition of the fact that reserved title interests in real property represent commodities of value.
2. Discourage future releases or subordinations of reserved title interests held by the Board, unless determined to be not contrary to the public interest and in exchange for just compensation.
3. Encourage the inclusion of reserved title interests (i.e. reserved mineral interests) in the state lands management program, and subject these reserved interests to the same management criteria applicable to state-owned lands, consistent with the degree of state title control.

D. Murphy Act Lands

Murphy Act lands are those having outstanding tax certificates that, by virtue of Chapter 18296, Laws of Florida 1937, became absolutely vested in the State of Florida on June 9, 1939. The provisions of the Murphy Act specifically provide for those management activities that also pertain to other categories of state land, such as selling, leasing, exchanging, granting of easements, and withdrawing from public sale. In addition, the Board of Trustees is vested and charged with the administration, management, control,

supervision, conservation, and protection of these lands and the products on, under, and growing out of, or connected with Murphy Act lands, and laws relating to the lands of the Board shall be applicable. However, due to the perceived "uniqueness" of Murphy Act lands at its inception, this category of lands historically has been handled differently than other state-owned lands.

The primary activity since the early 1940' has been to sell these lands. Since that time, approximately 78,000 Murphy Act deeds have been issued, as well as a great number of releases on the conveyed parcels. There are approximately 8,500 parcels currently on the Murphy Act inventory.

The problem with Murphy Act lands that prevents their assimilation into the inventory of all state-owned lands is essentially a question of title, and as these questions are resolved, the Murphy Act lands should be managed in a manner consistent with other state lands under the state lands management program.

Policies

1. Establish a process whereby existing private claims to Murphy Act lands can be equitably settled without resorting to the judicial system. (Note Section 197.387, Florida Statutes in Appendix F).
2. Eliminate all special management considerations for those Murphy Act lands not subject to private ownership claims, and integrate these lands into the general state lands management program.
3. Develop a process whereby small, isolated parcels of Murphy Act land that have no unique public values and are determined to be surplus, are sold, exchanged, or disposed of by other means.
4. Utilize small Murphy Act parcels as exchange items to consolidate larger holdings of state-owned lands that possess good management opportunities.

E. Management Agreements and Leases

In the past, long-term leases have been extensively utilized in the management of state-owned lands. Leases to state agencies, for example, have traditionally been for 99 years. Over the years, the cumulative effect of this practice has been the removal of a sizable percentage of state-owned upland property from active management consideration by the Board of Trustees.

While long-term (e.g. 99 years) leases have allowed many state agencies to successfully engage in their own management programs, they have also created problems for the Board. Due to changing public attitudes, some parcels of state-owned land under long-term leases are not being utilized to their maximum public advantage. It is, in fact, impractical to commit the use of public lands for long periods of time without risking preemption of some future uses of greater public importance.

In the interest of insuring "maximum benefit and use" of state-owned lands, all future leases for nonstructural purposes shall be specifically related to the existing or planned life cycle or amortization of the improvements. The intent of this proposal is not to interfere with existing agency programs or responsibilities, but to ensure that the Board exercises its responsibilities as owner and administrator. A reduction in the standard lease period, accompanied by specific renewal options, should allow the uninterrupted continuation of those agency programs requiring the use of state-owned land. It will also provide specific opportunities for the evaluation of public benefits associated with lease renewal. In the event that the lease renewal evaluation demonstrates a significant departure in use and/or public benefits from the original lease agreement, renewal will be allowed only upon a determination that the modified use is consistent with the concept of "maximum benefit and use" (Section 253.03(7) and 253.034(2), Florida Statutes).

Policies

1. Prohibit the issuance of 99-year or other long-term leases on state-owned lands, unless a specific need can be demonstrated for such duration.

2. Limit the duration of leases, agreements or other instruments authorizing the use of state-owned land to a period that is no greater than is necessary to provide for the reasonable use of the land for the existing or planned life cycle or amortization of the improvements.
3. Limit the duration of leases on state-owned lands that are proposed for use as building sites or for other structural improvements, to a time not exceeding the projected useful life of the building or structure.
4. Require thorough management evaluations of all state-owned lands that are subject to lease requests, prior to issuance of leases or other similar instruments.
5. Encourage the use of management agreements in lieu of leases, whenever practical.
6. Require the inclusion of specific management requirements and responsibilities in each management agreement, lease or similar instrument issued by the Board.
7. Actively pursue the termination of all outstanding leases that do not conform to the original management objectives contained in these leases.
8. Prohibit the lessee of state-owned lands from issuing sub-leases, easements, assignments, and other instruments affecting condition of title, without prior approval of the Board.
9. Ensure that all financial, structural and other liabilities accruing to a parcel of state-owned land during the lease period become the sole responsibility of the lessee, unless it is determined that said liabilities are unrelated to the actions of the lessee.
10. Encourage the identification and marking of boundaries of all upland parcels of state-owned lands to allow orderly and effective management.

F. Submerged Land Leases

Leases on those submerged lands in which title is vested in the Board of Trustees of the Internal Improvement Trust Fund fall into six categories:

1. Commercial/Industrial docking facility
2. Aquaculture
3. Oyster and shellfish
4. Dead shell
5. Oil and Gas
6. Campsite (stilt houses)

All commercial/industrial docking facilities located on or over sovereign submerged lands, except those in existence prior to March 10, 1970, are required to obtain leases from the Board. These leases are available to the upland riparian owner only, for a maximum term of five years, and are subject to renewal. The annual fee on the leased area is currently $.037 per square foot or $187.00 whichever is greater.

Aquaculture leases may be for experimental or commercial activities on submerged lands. Applications for aquaculture leases must include a statement indicating the said lease is in the public interest, and a statement outlining the impact of the proposed use of the subject parcel on the ecology of the area. The leased parcel shall be identified, well marked, and shall provide for reasonable public access for boating, swimming, and fishing, except where said activities will interfere with the development of plant and animal life being cultivated by the lessee. Any limitations on the public use of the subject parcel as proposed in the lease shall be clearly posted in conspicuous places by the lessee. The lessee shall also

comply with all rules and regulations of the Department of Natural Resources, Department of Environmental Regulation, U.S. Coast Guard, and U.S.A. Corps of Engineers.

Oyster and shellfish leases are presently processed by the Division of Marine Resources, D.N.R., pursuant to Section 370.16, Florida Statutes. Leases are issued subject to the rules and regulations of the Division. The lessee is required to stake off and otherwise identify the leased property. Dredging for dead shells in live oyster beds is prohibited and the D.N.R. is empowered to prohibit any and all dredging of dead shells when it is determined that said dredging will adversely affect the oyster industry.

Oil and gas leases on submerged lands may be issued to the highest bidder after receipt of sealed bids by applicants pursuant to public advertising by the Board. The term of said leases shall be for a maximum of ten years, and for a fee and royalty schedule as decided upon by the Board. The lessee is required to submit to the Board the percentage of mineral interest held by the Board and a list of all other state oil and gas leases held by the lessee. Such leases processed within the corporate limits of a municipality or within three miles thereof, or within three miles of an improved beach cannot be issued without prior consent of the applicable public body.

Campsite leases on submerged lands are also referred to as stilt house leases. New leases of this type are no longer being issued by the Board, which has adopted a policy of phasing out existing stilt houses. All existing stilt houses are subject to lease provisions and local building and health codes.

There are specific constitutional, judicial and legislative requirements, which must be considered in the leasing of submerged (sovereignty) lands. These include:

1. Florida Constitution, Article IX, Section 11. "Sovereignty lands. The title to lands under navigable waters, within the boundaries of the state, which have not been alienated, including beaches below mean high water lines, is held by the state, by virtue of its sovereignty, in trust for all the people. Sale of such lands may be authorized by law, but only when in the public interest. Private use of portions of such lands may be authorized by law, but only when not contrary to the public interest."
2. Hayes V. Bowman (Florida, 91 So.2d795) "it is well settled in Florida that the State holds title to lands under tidal navigable waters and the foreshore thereof (land between high and low water marks). As at common law, this title is held in trust for the people for purposes of navigation, fishing, bathing and similar uses. Such title is not held primarily for purposes of sale or conversion into money. Basically it is trust property and should be devoted to the fulfillment of the purposes of the trust, to wit: the service of the people."
3. Section 258.42(1), Florida Statutes, "No further sale, lease, or transfer of sovereignty submerged lands shall be approved or consummated by the trustees except when such sale, lease, or transfer is in the public interest."
4. Section 253.034(1) (a), Florida Statutes, in part - "All submerged lands shall be considered single use lands, and shall be managed primarily for the maintenance of essentially natural conditions, the propagation of fish and wildlife, and public recreation; including hunting and fishing where deemed appropriate by the managing agency." The public's interests in the areas of navigation, recreation, and riparian rights, as well as the ecological importance and aesthetic appeal of the subject parcel should also be considered by the Board prior to issuance of the lease.

Policies

1. All submerged lands shall be considered single-use lands and shall be managed primarily for the maintenance of essentially natural conditions, the propagation of fish and wildlife and public recreation, including hunting and fishing where deemed appropriate by the managing agency.

2. Require that all proposed private or public uses of state-owned submerged land for profit be subject to Board action, and that just compensation be paid in return for this exclusionary privilege, using economic principles such as percentages of the assessed unimproved upland property value.
3. Require management consistency evaluations prior to Board action on any state-owned submerged land leases.
4. Discourage, to the extent practicable, all private, exclusionary uses of state-owned submerged lands.
5. Issue oil, gas, and other petroleum drilling leases on state-owned submerged lands only when the proposed lease area is at least one mile seaward of the outer coastline of Florida as defined in United States v. Florida, 425 U.S. 791, 48 L. Ed., 2nd 388, 96 S. Ct. 1840, upon adequate demonstration that the proposed activity is in the public interest, that the impact upon aquatic resources has been thoroughly considered, and that every effort has been made to minimize potential adverse impacts upon sport and commercial fishing, navigation and national security.
6. Maintain an inventory of all state-owned submerged land title encumbrances.
7. Require that the use of state-owned submerged lands be restricted to water-dependent activities, unless the Board specifically determines that a greater public purpose would be served by allowing exceptions to the contrary, as determined by a case-by-case evaluation.
8. Prohibit all future state-owned submerged land leases for the construction and maintenance of stilt houses ("campsite leases")
9. Actively pursue the termination of all unauthorized activities on state-owned submerged lands.
10. Require that specific management consideration be given to the use of state-owned submerged lands within aquatic preserves, as defined by Chapter 258, Florida Statutes.
11. Ensure that all activities on state-owned submerged lands avoid adverse impacts upon other authorized uses of submerged lands.
12. Develop a uniform system of subdividing the state-owned submerged lands into easily described parcels to allow the development of an inventory and provide for the management of such activities as offshore oil and gas leasing.

G. Marinas [2]

The Board recognizes the tremendous values of the submerged lands of the state and the enjoyment and economic benefit that is derived from or depended upon these valuable lands by the boating public. Therefore, it is the policy of the board to preserve the ability of the state's land to meet the public demands for food, recreation, and transportation. Environmental and aesthetic values must continue to be assured prior to the state authorizing encroachment and development.

The Board encourages proper public use of these valuable natural resources, but demands that environmental integrity be maintained to the fullest extent of the laws of the state. Preemptive uses shall only be granted on a fair and equitable basis with riparian rights considered.

Policies

1. Water dependent uses such as marinas and boating shall take precedence over non-water dependent uses. Extra caution and consideration shall be given prior to authorizing uses of areas with high

[2] *The Board of Trustees adopted paragraph "G" on March 15, 1983 (Agenda Item #9).*

environmental values such as aquatic preserves, Outstanding Florida Waters, and marine and estuarine sanctuaries, and important archaeological sites.

2. Locations which are currently or have historically been used for water access or boating related activities should be maintained for such uses. New sites should be located near well-flushed deep waters with reasonable access and sufficient public demand where possible. The Board shall not allow significant degradation of its waters and shall recognize that each body of water is different in natural quality and strive to maintain proper balance of allowable uses against the ability of the resource to continue to support such uses.
3. Priority should be given to the expansion of existing facilities, if environmentally sound, over new facilities. Location of marinas in previously disturbed areas that have historically been used for marine related activities should be encouraged.
4. Marinas should be located as close as possible to demand.
5. Marina development should be encouraged where adequate uplands are available to develop related support activities and allow for future expansion.
6. Hurricane protection needs for marinas should be considered.
7. Input from local government should be considered in evaluating lease requests.
8. Location of marinas in highly productive habitat should be discouraged.
9. Location of marinas in or near well-flushed, deep water areas should be encouraged.
10. Piling construction and other non-dredge and fill techniques should be utilized where possible to minimize habitat destruction.
11. Pollution prevention including sanitation and spill containment needs should be assessed and safeguards required as appropriate.
12. Impact upon the endangered manatee should be considered, particularly marina locations, or design features which threaten manatees should be considered.

H. Spoil Islands

Spoil islands are formed from the deposition of material from dredge and fill operations. These islands are generally not for sale, except where an overriding public need will be satisfied by such a conveyance.

Spoil islands should be left in their natural state unless a greater public purpose would be served by either development or the reuse for spoil deposition. Proposals for public development of spoil islands may be authorized after comments have been solicited and received from the appropriate public agencies determining that the public interest would be served by the development. Upon such authorization, said development will be administered by management agreement, lease, or other similar instrument from the Trustees, rather than sale of the spoil island. The instrument will be consistent with the guidelines set forth in Section 253.111, Florida Statutes. In addition, instruments for development of spoil islands should be granted only for water dependent and recreational activities, except where the public would be better served by other types of development, preferably nonstructural.

Dwellings and other structures not owned or authorized by the Board that have been constructed on spoil islands, as on other state-owned land, should be removed, either by the individuals claiming a possessory interest in the structures within a reasonable period of time or by appropriate state agencies with assistance from local government officials. Permanent human habitation of any spoil island under the management control of the Board should be prohibited.

Policies

1. No sale, lease, or transfer of spoil islands, title to which is vested in the Board of Trustees, shall be allowed, unless there is a demonstrable public need and the proposal is in the public interest.
2. Development of state-owned spoil islands shall be limited to water dependent and recreational activities, except as provided by the Board to accommodate overriding public interest factors.
3. Where practical, and when in the public interest, encourage the reuse of existing spoil islands rather than the creation of new ones.
4. No unauthorized structures shall be allowed to exist on state-owned spoil islands.
5. There shall be no permanent human habitation of any state-owned spoil islands, except for public purposes.
6. Authorization to conduct activities on state-owned spoil islands shall, to the extent practicable utilize leases, management agreements, and other similar instruments rather than outright sales.
7. Actively pursue the immediate termination of all unauthorized uses of state-owned spoil islands.

I. Leasing of the State's Mineral Interest

The leasing of the State's mineral interest has traditionally been limited to oil and gas exploration and drilling. Although numerous reservations have been retained on many prior conveyances, very few mining leases have been issued. This could partly be attributed to the fact that the leasing of the state's exploitable resources traditionally has been initiated by private citizens interested in particular parcels of lands. Presently, all oil and gas drilling leases granted by the state originated from an applicant (usually an oil exploration company or a speculator) requesting the Board to put up certain acreage for lease.

A second factor which has hindered the widespread leasing of the state's mineral interest has been the lack of a correct, updated mineral interest inventory. As a result, the state has been dependent upon the information provided by the individual applicants. At times, oversights have occurred and revenues lost due to the state's passive leasing policy. Every effort should be made to complete and maintain state-owned lands mineral inventory.

By encouraging the development of a planned program for assessing mineral exploration and recovery the state can realize numerous benefits. Improved inventories can aid in determining the optimum distribution in terms of rate and location of activity allowable in the interests of both the public and the resource. Factors such as the environmental sensitivity of a proposed exploration/recovery site should be weighed with the restorative potential and resource availability as well as other economic and social considerations. On one hand, there may be some areas where other considerations may override the desirability of recovery; while on the other hand, the desirability of maintaining the future recovery potential may dictate interim uses that would not foreclose such an option.

Policies

1. Encourage the timely development of accurate mineral resource inventories and evaluations for all state-owned lands.
2. Encourage the establishment of an exploration lease program, covering all minerals that will assist the Board in assessing future management directions and needs.
3. Consider the active exploitation of mineral resources on state-owned lands when determined to be consistent with market economics, projected mineral reserve requirements, present and projected public land use needs, environmental acceptability, and other public interest factors.

4. Encourage public recognition that state-owned mineral interests and resources are commodities of value, and should be managed accordingly.
5. Require land reclamation plans in advance of issuance of hard mineral mining leases that would involve substantive surface disturbance of state-owned lands.
6. Discourage extensive, permanent structural development on state-owned lands possessing known commercial mineral potential so as not to unnecessarily preempt recovery and utilization of the mineral resource.

J. Leases for Sanitary Landfills

In the past, the Board has issued leases allowing placement of sanitary landfills on state-owned lands. Future management of state-owned lands should strongly discourage placement of sanitary landfills or other similar facilities on state-owned lands. Activities of this nature often preclude or severely restrict management options. Additionally, use of state-owned property for purposes such as sanitary landfills rarely benefits the public at large. Instead, such uses usually benefit only a very limited segment of the population. It is questionable whether using state-owned lands for sanitary landfills meet the statutory test of "maximum benefit and use".

Policies

1. Discourage use of state-owned lands for sanitary landfills and similar facilities and uses.
2. Consider use of state-owned lands for sanitary landfills, or similar activities, only when no alternative locations are available. Such instances will require a detailed land reclamation plan acceptable to the Board.
3. Phase out existing sanitary landfill leases as expediously as possible.
4. Prohibit non-state agency sanitary landfills and similar facilities on state-owned lands.

K. Easements

The request for and issuance of easements has been and continues to be, a major component of the management program for state-owned lands. As part of the management program, it is important that the current procedures covering easements be thoroughly evaluated and modified.

"Easements in gross" comprise the majority of requests received by the Board. An easement in gross is defined as an easement "not appurtenant to any estate in land (or not belonging to any person by virtue of his ownership of an estate in land) but mere personal interest in, or right to use, the land of another". Examples of easements of this type normally processed by the Bureau of State Lands Management include public utility corridors, pipeline crossings, and public road rights-of-way.

Investigations into an appropriate fee schedule for easements across lands titled to the Board indicate that certain types of easements should be exempted from such charges. Easements requested by public entities for public purposes are examples of easements that should be exempted from charges.

Charges for easements other than these specifically exempted appear to be very much in order. It is recommended, however, that the Board reserve the right to waive the fee requirement for those non-exempt easement requests that are determined to be in the public interest and will result in a benefit to the public at large.

Proposed easements that will be subject to charges or fees should be categorized according to the degree and type of impact the easements will have on current, future, and/or traditional management activities or uses. In general, such easements can be described as either exclusionary or non-exclusionary.

Exclusionary easements are those easements that, due to their nature, preclude in whole or in part, current or traditional uses (usually by the public) of the land for which the easement is sought. Non-exclusionary easements will have little or no effect upon the traditional or current uses. It is recommended that the easement fee schedule recognize a distinction between exclusionary and non-exclusionary easements.

Policies

1. Encourage the elimination of the granting of perpetual easements across state-owned lands.
2. Establish a realistic fee schedule applicable to all "easements in gross" that reflects a distinction between exclusionary and non-exclusionary uses.
3. Discourage the granting of "easements in gross" that will significantly affect the Board's ability to manage state-owned lands in a manner that achieves "maximum benefit and use."
4. Establish a procedure whereby the Board may, at its discretion, waive the fee requirements for "easements in gross" that are determined to be in the public interest and will result in a benefit to the public at large.

L. Artificial Reefs

In most cases, the construction of artificial reefs involves the use of state-owned lands. In such cases, the agency, organization, or individual desiring to construct an artificial reef must obtain permission from the Board.

Artificial reefs are normally built to enhance the submerged bottom habitat so as to attract increased numbers of marine organisms. These organisms in turn, attract various species of fish, resulting in an increase in the exploitable productivity of fishing areas.

Reasons for constructing artificial reefs usually fall within two general categories. The first category would include construction for limited scientific research and exclusionary purposes. One of the basic factors of this type of construction is the need and/or desire to restrict access to and use of the reef area. Requests falling into this category should be handled under lease or easement, and subject to the same management requirements as aquaculture leases.

The second category includes construction of artificial reefs strictly for the enhancement of fishing habitat, and access and use of the completed reef is open to the general public. This type of proposal could effectively be handled by issuance of a letter of consent, rather than a lease or easement. The letter of consent would be valid only during the original construction period and would constitute permission to trespass. Upon completion of the reef, the letter of consent would expire. All right to the completed reef would vest in the Board and the reef would be open to the public for recreational use.

Policies

1. Encourage placement of artificial reefs seaward of the near-shore areas in order to avoid potential conflicts with the riparian rights of upland owners.
2. Encourage full public access to and enjoyment of the benefits resulting from artificial reefs.
3. Minimize administrative requirements and processing time for the construction proposals that benefit the general public.
4. Require that the construction of artificial reefs recognize and avoid long-term water quality and navigation problems.
5. Insure that the artificial reef construction does not adversely impact environmentally fragile areas or infringe upon areas under active lease (e.g. oyster leases), or active potentially conflicting public use.

6. Insure that reefs are constructed in a manner that minimizes safety hazards.

M. Aquatic Preserves

During 1975, the Legislature recognized the importance and value of state-owned submerged lands by setting aside certain areas of exceptional biologic, scientific, or aesthetic values as aquatic preserves for the benefit of future generations. These submerged lands and the water over them offer economic and environmental to the present and future generations. They provide natural beauty in settings suited to recreation for residents and tourists. Unique plant and animal communities in the preserves are not only of interest to scientists but are the breeding grounds for important fin and shellfish.

Some preserves are virtually natural. In others, man's activities have altered natural conditions to varying degrees. Some alterations have been so great as to threaten the natural benefits that attracted man.

The responsibility for the land management within the preserves was delegated by statute to the Board of Trustees of the Internal Improvement Trust Fund. Rules to regulate human activities within the preserves have been adopted by the Board (CH. 16Q-18, and 20, F.A.C.). Management of aquatic preserves will be consistent with both the legislative intent of the Aquatic Preserve Act and with the overall goals, objectives and policies of the State Lands Management Plan.

Policies

1. No sale, lease or transfer of state-owned submerged lands within aquatic preserves shall be approved unless it is in the public interest.
2. No bulkhead line shall be located or relocated waterward of the mean high water line in an aquatic preserve unless necessitated by a road or bridge construction project where no reasonable alternative exists and the project is not contrary to the public interest.
3. There shall be no drilling of gas or oil wells within any aquatic preserve.
4. There shall be no excavation of minerals within aquatic preserves except the dredging of dead oyster shells as approved by the Department of Natural Resources.
5. (a) There shall be no dredging of state-owned lands within aquatic preserves for the purpose of providing upland fill.

   (b) There shall be no dredging or filling of submerged lands within aquatic preserves except minimum dredging and spoiling as may be necessary for the following activities: -

   i) public navigation projects

   ii) maintenance of existing navigation channels

   iii) creation and maintenance of marinas, piers, docks and their attendant navigation channels

   iv) public utility installation or expansion

   v) installation and maintenance of fuel transportation facilities

   vi) alterations necessary to enhance the quality or utility of the preserve or the public health generally
6. No structures shall be erected within a preserve except:

   (a) Private docks for reasonable ingress or egress of riparian owners.

   (b) Commercial docking facilities shown to be not contrary to the use or management criteria of the preserve.

(c) Shore protection structures, approved navigational aides, or public utility crossings authorized under policy #5b.

7. No wastes or effluents which substantially inhibit the accomplishment of the purposes of the Aquatic Preserve Acts shall be discharged into an aquatic preserve.
8. Management of human activities within aquatic preserves will not unreasonably interfere with traditional public uses such as fishing, boating and swimming.
9. Management of aquatic preserves shall not infringe upon the traditional rights of riparian landowners within or adjacent to an aquatic preserve.
10. Other uses of an aquatic preserve may only be approved subsequent to a formal finding of compatibility with the purpose of the Aquatic Preserve Acts and rules, and of the type designation of the preserve in question.

N. Erosion Control Lines and Beach Restoration

Erosion control lines are established by the Board in conjunction with publicly financed beach nourishment or restoration programs permitted by the Department of Natural Resources. Such lines represent the landward extent of claim of the state in its capacity as sovereign titleholder of the submerged bottoms and shores of the Atlantic Ocean, the Gulf of Mexico, and the bays, lagoons, and other tidal reaches. Such line becomes effective on the date of the recording of the survey showing the area of the beach to be nourished or restored and the location of the erosion control line.

An erosion control line can be established only upon the recommendation and certification of the Department of Natural Resources, customarily through its Bureau of Beaches and Shores, and upon the written consent of the owners of a majority of the lineal feet of contiguous riparian property which either abuts the erosion control line or would abut such line if established I at the mean high water line.

Policies

1. Ensure that proposed erosion control lines do not adversely affect title interests to state-owned lands.
2. Ensure that erosion control projects do not infringe upon the private property rights of riparian landowners.
3. Ensure that sources of beach nourishment material containing environmentally fragile resources or located in or adjacent to areas frequently utilized by sports and/or commercial fishermen are avoided to the extent practicable.
4. Erosion control lines shall be set at or as near as practicable to the existing mean high water line. However, based upon assurances and fiscal commitments by a local government sponsor such as periodic maintenance and renourishment of the beach, reconstruction and protection of dunes, conservation easements, and increased public access, the Board may consider setting the line waterward of the existing mean high water line.

O. Conservation and Recreation - Environmentally Endangered Lands

Public concern that Florida's unique natural systems were rapidly being destroyed resulted in the Land Conservation Act of 1972 (Chapter 259, Florida Statutes), commonly known as the Environmentally Endangered Lands (E.E.L.) acquisition program, funded through a $200 million statewide bond issue overwhelmingly passed by the voters of Florida. In 1979, the Conservation and Recreation Lands (C.A.R.L.) Program and Trust Fund were created by legislative action as a continuation of the E.E.L. program, with expanded authority to acquire various types of lard in the public interest. Annual funding of up to $20 million is provided from a portion of the severance taxes on solid minerals, oil and gas.

The Division of State Lands is charged with the administration of the C.A.R.L. Program. Following the compilation of a priority list by the Land Selection Committee and approval of the list by the Board, money may be allocated for acquisition on an annual basis in each of the following categories and proportions:

1) Up to seventy percent for lands qualified as environmentally endangered as defined in Chapter 259, Florida Statutes, or

2) Up to seventy percent for other lands in the public interest.

3) Also, up to ten percent of the annual allotment may be spent for management of lands purchased and up to five percent for the compilation of a statewide natural areas inventory.

Under the Land Conservation Act, the purchase of 22 environmentally endangered land projects was initiated between 1972 and 1979, with acquisition completed on ten. Following the first year of activities through the C.A.R.L. Program, a priority list of 27 projects was approved in December 1980.

Policies[3]

1. Encourage the continuation of state interagency and general public involvement in all facets of the C.A.R.L./ Environmentally Endangered Lands Program.
2. Encourage the refinement of evaluation and selection procedures for C.A.R.L./Environmentally Endangered Lands projects, which will help ensure the acquisition of the most vital, sensitive, and important areas for public enjoyment and long-term environmental protection.
3. Minimize the acquisition of C.A.R.L./Environmentally Endangered Lands with outstanding title reservations and/or other management encumbrances.
4. Encourage multiple-use management of C.A.R.L./Environmentally Endangered Lands where compatible and consistent with statutory and natural resource limitations and the purposes of acquisition.
5. Manage C.A.R.L./Environmentally Endangered Lands by management agreements rather than long-term, blanket leases.
6. Actively discourage any request for leases, easements, or other forms of approval to use state owned E.E.L or C.A.R.L. lands for any purpose not specifically authorized by Ch. 259, F.S. Such requests may be considered by the Board only if no reasonable alternative exists. Additionally such requests may be approved only if the Board determines and is assured that there will be adequate mitigation, compensation, or other consideration that will result in a net positive benefit to the affected parcel.
7. Any request for approval to use E.E.L. or C.A.R.L. parcel shall be subject to a thorough management evaluation using the criteria listed in Appendix A.

P. Compensation for the Use of State-Owned Lands

Many activities involving state-owned land do not directly benefit the general public as a whole. In such cases, the Board should obtain compensation in some form, for the private use and/or preemption of portions of the public domain. To the extent practicable, the Board should rely on principles of private enterprise to establish fee schedules or other rates of compensation.

Traditionally, fee appraisals have been used by the Board to establish reasonable rates of compensation in exchange for private uses of state-owned land. This is especially true for those activities with private

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[3] *The Board of Trustees adopted policies #6 and #7 of Paragraph "O" on July 7, 1981 (Agenda Item #14).*

counterparts, such as grazing leases or private easements. Due to the staff limitations, however, individual appraisals are not generally suitable in establishing user fees for those activities normally restricted to state-owned lands (i.e. submerged land leases) or when the number of applications is so great as to render individual appraisals unworkable.

Specific fee criteria that are not established by individual fee appraisals are now established through administrative rule making. This appears to be the most appropriate way to establish or modify fee schedules for certain uses of state-owned land. Use of the administrative rule format permits individualized attention to the compensation question without depending entirely on fee appraisals or other similar approaches.

Policies[4]

1. The Board shall require equitable compensation when the use of state-owned lands by private or public entities, except for state agencies exempted by law, generates revenue or profits for the user, or general public use is limited or preempted.
2. To the extent practical, the Board should use principles of private enterprise in establishing fee schedules or other methods for ensuring just compensation.
3. The Board shall require a reasonable return for any private use authorized by lease, easement or other use agreement. The structure for the formula for assuring a reasonable return may vary depending on circumstances and may include a flat fee per time unit, per area of quantity unit, a percentage of the assessed upland property value, a royalty fee or some other form of compensation or combination thereof.
4. The Board shall require the periodic reassessment of the terms and conditions of all leases, easements and use agreements that exceed one year to insure a continued equitable rate of compensation.
5. The Board may consider a waiver of fees if the use of state-owned land does not generate revenues or profits and the land is open to the general public without charge.
6. Any request to use E.E.L., C.A.R.L., or other state lands that are managed primarily for the conservation and protection of natural resources, such as state parks, preserves, forests, wilderness areas, and wildlife management areas, which would preclude or affect in whole or in part, current or future uses, shall be required to provide a net positive benefit to the affected parcel. Net positive benefit shall not be solely monetary compensation, but shall include mitigation and other consideration related to environmental or management benefits. Any compensation/mitigation proposal shall be related to the affected parcel.

Q. Surplus Lands

The state land acquisition and management programs would benefit from the development and implementation of a surplus lands program. Such a program would contain a procedure for defining and identifying surplus lands. However, land would not be labeled surplus nor disposed of in a manner that would reduce the value of the land inventory of the state, which is the corpus of the Trust. Land is a valuable fixed capital asset.

Surplus lands should first be used in land exchanges to obtain inholdings and other parcels which would enhance the management and value of existing state-owned lands. Some parcels, such as Murphy Act lots, may be too small or scattered to be effectively used in land exchanges. These should be disposed of through competitive bidding after the minimum bid has been set by the fee appraisals.

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[4] *The Board of Trustees adopted policy #6 of Paragraph "P" on July 7, 1981 (Agenda Item #14).*

In addition to Murphy Act and other remnant parcels, the purchase of large acreages through the E.E.L. and C.A.R.L. acquisition program may result in the acquisition of parcels which are not essential to the original project boundary design. However, because of common ownership it may have been necessary to acquire those with the parcels essential to manageable boundary configuration. Such remnant parcels should be identified in a process of developing management plans for the newly acquired parcels, on the front end prior to acquisition.

All proceeds from the sales of state lands should be used to acquire additional state lands. This would insure that the state land inventory would never be reduced in value.

The management evaluation criteria (see Appendix A) would be used to identify surplus lands. Individual parcels would be evaluated to determine whether the legal, physical, environmental and other factors are positive or negative in terms of their management potential. Basically, the process for identifying surplus lands is the same as the process for developing management recommendations and plans. Except in the case of surplus lands, the analysis would show that there are encumbrances, physical restrictions or liabilities that make it difficult or impossible to effectively manage or use the parcel for maximum public benefit.

Section 253.034(5), Florida Statutes, requires the Board and each state agency managing state-owned lands to identify those lands surplus to their needs every five (5) years. The most effective way to implement the surplus lands program would be in conjunction with the development and review of land management plans required by Section 253.034(3), Florida Statutes. Since every state agency managing lands owned by the Board must submit a land management plan to the Board at least every five (5) years, and the criteria used to prepare management plans is essentially the same as the criteria for determining surplus lands, the two requirements should be accomplished simultaneously. Such a surplus land review would logically occur simultaneously with all state land acquisitions.

Policies

1. A surplus lands program shall be developed and implemented in conjunction with the review and approval of land management plans under 253.034(3), Florida Statutes.
2. Surplus lands should first be used in land exchange to obtain inholdings and other parcels which would enhance the management of existing state-owned lands.
3. Sales of surplus land shall be by competitive bid with the appraised market value as the minimum bid.
4. All proceeds from the sales of state lands should be placed in state land acquisition funds.

VII. Appendix

A. Management Evaluation Criteria

Legal

1. Type and degree of state title interest
2. Outstanding leases, easements, reverter clauses or other legal encumbrances or liabilities
3. Legislative or executive designations or directives
4. Relationship to local government comprehensive plans adopted pursuant to Chapter 163, Florida Statutes

Physical

1. Size and configuration
2. Location and access
3. Encroachments/recognized and unrecognized
4. Proximity to public lands, population centers

Environmental

1. Wetlands
2. Beaches and dunes
3. Unique, threatened and endangered species and habitat
4. Unique features (caves, sinkholes, springs)
5. Water resources (quality and quantity)
6. Submerged lands (grass beds, coral, shellfish areas)
7. Natural hazard areas (hurricane and other flood zones)
8. Soils (prime and unique agricultural land, development suitability)
9. Fish and wildlife resources
10. Areas of special environmental concern (aquatic preserve, ecologic reserve, and E.E.L. and C.A.R.L. lands)

Cultural

1. Archaeological and/or historical resources (Indian mounds)
2. Recreational resources (canoe trails, picnicking, public hunting)
3. Aesthetic resources (scenic vista, wilderness)

Economic

1. Oil, gas and mineral resources
2. Agricultural resources
    a. timber
    b. prime and unique agricultural lands
    c. grazing
3. Prime development areas (institutional, industrial, research and development park)
4. Aquaculture (oyster leases)
5. Public transportation facilities
6. Exchange potential/sale to acquire more desirable parcels

B. Walk-Through Example #1: Specific Purpose Acquisition

1. Agency inquiries as to the availability of existing state-owned lands.
2. Board accepts title to property acquired by the Division of Forestry for the purpose of constructing a fire tower.
3. Division of Forestry requests management control of subject property from the Board.
4. Staff conducts a management evaluation of the subject property and determines that the land can properly accommodate the intended management use.
5. Staff processes appropriate management instrument for Board consideration and action.
6. Board approves Management Agreement, and Division of Forestry initiates intended management action.
7. Division of Forestry determines that their management interest in the subject property is no longer necessary for their program continuity.
8. Division of Forestry releases their management interest in the subject property back to the Board.
9. Staff to the Board subjects property to a management evaluation, and determines that due to limited size, parcel isolation, and the absence of unique or significant environmental, cultural, recreational, or economic resources, the property should be disposed of by either exchange or outright sale.
10. Application for a land exchange is received by the Board as a result of public advertisements initiated by staff.
11. Staff successfully negotiates a value-for value exchange whereby the Board will receive title to an inholding within the Blackwater River State Forest in return for title to the subject property.
12. Board approves the proposed exchange based upon improved management capability and positive economic considerations.
13. Application is made to the Board by the Division of Forestry for the addition of the recently acquired inholding into their current management lease agreement covering the Blackwater River State Forest.
14. Board approves requested lease amendment based upon favorable staff recommendations and public interest factors.
15. Division of Forestry extends their active management practices into the recently acquired inholding.

Walk-Through Example #2: Unspecified Purpose Acquisition

1. The Board accepts title to a section of land (640 acres) donated to the State of Florida without use restrictions.
2. Staff conducts a physical and cultural assessment of the subject property. The public land inventory is searched for other state property in the area.
3. The result of the assessment indicates several unique physical features on the property, as well as an Indian mound. Also, the soil types and overall topographical features of the parcel appear to be ideal for recreational activities. The public land inventory indicates no other state land within 10 miles.
4. Staff contracts the Division of Recreation & Parks, DNR[5] about the subject parcel, and provides full documentation from the physical/cultural assessment. Similarly, the Division of Archives, History & Records Management[6], Department of State is coordinated with regarding the possibility of archaeological remains on the subject property.
5. Recreation & Parks evaluates the property further and indicates a desire to manage the parcel within the state parks system.
6. Archives & History evaluates the Indian mound evidence, and finds that the site is listed in their site inventory and should be preserved.
7. Staff processes appropriate management instrument for Board consideration and action.
8. Board approves Management Agreement with Recreation & Parks to manage the parcel as a state park, and recognizes the titular interest held by Archives & History for any cultural resources that may be present on the property.
9. Recreation & Parks initiates management action specified in approved management agreement.

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[5] *Now the DEP (Department of Environmental Protection).*

[6] *Now the Division of Historical Resources.*

C. Glossary

Appraisal – An estimation of value of real property.

Assignment – A transfer of one's rights to another.

Conveyance – An instrument or transfer of title of land from one person to another.

Easement – The legal right to enter on another's property, which creates an interest in the real property.

Encroachment - A physical intrusion onto the property of another, resulting in an infringement on the other party's rights.

Encumbrance – A liability to and/or restriction of title rights to real property.

Inventory – A detailed list or schedule of property, containing a designation or description of each specific article.

Lease – A contract between owner and tenant establishing terms and conditions for the use and occupancy of real property.

Management Agreement – A contractual agreement between the board and two or more parties, which does not create an interest in real property but merely authorizes conduct of certain management activities on lands held by the board.

Plan – A recommended course of action that, when adhered to, will produce specific results.

Policies – Guidelines for the decision-making process whereby programs, services, and actions of the State are implemented, consistent with existing law.

Proprietary rights – Those rights which an owner of property has by virtue of his ownership.

Real Property – Land and permanent improvements that are located, thereon/and/or affixed thereto.

Right-Of-Way – The right of passage over the property of another.

Riparian Rights – The rights of the owners of lands on the banks of watercourses, relating to the water, its use, ownership of soil under the stream, accretions, etc.

State Lands Management Program – The Combined total of the Conceptual State Lands Management Plan, administrative rules, legislation, and parcel-specific management procedures, evaluations, data and recommendations.

Subordinate – Placed in a lower class, order or rank, such as causing a first mortgage to become a second mortgage.

Title – The evidence of right, which a person has to the possession of property.

D. CHAPTER 79-255

The original plan included in this appendix the Committee Substitute for Senate Bill 793 as enacted by the 1979 Legislature and incorporated as Chapter 79-255 in the Laws of Florida. Chapter 79-255 established: (1) the Division of State Lands within the Department of Natural Resources, which has since been reorganized under the Department of Environmental Protection; (2) acquisition, management, and administration procedures for lands titled to the Board of Trustees of the Internal Improvement Trust Fund; (3) a new land acquisition program -- the Conservation and Recreation Lands program – to succeed and incorporate the Environmentally Endangered Lands and Outdoor Recreation and Conservation Lands programs; and (4) the interagency Land Acquisition Selection Committee. Florida Statutes have been revised substantively since 1979. Thus, the relevance of this bill to this plan has been diminished and is supplanted by current statutes. Therefore, Chapter 79-255, Laws of Florida, has been ***intentionally omitted****. See chapters 253 and 259, Florida Statutes, for current acquisition, management and administrative procedures for lands titled to the Board of Trustees.*

E. CHAPTER 80-280

The original plan included in this appendix House Bill 715 as enacted by the 1980 Legislature and incorporated as Chapter 80-280 in the Laws of Florida. Chapter 80-280 established section 253.034, Florida Statutes, which provided land management definitions and land management planning, disposition and administration procedures for lands titled to the Board of Trustees of the Internal Improvement Trust Fund. Florida Statutes have been revised substantively since 1980. Thus, the relevance of this bill to this plan has been diminished and is supplanted by current statutes. Therefore, Chapter 80-280, Laws of Florida, has been ***intentionally omitted****. See chapters 253 and 259, Florida Statutes, for current management planning, disposition and administrative procedures for lands titled to the Board of Trustees.*

F. Section 197.387 from 1980 Supplement To Florida Statutes 1979

The original plan included in this appendix section 197.387 from the 1980 Supplement to the 1979 Florida Statutes, which addressed conveyance issues for Board of Trustees lands that were acquired under the provisions of the Murphy Act – Chapter 18296, Laws of Florida, 1937. This section of statutes has been repealed and is no longer applicable. Therefore, s. 197.387, F.S., has been ***intentionally omitted****. Relevant language similar to what appeared in s. 197.387 now is located in s. 253.82, F.S.*

G. State Lands Management Plan Interagency Advisory Committee[7]

PURPOSE: To assist the Division of State Lands in the development and acceptance of the conceptual State Lands Management Plan.

MEETINGS: On call, as needed, depending on development status of the State Lands Management Plan.

EXPENSES: Non-paid

MEMBERS:

Mr. Daniel T. Penton
Bureau of State Lands
Department of Natural Resources
3900 Commonwealth Boulevard
Tallahassee, Florida 32303
904/488-2291

Mr. George W. Percy
Division of Archives, History and Records Management
Department of State
R.A. Gray Building
Tallahassee, Florida 32304
904/487-2333

Mr. W. R. Helm, Jr. (Jim Grubbs)
Division of Forestry
Department of Agriculture and Consumer Services
Collins Building
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Mr. George Reinert
Division of Forestry
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Mr. Brad Hartman
Florida Game and Freshwater Fish Commission
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904/488-6661

Mr. Bill White (George Willson)
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904/488-9730

Mr. Frank McClain (Percy Folsom)
Facility Services
Department of Corrections
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Mr. Angus Franklin
Florida Correctional Industries
Department of Corrections
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Mr. Jesse Palmer (Cindy Olsen)
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Mr. James W. Mayne
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Mr. Ney Landrum
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904/488-6131

Mr. Steve Windham
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Department of Natural Resources
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Mr. Fred Breeze
House Natural Resources Committee
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Mr. Edwin A Joyce
Division of Marine Resources
Department of Natural Resources
3900 Commonwealth Boulevard
Tallahassee, Florida 32304
904/488-6058

Mr. James A. Stidham
Water Resources Division
North West Florida Water Management District
Quincy, Florida 32351

Mr. Dan Fernandez
Senate Natural Resources Committee
Room 416, Senate Office Building
Tallahassee, Florida 32304
904/488-1710

[7] *Original participants, agencies, addresses & telephone numbers no longer applicable.*

A.2 / ***Florida Statutes***

All the statutes can be found according to number at www.leg.state.fl.us/Statutes

Florida Statutes, Chapter 253: State Lands

Florida Statutes, Chapter 258: State Parks and Preserves / Part II- Aquatic Preserves

Florida Statutes, Chapter 259: Land Acquisitions for Conservation or Recreation

Florida Statutes, Chapter 379: Fish and Wildlife Conservation

Florida Statutes, Chapter 403: Environmental Control
(Statute authorizing the Florida Department of Environmental Protection to create Outstanding Florida Waters is at 403.061(27))

A.3 / ***Florida Administrative Code***

All rules can be found according to number at www.flrules.org

Florida Administrative Code, Chapter 18-20: Florida Aquatic Preserves
www.dep.state.fl.us/legal/Rules/shared/18-20.pdf

Florida Administrative Code, Chapter 18-21: Sovereignty Submerged Lands Management
www.dep.state.fl.us/legal/Rules/shared/18-21.pdf

Florida Administrative Code, Chapter 18-23: State Buffer Preserves
www.dep.state.fl.us/legal/Rules/shared/18-23.pdf

Florida Administrative Code, Chapter 62-302: Surface Water Quality Standards
(Rule designating Outstanding Florida Waters is at 62-302.700)
www.dep.state.fl.us/legal/Rules/shared/62-302/62-302.pdf

OAS1

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION,
OFFICE OF COASTAL AND AQUATIC MANAGED AREAS

SUBLEASE AGREEMENT

Sublease Number 4119-004

THIS SUBLEASE AGREEMENT is entered into this 25th day of October 2011, by and between the STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF COASTAL AND AQUATIC MANAGED AREAS, hereinafter referred to as "SUBLESSOR," and GULF COUNTY, FLORIDA, hereinafter referred to as "SUBLESSEE."

WITNESSETH

In consideration of the covenants and conditions set forth herein, SUBLESSOR subleases the below described premises to SUBLESSEE on the following terms and conditions:

1. ACKNOWLEDGMENTS: The parties acknowledge that title to the subleased premises is held by the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida ("TRUSTEES") and is currently managed by SUBLESSOR as the St. Joseph Bay State Buffer Preserve under TRUSTEES' Lease Number 4119.

2. DESCRIPTION OF PREMISES: The property subject to this sublease agreement, is situated in the County of Gulf, State of Florida and is more particularly described in Exhibit "A" attached hereto and hereinafter referred to as the "subleased premises".

3. SUBLEASE TERM: The term of this sublease shall be for a period of ten (10) years commencing October 25, 2011 and ending on October 24, 2021 unless sooner terminated pursuant to the provisions of this sublease.

4. PURPOSE: SUBLESSEE shall manage the subleased premises only for the establishment and operation of a public parking area and restroom facility, along with other related uses necessary for the accomplishment of this purpose as designated in the Land Use Plan required by paragraph 7 of this sublease.

5. CONFORMITY: This sublease shall conform to all terms and conditions of TRUSTEES' LEASE NO. 4119 between the TRUSTEES and SUBLESSOR dated March 29, 1996, a copy of which is attached hereto as Exhibit "B", and SUBLESSEE shall through its agents and employees prevent the unauthorized use of the subleased premises or any use thereof not in conformance with this sublease.

6. QUIET ENJOYMENT AND RIGHT OF USE: SUBLESSEE shall have the right of ingress and egress to, from and upon the subleased premises for all purposes necessary to full quiet enjoyment by said SUBLESSEE of the rights conveyed herein.

7. LAND USE PLAN: SUBLESSEE shall prepare and submit a Land Use Plan for the subleased premises in accordance with Section 253.034, Florida Statutes, within twelve months of the effective date of this sublease. The Land Use Plan shall be submitted to the TRUSTEES for approval through SUBLESSOR and the State of Florida Department of Environmental Protection, Division of State Lands. The subleased premises shall not be developed or physically altered in any way other than what is necessary for security and maintenance of the subleased premises without the prior written approval of the TRUSTEES and SUBLESSOR until the Land Use Plan is approved. SUBLESSEE shall provide SUBLESSOR with an opportunity to participate in all phases of preparing and developing the Land Use Plan for the subleased premises. The Land Use Plan shall be submitted to SUBLESSOR in draft form for review and comments within ten months of the effective date of this sublease. SUBLESSEE shall give SUBLESSOR reasonable notice of the application for and receipt of any state, federal, or local permits as well as any public hearings or meetings relating to the development or use of the subleased premises. SUBLESSEE shall not proceed with development of said subleased premises including, but not limited to, funding, permit application, design or building contracts, until the Land Use Plan required herein has been submitted and approved. Any financial commitments made by SUBLESSEE which are not in compliance with the terms of this sublease shall be done at SUBLESSEE'S own risk. The Land Use Plan shall emphasize the original management concept as approved by the TRUSTEES at the time of acquisition which established the primary purpose for which the subleased premises were acquired. The approved Land Use Plan shall provide the basic guidance for all management activities and shall be reviewed jointly by SUBLESSEE, SUBLESSOR and the TRUSTEES. SUBLESSEE shall not use or alter the subleased premises except as provided for in the approved Land Use Plan without the advance written approval of the TRUSTEES and SUBLESSOR. The Land Use Plan prepared under this sublease shall identify management strategies for exotic species, if present. The introduction of exotic species is prohibited, except when specifically authorized by the approved Land Use Plan.

8. ASSIGNMENT: This sublease shall not be assigned in whole or in part without the prior written consent of the TRUSTEES and SUBLESSOR. Any assignment made either in whole or in part without the prior written consent of the TRUSTEES and SUBLESSOR shall be void and without legal effect.

9. RIGHT OF INSPECTION: The TRUSTEES and SUBLESSOR or their duly authorized agents, representatives or employees shall have the right at any and all times

to inspect the subleased premises and the works and operations thereon of SUBLESSEE in any matter pertaining to this sublease.

10. PLACEMENT AND REMOVAL OF EQUIPMENT: All buildings, structures, improvements and signs shall be constructed at the expense of SUBLESSEE in accordance with plans prepared by professional designers and shall require the prior written approval of SUBLESSOR as to purpose, location and design. Further, no trees, other than non-native species, shall be removed or major land alterations done without the prior written approval of SUBLESSOR. Removable equipment placed on the subleased premises by SUBLESSEE which does not become a permanent part of the subleased premises will remain the property of SUBLESSEE and may be removed by SUBLESSEE upon termination of this sublease.

11. INSURANCE REQUIREMENTS: During the term of this sublease, SUBLESSEE shall procure and maintain policies of fire, extended risk, and liability insurance coverage. The extended risk and fire insurance coverage shall be in an amount equal to the full insurable replacement value of any improvements or fixtures located on the subleased premises. The liability insurance coverage shall be in amounts not less than $100,000 per person and $200,000 per incident or occurrence for personal injury, death, and property damage on the subleased premises. Such policies of insurance shall name SUBLESSEE, the TRUSTEES, SUBLESSOR and the State of Florida as additional insureds. SUBLESSEE shall submit written evidence of having procured all insurance policies required herein prior to the effective date of this sublease and shall submit annually thereafter, written evidence of maintaining such insurance policies to SUBLESSOR and the Bureau of Public Land Administration, Division of State Lands, State of Florida Department of Environmental Protection, Mail Station 130, 3800 Commonwealth Boulevard, Tallahassee, Florida 32399-3000. SUBLESSEE shall purchase all policies of insurance from a financially-responsible insurer duly authorized to do business in the State of Florida. In lieu of purchasing insurance, SUBLESSEE shall self-insure these coverages. The insurer must possess a minimum current rating of B+ Class VIII in "Best's Key Rating Guide." Any certificate of self-insurance shall be issued or approved by the Chief Financial Officer, State of Florida. The certificate of self-insurance shall provide for casualty and liability coverage. SUBLESSEE further agrees to immediately notify SUBLESSOR, the TRUSTEES and the insurer of any erection or removal of any structure or other fixed improvement on the subleased premises and any changes affecting the value of any improvements and to request said insurer to make adequate changes in the coverage to reflect the changes in

value. SUBLESSEE shall be financially responsible for any loss due to failure to obtain adequate insurance coverage, and the failure to maintain such policies or certificate in the amounts set forth shall constitute a breach of this sublease.

12. LIABILITY: Each party is responsible for all personal injury and property damage attributable to the negligent acts or omissions of that party and the officers, employees and agents thereof. Nothing herein shall be construed as an indemnity or a waiver of sovereign immunity enjoyed by any party hereto, as provided in Section 768.28, Florida Statutes, as amended from time to time, or any other law providing limitations on claims.

13. PAYMENT OF TAXES AND ASSESSMENTS: SUBLESSEE shall assume full responsibility for and shall pay all liabilities that accrue to the subleased premises or to the improvements thereon, including any and all drainage and special assessments or taxes of every kind and all mechanic's or materialman's liens which may be hereafter lawfully assessed and levied against the subleased premises.

14. NO WAIVER OF BREACH: The failure of SUBLESSOR to insist in any one or more instances upon strict performance of any one or more of the covenants, terms and conditions of this sublease shall not be construed as a waiver of such covenants, terms and conditions, but the same shall continue in full force and effect, and no waiver of SUBLESSOR of any of the provisions hereof shall in any event be deemed to have been made unless the waiver is set forth in writing, signed by SUBLESSOR.

15. TIME: Time is expressly declared to be of the essence of this sublease.

16. NON-DISCRIMINATION: As a condition of obtaining this sublease, SUBLESSEE hereby agrees not to discriminate against any individual because of that individual's race, color, religion, sex, national origin, age, handicap, or marital status with respect to any activity occurring within the subleased premises or upon lands adjacent to and used as an adjunct of the subleased premises.

17. UTILITY FEES: SUBLESSEE shall be responsible for the payment of all charges for the furnishing of gas, electricity, water and other public utilities to the subleased premises and for having all utilities turned off when the subleased premises are surrendered.

18. MINERAL RIGHTS: This sublease does not cover petroleum or petroleum products or minerals and does not give the right to SUBLESSEE to drill for or develop the same. However, SUBLESSEE shall be fully compensated for any and

all damages that might result to the subleasehold interest of SUBLESSEE by reason of such exploration and recovery operations.

19. RIGHT OF AUDIT: SUBLESSEE shall make available to the TRUSTEES and SUBLESSOR all financial and other records relating to this sublease, and SUBLESSOR and or the TRUSTEES shall have the right to audit such records at any reasonable time. This right shall be continuous until this sublease expires or is terminated. This sublease may be terminated by SUBLESSOR should SUBLESSEE fail to allow public access to all documents, papers, letters or other materials made or received in conjunction with this sublease, pursuant to the provisions of Chapter 119, Florida Statutes.

20. CONDITION OF PROPERTY: SUBLESSOR assumes no liability or obligation to SUBLESSEE with reference to the condition of the subleased premises or the suitability of the subleased premises for any improvements. The subleased premises herein are subleased by SUBLESSOR to SUBLESSEE in an "as is" condition, with SUBLESSOR assuming no responsibility for bidding, contracting, permitting, construction, and the care, repair, maintenance or improvement of the subleased premises for the benefit of SUBLESSEE.

21. NOTICES: All notices given under this sublease shall be in writing and shall be served by certified mail including, but not limited to, notice of any violation served pursuant to Section 253.04, Florida Statutes, to the last address of the party to whom notice is to be given, as designated by such party in writing. SUBLESSOR and SUBLESSEE hereby designate their address as follows:

SUBLESSOR:
STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF COASTAL AND AQUATIC
MANAGED AREAS, MAIL STATION 235
3900 COMMONWEALTH BOULEVARD
TALLAHASSEE, FLORIDA 32399-3000

SUBLESSEE:
GULF COUNTY BOARD OF COUNTY COMMISSIONERS
1000 CECIL G. COSTIN, SR. BOULEVARD
PORT SAINT JOE, FLORIDA 32456

Mandatory copy to:
STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF STATE LANDS
BUREAU OF PUBLIC LAND ADMINISTRATION
3800 COMMONWEALTH BOULEVARD
TALLAHASSEE, FLORIDA 32399-3000

22. BREACH OF COVENANTS, TERMS, OR CONDITIONS: Should SUBLESSEE breach any of the covenants, terms, or conditions of this sublease, SUBLESSOR shall give written notice to SUBLESSEE to remedy such breach within sixty days of such notice. In the event SUBLESSEE fails to remedy the breach to the satisfaction of SUBLESSOR within sixty days of receipt of written notice, SUBLESSOR may

either terminate this sublease and recover from SUBLESSEE all damages SUBLESSOR may incur by reason of the breach including, but not limited to, the cost of recovering the subleased premises and attorneys' fees or maintain this sublease in full force and effect and exercise all rights and remedies herein conferred upon SUBLESSOR.

23. DAMAGE TO THE PREMISES: (a) SUBLESSEE shall not do, or suffer to be done, in, on or upon the subleased premises or as affecting said subleased premises or adjacent properties, any act which may result in damage or depreciation of value to the subleased premises or adjacent properties, or any part thereof. (b) SUBLESSEE shall not generate, store, produce, place, treat, release, or discharge any contaminants, pollutants or pollution, including, but not limited to, hazardous or toxic substances, chemicals or other agents on, into, or from the subleased premises or any adjacent lands or waters in any manner not permitted by law. For the purposes of this sublease, "hazardous substances" shall mean and include those elements or compounds defined in 42 USC Section 9601 or which are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency (EPA) and the list of toxic pollutants designated by the United States Congress or the EPA or defined by any other federal, state or local statute, law, ordinance, code, rule, regulation, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning any hazardous, toxic or dangerous waste, substance, material, pollutant or contaminant. "Pollutants" and "pollution" shall mean those products or substances defined in Chapters 376 and 403, Florida Statutes, and the rules promulgated thereunder, all as amended or updated from time to time. In the event of SUBLESSEE'S failure to comply with this paragraph, SUBLESSEE shall, at its sole cost and expense, promptly commence and diligently pursue any legally required closure, investigation, assessment, cleanup, decontamination, remediation, restoration and monitoring of (1) the subleased premises, and (2) all off-site ground and surface waters and lands affected by SUBLESSEE'S such failure to comply, as may be necessary to bring the subleased premises and affected off-site waters and lands into full compliance with all applicable federal, state or local statutes, laws, ordinances, codes, rules, regulations, orders and decrees, and to restore the damaged property to the condition existing immediately prior to the occurrence which caused the damage. SUBLESSEE'S obligations set forth in this paragraph shall survive the termination or expiration of this sublease. This paragraph shall not be construed as a limitation upon obligations or responsibilities of SUBLESSEE as set forth herein. Nothing herein shall

relieve SUBLESSEE of any responsibility or liability prescribed by law for fines, penalties, and damages levied by governmental agencies, and the cost of cleaning up any contamination caused directly or indirectly by SUBLESSEE'S activities or facilities. Upon discovery of a release of a hazardous substance or pollutant, or any other violation of local, state or federal law, ordinance, code, rule, regulation, order or decree relating to the generation, storage, production, placement, treatment, release or discharge of any contaminant, SUBLESSEE shall report such violation to all applicable governmental agencies having jurisdiction, and to SUBLESSOR, all within the reporting periods of the applicable agencies.

24. ENVIRONMENTAL AUDIT: At SUBLESSOR'S discretion, SUBLESSEE shall provide SUBLESSOR with a current Phase I environmental site assessment conducted in accordance with the State of Florida Department of Environmental Protection, Division of State Lands' standards prior to termination of this sublease, and if necessary a Phase II environmental site assessment.

25. SURRENDER OF PREMISES: Upon termination or expiration of this sublease, SUBLESSEE shall surrender the subleased premises to SUBLESSOR. In the event no further use of the subleased premises or any part thereof is needed, SUBLESSEE shall give written notification to SUBLESSOR and the Florida Department of Environmental Protection, Division of State Lands, Bureau of Public Land Administration, Mail Station 130, 3800 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, at least six months prior to the release of any or all of the subleased premises. Notification shall include a legal description, this sublease number and an explanation of the release. The release shall only be valid if approved by SUBLESSOR and the TRUSTEES through execution of a release of sublease instrument with the same formality as this sublease. Upon release of all or any part of the subleased premises or upon termination or expiration of this sublease, all improvements, including both physical structures and modifications of the subleased premises, shall become the property of the TRUSTEES and SUBLESSOR, unless SUBLESSOR gives written notice to SUBLESSEE to remove any or all such improvements at the expense of SUBLESSEE. The decision to retain any improvements upon termination of this sublease shall be at SUBLESSOR'S sole discretion. Prior to surrender of all or any part of the subleased premises a representative of SUBLESSOR shall perform an on-site inspection and the keys to any building on the subleased premises shall be turned over to SUBLESSOR. If the subleased premises do not meet all conditions as set forth in paragraphs 17 and 34 herein, SUBLESSEE shall, at its expense, pay all costs necessary to meet the prescribed conditions.

26. BEST MANAGEMENT PRACTICES: SUBLESSEE shall implement applicable Best Management Practices for all activities conducted under this sublease in compliance with paragraph 18-2.018(2)(h), Florida Administrative Code, which have been selected, developed, or approved by SUBLESSOR, SUBLESSEE or other land managing agencies for the protection and enhancement of the subleased premises.

27. SOVEREIGNTY SUBMERGED LANDS: This sublease does not authorize any use of lands located waterward of the mean or ordinary high water line of any lake, river, stream, creek, bay, estuary, or other water body or the waters or the air space thereabove.

28. PROHIBITIONS AGAINST LIENS OR OTHER ENCUMBRANCES: Fee title to the subleased premises is held by the TRUSTEES. SUBLESSEE shall not do or permit anything to be done which purports to create a lien or encumbrance of any nature against the real property contained in the subleased premises including, but not limited to, mortgages or construction liens against the subleased premises or against any interest of the TRUSTEES and SUBLESSOR therein.

29. CONDITIONS AND COVENANTS: All of the provisions of this sublease shall be deemed covenants running with the land included in the subleased premises, and construed to be "conditions" as well as "covenants" as though the words specifically expressing or imparting covenants and conditions were used in each separate provision.

30. PARTIAL INVALIDITY: If any term, covenant, condition or provision of this sublease shall be ruled by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

31. ENTIRE UNDERSTANDING: This sublease sets forth the entire understanding between the parties and shall only be amended with the prior written approval of the TRUSTEES and SUBLESSOR.

32. EASEMENTS: All easements including, but not limited to, utility easements are expressly prohibited without the prior written approval of the TRUSTEES and SUBLESSOR. Any easement not approved in writing by the TRUSTEES and SUBLESSOR shall be void and without legal effect.

33. SUBSUBLEASES: This sublease is for the purposes specified herein and any sub subleases of any nature are prohibited, without the prior written approval of the TRUSTEES and SUBLESSOR. Any sub sublease not approved in writing by the TRUSTEES and SUBLESSOR shall be void and without legal effect.

34. MAINTENANCE OF IMPROVEMENTS: SUBLESSEE shall maintain the real property contained within the subleased premises and any improvements located thereon, in a state of good condition, working order and repair including, but not limited to, removing all trash or litter, maintaining all planned improvements as set forth in the approved Land Use Plan, and meeting all building and safety codes. LESSEE shall maintain any and all existing roads, canals, ditches, culverts, risers and the like in as good condition as the same may be on the effective date of this sublease.

35. COMPLIANCE WITH LAWS: SUBLESSEE agrees that this sublease is contingent upon and subject to SUBLESSEE obtaining all applicable permits and complying with all applicable permits, regulations, ordinances, rules, and laws of the State of Florida or the United States or of any political subdivision or agency of either.

36. ARCHAEOLOGICAL AND HISTORIC SITES: Execution of this sublease in no way affects any of the parties' obligations pursuant to Chapter 267, Florida Statutes. The collection of artifacts or the disturbance of archaeological and historic sites on state-owned lands is prohibited unless prior authorization has been obtained from the State of Florida Department of State, Division of Historical Resources. The Management Plan prepared pursuant to Chapter 18-2 Florida Administrative Code, shall be reviewed by the Division of Historical Resources to insure that adequate measures have been planned to locate, identify, protect, and preserve the archaeological and historic sites and properties on the subleased premises.

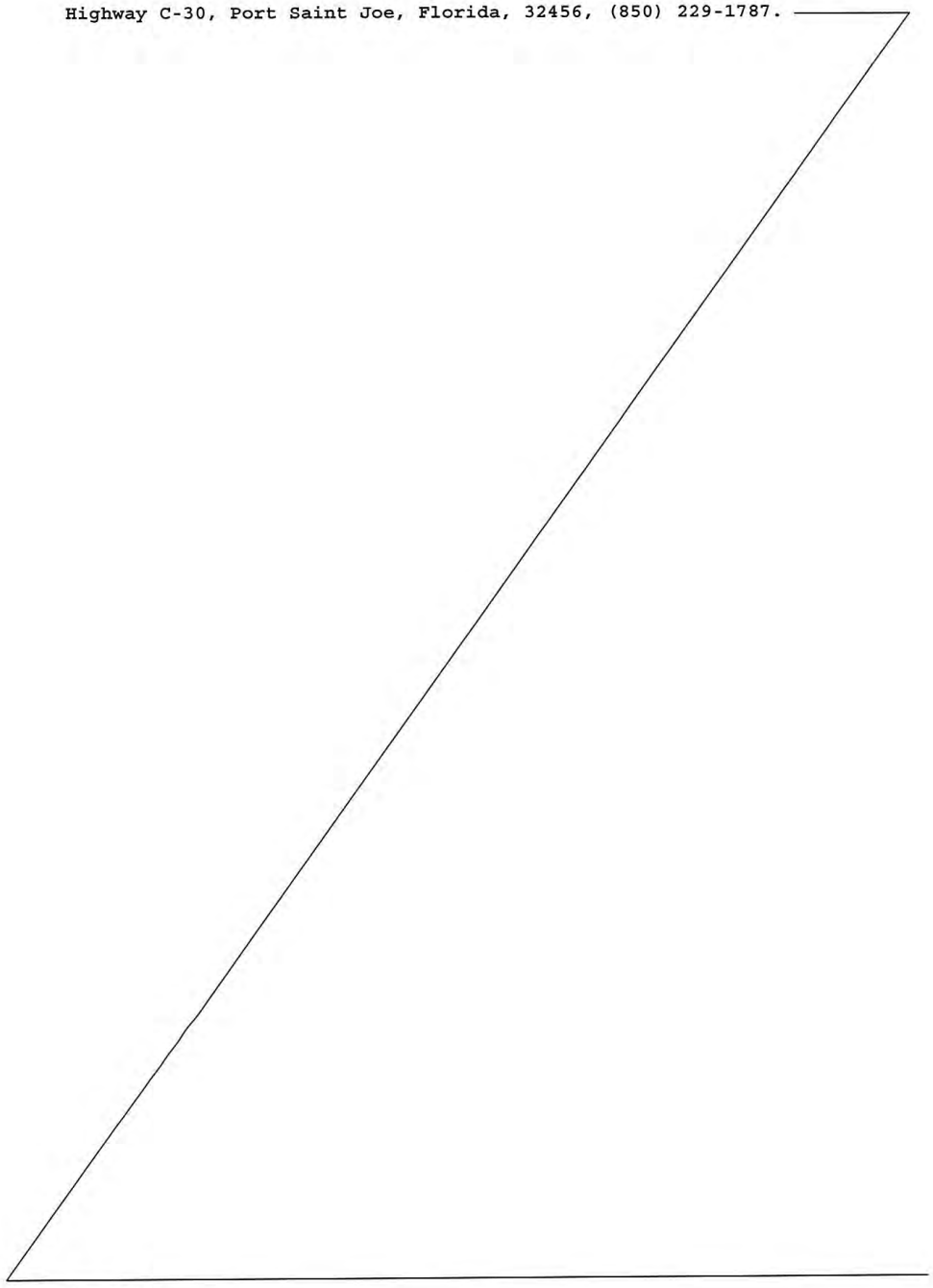
37. GOVERNING LAW: This sublease shall be governed by and interpreted according to the laws of the State of Florida.

38. SECTION CAPTIONS: Articles, subsections and other captions contained in this sublease are for reference purposes only and are in no way intended to describe, interpret, define or limit the scope, extent or intent of this sublease or any provisions thereof.

39. ADMINISTRATIVE FEE: SUBLESSEE shall pay TRUSTEES an annual administrative fee of $300 pursuant to subsection 18-2.020(8), Florida Administrative Code. The initial annual administrative fee shall be payable within thirty days from the date of execution of this sublease agreement and shall be prorated based on the number of months or fraction thereof remaining in the fiscal year of execution. For purposes of this sublease agreement, the fiscal year shall be the period extending from July 1 to June 30. Each annual payment thereafter shall be due and payable on July 1 of each subsequent year.

40. SPECIAL CONDITION: The following special condition shall apply to this sublease.

a. Within twelve (12) months of execution of this sublease, SUBLESSEE shall maintain a monitoring log of the activities on the subleased premises, from the date of commencement of construction of the public parking area and restroom facility until construction is completed. SUBLESSEE shall submit monthly updates to the mandatory monitoring log to the Buffer Preserve Manager of the St. Joseph Bay State Buffer Preserve, at 319 Highway C-30, Port Saint Joe, Florida, 32456, (850) 229-1787.



IN WITNESS WHEREOF, the parties have caused this sublease to be executed on the day and year first above written.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF COASTAL AND AQUATIC MANAGED AREAS

By: _____
~~Larry Nall~~, Acting Director
Carla Gaskin

_____
Witness
Kristin Lock
Print/Type Witness Name

_____
Witness
Pamela Phillips
Print/Type Witness Name

"SUBLESSOR"

STATE OF FLORIDA
COUNTY OF LEON

The foregoing instrument was acknowledged before me this 21st day of October 2011, by ~~Larry Nall~~ Carla Gaskin, as Acting Director, Office of Coastal and Aquatic Managed Areas, Florida Department of Environmental Protection. He is personally known to me or who produced _____ as identification.

_____
Notary Public, State of Florida
KeKai A. Case

_____
Print/Type Notary Name

Commission Number:

Commission Expires:

KeKai A. Case
Commission # DD 897909
Expires September 4, 2013
Bonded Thru Troy Fein Insurance 800-385-7019

GULF COUNTY, FLORIDA
By its Board of County Commissioners

By: _____
Warren Yeager, Jr., Chairman

(OFFICIAL SEAL)

Attest: _____
Rebecca L. Norris
Print/Type Name

Title: Clerk of Court

"SUBLESSEE"

Witness
Kari Summers
Print/Type Witness Name

Witness
Lynn Lanier
Print/Type Witness Name

STATE OF FLORIDA
COUNTY OF Gulf

The foregoing instrument was acknowledged before me this 11th day of October 2011, by Warren Yeager, Jr., as Chairman, and Rebecca L. Norris as Clerk, on behalf of the Board of County Commissioners of Gulf County, Florida. They are personally known to me.

TOWAN KOPINSKY
MY COMMISSION EXPIRES
July 29, 2013
#DD 898795
Bonded thru Notary Public Underwriters
NOTARY PUBLIC, STATE OF FLORIDA

Towan Kopinsky
Notary Public, State of Florida

Towan Kopinsky
Print/Type Notary Name

Commission Number: DD 898795

Commission Expires: 7/29/13

Consented to by the TRUSTEES on 25th day of October, 2011.

Gloria C. Barber
Gloria C. Barber, Operations and Management Consultant Manager
Bureau of Public Land Administration
Division of State Lands, State of Florida Department of Environmental Protection

Approved as to Form and Legality

By: _____
DEP Attorney

EXHIBIT "A"

PARKING AND ACCESS AREA

COMMENCE AT NORTHWEST CORNER OF SECTION 20, TOWNSHIP 9 SOUTH, RANGE 11 WEST IN GULF COUNTY, FLORIDA AND RUN THENCE S88°41'46"E ALONG THE NORTH BOUNDARY LINE OF SAID SECTION 20 FOR A DISTANCE OF 1318.64 FEET; THENCE S01°14'23"W 1721.53 FEET; THENCE S88°45'37"E 10.62 FEET; THENCE S00°54'22"W 308.00 FEET; THENCE S18°38'08"E 17.53 FEET TO THE POINT OF BEGINNING. FROM SAID POINT OF BEGINNING RUN S34°52'19"W 31.52 FEET; THENCE S55°07'41"E 21.70 FEET; THENCE S34°52'19"W 126.59 FEET; THENCE S30°39'27"W 72.74 FEET; THENCE S41°08'38"W 6.39 FEET TO A POINT ON THE NORTHEASTERLY RIGHT OF WAY OF STATE ROAD 30-E, CAPE SAN BLAS ROAD (100 FOOT RIGHT OF WAY), SAID POINT LYING ON A CURVE CONCAVE TO THE SOUTHWESTERLY; THENCE SOUTHEASTERLY ALONG SAID RIGHT OF WAY AND SAID CURVE WITH A RADIUS OF 1960.08 FEET, THROUGH A CENTRAL ANGLE OF 00°35'26" FOR AN ARC DISTANCE OF 20.20 FEET, THE CHORD OF SAID ARC BEING S21°52'38"E 20.20 FEET; THENCE N41°08'38"E 17.20 FEET; THENCE N30°39'27"E 73.73 FEET; N34°52'19"E 101.01 FEET; THENCE N79°52'19"E 35.25 FEET; THENCE N34°52'19"E 61.37 FEET; THENCE N55°07'41"W 20.00 FEET TO A POINT ON A CURVE CONCAVE TO THE NORTHWESTERLY; THENCE NORTHEASTERLY ALONG SAID CURVE WITH A RADIUS OF 150.00 FEET, THROUGH A CENTRAL ANGLE OF 29°38'22" FOR AN ARC DISTANCE OF 77.60 FEET (THE CHORD OF SAID ARC BEING N22°03'11"E 76.73 FEET) TO A POINT OF REVERSE CURVE; THENCE NORTHEASTERLY ALONG SAID CURVE WITH A RADIUS OF 100.00 FEET, THROUGH A CENTRAL ANGLE OF 06°30'27" FOR AN ARC DISTANCE OF 11.36 FEET (THE CHORD OF SAID ARC BEING N10°29'13"E 11.35 FEET); THENCE N41°55'26"W 17.28 FEET; THENCE S23°56'59"W 19.92 FEET; THENCE N33°12'42"W 21.32 FEET; THENCE N81°52'47"W 9.71 FEET; THENCE S61°57'27"W 23.35 FEET; THENCE S17°07'24"W 37.32 FEET; THENCE S02°39'59"E 29.53 FEET; THENCE S55°39'12"E 15.81 FEET; THENCE S01°50'14"E 10.58 FEET; N88°54'37"W 26.81 FEET TO THE POINT OF BEGINNING, CONTAINING 0.29 ACRES MORE OR LESS.

4,000 SQUARE FOOT PARCEL

COMMENCE AT THE NORTHWEST CORNER OF SECTION 20, TOWNSHIP 9 SOUTH, RANGE 11 WEST IN GULF COUNTY, FLORIDA AND RUN THENCE S88°41'46"E ALONG THE NORTH BOUNDARY LINE OF SAID SECTION 20 FOR A DISTANCE OF 1318.64 FEET; THENCE S01°14'23"W 1721.53 FEET; THENCE S88°45'37"E 10.62 FEET; THENCE S00°54'22"W 228.84 FEET TO THE POINT OF BEGINNING. FROM SAID POINT OF BEGINNING RUN N21°37'19"E 20.31 FEET; THENCE N62°17'41"E 17.03 FEET; THENCE S85°39'13"E 31.50 FEET; THENCE S41°55'26"E 35.01 FEET; THENCE S23°56'59"W 19.92 FEET; THENCE N33°12'42"W 21.32 FEET; THENCE N81°52'47"W 9.71 FEET; THENCE S61°57'27"W 23.35 FEET; THENCE S17°07'24"W 37.32 FEET; THENCE S02°39'59"E 29.53 FEET; THENCE S55°39'12"E 15.81 FEET; THENCE S01°50'14"E 10.58 FEET; THENCE N88°54'37"W 26.81 FEET; THENCE N18°38'08"W 17.53 FEET; THENCE N00°54'27"E 79.16 FEET TO THE POINT OF BEGINNING, CONTAINING 4,000 SQUARE FEET MORE OR LESS.

BSM APPROVED
By _____ Date 8-16-11

SAL8101

EXHIBIT "B"

701.95 Treasure shares unlimited

BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA

LEASE AGREEMENT
ST. JOSEPH BAY STATE BUFFER PRESERVE

Lease No. 4119

This lease is made and entered into this 29th day of March 1996, between the BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA, hereinafter referred to as "LESSOR", and the STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, DIVISION OF MARINE RESOURCES, hereinafter referred to as "LESSEE".

WITNESSETH:

WHEREAS, the BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA holds fee title to certain lands and property being utilized by the State of Florida for public purposes, and

WHEREAS, the BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA is authorized in Section 253.03, Florida Statutes, to enter into leases for the use, benefit and possession of public lands by state agencies which may properly use and possess them for the benefit of the people of the State of Florida.

NOW, THEREFORE, for and in consideration of the mutual covenants and agreements hereinafter contained, LESSOR leases the below described premises to LESSEE subject to the following terms and conditions:

1. DELEGATIONS OF AUTHORITY: LESSOR'S responsibilities and obligations herein shall be exercised by the Division of State Lands, Department of Environmental Protection.

2. DESCRIPTION OF PREMISES: The property subject to this lease, is situated in the County of Gulf, State of Florida and is more particularly described in Exhibit A attached hereto and hereinafter referred to as the "leased premises".

3. TERM: The term of this lease shall be for a period of

fifty (50) years, commencing on March 29, 1996 and ending on March 28, 2046, unless sooner terminated pursuant to the provisions of this lease.

4. PURPOSE: LESSEE shall manage the leased premises only as a state buffer preserve, along with other related uses necessary for the accomplishment of this purpose as designated in the Management Plan required by paragraph 7 of this lease.

5. QUIET ENJOYMENT AND RIGHT OF USE: LESSEE shall have the right of ingress and egress to, from, and upon the leased premises for all purposes necessary to the full quiet enjoyment by said LESSEE of the rights conveyed herein.

6. UNAUTHORIZED USE: LESSEE shall, through its agents and employees, prevent the unauthorized use of the leased premises or any use thereof not in conformance with this lease.

7. MANAGEMENT PLAN: LESSEE shall prepare and submit a Management Plan for the leased premises, in accordance with Section 253.034, Florida Statutes, and Chapters 18-2 and 18-4, Florida Administrative Code, within 12 months of the effective date of this lease. The Management Plan shall be submitted to LESSOR for approval through the Division of State Lands, Bureau of Land Management Services, Department of Environmental Protection, Mail Station 130. The leased premises shall not be developed or physically altered in any way other than what is necessary for security and maintenance of the leased premises without the prior written approval of LESSOR until the Management Plan is approved. The Management Plan shall emphasize the original management concept as approved by LESSOR on the effective date of this lease which established the primary public purpose for which the leased premises are to be managed. The approved Management Plan shall provide the basic guidance for all management activities and shall be reviewed jointly by LESSEE and LESSOR at least every five (5) years. LESSEE shall not use or alter the leased premises except as provided for in the approved Management Plan without the prior written approval of LESSOR. The Management Plan prepared under this lease shall identify

management strategies for exotic species, if present. The introduction of exotic species is prohibited, except when specifically authorized by the approved Management Plan.

8. RIGHT OF INSPECTION: LESSOR or its duly authorized agents shall have the right at any and all times to inspect the leased premises and the works and operations thereon of LESSEE, in any matter pertaining to this lease.

9. INSURANCE REQUIREMENTS: LESSEE shall procure and maintain adequate fire and extended risk insurance coverage for any improvements or structures located on the leased premises in amounts not less than the full insurable replacement value of such improvements by preparing and delivering to the Division of Risk Management, Department of Insurance, a completed Florida Fire Insurance Trust Fund Coverage Request Form immediately upon erection of any structures as allowed by paragraph 4 of this lease. A copy of said form and immediate notification in writing of any erection or removal of structures or other improvements on the leased premises and any changes affecting the value of the improvements shall be submitted to the following: Bureau of Land Management Services, Division of State Lands, Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 130, Tallahassee, Florida 32399.

10. LIABILITY: LESSEE shall assist in the investigation of injury or damage claims either for or against LESSOR or the State of Florida pertaining to LESSEE'S respective areas of responsibility under this lease or arising out of LESSEE'S respective management programs or activities and shall contact LESSOR regarding the legal action deemed appropriate to remedy such damage or claims. LESSEE is responsible for all personal injury and property damage attributable to the negligent acts or omissions of LESSEE and its officers, employees and agents.

11. ARCHAEOLOGICAL AND HISTORIC SITES: Execution of this lease in no way affects any of the parties' obligations pursuant to Chapter 267, Florida Statutes. The collection of artifacts or the disturbance of archaeological and historic sites on state-owned lands is prohibited unless prior authorization has been

obtained from the Division of Historical Resources of the Department of State. The Management Plan prepared pursuant to Section 253.034, Florida Statutes, shall be reviewed by the Division of Historical Resources to insure that adequate measures have been planned to locate, identify, protect and preserve the archaeological and historic sites and properties on the leased premises.

12. EASEMENTS: All easements including, but not limited to, utility easements are expressly prohibited without the prior written approval of LESSOR. Any easements not approved in writing by LESSOR shall be void and without legal effect.

13. SUBLEASES: This lease is for the purposes specified herein and subleases of any nature are prohibited, without the prior written approval of LESSOR. Any sublease not approved in writing by LESSOR shall be void and without legal effect.

14. SURRENDER OF PREMISES: Upon expiration or termination of this lease, LESSEE shall surrender the leased premises, to LESSOR. In the event no further use of the leased premises or any part thereof is needed, LESSEE shall give written notification to the Bureau of Land Management Services, Division of State Lands, Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 130, Tallahassee, Florida 32399, at least six (6) months prior to the release of any or all of the leased premises. Notification shall include a legal description, this lease number and an explanation of the release. The release shall only be valid if approved by LESSOR through execution of a release of lease instrument with the same formality as this lease. Upon release of all or any part of the leased premises or upon expiration or termination of this lease, all improvements, including both physical structures and modifications to the leased premises, shall become the property of LESSOR, unless LESSOR gives written notice to LESSEE to remove any or all such improvements at the expense of LESSEE. The decision to retain any improvements upon termination of this lease shall be at LESSOR'S sole discretion. Prior to surrender of all or any part of the leased premises, a representative of

the Division of State Lands, Department of Environmental Protection, shall perform an on-site inspection and the keys to any buildings on the leased premises shall be turned over to the Division of State Lands. If the leased premises do not meet all conditions as set forth in paragraphs 18 and 21 herein, LESSEE shall, at its expense, pay all cost necessary to meet the prescribed conditions.

15. BEST MANAGEMENT PRACTICES: LESSEE shall implement applicable Best Management Practices for all activities conducted under this lease in compliance with paragraph 18-2.004(1)(d), Florida Administrative Code, which have been selected, developed, or approved by LESSOR or other land managing agencies for the protection and enhancement of the leased premises.

16. PUBLIC LANDS ARTHROPOD CONTROL PLAN: LESSEE shall identify and subsequently designate to the respective arthropod control district or districts within one year of the effective date of this lease all of the environmentally sensitive and biologically highly productive lands contained within the leased premises, in accordance with Section 388.4111, Florida Statutes and Chapter 5E-13, Florida Administrative Code, for the purpose of obtaining a public lands arthropod control plan for such lands.

17. MINERAL RIGHTS: This lease does not cover petroleum or petroleum products or minerals and does not give the right to LESSEE to drill for or develop the same, and LESSOR specifically reserves the right to lease the leased premises for purposes of exploring and recovering oil and minerals by whatever means appropriate; provided, however, that LESSEE shall be fully compensated for any and all damages that might result to the leasehold interest of LESSEE by reason of such exploration and recovery operations.

18. UTILITY FEES: LESSEE shall be responsible for the payment of all charges for the furnishing of gas, electricity, water and other public utilities to the leased premises and for having all utilities turned off when the leased premises are surrendered.

19. ASSIGNMENT: This lease shall not be assigned in whole or in part without the prior written consent of LESSOR. Any assignment made either in whole or in part without the prior written consent of LESSOR shall be void and without legal effect.

20. PLACEMENT AND REMOVAL OF IMPROVEMENTS: All buildings, structures, improvements, and signs shall be constructed at the expense of LESSEE in accordance with plans prepared by professional designers and shall require the prior written approval of LESSOR as to purpose location, and design. Further, no trees, other than non-native species, shall be removed or major land alterations done without the prior written approval of LESSOR. Removable equipment and removable improvements placed on the leased premises by LESSEE and which do not become a permanent part of the leased premises will remain the property of LESSEE and may be removed by LESSEE upon termination of this lease.

21. MAINTENANCE OF IMPROVEMENTS: LESSEE shall maintain the real property contained within the leased premises and any improvements located thereon, in a state of good condition working order and repair including, but not limited to, maintaining the planned improvements as set forth in the approved Management Plan, meeting all building and safety codes in the location situated, keeping the leased premises free of trash or litter and maintaining any and all existing roads, canals, ditches, culverts, risers and the like in as good condition as the same may be on the effective date of this lease.

22. ENTIRE UNDERSTANDING: This lease sets forth the entire understanding between the parties and shall only be amended with the prior written approval of LESSOR.

23. BREACH OF COVENANTS, TERMS, OR CONDITIONS: Should LESSEE breach any of the covenants, terms, or conditions of this lease, LESSOR shall give written notice to LESSEE to remedy such breach within sixty (60) days of such notice. In the event LESSEE fails to remedy the breach to the satisfaction of LESSOR within sixty (60) days of receipt of written notice, LESSOR may either terminate and recover from LESSEE all damages LESSOR may incur by reason of the breach including, but not limited to, the

cost of recovering the leased premises or maintain this lease in full force and effect and exercise all rights and remedies herein conferred upon LESSOR.

24. NO WAIVER OF BREACH: The failure of LESSOR to insist in any one or more instances upon strict performance of any one or more of the covenants, terms and conditions of this lease shall not be construed as a waiver of such covenants, terms and conditions, but the same shall continue in full force and effect, and no waiver of LESSOR of any one of the provisions hereof shall in any event be deemed to have been made unless the waiver is set forth in writing, signed by LESSOR.

25. PROHIBITIONS AGAINST LIENS OR OTHER ENCUMBRANCES: Fee title to the leased premises is held by LESSOR. LESSEE shall not do or permit anything to be done which purports to create a lien or encumbrance of any nature against the real property contained in the leased premises including, but not limited to, mortgages or construction liens against the leased premises or against any interest of LESSOR therein.

26. CONDITIONS AND COVENANTS: All of the provisions of this lease shall be deemed covenants running with the land included in the leased premises, and construed to be "conditions" as well as "covenants" as though the words specifically expressing or imparting covenants and conditions were used in each separate provision.

27. DAMAGE TO THE PREMISES: (A) LESSEE shall not do, or suffer to be done, in, on or upon the leased premises or as affecting said leased premises or adjacent properties, any act which may result in damage or depreciation of value to the leased premises or adjacent properties, or any part thereof. (B) Lessee shall not generate, store, produce, place, treat, release or discharge any contaminants, pollutants or pollution, including, but not limited to, hazardous or toxic substances, chemicals or other agents on, into, or from the leased premises or any adjacent lands or waters in any manner not permitted by law. For the purposes of this lease, "hazardous substances" shall mean and include those elements or compounds defined in 42 U.S.C. Section

9601 or which are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency (EPA) and the list of toxic pollutants designated by the United States Congress or the EPA or defined by any other federal, state or local statute, law, ordinance, code, rule, regulation, order or decree regulating, relating to, or imposing liability or standards of conduct concerning any hazardous, toxic or dangerous waste, substance, material, pollutant or contaminant. "Pollutants" and "pollution" shall mean those products or substances defined in Chapters 376 and 403, Florida Statutes and the rules promulgated thereunder, all as amended or updated from time to time. In the event of LESSEE's failure to comply with this paragraph, LESSEE shall, at its sole cost and expense, promptly commence and diligently pursue any legally required closure, investigation, assessment, cleanup, decontamination, remediation, restoration and monitoring of (1) the leased premises, and (2) all off-site ground and surface waters and lands affected by LESSEE's such failure to comply, as may be necessary to bring the leased premises and affected off-site waters and lands into full compliance with all applicable federal, state or local statutes, laws, ordinances, codes, rules, regulations, orders and decrees, and to restore the damaged property to the condition existing immediately prior to the occurrence which caused the damage. LESSEE's obligations set forth in this paragraph shall survive the termination or expiration of this lease. Nothing herein shall relieve LESSEE of any responsibility or liability prescribed by law for fines, penalties and damages levied by governmental agencies, and the cost of cleaning up any contamination caused directly or indirectly by LESSEE's activities or facilities. Upon discovery of a release of a hazardous substance or pollutant, or any other violation of local, state or federal law, ordinance, code, rule, regulation, order or decree relating to the generation, storage, production, placement, treatment, release or discharge of any contaminant, LESSEE shall report such violation to all applicable governmental agencies having jurisdiction, and to LESSOR, all

within the reporting periods of the applicable governmental agencies.

28. PAYMENT OF TAXES AND ASSESSMENTS: LESSEE shall assume full responsibility for and shall pay all liabilities that accrue to the leased premises or to the improvements thereon, including any and all drainage and special assessments or taxes of every kind and all mechanic's or materialman's liens which may be hereafter lawfully assessed and levied against the leased premises.

29. RIGHT OF AUDIT: LESSEE shall make available to LESSOR all financial and other records relating to this lease and LESSOR shall have the right to audit such records at any reasonable time. This right shall be continuous until this lease expires or is terminated. This lease may be terminated by LESSOR should LESSEE fail to allow public access to all documents, papers, letters or other materials made or received in conjunction with this lease, pursuant to Chapter 119, Florida Statutes.

30. NON-DISCRIMINATION: LESSEE shall not discriminate against any individual because of that individual's race, color, religion, sex, national origin, age, handicaps, or marital status with respect to any activity occurring within the leased premises or upon lands adjacent to and used as an adjunct of the leased premises.

31. COMPLIANCE WITH LAWS: LESSEE agrees that this lease is contingent upon and subject to LESSEE obtaining all applicable permits and complying with all applicable permits, regulations, ordinances, rules, and laws of the State of Florida or the United States or of any political subdivision or agency of either.

32. TIME: Time is expressly declared to be of the essence of this lease.

33. GOVERNING LAW: This lease shall be governed by and interpreted according to the laws of the State of Florida.

34. SECTION CAPTIONS: Articles, subsections and other captions contained in this lease are for reference purposes only and are in no way intended to describe, interpret, define or

limit the scope, extent or intent of this lease or any provisions thereof.

35. ADMINISTRATIVE FEE: LESSEE shall pay LESSOR an annual administrative fee of $300.00. The initial annual administrative fee shall be payable within 30 days from the date of execution of this lease agreement and shall be prorated based on the number of months or fraction thereof remaining in the fiscal year of execution. For purposes of this lease agreement, the fiscal year shall be the period extending from July 1 to June 30. Each annual payment thereafter shall be due and payable on July 1 of each subsequent year.

IN WITNESS WHEREOF, the parties have caused this lease to be executed on the day and year first above written.

BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA

Witness

CASSANDRE BAZELAIS
Print/Type Witness Name

Witness

HALLIE F. SUBER
Print/Type Witness Name

By: _____ (SEAL)
CHIEF, BUREAU OF LAND MANAGEMENT SERVICES, DIVISION OF STATE LANDS, DEPARTMENT OF ENVIRONMENTAL PROTECTION

"LESSOR"

STATE OF FLORIDA
COUNTY OF LEON

The foregoing instrument was acknowledged before me this 29th day of March 1996, by Daniel T. Crabb, as Chief, Bureau of Land Management Services, Division of State Lands, Department of Environmental Protection, as agent for and on behalf of the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida. He is personally known to me.

Notary Public, State of Florida

(SEAL)

Print/Type Notary Name

OFFICIAL NOTARY SEAL
PATRICIA TOLODAY
NOTARY PUBLIC STATE OF FLORIDA
COMMISSION NO. CC191699
MY COMMISSION EXP. APR. 18,1996

Commission Number:

My Commission Expires:

Approved as to Form and Legality

By: _____
DEP Attorney

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, DIVISION OF MARINE RESOURCES

By: _____ (SEAL)

Edwin J. Conklin
Print/Type Name

Title: Director

"LESSEE"

Hazel H. Jones
Witness

HAZEL H. JONES
Print/Type Witness Name

Maria E. Shiver
Witness

MARIA E. SHIVER
Print/Type Witness Name

STATE OF FLORIDA
COUNTY OF LEON

The foregoing instrument was acknowledged before me this 19th day of March 1996, by Edwin J. Conklin, as Director of the Division of Marine Resources, State of Florida Department of Environmental Protection. He/she is personally known to me or who has produced (personally known) as identification.

Evelyn Kathleen Ethridge
Notary Public, State of Florida

(SEAL)

EVELYN KATHLEEN ETHRIDGE
MY COMMISSION # CC257104 EXPIRES
February 3, 1997
BONDED THRU TROY FAIN INSURANCE, INC.

Evelyn Kathleen Ethridge
Print/Type Notary Name

Commission Number: CC257104

My Commission Expires: February 3, 1997

This instrument prepared By and
Please Return To:

Martin R. Dix, Esquire
Katz, Kutter, Haigler, et al.
Post Office Box 1877
Tallahassee, Florida 32302-1877

SI FILED AND RECORDED
DATE 11/02/95 TIME 17:09 E

BENNY LISTER CLERK
CO:GULF ST:FL

DOC STAMPS 14,177.10
INTANG TAX .00

RECORD VERIFIED
BY _____ DC

FL 953301 B 183 P 946
CO:GULF ST:FL

WARRANTY DEED
(STATUTORY FORM - SECTION 689.02, F.S.)

THIS INDENTURE, made this 27th day of October, A.D. 1995, between TREASURE SHORES LIMITED, a Florida limited partnership, of the County of Bay in the State of Florida, grantor, and the BOARD OF TRUSTEES OF TEE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA, whose post office address is c/o Florida Department of Environmental Protection, Division of State Lands, 3900 Commonwealth Boulevard, Mail Station 115, Tallahassee, FL 32399-3000, grantee,

(Wherever used herein the terms "grantor" and "grantee" include all the parties to this instrument and their heirs, legal representatives, successors and assigns. "Grantor" and "grantee" are used for singular and plural, as the context requires and the use of any gender shall include all genders.)

WITNESSETH: That the said grantor, for and in consideration of the sum of Ten Dollars and other good and valuable considerations, to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained and sold to the said grantee, and grantee's successors and assigns forever, the following described land situate, lying and being in Gulf County, Florida, with all riparian and littoral rights appertaining thereto to-wit:

See Exhibit "A" attached hereto and by reference made a part hereof.

Property Appraiser's Parcel Identification Number: 06265-000R, 06271-000R, 06272-000R, 06277-000R, 06265-100R, 06267-000R, 06274-100R

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This conveyance is subject to easements, restrictions, limitations and conditions of record if any now exist, but any such interests that may have been terminated are not hereby re-imposed.

Reserving unto Grantor a 60' wide non-exclusive easement for access, ingress, and egress (the "Easement") to and from property retained by the Grantor and situated easterly and adjacent to the property described in Exhibit "A". The Easement shall be used solely for private recreational and emergency purposes by Grantor and shall be maintained by Grantor at Grantor's sole cost and expense as an unpaved roadway. In the event the Easement is used by Grantor for purposes other than as stated herein, it shall automatically terminate and Grantor shall have no further rights hereunder. The Easement is more particularly described in Exhibit "B" attached hereto.

AND the said grantor does hereby fully warrant the title to said land, and will defend the same against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF the grantor has hereunto set grantor's hand and seal, the day and year first above written.

SELLER

Signed, sealed and delivered in the presence of:

TREASURE SHORES LIMITED, a Florida limited partnership
7911 Thomas Drive, Suite 2
Panama City, Florida 32408

CIRCUIT COURT SIGILLUM CUIQUE GULF COUNTY, FLORIDA

Kristen M Williams
(SIGNATURE OF FIRST WITNESS)

William C. Grimsley
WILLIAM C. GRIMSLEY, JR., as President of Treasure Shores Corp., sole general partner of Treasure Shores Limited, a Florida limited partnership

KRISTEN M. WILLIAMS
(PRINT NAME OF FIRST WITNESS)

(Corporate Seal)

FL 953301 B 183 P 947
CO:GULF ST:FL

(SIGNATURE OF SECOND WITNESS)

Donald R. Crisp
(PRINT NAME OF SECOND WITNESS)

FL 953301 B 183 P 948
CO:GULF ST:FL

STATE OF FLORIDA)

COUNTY OF BAY)

The foregoing instrument was acknowledged before me this 27th day of October, 1995, by WILLIAM C. GRIMSLEY, JR., as President of Treasure Shores Corp., sole general partner of Treasure Shores Limited, a Florida limited partnership. Such person (Notary Public must check applicable box):

[X] is personally known to me.
[ ] produced a current driver license.
[ ] produced _____ as identification.

(NOTARY PUBLIC SEAL)

Notary Public

Donald R. Crisp
(Printed, Typed of Stamped Name of Notary Public)

Commission No.: _____

My Commission Expires: _____

DONALD R. CRISP
My Comm Exp. 3/30/97
Bonded By Service Ins
No. CC267131

[ ] Personally Known [ ] Other I.D.

APPROVED AS TO FORM AND LEGALITY
By: _____
DEP Attorney
Date: 11-8-95

EXHIBIT "A"

FL 953301 B 183 P 949
CO:GULF ST:FL

All of the lands described in Official Records Book 113, Page 95; Official Records Book 88, Page 349; Official Records Book 123, Page 251; Official Records Book 123, Page 253 and Official Records Book 120, Page 89, all of the Public Records of Gulf County, Florida, lying South of the North line of the South Half of Sections 1 and 2, Township 9 South, Range 11 West, Gulf County, Florida, lying North of the South line of Section 14, Township 9 South, Range 11 West, and lying North and West of the following described line: Beginning at the Point of Intersection of the South line of Section 14, Township 9 South, Range 11 West, Gulf County, Florida, with the Easterly right-of-way line of County Road No. 30, the right-of-way being 66.00 feet in width; thence Northerly along the arc of a curve to the left, said curve having a radius of 1438.22 feet, a central angle of 26 degrees 17 minutes 41 seconds for a distance of 660.05 feet, said arc having a chord bearing and distance of North 03 degrees 02 minutes 38 seconds East, 654.27 feet; thence leaving said right-of-way line of County Road No. 30, North 84 degrees 04 minutes 20 seconds East, 115.72 feet to an iron road; thence North 41 degrees 09 minutes 50 seconds East, 303.38 feet to an iron rod; thence North 27 degrees 41 minutes 20 seconds East, 395.41 feet to an iron rod; thence North 24 degrees 19 minutes 50 seconds East, 403.34 feet to an iron rod; thence North 24 degrees 31 minutes 05 seconds East, 533.34 feet to an iron rod; thence North 68 degrees 36 minutes 00 seconds East, 116.59 feet to an iron rod; thence North 42 degrees 13 minutes 50 seconds East, 682.92 feet to an iron rod; thence North 39 degrees 44 minutes 15 seconds East, 341.07 feet to an iron rod; thence North 48 degrees 27 minutes 05 seconds East, 247.88 feet to an iron rod; thence North 25 degrees 18 minutes 20 seconds East, 108.45 feet to an iron rod; thence North 08 degrees 56 minutes 20 seconds East, 227.96 feet to an iron rod; thence North 13 degrees 38 minutes 00 seconds East, 210.94 feet to an iron rod; thence North 08 degrees 02 minutes 20 seconds East, 307.86 feet to an iron rod; thence North 26 degrees 14 minutes 00 seconds East, 155.30 feet to an iron rod; thence North 32 degrees 40 minutes 00 seconds East, 90.36 feet to an iron rod; thence North 18 degrees 47 minutes 30 seconds East, 268.25 feet to an iron rod; thence North 17 degrees 14 minutes 30 seconds East, 250.33 feet to an iron rod; thence North 02 degrees 09 minutes 25 seconds East, 148.31 feet to an iron rod; thence North 17 degrees 09 minutes 25 seconds East, 76.29 feet to an iron rod; thence North 31 degrees 55 minutes 10 seconds East, 56.71 feet to an iron rod; thence North 06 degrees 25 minutes 35 seconds East, 341.14 feet to an iron rod; thence North 25 degrees 19 minutes 15 seconds East, 193.73 feet to an iron rod; thence North 29 degrees 27 minutes 00 seconds East, 543.70 feet to an iron rod; thence North 31 degrees 30 minutes 00 seconds East, 217.23 feet to an iron rod; thence North 04 degrees 23 minutes 00 seconds East, 328.26 feet to an iron rod; thence North 81 degrees

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58 minutes 45 seconds West, 237.92 feet to an iron rod; thence North 23 degrees 44 minutes 55 seconds East, 279.04 feet to an iron rod; thence North 25 degrees 54 minutes 15 seconds East, 652.43 feet to an iron rod; thence North 28 degrees 34 minutes 55 seconds East, 218.45 feet to an iron rod; thence North 22 degrees 46 minutes 55 seconds East, 271.82 feet to an iron rod; thence North 23 degrees 50 minutes 55 seconds East, 1295.41 feet; thence North 49 degrees 12 minutes 13 seconds West, 226.07 feet; thence North 17 degrees 58 minutes 20 seconds East, 1138.99 feet to an iron rod; thence North 17 degrees 49 minutes 20 seconds East, 1189.68 feet to an iron rod; thence North 17 degrees 50 minutes 05 seconds East, 1014.87 feet to an iron rod; thence North 18 degrees 10 minutes 10 seconds East, 987.07 feet to an iron rod on the North line of South Half of said Section 1, Township 9 South, Range 11 West, Gulf County, Florida said point being the Point of Termination of this line.

LESS AND EXCEPT THEREFROM THE FOLLOWING DESCRIBED TWELVE PARCELS:

PARCEL 1:
Treasure Bay, Unit II, an Unrecorded Subdivision, described as follows: Commence at a concrete monument marking the Northeast Corner of Lot 1, Block "A", , Treasure Bay Unit I, as per plat thereof, recorded in Plat Book 3, Page 32, Public Records of Gulf County, Florida; thence South 15 degrees 27 minutes 30 seconds West, 361.27 feet; thence South 89 degrees 17 minutes 15 seconds East, 68.42 feet to a point on the Easterly right-of-way line of County Road No. 30, said right-of-way being 66.00 feet in width, for the Point of Beginning; thence continue South 89 degrees 17 minutes 15 seconds East, 217.80 feet; thence South 15 degrees 27 minutes 30 seconds West, 827.28 feet; thence North 89 degrees 17 minutes 15 seconds West, 217.80 feet to a point on the said Easterly right-of-way line of said County Road No. 30; thence North 15 degrees 27 minutes 30 seconds East, along said Easterly right-of-way line of said County Road No. 30, 827.28 feet to the Point of Beginning. Said lands located in Section 14, Township 9 South, Range 11 West, Gulf County, Florida.

PARCEL 2:
Treasure Bay, Highway Frontage Lots, an Unrecorded Subdivision, described as follows: Commence at a concrete monument marking the Northeast Corner of Lot 1, Block "A", Treasure Bay Unit I, as per plat thereof recorded in Plat Book 3, Page 32, Public Records of Gulf County, Florida; thence South 15 degrees 27 minutes 30 seconds West, 361.27 feet; thence South 89 degrees 17 minutes 15 seconds East, 68.42 feet to a point on the Easterly right-of-way line of County Road No. 30, the right-of-way being 66.00 feet in width, for the Point of Beginning; thence along said Easterly right-of-way line of said County Road No. 30, North 15 degrees 27 minutes 30 seconds East, 1550.96 feet; thence South 89 degrees 17 minutes 15 seconds East, 217.80 feet; thence South 15 degrees 27 minutes 30 seconds West, 1550.96 feet; thence North 89 degrees 17 minutes 15 seconds West, 217.80 feet to the Point of Beginning.

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Said lands located in Section 14, Township 9 South, Range 11 West, Gulf County, Florida.

PARCEL 3:
Treasure Bay, Unit III, an Unrecorded Subdivision, described as follows: Commence at a concrete monument marking the Northeast Corner of Lot 1, Block "A", Treasure Bay Unit I, as per plat thereof, recorded in Plat Book 3, Page 32, Public Records of Gulf County, Florida; thence South 15 degrees 27 minutes 30 seconds West, 361.27 feet; thence South 89 degrees 17 minutes 15 seconds East, 68.42 feet to a point on the Easterly right-of-way line of County Road No. 30, the right-of-way being 66.00 feet in width; thence North 15 degrees 27 minutes 30 seconds East, along said Easterly right-of-way line of said County Road No. 30, 1550.96 feet for the Point of Beginning; thence continue North 15 degrees 27 minutes 30 seconds East, along said right-of-way line of said County Road No. 30, 517.03 feet; thence South 89 degrees 17 minutes 15 seconds East, 217.80 feet; thence South 15 degrees 27 minutes 30 seconds West, 517.03 feet; thence North 89 degrees 17 minutes 15 seconds West, 217.80 feet to the Point of Beginning. Said lands located in Section 14, Township 9 South, Range 11 West, Gulf County, Florida.

PARCEL 4:
Treasure Bay, Unit IV A, an Unrecorded Subdivision, described as follows: Commence at the point of intersection of the North line of Treasure Bay Unit I, as per plat thereof, recorded in Plat Book 3, Page 32, Public Records of Gulf County, Florida, with the Westerly right-of-way line of County Road No. 30, the right-of-way being 66.00 feet in width; thence North 15 degrees 27 minutes 30 seconds East, along said Westerly right-of-way line of said County Road No. 30, 1121.52 feet for the Point of Beginning; said point also being the point of curvature of a curve concave Northwesterly, said curve having a central angle of 75 degrees 16 minutes 00 seconds and a radius of 25.00 feet; thence Southwesterly along the arc of said curve for 32.84 feet, said arc having a chord bearing and distance of South 53 degrees 05 minutes 30 seconds West, 30.53 feet to the point of tangency of said curve; thence North 89 degrees 16 minutes 30 seconds West, 168.43 feet to the point of curvature of a curve to the right, said curve having a central angle of 104 degrees 44 minutes 00 seconds and a radius of 25.00 feet; thence Northwesterly along the arc of said curve for 45.70 feet, said arc having a chord bearing and distance of North 36 degrees 54 minutes 30 seconds West, 39.60 feet to the point of tangency of said curve; thence North 15 degrees 27 minutes 30 seconds East, 313.66 feet to the point of curvature of a curve to the left, said curve having a radius of 50.00 feet; thence Northwesterly along the arc of said curve through a central angle of 70 degrees 07 minutes 23 seconds for 61.19 feet, said arc having a chord bearing and distance of North 19 degrees 36 minutes 11 seconds West, 57.45 feet; thence leaving said curve, North 15 degrees 27 minutes 30 seconds East, 563.97 feet; thence South 89 degrees 16 minutes 30 seconds East, 254.25 feet to a point on the Westerly right-of-way line of said

County Road No. 30; thence South 15 degrees 27 minutes 30 seconds West, along said Westerly right-of-way line of said County Road No. 30, 946.47 feet to the Point of Beginning. Said lands located in Section 14, Township 9 South, Range 11 West, Gulf County, Florida.

PARCEL 5:
Treasure Bay, Unit IV B, an Unrecorded Subdivision, described as follows: Begin at the point of intersection of the North line of Treasure Bay Unit I, as per plat thereof, recorded in Plat Book 3, Page 32, Public Records of Gulf County, Florida, with the Westerly right-of-way line of County Road No. 30, the right-of-way being 66.00 feet in width; thence North 89 degrees 16 minutes 30 seconds West, along the North line of said Treasure Bay Unit I, for 220.13 feet; thence North 15 degrees 27 minutes 30 seconds East, 1014.72 feet to the point of curvature of a curve to the right, said curve having a central angle of 75 degrees 16 minutes 00 seconds and a radius of 25.00 feet; thence Northeasterly along the arc of said curve for 32.84 feet, said arc having a chord bearing and distance of North 53 degrees 05 minutes 30 seconds East, 30.53 feet to the point of tangency of said curve; thence South 89 degrees 16 minutes 30 seconds East, 168.43 feet to the point of curvature of a curve to the right, said curve having a central angle of 104 degrees 44 minutes 00 seconds and a radius of 25.00 feet; thence Southeasterly along the arc of said curve for 45.70 feet, said arc having a chord bearing and distance of South 36 degrees 54 minutes 30 seconds East, 39.60 feet to the point of tangency of said curve, said point of tangency being on the Westerly right-of-way line of said County Road No. 30; thence South 15 degrees 27 minutes 30 seconds West, along said Westerly right-of-way line of said County Road No. 30, 1001.58 feet to the Point of Beginning. Said lands located in Section 14, Township 9 South, Range 11 West, Gulf County, Florida.

PARCEL 6:
A tract of land located in Fractional Section 14, Township 9 South, Range 11 West, Gulf County, Florida, described as follows: Commence at the point of intersection of the North line of Treasure Bay Unit I, as per plat thereof, recorded in Plat Book 3, Page 32, Public Records of Gulf County, Florida, with the Westerly right-of-way line of County Road No. 30, the right-of-way being 66.00 feet in width; thence North 15 degrees 27 minutes 30 seconds East, along said Westerly right-of-way line of said County Road No. 30, 1001.58 feet for the Point of Beginning, said point also being on the arc of a non-tangent curve concave to the Southwest; thence Northerly, Northwesterly and Westerly along the arc of said curve, having a radius of 25.00 feet, a central angle of 104 degrees 44 minutes 00 seconds, an arc length of 45.70 feet (chord to said curve bears North 36 degrees 54 minutes 30 seconds West, for 39.60 feet); thence tangent to said curve, North 89 degrees 16 minutes 30 seconds West, 168.43 feet to a point of curvature of a curve concave to the Southeast; thence Westerly and Southwesterly along the arc of said curve, having a radius of 25.00 feet, a central angle of 75 degrees 16 minutes 00 seconds,

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an arc length of 32.84 feet (chord to said curve bears South 53 degrees 05 minutes 30 seconds West, for 30.53 feet); thence non-tangent to said curve, North 15 degrees 27 minutes 30 seconds East, 119.94 feet to a point on the arc of a non-tangent curve concave to the Northeast; thence Southeasterly and Easterly along the arc of said curve, having a radius of 25.00 feet, a central angle of 104 degrees 44 minutes 00 seconds, an arc length of 45.70 feet (chord to said curve bears South 36 degrees 54 minutes 30 seconds East, for 39.60 feet); thence tangent to said curve, South 89 degrees 16 minutes 30 seconds East, 168.43 feet to a point of curvature of a curve concave to the Northwest; thence Easterly and Northeasterly along the arc of said curve, having a radius of 25.00 feet, a central angle of 75 degrees 16 minutes 00 seconds, an arc length of 32.84 feet (chord to said curve bears North 53 degrees 05 minutes 30 seconds East, for 30.53 feet) to a point on the Westerly right-of-way line of said County Road No. 30; thence non-tangent to said curve, along said right-of-way line, South 15 degrees 27 minutes 30 seconds West, 119.94 feet to the Point of Beginning.

PARCEL 7:
Treasure Bay, Unit VII, an Unrecorded Subdivision, described as follows: Commence at a concrete monument marking the Northeast Corner of Lot 1, Block "A", Treasure Bay Unit I, as per plat thereof, recorded in Plat Book 3, Page 32, Public Records of Gulf County, Florida; thence South 89 degrees 17 minutes 15 seconds East, 68.42 feet to a point on the Easterly right-of-way line of County Road No. 30, the right-of-way being 66.00 feet in width; thence along said Easterly right-of-way line of said County Road No. 30 as follows: North 15 degrees 27 minutes 30 seconds East, 2581.40 feet to the point of curvature of a curve to the left, said curve having a central angle of 05 degrees 58 minutes 35 seconds and a radius of 3852.83 feet; thence Northeasterly along the arc of said curve for 401.88 feet, said curve having a chord bearing and distance of North 12 degrees 28 minutes 12.5 seconds East, 401.70 feet to the point of tangency of said curve; thence North 09 degrees 28 minutes 55 seconds East, 1810.20 feet for the Point of Beginning; thence continue North 09 degrees 28 minutes 55 seconds East, 1112.98 feet to the point of curvature of a curve to the left, said curve having a radius of 1946.425 feet; and thence Northerly along the arc of said curve through a central angle of 14 degrees 45 minutes 47 seconds for 501.52 feet, said arc having a chord bearing and distance of North 02 degrees 00 minutes 02 seconds East, 500.13 feet; thence leaving said Easterly right-of-way line of said County Road No. 30, South 89 degrees 17 minutes 15 seconds East, 282.82 feet; thence South 09 degrees 28 minutes 55 seconds West, 1618.88 feet; thence North 89 degrees 17 minutes 15 seconds West, 217.81 feet to the Point of Beginning. Said lands lying and being in Section 12, Township 9 South, Range 11 West, Gulf County, Florida.

PARCEL 8:
Treasure Bay, Unit IX, an Unrecorded Subdivision, described as follows: Commence at a St. Joe Paper Company monument marking

the Northwest Corner of the South Half of Section 1, Township 9 South, Range 11 West, Gulf County, Florida; thence North 89 degrees 41 minutes 45 seconds East, along the North line of said South Half of Section 1, Township 9 South, Range 11 West, Gulf County, Florida, a distance of 466.01 feet to an iron rod on the Easterly right-of-way line of County Road No. 30, the right-of-way being 66.00 feet in width, for the Point of Beginning; thence continue North 89 degrees 41 minutes 45 seconds East, along said North line of said South Half for 217.81 feet; thence South 06 degrees 30 minutes 50 seconds West, for 1284.18 feet; thence South 89 degrees 41 minutes 45 seconds West, 217.81 feet to a point on said Easterly right-of-way line of said County Road No. 30; thence North 06 degrees 30 minutes 50 seconds East, along said Easterly right-of-way line of said County Road No. 30 for 1284.18 feet to the Point of Beginning. Said lands located in Section 1, Township 9 South, Range 11 West, Gulf County, Florida.

PARCEL 9:
A portion of Sections 11 and 12, Township 9 South, Range 11 West, Gulf County, Florida described as follows: Begin at a point of intersection of the Westerly right-of-way line of County Road No. 30, the right-of-way being 66.00 feet in width, with the North boundary line of Section 12, Township 9 South, Range 11 West, Gulf County, Florida; and thence go West along the North boundary line of said Section 12 and a Westerly extension thereof to the water's edge of St. Joseph Bay; thence go Southerly along said water's edge of St. Joseph Bay for a distance of 1200 feet; thence departing said water's edge of St. Joseph Bay go East along a line that is parallel to the North boundary line of Section 12, Township 9 South, Range 11 West, Gulf County, Florida to a point on the Westerly right-of-way line of said County Road No. 30; thence go Northerly along said Westerly right-of-way line of said County Road No. 30 to the Point of Beginning. Said parcel of land being in Sections 11 and 12, Township 9 South, Range 11 West, Gulf County, Florida.

PARCEL 10:
Treasure Bay Unit I, as per plat thereof, recorded in Plat Book 3, Page 32, of the Public Records of Gulf County, Florida.

PARCEL 11:
A 66.00 foot wide right-of-way for County Road No. 30.

PARCEL 12:
CATTLE DIP PARCEL
A portion of Section 12, Township 9 South, Range 11 West, Gulf County, Florida, being more particularly described as follows: Commence at a concrete monument marking the Northeast Corner of Lot 1, Block "A", Treasure Bay Unit I, as per plat thereof recorded in Plat Book 3, Page 32, Public Records of Gulf County, Florida; thence South 15 degrees 28 minutes 27 seconds West, 361.27 feet; thence South 89 degrees 22 minutes 14 seconds East, 68.06 feet to a point on the Easterly right of way line of County

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FL 953301 B 183 P 954
CO:GULF ST:FL

Road No. 30, the right of way being 66.00 feet in width; thence along said Easterly right of way line along said County Road No. 30 as follows: North 15 degrees 26 minutes 20 seconds East, 1550.93 feet; thence North 15 degrees 25 minutes 45 seconds East, 517.06 feet; thence North 15 degrees 27 minutes 30 seconds East, 895.38 feet to the point of curvature of a curve to the left, said curve having a central angle of 05 degrees 58 minutes 17 seconds and a radius of 3658.92 feet; thence Northeasterly along the arc of said curve for 381.34 feet, said curve having a chord bearing and distance of North 12 degrees 28 minutes 21 seconds East, 381.16 feet to the point of tangency of said curve; thence North 09 degrees 29 minutes 13 seconds East, 1810.24 feet to an iron rod marking the Southwest Corner of Lot 16 in Treasure Bay Unit Seven, an unrecorded subdivision; thence along the South line of said Lot 16, South 89 degrees 18 minutes 05 seconds East, 217.78 feet; thence South 87 degrees 14 minutes 15 seconds East, 575.57 feet to the Point of Beginning; thence North 03 degrees 49 minutes 31 seconds East, 250.00 feet; thence South 86 degrees 10 minutes 21 seconds East, 220.00 feet; thence South 03 degrees 49 minutes 31 seconds West, 250.00 feet; thence North 86 degrees 10 minutes 21 seconds West, 220.00 feet to the Point of Beginning.

FL 953301 B 183 P 955
CO:GULF ST:FL

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EXHIBIT "B"

EASEMENT FOR INGRESS AND EGRESS

A portion of Section 12, Township 9 South, Range 11 West, Gulf County, Florida, described as follows: Commence at the railroad iron marking the Northeast corner of Section 12, Township 9 South, Range 11 West, Gulf County, Florida; thence along the East line of the Southeast Quarter (SE 1/4) of Section 1, Township 9 South, Range 11 West, Gulf County, Florida North 00 degrees 00 minutes 00 seconds East, 2648.29 feet to a point on the North line of the South Half (S 1/2) of said Section 1; thence along said North line, South 89 degrees 25 minutes 00 seconds West, 1330.38 feet; thence South 18 degrees 10 minutes 10 seconds West, 987.07 feet; thence South 17 degrees 50 minutes 05 seconds West, 1014.87 feet; thence South 17 degrees 49 minutes 20 seconds West, 1189.68 feet; thence South 17 degrees 58 minutes 20 seconds West, 1138.99 feet to the POINT OF BEGINNING; thence South 49 degrees 12 minutes 13 seconds East, 226.07 feet; thence North 64 degrees 35 minutes 41 seconds West, 217.96 feet to a point of curvature of a curve concave to the Northeast; thence Northwesterly along the arc of said curve, having a radius of 961.26 feet, a central angle of 29 degrees 44 minutes 36 seconds, an arc distance of 499.01 feet (chord to said curve bears North 49 degrees 43 minutes 23 seconds West, 493.42 feet); thence North 34 degrees 51 minutes 05 seconds West, 154.57 feet to a point on the arc of a non-tangent curve concave to the Southwest; thence Northwesterly along the arc of said curve, having a radius of 960.68 feet, a central angle of 32 degrees 11 minutes 30 seconds, an arc distance of 539.76 feet (chord to said curve bears North 47 degrees 52 minutes 27 seconds West, 532.69 feet); thence North 63 degrees 49 minutes 28 seconds West, 280.66 feet to a point on the arc of a non-tangent curve concave to the South; thence Northwesterly, Westerly and Southwesterly along the arc of said curve, having a radius of 580.71 feet, a central angle of 60 degrees 32 minutes 29 seconds, an arc distance of 613.60 feet (chord to said curve bears North 86 degrees 48 minutes 16 seconds West, 586.45 feet); thence South 72 degrees 05 minutes 31 seconds West, 436.41 feet to the Easterly right-of-way line of County Road 30, the right-of-way being 66.00 feet in width; thence along said Easterly right-of-way line of said County Road No. 30, North 16 degrees 25 minutes 25 seconds West, 60.02 feet; thence North 72 degrees 05 minutes 31 seconds East, 430.17 feet to a point on the arc of a non-tangent curve concave to the South; thence

Northeasterly, Easterly and Southeasterly along the arc of said curve, having a radius of 640.71 feet, a central angle of 59 degrees 45 minutes 02 seconds, an arc distance of 668.16 feet (chord to said curve bears South 86 degrees 45 minutes 33 seconds East, 638.29 feet); thence South 63 degrees 49 minutes 28 seconds East, 276.85 feet to a point on the arc of a non-tangent curve concave to the Southwest, thence Southeasterly along the arc of

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said curve, having a radius of 1020.68 feet, a central angle of 32 degrees 05 minutes 44 seconds, an arc distance of 571.76 feet (chord to said curve bears South 47 degrees 55 minutes 05 seconds East, 564.31 feet); thence South 34 degrees 51 minutes 05 seconds East, 152.98 feet to a point of curvature of a curve concave to the Northeast; thence Southeasterly along the arc of said curve, having a radius of 901.26 feet, a central angle of 29 degrees 44 minutes 31 seconds, an arc distance of 467.88 feet (chord to said curve bears South 49 degrees 39 minutes 40 seconds East, 462.65 feet) to the POINT OF BEGINNING.

FL 953301 B 183 P 957
CO:GULF ST:FL

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ATS1 [1.237 acres]

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

OFFICE OF COASTAL AND AQUATIC MANAGED AREAS

AMENDMENT NUMBER 001 TO SUBLEASE NUMBER 4119

THIS SUBLEASE AMENDMENT is entered into this 27th day of August, 2014, by and between the STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF COASTAL AND AQUATIC MANAGED AREAS, hereinafter referred to as "SUBLESSOR" and GULF COUNTY, FLORIDA, hereinafter referred to as "SUBLESSEE";

W I T N E S S E T H

WHEREAS, the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida, by virtue of Section 253.03, Florida Statutes, holds title to certain lands and property for the use and benefit of the State of Florida; and

WHEREAS, on October 25, 2011, SUBLESSOR and SUBLESSEE entered into Sublease Number 4119-004; and

WHEREAS, SUBLESSOR and SUBLESSEE desire to amend this Sublease to add additional lands within Lease 4119 to Sublease 4119-04; and,

WHEREAS, SUBLESSOR and SUBLESSEE desire to amend this Sublease to add a special condition.

NOW THEREFORE, in consideration of the mutual covenants and agreements contained herein, the parties hereto agree as follows:

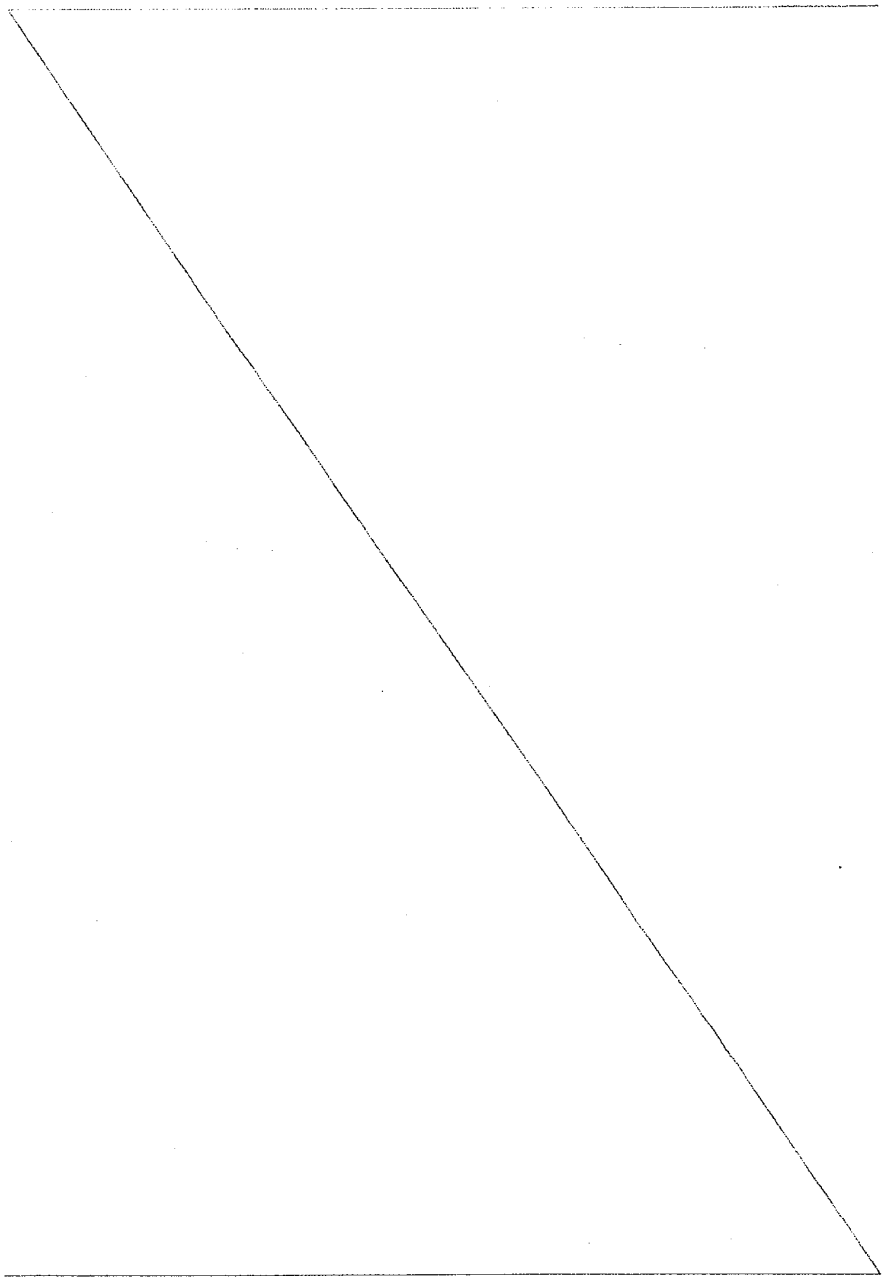
1. The legal description of the subleased premises set forth in Exhibit "A" of sublease 4119-004 is hereby amended to include the real property described in Exhibit "A" attached hereto and by reference made part lease.

2. SUBLESSOR and SUBLESSEE hereby amend this Sublease to add the following special condition:

40b. SUBLESSEE shall construct, maintain and operate parking facilities as outlined by local code, ordinance and land use plan. The parking facilities will be constructed of a pervious material excluding the handicap parking area.

3. It is understood and agreed by SUBLESSOR and SUBLESSEE that in each and every respect the terms of the Sublease Number 4119-04, except as amended hereby, shall remain unchanged and in full force and effect and the same are hereby ratified, approved and confirmed by SUBLESSOR and SUBLESSEE as of the date of this amendment

4. It is understood and agreed by SUBLESSOR and SUBLESSEE that this Amendment Number 1 to Sublease Number 4119-04 is hereby binding upon the parties hereto and their successors and assigns.



IN WITNESS WHEREOF, the parties have caused this Sublease Agreement to be executed on the day and year first above written.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF COASTAL AND AQUATIC MANANGED AREAS

By: _____ (SEAL)
Kevin Claridge, Director

Witness
Sherry G. Erin
Print/Type Witness Name

Witness
KATHY RIVERS
Print/Type Witness Name

"SUBLESSOR"

STATE OF FLORIDA
COUNTY OF LEON

The foregoing instrument was acknowledged before me this 15th day of August 2014, by Kevin Claridge, as Director of the State of Florida Department of Environmental Protection, Office of Costal and Aquatic Managed Areas. He is personally known to me or has produced _____ as identification.

Notary Public, State of Florida
Heather Chapman
Print/Type Notary Name

Commission Number: EE 870616

Commission Expires: 2/3/17

HEATHER CHAPMAN
Commission # EE 870616
Expires February 3, 2017
Bonded Thru Troy Fain Insurance 800-385-7019

GULF COUNTY, FLORIDA
BY ITS BOARD OF COUNTY
COMMISSIONERS

By: _____ (SEAL)
Ward McDaniel, Chairman

"SUBLESSEE"

Witness
Jeremy Nash
Print/Type Witness Name

Witness
Leanna Roberts
Print/Type Witness Name

STATE OF FLORIDA
COUNTY OF GULF

The foregoing instrument was acknowledged before me this 18th day of August 2014, by Ward McDaniel, as Chairman of the Board of County Commissioners on behalf of Gulf County, Florida. He is personally known to me or has produced Personally Known as identification.

Beverly Leslie Daniels
Notary Public, State of Florida

Beverly Leslie Daniels
Print/Type Notary Name

Commission Number:

Commission Expires:

BEVERLY LESLIE DANIELS
MY COMMISSION # EE 040278
EXPIRES: March 5, 2015
Bonded Thru Budget Notary Services

Consented to by the TRUSTEES on 27th day of August 2014.

Cheryl C McCall
Cheryl C. McCall, CHIEF, BUREAU OF PUBLIC LAND ADMINISTRATION, DIVISION OF STATE LANDS, STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Approved as to Form and Legality

By: _____
DEP Attorney

EXHIBIT "A"
Legal Description of the Subleased Premises

A PARCEL OF LAND LYING AND BEING IN SECTION 20, TOWNSHIP 9 SOUTH, RANGE 11 WEST, GULF COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT A ROUND CONCRETE MONUMENT MARKING THE NORTHWEST CORNER OF SECTION 20, TOWNSHIP 9 SOUTH, RANGE 11 WEST, GULF COUNTY, FLORIDA AND RUN THENCE SOUTH 88 DEGREES 41MINUTES46 SECONDS EAST, ALONG THE NORTH BOUNDARY LINE OF SAID SECTION 20, FOR A DISTANCE OF 1,318.64 FEET; THENCE LEAVING SAID NORTH BOUNDARY LINE RUN SOUTH 01DEGREES14 MINUTES 23 SECONDS WEST, FORA DISTANCE OF 1,721.53 FEET; THENCE SOUTH 88 DEGREES 45 MINUTES 37 SECONDS EAST, FOR A DISTANCE OF 10.62 FEET TO THE POINT OF BEGINNING; THENCE NORTH 02 DEGREES 22 MINUTES 34 SECONDS EAST, FOR A DISTANCE OF 173.20 FEET; THENCE NORTH 57 DEGREES 05 MINUTES 07 SECONDS EAST, FOR A DISTANCE OF 20.84 FEET; THENCE SOUTH 85 DEGREES 32 MINUTES 23 SECONDS EAST, FOR A DISTANCE OF 109.17 FEET; THENCE SOUTH 06 DEGREES 55 MINUTES 22 SECONDS EAST, FOR A DISTANCE OF 33.22 FEET; THENCE SOUTH 08 DEGREES 14 MINUTES 10 SECONDS WEST, FORA DISTANCE OF 40.92 FEET; THENCE SOUTH 22 DEGREES 26 MINUTES 54 SECONDS WEST, FOR A DISTANCE OF 153.95 FEET; THENCE SOUTH 07 DEGREES 19 MINUTES 09 SECONDS WEST, FOR A DISTANCE OF 123.58 FEET; THENCE SOUTH 57 DEGREES 29 MINUTES 01 SECONDS EAST, FOR A DISTANCE OF 61.89 FEET; THENCE SOUTH 32 DEGREES 30 MINUTES 59 SECONDS WEST, FOR A DISTANCE OF 20.87 FEET TO A POINT OF CURVE TO THE LEFT HAVING A RADIUS OF 100.00 FEET, THROUGH A CENTRAL ANGLE OF 25 DEGREES 16 MINUTES 59 SECONDS, FOR AN ARC DISTANCE OF 44.13 FEET (CHORD OF SAID ARC BEING SOUTH 19 DEGREES 52 MINUTES 30 SECONDS WEST, 43.77 FEET) TO A POINT OF REVERSE CURVE TO THE RIGHT HA VINO A RADIUS OF 150.00 FEET AND A CENTRAL ANGLE OF 29 DEGREES 38 MINUTES 22 SECONDS; FOR AN ARC DISTANCE OF 77 .60 FEET (CHORD OF SAID ARC BEING SOUTH 22 DEGREES 03 MINUTES 11 SECONDS WEST, 76.73 FEET); THENCE SOUTH 55 DEGREES 07 MINUTES 41 SECONDS EAST, FOR A DISTANCE OF 20.00 FEET; THENCE SOUTH 34 DEGREES 52 MINUTES 19 SECONDS WEST, FOR A DISTANCE OF 61.37 FEET; THENCE SOUTH 79 DEGREES 52 MINUTES 19 SECONDS WEST, FOR A DISTANCE OF 35.25 FEET; THENCE SOUTH 34 DEGREES 52 MINUTES 19 SECONDS WEST, FOR A DISTANCE OF 101.01 FEET; THENCE SOUTH 30 DEGREES 39 MINUTES 27 SECONDS WEST, FOR A DISTANCE OF 73.73 FEET; THENCE SOUTH 41DEGREES08 MINUTES 38 SECONDS WEST, FOR A DISTANCE OF 17.20 FEET TO A POINT ON THE EAST RIGHT OF WAY LINE OF STATE ROAD NO. 30-E (100 FOOT RIGHT OF WAY); POINT BEING ON A NON TANGENT CURVE, CONCAVE TO THE WEST , THENCE NORTHERLY ALONG SAID EAST RIGHT OF WAY AND CURVE, WITH A RADIUS OF 1,960.08 FEET, THROUGH A CENTRAL ANGLE OF 00 DEGREES 35 MINUTES 26 SECONDS, FOR AN ARC DISTANCE OF 20.20 FEET (CHORD OF SAID ARC BEING NORTH 21 DEGREES 52 MINUTES 38 SECONDS WEST, 20.20 FEET); THENCE LEAVING SAID EAST RIGHT OF WAY LINE RUN NORTH 41 DEGREES 08 MINUTES 38 SECONDS EAST, FOR A DISTANCE OF 6.39 FEET; THENCE NORTH 30 DEGREES 39 MINUTES 27 SECONDS EAST, FOR A DISTANCE OF 72.74 FEET; THENCE NORTH 34 DEGREES 52 MINUTES 19 SECONDS EAST, FOR A DISTANCE OF 126.59 FEET; THENCE NORTH 55 DEGREES 07 MINUTES 41 SECONDS WEST, FOR A DISTANCE OF 21.70 FEET; THENCE NORTH 34 DEGREES 52 MINUTES 19 SECONDS EAST, FOR A DISTANCE OF 31.52 FEET; THENCE NORTH 18 DEGREES 38 MINUTES 08 SECONDS WEST, FOR A DISTANCE OF 17.53 FEET; THENCE NORTH 00 DEGREES 54 MINUTES 22 SECONDS EAST, FOR A DISTANCE OF 308.00 FEET TO THE POINT OF BEGINNING.

BSA
DATE April 29 2014

CITIZEN SUPPORT ORGANIZATION AGREEMENT

THIS AGREEMENT is made the 12th day of June, AD, 2003, between the State of Florida Department of Environmental Protection, Office of Coastal and Aquatic Managed Areas, hereinafter called the Office, and Friends of St. Joseph Bay Preserves, Inc., a Florida not for profit corporation, hereinafter called the CSO.

WITNESSETH

WHEREAS, the Office is vested with jurisdiction over and control of all aquatic preserves in the State of Florida and is responsible for the operation and maintenance of such facilities and for providing visitor services in the preserves under its jurisdiction as may be necessary, desirable or convenient for the use of the public for enjoyment and healthful recreation, and

WHEREAS, the CSO desires to provide certain services as a citizen support organization for the St. Joseph Bay State Buffer Preserve and St. Joseph Bay Aquatic Preserve (collectively the "Preserves"), County of Gulf, State of Florida, as hereinafter described, and the Office desires to enter into agreement with the CSO for the provision of said services.

NOW THEREFORE, in consideration of the premises and the mutual covenants and conditions herein contained, it is agreed by the parties hereto as follows:

1. The Office hereby grants to the CSO and the CSO hereby

accepts from the Office, this agreement to serve as the citizen support organization for the Preserves in conformance with the purpose of Chapter 258, Florida Statutes, for the period stated herein and subject to all terms and conditions set forth in this agreement and the purpose as set forth in the Articles of Incorporation of the CSO, attached as Exhibit "A" to this agreement.

a. This agreement shall take effect upon execution and shall continue indefinitely or until terminated pursuant to the provisions hereof.

b. The Office hereby provides to the CSO use of the following facilities and space: any of the public facilities located at the St Joseph Bay State Buffer Preserve, approved in advance, in writing, by the St. Joseph Bay State Buffer Preserve Manager.

c. The CSO is hereby authorized to conduct the following kinds of activities, projects and events and to provide the following kinds of services: fund raising events, official meetings of the CSO membership, volunteer activities and projects, public educational and interpretative activities or events or any other activities outlined in the purposes of the organization as set forth in Article IV of the Articles of Incorporation of the CSO.

2. All notices and orders given to the CSO may be served by mail at the following address, 528 6th Street, Port St. Joe, Florida, 32456. All notices given to the Office may be served by

mail at the following address: 3900 Commonwealth Blvd., Mail Station 235, Tallahassee, Florida 32399-3000.

3. The St. Joseph Bay State Buffer Preserve manager is hereby designated as the Office's agreement manager and shall be responsible for insuring performance of the terms and conditions of this agreement.

4. The Office may permit, without charge, appropriate use of the Preserves' property, staff and facilities by the CSO subject to the provisions of this section. Such use must be directly in keeping with the approved purposes of the CSO as outlined in Exhibit "A" of this agreement, and may not be made at times or places that would unreasonably interfere with opportunities for the general public to use the Preserves for established recreational purposes. In order to use property or facilities of the Preserves, the CSO must:

(a) Comply with all the Preserves and Office policies, rules and regulations as they may be amended periodically;

(b) Develop and submit to the agreement manager for review and prior written approval on an annual basis, a program or schedule of all projects, activities and events it plans to carry out on Preserves property, including the designation of a specific location and time for such use;

(c) Be responsible for maintaining the Preserves property or facilities assigned in a clean and orderly state; and

(d) Obtain advance approval in writing from the agreement manager for any activities not covered specifically in this

agreement.

5. The CSO agrees that all funds generated by the CSO through use of the Preserves' facilities, name or identity will be used for the direct benefit of the Preserves or in support of the CSO's stated purposes as outlined in the Articles of Incorporation of the CSO.

6. The CSO agrees to provide an annual financial report using the Annual Special Report (DEP 41-042) included as Exhibit "B" of this agreement. In addition, should annual expenses of the CSO exceed $100,000 in gross expenditures, including all grants, the CSO shall secure a full audit by an independent certified public accountant. This audit shall be in accordance with Chapter 10.700 Rules of the Auditor General, Audits of Direct Support Organizations and Citizen-Support Organizations and the standards set forth in Financial Accounting Standards No. 117, Financial Statements of Not-For-Profit Organizations established by the Financial Accounting Standards Board. These post audits of the CSO shall be conducted by an independent certified public accountant. The auditor's reports shall address the financial statements for the fiscal year, which begins April 1 and ends March 31, of each year. The auditor's report gives relative assurance that expenditures were made to carry out the purpose as set forth in the Articles of Incorporation of the CSO. The financial statements, accompanied by any required auditor's reports and opinion, shall be submitted to the Auditor General's Office at 111 West Madison Street, Claude Pepper Building,

Tallahassee, FL 32399-1450, and the Office, no later than one hundred and twenty (120) days after the end of the CSO's fiscal year.

7. Any violation of, or failure to comply with, the terms of this agreement shall, at the option of the Office, terminate this agreement after three days from receipt of notice in writing delivered or mailed to the CSO's address as set forth in this agreement.

8. This agreement may be terminated by either party without cause after 90 days from the receipt of notice in writing to the other party at the address shown in this agreement.

9. It is acknowledged that the CSO is operating as a citizen support organization and agent of the State of Florida. As such, the activities of the CSO, which have been approved by the St. Joseph Bay State Buffer Preserve Manager pursuant to this agreement and the CSO's Board of Directors, are covered by state liability protection as outlined in Sections 110.504 and 768.28, Florida Statutes. This provision in no way waives the state's sovereign immunity.

The State of Florida Department of Environmental Protection, Office of Coastal and Aquatic Managed Areas has hereunto set its hand, and the Friends of St. Joseph Bay Preserves, Inc., has caused these presents to be signed in its name by its proper officers, and its corporate seal to be affixed, attested by its secretary, the day and year written above.

Approved as to form and

legality:

By: _____
DEP Attorney

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF COASTAL AND AQUATIC
MANAGED AREAS

By: _____
Katherine Andrews, Director

Friends of St. Joseph Bay
Preserves, Inc., a Florida not for
profit corporation

ATTEST:

By: _____
Secretary

By: _____
Richard Hance, President

(CORPORATE SEAL)

Appendix B

Resource Data

B.1 / Glossary of Terms

References to these definitions can be found in Appendix B.2.

aboriginal - the original biota of a geographical region. (Lincoln, Boxshall & Clark, 2003)

anaerobic - growing or occurring in the absence of molecular oxygen. (Lincoln et al., 2003)

anthesis – the period of flowering; the time which flower buds open; the period of maximum physiological activity in plants. (Lincoln et al. 2003)

aquaculture - the cultivation of aquatic organisms. (Lincoln et al., 2003)

codify - to arrange laws and rules systematically. (Neufeldt & Sparks, 1990)

dendrochronology – a method of dating using annual tree-rings; tree-ring chronology; tree-ring analysis. (Lincoln et al., 2003)

diversity - a measure of the number of species and their relative abundance in a community. (Lincoln et al., 2003)

drainage basin (catchment) - the area from which a surface watercourse or a groundwater system derives its water; watershed. (Allaby, 2005)

easement - a right that one may have in another's land. (Neufeldt & Sparks, 1990)

ecosystem - a community of organisms and their physical environment interacting as an ecological unit. (Lincoln et al., 2003)

emergent - an aquatic plant having most of the vegetative parts above water; a tree which reaches above the level of the surrounding canopy. (Lincoln et al., 2003)

endangered species - an animal or plant species in danger of extinction throughout all or a significant portion of its range. (U.S. Fish and Wildlife Service [USFWS], 2015)

endemic - native to, and restricted to, a particular geographical region. (Lincoln et al., 2003)

extinction - the disappearance of a species from a given habitat. (Lincoln et al., 2003)

fauna - the animal life of a given region, habitat or geological stratum. (Lincoln et al., 2003)

flora - the plant life of a given region, habitat or geological stratum. (Lincoln et al., 2003)

forb – a non-grassy, herbaceous species. (Allaby, 2005)

geographic information system (GIS) - computer system supporting the collection, storage, manipulation and query of spatially referred data, typically including an interface for displaying geographical maps. (Lincoln et al., 2003)

hydric - pertaining to water; wet. (Lincoln et al., 2003)

hydroperiodism – the control of vegetative processes in plants by periodic dryness; seasonal hydroperiodism. (Lincoln et al., 2003)

infauna - the animal life within a sediment; epifauna. (Lincoln et al., 2003)

intertidal zone - the shore zone between the highest and lowest tides; littoral. (Lincoln et al., 2003)

listed species - a species, subspecies, or distinct population segment that has been added to the Federal list of endangered and threatened wildlife and plants. (USFWS, 2015)

mandate - an order or command; the will of constituents expressed to their representative, legislature, etc. (Neufeldt & Sparks, 1990)

mesic - pertaining to conditions of moderate moisture or water supply; used of organisms occupying moist habitats. (Lincoln et al., 2003)

mosaic - an organism comprising tissues of two or more genetic types; usually used with reference to plants. (Lincoln et al., 2003)

population - all individuals of one or more species within a prescribed area. A group of organisms of one species, occupying a defined area and usually isolated to some degree from other similar groups. (Lincoln et al., 2003)

psammophyte - a plant growing or moving in unconsolidated sand. (Lincoln et al., 2003)

ruderal - pertaining to or living amongst rubbish or debris, or inhabiting disturbed sites. (Lincoln et al., 2003) (FNAI describes ruderal as areas impacted by development measures such as roadways, drainage ditches, navigational channels or are considered hydrological alterations.)

runoff - part of precipitation that is not held in the soil but drains freely away. (Lincoln et al., 2003)

salinity - a measure of the total concentration of dissolved salts in seawater. (Lincoln et al., 2003)

sessile - non-motile; permanently attached at the base. (Lincoln et al., 2003)

species - a group of organisms, minerals or other entities formally recognized as distinct from other groups; the basic unit of biological classification. (Lincoln et al., 2003)

species of concern - an informal term referring to a species that might be in need of conservation action. This may range from a need for periodic monitoring of populations and threats to the species and its habitat, to the necessity for listing as threatened or endangered. Such species receive no legal protection and use of the term does not necessarily imply that a species will eventually be proposed for listing. “Imperiled species” is another general term for listed as well as unlisted species that are declining. (USFWS, 2015)

stakeholder - any person or organization who has an interest in the actions discussed or is affected by the resulting outcomes of a project or action. (USFWS, 2015)

subtidal - environment which lies below the mean low water level. (Allaby, 2005)

supratidal - the zone on the shore above mean high tide level. (Lincoln et al., 2003)

threatened species - an animal or plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range. (USFWS, 2015)

turbid - cloudy; opaque with suspended matter. (Lincoln et al., 2003)

upland - land elevated above other land. (Neufeldt & Sparks, 1990)

vegetation - plant life or cover in an area; also used as a general term for plant life. (Lincoln et al., 2003)

water column - the vertical column of water in a sea or lake extending from the surface to the bottom. (Lincoln et al., 2003)

watershed - an elevated boundary area separating tributaries draining in to different river systems; drainage basin. (Lincoln et al., 2003)

wetland - an area of low lying land, submerged or inundated periodically by fresh or saline water. (Lincoln et al., 2003)

wildlife - any undomesticated organisms; wild animals. (Allaby, 2005)

xeric - having very little moisture; tolerating or adapted to dry conditions. (Lincoln et al., 2003)

B.2 / ***References***

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Plants		
Red maple	*Acer rubrum*	
Pineland false-foxglove	*Agalinis divaricata*	
False-foxglove	*Agalinis filicaulis*	
Seminole false-foxglove	*Agalinis filifolia*	
Flax-leaf false-foxglove	*Agalinis linifolia*	
Yellow colic-root	*Aletris lutea*	
Lead plant; cluster-spike indigo-bush	*Amorpha herbacea*	
Little blue maidencane	*Amphicarpum muhlenbergianum*	
Stiff slimpod	*Amsonia rigida*	
Pinewoods bluestem	*Andropogon arctatus*	ST
Short-spike bluestem	*Andropogon brachystachyus*	
Big chalky bluestem	*Andropogon glomeratus var. glaucopsis*	
Bushy bluestem	*Andropogon glomeratus var. glomeratus*	
Hairy bushy bluestem	*Andropogon glomeratus var. hirsutior*	
Big bushy bluestem	*Andropogon glomeratus var. pumilus*	
Elliott's bluestem	*Andropogon gyrans var. gyrans*	
Slim bluestem	*Andropogon gyrans var. stenophyllus*	
Silver bluestem	*Andropogon ternarius var. ternarius*	
Broomsedge	*Andropogon virginicus var. decipiens*	
Little chalky bluestem	*Andropogon virginicus var. glaucus*	
Broomsedge	*Andropogon virginicus var. virginicus*	
Purple silky-scale	*Anthaenantia rufa*	
Wiregrass; pineland three-awn grass	*Aristida beyrichiana*	
Big threeawn	*Aristida condensata*	
Long-leaf three-awn grass	*Aristida palustris*	
Slim-spike three-awn grass	*Aristida purpurascens var. purpurascens*	
Bottlebrush or pinebarren threeawn	*Aristida spiciformis*	
Wiregrass	*Aristida stricta var. beyrichiana*	
Carolina milkweed	*Asclepias cinerea*	
Large-flower milkweed	*Asclepias connivens*	
Few-flower milkweed	*Asclepias lanceolata*	
Long-leaf milkweed	*Asclepias longifolia ssp. longifolia*	
Michaux's milkweed	*Asclepias michauxii*	
Savannah milkweed	*Asclepias pedicellata*	
Southern milkweed	*Asclepias viridula*	SE
Narrow-leaved or slim-leaf pawpaw	*Asimina angustifolia*	
Scale-leaf aster	*Aster adnatus*	
Savannah aster	*Aster chapmanii*	
Eastern silver aster	*Aster concolor*	
Coyote-thistle aster	*Aster eryngiifolius*	
Pine-woods aster	*Aster spinulosus*	ST
White-topped aster	*Aster tortifolius*	
Comb oakleach	*Aureolaria pedicularia var. pectinata*	

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Salt-water false-willow	*Baccharis angustifolia*	
Groundsel tree	*Baccharis halimifolia*	
One-flower honeycomb-head; coastalplain honeycomb-head	*Balduina uniflora*	
Wild indigo	*Baptisia calycosa*	
Gopher weed	*Baptisia lanceolata*	
White screwstem	*Bartonia verna*	
Yellow screwstem	*Bartonia virginica*	
Pineland rayless-goldenrod	*Bigelowia nudata ssp. nudata*	
Capillary hair-sedge	*Bulbostylis ciliatifolia*	
Northern burmannia; northern bluethreads	*Burmannia biflora*	
Southern bluethreads	*Burmannia capitata*	
Beautybush; American beauty-berry	*Callicarpa americana*	
Pale grass-pink	*Calopogon pallidus*	
Tuberous grass-pink	*Calopogon tuberosus*	
Sedge	*Carex glaucescens*	
Walter's sedge	*Carex striata*	
Warty sedge	*Carex verrucosa*	
Pignut hickory	*Carya glabra*	
Vanilla plant; deer tongue; vanilla-leaf	*Carphephorus odoratissimus*	
Bristle-leaf chaffhead	*Carphephorus pseudoliatris*	
American hornbeam	*Carpinus caroliniana*	
Redroot; little-leaf buckbrush	*Ceanothus microphyllus*	
Coinwort; asian coinleaf; spade-leaf	*Centella asiatica*	
Spurred butterfly-pea	*Centrosema virginianum*	
Common buttonbush	*Cephalanthus occidentalis*	
Florida rosemary	*Ceratiola ericoides*	
Pineland daisy; woolly sunbonnets	*Chaptalia tomentosa*	
Longleaf chasmanthium; longleaf spikegrass	*Chasmanthium sessiliflorum*	
Woody golden-rod	*Chrysoma pauciflosculosa*	
Godfrey's golden-aster	*Chrysopsis godfreyi*	SE
Maryland golden-aster	*Chrysopsis mariana*	
Coastal-plain golden-aster	*Chrysopsis scabrella*	
Scrubland golden-aster	*Chrysopsis subulata*	
Leconte's thistle	*Cirsium lecontei*	
Reindeer lichen	*Cladina evansii*	
Evans' reindeer lichen	*Cladina subtenuis*	
Jamaica sawgrass	*Cladium jamaicense*	
Cup lichen	*Cladonia leporina*	
Prostrate cup lichen	*Cladonia prostrata*	
Small-flowered pogonia	*Cleistes bifaria*	
Sweet or coast pepperbush	*Clethra alnifolia*	
Black titi; buckwheat-tree	*Cliftonia monophylla*	
Wrinkled jointgrass; wrinkled jointtail	*Coelorachis rugosa*	
Day-flower	*Commelina erecta*	
Goldenclub	*Corontium aquaticum*	
Blue-sage	*Conradina canescens*	

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Florida tickseed	*Coreopsis floridana*	
Texas tickseed	*Coreopsis linifolia*	
Georgia tickseed	*Coreopsis nudata*	
Rabbit-bells; prostrate rattle-box	*Crotalaria rotundifolia*	
Elliott's croton	*Croton elliottii*	
Toothachegrass	*Ctenium aromaticum*	
Tropical waxweed	*Cuphea aspera*	SE
Gulf coast swallow-wort	*Cynanchum angustifolium*	
Leafless cynanchum; leafless swallow-wort	*Cynanchum scoparium*	
Sheathed flatsedge	*Cyperus haspan*	
Retorse or pine-barren flatsedge; galingale	*Cyperus retrorsus*	
Four-angle flatsedge	*Cyperus tetragonus*	
Swamp titi	*Cyrilla parvifolia*	
Titi	*Cyrilla racemiflora*	
Beggar's lice; creeping beggerweed; zarzabacoa	*Desmodium incanum*	
Needle-leaf witchgrass; panic grass	*Dichanthelium aciculare*	
Needle-leaf witchgrass	*Dichanthelium aciculare ssp. angustifolium*	
Tapered witchgrass	*Dichanthelium acuminatum var. acuminatum*	
Variable witchgrass; panic grass	*Dichanthelium commutatum*	
Panic grass	*Dichanthelium ensifolium var. ensifolium*	
Panic grass	*Dichanthelium ensifolium var. unciphyllum*	
Erect-leaf witchgrass	*Dichanthelium erectifolium*	
Panic grass; egg-leaf witchgrass	*Dichanthelium ovale*	
Hemlock witchgrass	*Dichanthelium portoricense*	
Woolly panic grass	*Dichanthelium scabriusculum*	
Panic grass	*Dichanthelium strigosum var. leucoblepharis*	
Rough-hair witchgrass	*Dichanthelium strigosum var. strigosum*	
Cypress witchgrass	*Dichanthelium tenue*	
Viginia buttonweed	*Diodia virginiana*	
Common persimmon	*Diospyros virginiana*	
Seashore saltgrass	*Distichlis spicata*	
Pink sundew	*Drosera capillaris*	
Gulf Coast sundew	*Drosera tracyi*	
Roadgrass; Baldwin's spikerush	*Eleocharis baldwinii*	
Capitate or clustered spikerush	*Eleocharis geniculata*	
Elephant's-foot	*Elephantopus tomentosus*	
Pan-american balsamscale	*Elyonurus tripsacoides*	
Elliott('s) lovegrass	*Eragrostis elliottii*	
Red lovegrass	*Eragrostis secundiflora*	
Daisy or early white-top fleabane	*Erigeron vernus*	
Flattened pipewort	*Eriocaulon compressum*	
Ten-angle pipewort	*Eriocaulon decangulare*	
Wild buckwheat	*Eriogonum tomentosum*	
Blue-flower coyote-thistle	*Eryngium integrifolium*	
Creeping coyote-thistle	*Eryngium prostratum*	
Rattlesnake-master; button snakeroot	*Eryngium yuccifolium*	
Southeastern coralbean(s); Cherokee-bean	*Erythrina herbacea*	

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Dog-fennel; pale boneset; Mohr's thoroughwort	*Eupatorium mohrii*	
Summer spurge	*Euphorbia discoidalis*	
Florida pine spurge	*Euphorbia inundata*	
Telephus spurge	*Euphorbia telephioides*	SE, FT
Bushy fragrant or bushy grassleaf goldenrod	*Euthamia graminifolia var. hirtipes*	
Slender fragrant or flat-topped goldenrod	*Euthamia tenuifolia*	
Marsh fimbry	*Fimbristylis spadicea*	
Carolina or water or pop ash	*Fraxinus caroliniana*	
Green or pumpkin ash	*Fraxinus pennsylvanica*	
Saltmarsh umbrella-sedge	*Fuirena breviseta*	
Southern umbrella-sedge	*Fuirena scirpoidea*	
Eastern or Florida milk-pea	*Galactia regularis*	
Hairy bedstraw	*Galium pilosum*	
Garberia	*Garberia heterophylla*	
Southern gaura; Southern beeblossom	*Gaura angustifolia*	
Dwarf huckleberry	*Gaylussacia dumosa*	
Woolly-berry	*Gaylussacia mosieri*	
Dangleberry; creeping huckleberry	*Gaylussacia nana*	
Yellow jessamine; evening trumpet-	*Gelsemium sempervirens*	
Pennell's or wiregrass gentian	*Gentiana pennelliana*	SE
Loblolly bay	*Gordonia lasianthus*	
Rough hedge-hyssop	*Gratiola hispida*	
Bearded skeletongrass	*Gymnopogon ambiguus*	
Slim or shortleaf skeletongrass	*Gymnopogon brevifolius*	
Innocence; round-leaf bluet	*Hedyotis procumbens*	
Flat-top bluet; clustered bluet	*Hedyotis uniflora*	
Spring sneezeweed	*Helenium vernale*	
Gulf rockrose	*Helianthemum arenicola*	
Rockrose; pine-barren frostweed	*Helianthemum corymbosum*	
Florida sunflower	*Helianthus floridanus*	
Wetland sunflower	*Helianthus heterophyllus*	
Rayless or pineland sunflower	*Helianthus radula*	
Pineland rosemallow	*Hibiscus aculeatus*	
Gronov's hawkweed; hawks-beard; queendevil	*Hieracium gronovii*	
Henry's spider-lily; green spider-lily	*Hymenocallis henryae*	SE
Coastal-plain St. John's-wort	*Hypericum brachyphyllum*	
Chapman's St. John's-wort	*Hypericum chapmanii*	
Round-pod St. John's-wort	*Hypericum cistifolium*	
St. Peter's-wort; Saint Andrew's-cross; St.John's wort	*Hypericum crux-andreae*	
St. John's-wort	*Hypericum exile*	
Sandweed or swampy or peel-bark St. John's-wort	*Hypericum fasciculatum*	
Bedstraw St. John's-wort	*Hypericum galioides*	
Pineweed(s); orange-grass	*Hypericum gentianoides*	
St. Andrew's cross; Edison's St. John's-wort	*Hypericum hypericoides*	
Small-sepal St. John's-wort	*Hypericum microsepalum*	
Myrtle-leaf St. John's-wort	*Hypericum myrtifolium*	
Carolina St. John's-wort	*Hypericum nitidum*	

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St. John's-wort	*Hypericum reductum*	
Four-petal St. John's-wort; St. Andrew's cross	*Hypericum tetrapetalum*	
Fringed yellow or common stargrass	*Hypoxis juncea*	
Dahoon holly; dahoon	*Ilex cassine var. cassine*	
Dahoon or myrtle-leaved holly	*Ilex cassine var. myrtifolia*	
Large or sweet gallberry	*Ilex coriacea*	
Inkberry; gallberry	*Ilex glabra*	
American holly	*Ilex opaca*	
Yaupon holly; yaupon	*Ilex vomitoria*	
Wild potato vine; morning-glory; man-of-the-earth	*Ipomoea pandurata*	
Saltmarsh or glade morning-glory	*Ipomoea sagittata*	
Savannah iris	*Iris tridentata*	
Virginia willow; Virginia sweetspire	*Itea virginica*	
Marsh elder	*Iva frutescens*	
Shore or grass-leaf rush	*Juncus marginatus var. biflorus*	
Black needlerush; Roemer's rush	*Juncus roemerianus*	
Needle-pod rush	*Juncus scirpoides*	
Red cedar	*Juniperus virginiana*	
Southern red cedar	*Juniperus silicicola*	
Thick-leaf water-willow	*Justicia crassifolia*	SE
Wicky; hairy laurel	*Kalmia hirsuta*	
Bloodroot; Carolina redroot	*Lachnanthes caroliana*	
White-head bog-buttons	*Lachnocaulon anceps*	
Deckert's pinweed	*Lechea deckertii*	
Piedmont pinweed	*Lechea torreyi*	
Florida corkwood	*Leitneria floridana*	ST
Racemed fetterbush; hurrah-bush	*Leucothoe racemosa*	
Chapman's gayfeather	*Liatris chapmanii*	
Blazing-star; slender gayfeather	*Liatris gracilis*	
Spiked gayfeather	*Liatris spicata*	
Blazing star; short-leaf gayfeather	*Liatris tenuifolia var. tenuifolia*	
Gopher apple; licania	*Licania michauxii*	
Catesby's or pine or Southern red lily	*Lilium catesbaei*	ST
Carolina sea-lavender	*Limonium carolinianum*	
Florida yellow flax	*Linum floridanum*	
Stiff yellow flax	*Linum medium var. texanum*	
West's flax	*Linum westii*	SE
Sweetgum	*Liquidambar styraciflua*	
Short-leaf lobelia	*Lobelia brevifolia*	
Florida lobelia	*Lobelia floridana*	
Glandular or glade lobelia	*Lobelia glandulosa*	
White lobelia	*Lobelia paludosa*	
Golden-crest	*Lophiola aurea*	
Southeastern seedbox; Southeastern primrose-willow	*Ludwigia linifolia*	
Seaside primrose-willow; seaside seedbox	*Ludwigia maritima*	
Hairy seedbox; hairy primrose-willow	*Ludwigia pilosa*	
Savanna seedbox; savannah primrose-willow	*Ludwigia virgata*	

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Lady lupine	*Lupinus villosus*	
Christmasberry	*Lycium carolinianum*	
Foxtail clubmoss	*Lycopodiella alopecuroides*	
Southern clubmoss	*Lycopodiella appressa*	
Slender clubmoss	*Lycopodiella caroliniana*	
Feather-stem clubmoss	*Lycopodiella prostrata*	
Taper-leaf water hoarhound	*Lycopus rubellus*	
Rusty lyonia; rusty staggerbush	*Lyonia ferruginea*	
Coastal-plain staggerbush	*Lyonia fruticosa*	
Fetterbush; shinyleaf	*Lyonia lucida*	
Saltmarsh loosestrife	*Lythrum lineare*	
White birds-in-a-nest	*Macbridea alba*	SE, FT
Southern or large-flower magnolia	*Magnolia grandiflora*	
Sweet bay; sweetbay magnolia	*Magnolia virginiana*	
Slim-leaf Barbara's buttons	*Marshallia tenuifolia*	
Sensitive brier	*Mimosa quadrivalvis var. angustata*	
American partridge berry; twinberry	*Mitchella repens*	
Miterwort; swamp hornpod	*Mitreola sessilifolia*	
Horsemint; spotted beebalm	*Monarda punctata*	
Red mulberry	*Morus rubra*	
Hairgrass; hairawn muhly	*Muhlenbergia capillaris var. capillaris*	
Cut-over muhly	*Muhlenbergia capillaris var. trichopodes*	
Cut-over muhly	*Muhlenbergia expansa*	
Wax myrtle; southern bayberry	*Myrica cerifera*	
Dwarf wax myrtle	*Myrica cerifera var. pumila*	
Northern bayberry	*Myrica heterophylla*	
Odorless bayberry	*Myrica inodora*	
Piedmont water milfoil	*Myriophyllum laxum*	
American lotus	*Nelumbo lutea*	
White waterlily	*Nymphaea odorata*	
Ogeechee tupelo	*Nyssa ogeche*	
Swamp, black or sour gum; swamp tupelo	*Nyssa sylvatica var. biflora*	
Wood(s) grass; short-leaf basketgrass	*Oplismenus hirtellus*	
Cockspur pricklypear	*Opuntia drummondii*	
Prickly-pear cactus; devil's-tongue	*Opuntia humifusa*	
Wild olive; devil-wood	*Osmanthus americanus*	
Scrub wild olive	*Osmanthus megacarpus*	
Cinnamon fern	*Osmunda cinnamomea*	CE
Royal fern	*Osmunda regalis var. spectabilis*	
Water cowbane	*Oxypolis filifolia*	
Water dropwort; water cowbane	*Oxypolis filiformis*	
Piedmont cowbane	*Oxypolis ternata*	
Bitter panic grass	*Panicum amarum*	
Panic grass	*Panicum longifolium*	
Redtop panicum; redtop panic grass	*Panicum rigidulum*	
Bluejoint or Southeastern panicum	*Panicum tenerum*	
Warty panicum; warty panic grass	*Panicum verrucosum*	

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Switchgrass; wand-shape panicum	*Panicum virgatum*	
Squareflower	*Paronychia erecta var. corymbosa*	
Virginia creeper; woodbine	*Parthenocissus quinquefolia*	
Early paspalum; early crowngrass	*Paspalum praecox*	
Thin paspalum; slender crowngrass	*Paspalum setaceum*	
Red bay	*Persea borbonia*	
Swamp bay; swamp red-bay	*Persea palustris*	
Pineland false sunflower; narrow-leaved phoebanthus	*Phoebanthus tenuifolius*	ST
Godfrey's or Apalachicola dragon-head	*Physostegia godfreyi*	ST
Climbing pieris; climbing fetterbush	*Pieris phyllyreifolia*	
Violet-flower butterwort	*Pinguicula ionantha*	SE, FT
Chapman's butterwort	*Pinguicula planifolia*	ST
Sand pine	*Pinus clausa*	
Slash pine	*Pinus elliottii var. elliottii*	
Longleaf pine	*Pinus palustris*	
Pineland silkgrass	*Pityopsis aspera var. adenolepis*	
Golden aster; coastal-plain silkgrass	*Pityopsis graminifolia*	
Coastal-plain golden-aster	*Pityopsis oligantha*	
Rush-featherling	*Pleea tenuifolia*	
White or marsh fleabane; stinking camphor-weed	*Pluchea foetida*	
Godfrey's fleabane; rosy camphor-weed	*Pluchea rosea*	
Batchelor's button; Baldwin's milkwort	*Polygala balduinii*	
Cross-leaf milkwort; drumheads	*Polygala cruciata*	
Tall pine-barren milkwort	*Polygala cymosa*	
Hooker's milkwort	*Polygala hookeri*	
Procession flower; pink milkwort	*Polygala incarnata*	
Wild batchelor's button; orange milkwort	*Polygala lutea*	
Wild batchelor's button; dwarf milkwort	*Polygala nana*	
Low pine-barren milkwort	*Polygala ramosa*	
Coastal-plain milkwort	*Polygala setacea*	
Wireweed; tall jointweed	*Polygonella gracilis*	
Jointweed; October-flower	*Polygonella polygama var. polygama*	
Smartweed	*Polygonum spp.*	
Resurrection fern	*Polypodium polypodioides var. michauxianum*	
Pickerelweed	*Pontederia cordata*	
Comb-leaf mermaid-weed	*Proserpinaca pectinata*	
Carolina laurel cherry	*Prunus caroliniana*	
Black cherry	*Prunus serotina*	
Bracken fern	*Pteridium aquilinum var. pseudocaudatum*	
Wand or coastal blackroot; rabbit tobacco	*Pterocaulon pycnostachyum*	
Red chokeberry	*Pyrus arbutifolia*	
Chapman's oak	*Quercus chapmanii*	
Runner oak	*Quercus elliottii*	
Sand or scrub live oak	*Quercus geminata*	
Upland laurel oak	*Quercus hemispherica*	
Bluejack or gray oak	*Quercus incana*	
Scrub oak	*Quercus inopina*	

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Turkey oak	*Quercus laevis*	
Swamp laurel oak	*Quercus laurifolia*	
Small post or sand post or scrubby post oak	*Quercus margaretta*	
Dwarf live oak	*Quercus minima*	
Myrtle oak	*Quercus myrtifolia*	
Water oak	*Quercus nigra*	
Virginia live oak	*Quercus virginiana*	
Carolina buckthorn	*Rhamnus caroliniana*	
Rose meadow-beauty; savannah meadow-beauty	*Rhexia alifanus*	
Yellow meadow-beauty	*Rhexia lutea*	
Nash's meadow-beauty	*Rhexia nashii*	
Nuttall's meadow-beauty	*Rhexia nuttallii*	
Ciliate meadow-beauty	*Rhexia petiolata*	
Virginia meadow-beauty	*Rhexia virginica*	
Chapman's rhododendron	*Rhododendron chapmanii*	FE
Swamp honeysuckle; northern swamp azelea	*Rhododendron viscosum*	
Winged or shining or dwarf sumac	*Rhus copallinum*	
Panhandle snoutbean	*Rhynchosia cytisoides*	
Baldwin's beakrush; Baldwin's beaksedge	*Rhynchospora baldwinii*	
Piedmont beakrush; short-bristle beaksedge	*Rhynchospora breviseta*	
Clustered beakrush; bunched beaksedge	*Rhynchospora cephalantha*	
Chapman's beakrush; Chapman's beaksedge	*Rhynchospora chapmanii*	
Ciliate or fringed beakrush	*Rhynchospora ciliaris*	
Flat-fruit Beakrush	*Rhynchospora compressa*	
Horned-rush;short-bristle horned beak(rush)(sedge)	*Rhynchospora corniculata*	
Curtiss' beakrush	*Rhynchospora curtissii*	
Elliott's beakrush	*Rhynchospora elliottii*	
Fasciculate beakrush	*Rhynchospora fascicularis var. fascicularis*	
Fernald's beakrush; Fernald's beaksedge	*Rhynchospora fernaldii*	
Thread-leaf beakrush; thread-leaf beaksedge	*Rhynchospora filifolia*	SE
Slender beakrush	*Rhynchospora gracilenta*	
Gray's beakrush; Gray's beaksedge	*Rhynchospora grayi*	
Harper's beakrush; Harper's beaksedge	*Rhynchospora harperi*	
Narrow-fruited horned beak(rush)(sedge)	*Rhynchospora inundata*	
Giant or sand-swamp white-top sedge; star rush	*Rhynchospora latifolia*	
Sandy-field beaksedge	*Rhynchospora megalocarpa*	
Mingled beakrush; mingled beaksedge	*Rhynchospora mixta*	
Short-beak baldrush	*Rhynchospora nitens*	
Few-flower beakrush; featherbristle beaksedge	*Rhynchospora oligantha*	
Featherbristle	*Rhynchospora pineticola*	
Plumed beakrush; plumed beaksedge	*Rhynchospora plumosa*	
Humble beakrush	*Rhynchospora pusilla*	
Few-flower beakrush; few-flower beaksedge	*Rhynchospora rariflora*	
Tracy's beakrush; Tracy's beaksedge	*Rhynchospora tracyi*	
Highbush blueberry; serrate-leaf blackberry	*Rubus argutus*	
Southern dewberry	*Rubus trivialis*	
Grass-leaf coneflower	*Rudbeckia graminifolia*	

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Scrub palmetto	*Sabal etonia*	
Cabbage palm	*Sabal palmetto*	
Bartram's rose-gentian	*Sabatia bartramii*	
Short-leaf rose-gentian	*Sabatia brevifolia*	
Large-leaf rose-gentain	*Sabatia macrophylla var. macrophylla*	
Sugarcane plumegrass	*Saccharum giganteum*	
Bulltongue arrowhead	*Sagitarria lancifolia*	
Coastal plain willow	*Salix caroliniana*	
Wing-leaf soapberry; false dogwood	*Sapindus saponaria*	
Popcorn tree; Chinese tallow tree	*Sapium sebiferum*	
Parrot pitcher-plant	*Sarracenia psittacina*	ST
Gulf bluestem	*Schizachyrium maritimum*	
Little bluestem	*Schizachyrium scoparium*	
Slender bluestem	*Schizachyrium tenerum*	
Sunnybell(s)	*Schoenolirion albiflorum*	
Black sedge	*Schoenus nigricans*	
Bulrush	*Scirpus spp.*	
Baldwin's nutrush	*Scleria baldwinii*	
Fringed nutrush	*Scleria ciliata*	
Georgia or slender-fruit nutrush	*Scleria georgiana*	
Few-flower nutrush	*Scleria pauciflora*	
Netted or Torrey's nutrush	*Scleria reticularis*	
Tall nutgrass; whip nutrush	*Scleria triglomerata*	
Florida skullcap	*Scutellaria floridana*	SE, FT
Saw palmetto	*Serenoa repens*	
Shoreline sea purslane	*Sesuvium portulacastrum*	
Knotroot foxtail; knotroot bristle grass	*Setaria geniculata*	
Senna seymeria; black-senna	*Seymeria cassioides*	
Piedmont seymeria	*Seymeria pectinata*	
Gum bully	*Sideroxylon lanuginosum*	
Tough bully	*Sideroxylon tenax*	
Pointed or sandplain or Michaux's blue-eyed-grass	*Sisyrinchium angustifolium*	
Eastern blue-eyed-grass	*Sisyrinchium atlanticum*	
Ear-leaf greenbrier; catbrier	*Smilax auriculata*	
Saw greenbrier; catbrier	*Smilax bona-nox*	
Wild sarsaparilla; glaucous (-leaf) greenbrier	*Smilax glauca*	
Catbrier; bamboo-vine; laurel (-leaf) greenbrier	*Smilax laurifolia*	
Coral or red-berry greenbrier	*Smilax walteri*	
Pinebarren goldenrod	*Solidago fistulosa*	
Sweet golden-rod	*Solidago odora var. chapmanii*	
Seaside goldenrod	*Solidago sempervirens*	
Apalachicola indiangrass	*Sorghastrum apalachicolense*	
Lopsided indiangrass	*Sorghastrum secundum*	
Saltmarsh cordgrass	*Spartina alterniflora*	
Sand cordgrass	*Spartina bakeri*	
Marshhay or saltmeadow cordgrass	*Spartina patens*	
Gulf cordgrass	*Spartina spartinae*	

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Sphagnum mosses	*Sphagnum spp.*	
Lace-lip ladies'-tresses	*Spiranthes laciniata*	
Grass-leaf or green-vein ladies'-tresses	*Spiranthes praecox*	
Little ladies'-tresses	*Spiranthes tuberosa*	
Curtiss dropseed	*Sporobolus curtissii*	
Florida dropseed	*Sporobolus floridanus*	
Pinewoods dropseed	*Sporobolus junceus*	
Corkwood; water toothleaf	*Stillingia aquatica*	
Upland queen's delight	*Stillingia sylvatica ssp. sylvatica*	
Coastal-plain dawnflower	*Stylisma patens ssp. patens*	
Side beak pencilflower	*Stylosanthes biflora*	
Storax; American snowbell	*Styrax americanus*	
Perennial saltmarsh aster	*Symphyotrichum tenuifolium*	
Bantam-buttons; yellow hatpins	*Syngonanthus flavidulus*	
Pond cypress	*Taxodium ascendens*	
Scurf hoary-pea	*Tephrosia chrysophylla*	
Ballmoss	*Tillandsia recurvata*	
Spanish moss	*Tillandsia usneoides*	
Poison ivy	*Toxicodendron radicans*	
Spiderwort	*Tradescantia hirsutiflora*	
Small's noseburn	*Tragia smallii*	
Wavy-leaf noseburn	*Tragia urens*	
Forked blue-curls; bastard pennyroyal	*Trichostema dichotomum*	
Tall redtop; purpletop; purpletop triends	*Tridens flavus var. flavus*	
Perennial sandgrass	*Triplasis americana*	
Southern cattail	*Typha domingensis*	
American elm	*Ulmus americana*	
Sea oats	*Uniola paniculata*	
Rush or southern bladderwort	*Utricularia juncea*	
Zigzag bladderwort	*Utricularia subulata*	
Tree sparkleberry; farkleberry	*Vaccinium arboreum*	
Shiny blueberry	*Vaccinium myrsinites*	
Deerberry; blueberry	*Vaccinium stamineum*	
Chapman's crownbeard	*Verbesina chapmanii*	ST
Frostweed; white crownbeard	*Verbesina virginica*	
Narrow-leaf or tall ironweed	*Vernonia angustifolia*	
Tall or giant Ironweed	*Vernonia gigantea*	
Bog white or long-leaf or lance-leaf violet	*Viola lanceolata*	
Southern coast violet	*Viola septemloba*	
Summer grape	*Vitis aestivalis*	
Muscadine grape; scuppernong	*Vitis rotundifolia var. rotundifolia*	
Netted or dimorphic chain fern	*Woodwardia areolata*	
Virginia chain fern	*Woodwardia virginica*	
Coastal-plain yellow-eyed grass	*Xyris ambigua*	
St. Mary's grass; Baldwin's yellow-eyed-grass	*Xyris baldwiniana*	
Short-leaf yellow-eyed grass	*Xyris brevifolia*	
Carolina yellow-eyed grass	*Xyris caroliniana*	

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Florida bog yellow-eyed grass	*Xyris difformis var. floridana*	
Drummond's yellow-eyed-grass	*Xyris drummondii*	
Elliott's yellow-eyed grass	*Xyris elliottii*	
Fringed yellow-eyed grass	*Xyris fimbriata*	
Savannah yellow-eyed grass	*Xyris flabelliformis*	
Tall yellow-eyed grass	*Xyris platylepis*	
Acid-swamp yellow-eyed grass	*Xyris serotina*	
Pineland yellow-eyed-grass	*Xyris stricta*	
Adam's needle	*Yucca filamentosa*	
Hercules' club	*Zanthoxylum clava-herculis*	
Viperina	*Zornia bracteata*	
Fish		
Flier	*Centrarchus macropterus*	
Blacktail shiner	*Cyprinella venustus*	
Gizzard shad	*Dorosoma cepedianum*	
Threadfin shad	*Dorosoma petenense*	
Banded sunfish	*Enneacanchus obesus*	
Chubsucker	*Erimyzon sucetta*	
Redfin pickerel	*Esox americanus*	
Chain pickerel	*Esox niger*	
Darter	*Etheostoma spp.*	
Channel catfish	*Ictalurus punctatus*	
Redbreast sunfish	*Lepomis auritus*	
Dollar sunfish	*Lepomis marginatus*	
Spotted bass	*Micropterus punctulatus*	
Ironcolor shiner	*Notropis chalybaeus*	
Weed shiner	*Notropis texanus*	
Flounder	*Paralichthys spp.*	
Black crappie	*Pomoxis nigromaculatus*	
Amphibians		
Southern cricket frog	*Acris gryllus*	
Flatwoods salamander	*Ambystoma bishopi*	FE
Tiger salamander	*Ambystoma tigrinum*	
Oak toad	*Anaxyrus quercicus*	
Southern toad	*Bufo terrestris*	
Greenhouse frog	*Eleutherodactylus planirostris*	
Eastern narrowmouth toad	*Gastrophryne carolinensis*	
Green treefrog	*Hyla cinerea*	
Pine woods treefrog	*Hyla femoralis*	
Barking treefrog	*Hyla gratiosa*	
Squirrel treefrog	*Hyla squirella*	
Gopher frog	*Lithobates capito*	SSC
Alabama waterdog	*Necturus alabamensis*	
Striped newt	*Notophthalmus perstriatus*	
Southern chorus frog	*Pseudacris nigrita*	

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Little grass frog	*Pseudacris ocularis*	
Ornate chorus frog	*Pseudacris ornata*	
Bullfrog	*Rana catesbeiana*	
River frog	*Rana heckscheri*	
Southern leopard frog	*Rana sphenocephala*	
Eastern spadefoot toad	*Scaphiopus holbrookii holbrookii*	
Reptiles		
Cottonmouth	*Agkistrodon piscivorus*	
American alligator	*Alligator mississippiensis*	FT(S/A)
Green anole	*Anolis carolinensis*	
Six-lined racerunner	*Aspidoscelis sexlineata*	
Loggerhead sea turtle	*Caretta caretta*	FT
Green sea turtle	*Chelonia mydas*	FE
Snapping turtle	*Chelydra serpentina*	
Six-lined racerunner	*Cnemidophorus sexlineatus*	
Eastern racer	*Coluber constrictor*	
Eastern diamondback rattlesnake	*Crotalus adamanteus*	
Chicken turtle	*Deirochelys reticularia*	
Eastern indigo snake	*Drymarchon corais couperi*	FT
Mole skink	*Eumeces egregious*	
Southeastern five-lined skink	*Eumeces inexpectatus*	
Broadhead skink	*Eumeces laticeps*	
Gopher tortoise	*Gopherus polyphemus*	ST
Southern hognose snake	*Heterodon simus*	
Eastern mud turtle	*Kinosternon subrubrum*	
Kemp's ridley sea turtle	*Lepidochelys kempii*	FE
Alligator snapping turtle	*Macrochelys temmincki*	SSC
Coachwhip	*Masticophis flagellum*	
Red-belly water snake	*Nerodia erythrogaster erythrogaster*	
Mimic glass lizard	*Ophisaurus cf. mimicus*	
Eastern glass lizard	*Ophisaurus ventralis*	
Corn snake	*Pantherophis guttatus*	
Yellow rat snake	*Pantherophis obsoleta quadrivittata*	
Midland rat snake	*Pantherophis spiloides*	
Florida pine snake	*Pituouphis melanoleucus mugitus*	SSC
River cooter	*Pseudemys concinna*	
Florida worm lizard	*Rhineura floridana*	
Fence lizard	*Sceloporus undulatus*	
Ground skink	*Scincella lateralis*	
Black swamp snake	*Seminatrix pygaea*	
Pigmy rattlesnake	*Sistrurus miliarius*	
Stinkpot	*Sternotherus odoratus*	
Short-tailed snake	*Stilostoma extenuatum*	
Redbelly snake	*Storeria occipitomaculata*	
Eastern box turtle	*Terrapene carolina*	

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Eastern ribbon snake	*Thamnophis sauritus*	
Birds		
White-rumped sandpiper	*Accipiter cooperii*	
Sharp-shinned hawk	*Accipiter striatus*	
Spotted sandpiper	*Actitus macularia*	
Red-winged blackbird	*Agelaius phoeniceus*	
Bachman's sparrow	*Aimophila aestivalis*	
Wood duck	*Aix sponsa*	
Sharp-tailed sparrow	*Ammodramus caudacutus*	
Henslow's sparrow	*Ammodramus henslowii*	
Le Conte's sparrow	*Ammodramus leconteii*	
Seaside sparrow	*Ammodramus maritimus*	
Grasshopper sparrow	*Ammodramus savannarum*	
Northern pintail	*Anas acuta*	
American wigeon	*Anas americana*	
Northern shoveler	*Anas clypeata*	
Green-winged teal	*Anas crecca*	
Blue-winged teal	*Anas discors*	
Mallard	*Anas platyrhynchos*	
American black duck	*Anas rubripes*	
Gadwall	*Anas strepera*	
Anhinga	*Anhinga anhinga*	
Brown noddy	*Anous stolidus*	
American (water) pipit	*Anthus rubescens*	
Sprague's pipit	*Anthus spragueii*	
Golden eagle	*Aquila chrysaetos*	
Black-chinned hummingbird	*Archilochus alexandri*	
Ruby-throated hummingbird	*Archilochus colubris*	
Great egret	*Ardea alba*	
Great blue heron	*Ardea herodias*	
Ruddy turnstone	*Arenaria interpres*	
Short-eared owl	*Asio flammeus*	
Lesser scaup	*Aythya affinis*	
Redhead	*Aythya americana*	
Ring-necked duck	*Aythya collaris*	
Canvasback	*Aythya valisineria*	
Tufted titmouse	*Baeolophus bicolor*	
Upland sandpiper	*Bartramia longicauda*	
Cedar waxwing	*Bombycilla cedrorum*	
American bittern	*Botaurus lentiginosus*	
Great horned owl	*Bubo virginianus*	
Cattle egret	*Bubulcus ibis*	
Bufflehead	*Bucephala albeola*	
Common golden-eye	*Bucephala clangula*	
Short-tailed hawk	*Buteo brachyrurus*	
Red-tailed hawk	*Buteo jamaicensis*	

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Red-shouldered hawk	*Buteo lineatus*	
Broad-winged hawk	*Buteo platypterus*	
Swainson's hawk	*Buteo swainsoni*	
Green heron	*Butorides virescens*	
Sanderling	*Calidris alba*	
Dunlin	*Calidris alpina*	
Baird's sandpiper	*Calidris bairdii*	
Red knot	*Calidris canutus*	
White-rumped sandpiper	*Calidris fuscicollis*	
Purple sandpiper	*Calidris maritima*	
Western sandpiper	*Calidris mauri*	
Pectoral sandpiper	*Calidris melanotos*	
Least sandpiper	*Calidris minutilla*	
Semipalmated sandpiper	*Calidris pusilla*	
Chuck-will's-widow	*Caprimulgus carolinensis*	
Whip-poor-will	*Caprimulgus vociferus*	
Northern cardinal	*Cardinalis cardinalis*	
Pine siskin	*Carduelis pinus*	
American goldfinch	*Carduelis tristis*	
House finch	*Carpodacus mexicanus*	
Purple finch	*Carpodacus purpureus*	
Turkey vulture	*Cathartes aura*	
Veery	*Catharus fuscescens*	
Hermit thrush	*Catharus guttatus*	
Gray-cheeked thrush	*Catharus minimus*	
Swainson's thrush	*Catharus ustulatus*	
Willet	*Catoptrophorus semipalmatus*	
Brown creeper	*Certhia americana*	
Belted kingfisher	*Ceryle alcyon*	
Chimney swift	*Chaetura pelagica*	
Snowy plover	*Charadrius alexandrinus*	ST
Piping plover	*Charadrius melodus*	FT
Semipalmated plover	*Charadrius semipalmatus*	
Killdeer	*Charadrius vociferus*	
Wilson's plover	*Charadrius wilsonia*	
Black tern	*Chlidonias niger*	
Lark sparrow	*Chondestes grammacus*	
Common nighthawk	*Chordeiles minor*	
Northern harrier	*Circus cyaneus*	
Marsh (long-billed marsh) wren	*Cistothorus palustris*	
Sedge (short-billed marsh) wren	*Cistothorus platensis*	
Long-tailed duck (oldsquaw)	*Clangula hyemalis*	
Evening grosbeak	*Coccothraustes vespertinus*	
Yellow-billed cuckoo	*Coccyzus americanus*	
Black-billed cuckoo	*Coccyzus erythropthalmus*	
Northern (yellow-shafted) flicker	*Colaptes auratus*	
Northern bobwhite	*Colinus virginianus*	

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Rock dove (pigeon)	*Columba livia*	
Common ground-dove	*Columbina passerina*	
Eastern wood-pewee	*Contopus virens*	
Black vulture	*Coragyps atratus*	
American crow	*Corvus brachyrhynchos*	
Fish crow	*Corvus ossifragus*	
Groove-billed ani	*Crotophaga sulcirostris*	
Blue jay	*Cyanocitta cristata*	
Black-throated blue warbler	*Dendroica caerulescens*	
Bay-breasted warbler	*Dendroica castanea*	
Cerulean warbler	*Dendroica cerulea*	
Yellow-rumped (myrtle) warbler	*Dendroica coronata*	
Prairie warbler	*Dendroica discolor*	
Yellow-throated warbler	*Dendroica dominica*	
Blackburnian warbler	*Dendroica fusca*	
Magnolia warbler	*Dendroica magnolia*	
Black-throated gray warbler	*Dendroica nigrescens*	
Palm warbler	*Dendroica palmarum*	
Chestnut-sided warbler	*Dendroica pensylvanica*	
Yellow warbler	*Dendroica petechia*	
Pine warbler	*Dendroica pinus*	
Blackpoll warbler	*Dendroica striata*	
Cape May warbler	*Dendroica tigrina*	
Black-throated green warbler	*Dendroica virens*	
Bobolink	*Dolichonyx oryzivorus*	
Pileated woodpecker	*Dryocopus pileatus*	
Gray catbird	*Dumetella carolinensis*	
Little blue heron	*Egretta caerulea*	SSC
Reddish egret	*Egretta rufescens*	SSC
Snowy egret	*Egretta thula*	SSC
Tricolored (Louisiana) heron	*Egretta tricolor*	SSC
Swallow-tailed kite	*Elanoides forficatus*	
Yellow-bellied flycatcher	*Empidonax flaviventris*	
Least flycatcher	*Empidonax minimus*	
Acadian flycatcher	*Empidonax virescens*	
Horned lark	*Eremophila alpestris*	
White ibis	*Eudocimus albus*	SSC
Rusty blackbird	*Euphagus carolinus*	
Brewer's blackbird	*Euphagus cyanocephalus*	
Merlin	*Falco columbarius*	
Peregrine falcon	*Falco peregrinus*	
Southeastern American kestrel	*Falco sparverius paulus*	ST
Magnificent frigatebird	*Fregata magnificens*	
American coot	*Fulica americana*	
Wilson's (common) snipe	*Gallinago delicata*	
Common moorhen (gallinule)	*Gallinula chloropus*	
Common loon	*Gavia immer*	

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Red-throated loon	*Gavia stellata*	
Common yellowthroat	*Geothlypis trichas*	
Florida sandhill crane	*Grus canadensis pratensis*	ST
American oystercatcher	*Haematopus palliatus*	SSC
Bald eagle	*Haliaeetus leucocephalus*	
Worm-eating warbler	*Helmitheros vermivorus*	
Black-necked stilt	*Himantopus mexicanus*	
Barn swallow	*Hirundo rustica*	
Wood thrush	*Hylocichla mustelina*	
Yellow-breasted chat	*Icteria virens*	
Baltimore oriole	*Icterus galbula*	
Orchard oriole	*Icterus spurius*	
Mississippi kite	*Ictinia mississippiensis*	
Least bittern	*Ixobrychus exilis*	
Varied thrush	*Ixoreus naevius*	
Dark-eyed (slate-colored) junco	*Junco hyemalis*	
Loggerhead shrike	*Lanius ludovicianus*	
Laughing gull	*Larus atricilla*	
Ring-billed gull	*Larus delawarensis*	
Iceland gull	*Larus glaucoides*	
Great (greater) black-backed gull	*Larus marinus*	
Bonaparte's gull	*Larus philadelphia*	
American herring gull	*Larus smithsonianus*	
Black rail	*Laterallus jamaicensis*	
Short-billed dowitcher	*Limnodromus griseus*	
Long-billed dowitcher	*Limnodromus scolopaceus*	
Swainson's warbler	*Limnothlypis swainsonii*	
Marbled godwit	*Limosa fedoa*	
Hudsonian godwit	*Limosa haemastica*	
Hooded merganser	*Lophodytes cucullatus*	
Red-bellied woodpecker	*Melanerpes carolinus*	
Red-headed woodpecker	*Melanerpes erythrocephalus*	
White-winged scoter	*Melanitta fusca*	
Black scoter	*Melanitta nigra*	
Surf scoter	*Melanitta perspicillata*	
Wild turkey	*Meleagris gallopavo*	
Swamp sparrow	*Melospiza georgiana*	
Lincoln's sparrow	*Melospiza lincolnii*	
Song sparrow	*Melospiza melodia*	
Red-breasted merganser	*Mergus serrator*	
Stilt sandpiper	*Micropalama himantopus*	
Northern mockingbird	*Mimus polyglottos*	
Black-and-white warbler	*Mniotilta varia*	
Bronzed cowbird	*Molothrus aeneus*	
Brown-headed cowbird	*Molothrus ater*	
Shiny cowbird	*Molothrus bonariensis*	
Northern gannet	*Morus bassanus*	

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Wood stork	*Mycteria americana*	FE
Great crested flycatcher	*Myiarchus crinitus*	
Whimbrel	*Numenius phaeopus*	
Yellow-crowned night-heron	*Nyctanassa violacea*	
Black-crowned night-heron	*Nycticorax nycticorax*	
Kentucky warbler	*Oporornis formosus*	
Mourning warbler	*Oporornis philadelphia*	
Eastern screech-owl	*Otus asio*	
Ruddy duck	*Oxyura jamaicensis*	
Osprey	*Pandion haliaetus*	
Northern parula	*Parula americana*	
House sparrow	*Passer domesticus*	
Savannah sparrow	*Passerculus sandwichensis.*	
Fox sparrow	*Passerella iliaca*	
Blue grosbeak	*Passerina caerulea*	
Painted bunting	*Passerina ciris*	
Indigo bunting	*Passerina cyanea*	
American white pelican	*Pelecanus erythrorhynchos*	
Brown pelican	*Pelecanus occidentalis*	SSC
Cliff swallow	*Petrochelidon pyrrhonota*	
Double-crested cormorant	*Phalacrocorax auritus*	
Wilson's phalarope	*Phalaropus tricolor*	
Rose-breasted grosbeak	*Pheucticus ludovicianu*	
Black-headed grosbeak	*Pheucticus melanocephalus*	
Ruff	*Philomachus pugnax*	
Red-cockaded woodpecker	*Picoides borealis*	FE
Downy woodpecker	*Picoides pubescens*	
Hairy woodpecker	*Picoides villosus*	
Eastern (rufous-sided) towhee	*Pipilo erythrophthalmus*	
Western tanager	*Piranga ludoviciana*	
Scarlet tanager	*Piranga olivacea*	
Summer tanager	*Piranga rubra*	
Glossy ibis	*Plegadis falcinellus*	
American (lesser) golden-plover	*Pluvialis dominica*	
Black-bellied plover	*Pluvialis squatarola*	
Horned grebe	*Podiceps auritus*	
Red-necked grebe	*Podiceps grisegena*	
Eared grebe	*Podiceps nigricollis*	
Pied-billed grebe	*Podilymbus podiceps*	
Carolina chickadee	*Poecile carolinensis*	
Blue-gray gnatcatcher	*Polioptila caerulea*	
Vesper sparrow	*Pooecetes gramineus*	
Purple gallinule	*Porphyrio martinica*	
Sora	*Porzana carolina*	
Purple martin	*Progne subis*	
Prothonotary warbler	*Protonotaria citrea*	
Vermilion flycatcher	*Pyrocephalus rubinus*	

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Boat-tailed grackle	*Quiscalus major*	
Common grackle	*Quiscalus quiscula*	
King rail	*Rallus elegans*	
Virginia rail	*Rallus limicola*	
Clapper rail	*Rallus longirostris*	
American avocet	*Recurvirostra americana*	
Ruby-crowned kinglet	*Regulus calendula*	
Golden-crowned kinglet	*Regulus satrapa*	
Bank swallow	*Riparia riparia*	
Black-legged kittiwake	*Rissa tridactyla*	
Black skimmer	*Rynchops niger*	SSC
Eastern phoebe	*Sayornis phoebe*	
American woodcock	*Scolopax minor*	
Ovenbird	*Seiurus aurocapillus*	
Louisiana waterthrush	*Seiurus motacilla*	
Northern waterthrush	*Seiurus noveboracensis*	
Rufous hummingbird	*Selasphorus rufus*	
American redstart	*Setophaga ruticilla*	
Eastern bluebird	*Sialia sialis*	
Red-breasted nuthatch	*Sitta canadensis*	
White-breasted nuthatch	*Sitta carolinensis*	
Brown-headed nuthatch	*Sitta pusilla*	
Yellow-bellied sapsucker	*Sphyrapicus varius*	
Dickcissel	*Spiza americana*	
Clay-colored sparrow	*Spizella pallida*	
Chipping sparrow	*Spizella passerina*	
Field sparrow	*Spizella pusilla*	
Northern rough-winged swallow	*Stelgidopteryx serripennis*	
Parasitic jaeger	*Stercorarius parasiticus*	
Bridled tern	*Sterna anaethetus*	
Caspian tern	*Sterna caspia*	
Forster's tern	*Sterna forsteri*	
Sooty tern	*Sterna fuscata*	
Common tern	*Sterna hirundo*	
Royal tern	*Sterna maxima*	
Gull-billed tern	*Sterna nilotica*	
Sandwich tern	*Sterna sandvicensis*	
Least tern	*Sternulus antillarum*	ST
Eurasian collared-dove	*Streptopelia decaocto*	
Barred owl	*Strix varia*	
Eastern meadowlark	*Sturnella magna*	
Common (European) starling	*Sturnus vulgaris*	
Masked (blue-faced) booby	*Sula dactylatra*	
Brown booby	*Sula leucogaster*	
Tree swallow	*Tachycineta bicolor*	
Bewick's wren	*Thryomanes bewickii*	
Carolina wren	*Thryothorus ludovicianus*	

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Brown thrasher	*Toxostoma rufum*	
Lesser yellowlegs	*Tringa flavipes*	
Greater yellowlegs	*Tringa melanoleuca*	
Solitary sandpiper	*Tringa solitaria*	
House wren	*Troglodytes aedon*	
Winter wren	*Troglodytes troglodytes*	
Buff-breasted sandpiper	*Tryngites subruficollis*	
American robin	*Turdus migratorius*	
Gray kingbird	*Tyrannus dominicensis*	
Scissor-tailed flycatcher	*Tyrannus forficatus*	
Eastern kingbird	*Tyrannus tyrannus*	
Western kingbird	*Tyrannus verticalis*	
Common barn owl	*Tyto alba*	
Orange-crowned warbler	*Vermivora celata*	
Golden-winged warbler	*Vermivora chrysoptera*	
Tennessee warbler	*Vermivora peregrina*	
Blue-winged warbler	*Vermivora pinus*	
Nashville warbler	*Vermivora ruficapilla*	
Black-whiskered vireo	*Vireo altiloquus*	
Yellow-throated vireo	*Vireo flavifrons*	
White-eyed vireo	*Vireo griseus*	
Red-eyed vireo	*Vireo olivaceus*	
Philadelphia vireo	*Vireo philadelphicus*	
Blue-headed (solitary) vireo	*Vireo solitarius*	
Canada warbler	*Wilsonia canadensis*	
Hooded warbler	*Wilsonia citrina*	
Wilson's warbler	*Wilsonia pusilla*	
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	
White-winged dove	*Zenaida asiatica*	
Mourning dove	*Zenaida macroura*	
White-throated sparrow	*Zonotrichia albicollis*	
White-crowned sparrow	*Zonotrichia leucophrys*	
Mammals		
Coyote	*Canis latrans*	
Beaver	*Castor canadensis*	
Opossum	*Didelphis virginiana*	
Pocket gopher	*Geomys pinetis*	
River otter	*Lutra canadensis*	
Bobcat	*Lynx rufus*	
Striped skunk	*Mephitis mephitis*	
Round-tailed muskrat	*Neofiber alleni*	
White tailed deer	*Odocoileus virginianus*	
Cotton mouse	*Peromyscus gossypinus*	
St. Andrew beach mouse	*Peromyscus polionotus peninsularis*	FE
Raccoon	*Procyon lotor*	
Gray squirrel	*Sciurus carolinensis*	

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Fox squirrel	*Sciurus niger*	
Cotton rat	*Sigmodon hispidus*	
Cottontail rabbit	*Sylvilagus floridanus*	
Marsh rabbit	*Sylvilagus palustris*	
Florida manatee	*Trichechus manatus latirostris*	FE
Gray fox	*Urocyon cinereoargenteus*	
Florida black bear	*Ursus americanus floridanus*	

B.3.2 / ***Listed Species***

Common Name	Species Name	Status
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Plants		
Pinewoods bluestem	*Andropogon arctatus*	ST
Southern milkweed	*Asclepias viridula*	SE
Pine-woods aster	*Aster spinulosus*	ST
Godfrey's golden-aster	*Chrysopsis godfreyi*	SE
Tropical waxweed	*Cuphea aspera*	SE
Telephus spurge	*Euphorbia telephioides*	SE, FT
Pennell's or wiregrass gentian	*Gentiana pennelliana*	SE
Henry's spider-lily; green spider-lily	*Hymenocallis henryae*	SE
Thick-leaf water-willow	*Justicia crassifolia*	SE
Florida corkwood	*Leitneria floridana*	ST
Catesby's or pine or Southern red lily	*Lilium catesbaei*	ST
West's flax	*Linum westii*	SE
White birds-in-a-nest	*Macbridea alba*	SE, FT
Cinnamon fern	*Osmunda cinnamomea*	CE
Pineland false sunflower; narrow-leaved phoebanthus	*Phoebanthus tenuifolius*	ST
Godfrey's or Apalachicola dragon-head	*Physostegia godfreyi*	ST
Violet-flower butterwort	*Pinguicula ionantha*	SE, FT
Yellow-flowered butterwort	*Pinguicula lutea*	ST
Chapman's butterwort	*Pinguicula planifolia*	ST
Chapman's rhododendron	*Rhododendron chapmanii*	FE
Thread-leaf beakrush; thread-leaf beaksedge	*Rhynchospora filifolia*	SE
Parrot pitcher-plant	*Sarracenia psittacina*	ST
Florida skullcap	*Scutellaria floridana*	SE, FT
Chapman's crownbeard	*Verbesina chapmanii*	ST
Amphibians		
Flatwoods salamander	*Ambystoma bishopi*	FE
Gopher frog	*Lithobates capito*	SSC
Reptiles		
American alligator	*Alligator mississippiensis*	FT(S/A)
Loggerhead sea turtle	*Caretta caretta*	FT

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Green sea turtle	*Chelonia mydas*	FE
Eastern indigo snake	*Drymarchon corais couperi*	FT
Gopher tortoise	*Gopherus polyphemus*	ST
Kemp's ridley sea turtle	*Lepidochelys kempii*	FE
Alligator snapping turtle	*Macrochelys temmincki*	SSC
Florida pine snake	*Pituouphis melanoleucus mugitus*	SSC
Birds		
Snowy plover	*Charadrius alexandrinus*	ST
Piping plover	*Charadrius melodus*	FT
Little blue heron	*Egretta caerulea*	SSC
Reddish egret	*Egretta rufescens*	SSC
Snowy egret	*Egretta thula*	SSC
Tricolored (Louisiana) heron	*Egretta tricolor*	SSC
White ibis	*Eudocimus albus*	SSC
Southeastern American kestrel	*Falco sparverius paulus*	ST
Florida sandhill crane	*Grus canadensis pratensis*	ST
American oystercatcher	*Haematopus palliatus*	SSC
Wood stork	*Mycteria americana*	FE
Brown pelican	*Pelecanus occidentalis*	SSC
Red-cockaded woodpecker	*Picoides borealis*	FE
Black skimmer	*Rynchops niger*	SSC
Least tern	*Sternulus antillarum*	ST
Mammals		
St. Andrew beach mouse	*Peromyscus polionotus peninsularis*	FE
Florida manatee	*Trichechus manatus latirostris*	FE

B.3.3 / ***Invasive Species***

Common Name	Species Name	FLEPPC Category
'*Florida Exotic Pest Plant Council (FLEPPC) categorizes invasive exotic plants as Category I (plants that are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives) or Category II (plants that have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species).		
Plants		
Mimosa tree; silk tree	Albizia julibrissin	I
Camphor tree	*Cinnamomum camphora*	I
Bull thistle	*Cirsium vulgare*	not ranked
Showy rattlebox	*Crotalario spectabilis*	not ranked
Cogon grass	*Imperata cylindrica*	I
Lantana	*Lantana camara*	I
Chinese privet	*Ligustrum sinense*	I
Japanese climbing fern	*Lygodium japonicum*	I
Torpedo grass	*Panicum repens*	I
Vasey grass	*Paspalum urvillii*	not ranked

Common Name	Species Name	FLEPPC Category
'*Florida Exotic Pest Plant Council (FLEPPC) categorizes invasive exotic plants as Category I (plants that are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives) or Category II (plants that have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species).		
Common reed	*Phragmites australis*	not ranked
Chinese brake fern	*Pteris vittata*	II
Chinese tallow; popcorn tree	*Sapium sebiferum*	I
Cattails	*Typha* sp.	n/a
Mammals		
Nine-banded armadillo	*Dasypus novemcinctus*	n/a
Feral cat	*Felis catus*	n/a
Feral hog	*Sus scrofa*	n/a
Insects		
Argentine fire ant	*Solenopsis invicta*	n/a
Reptiles		
Brown anole	*Anolis sagrei*	n/a
Mediterranean gecko	*Hemidactylus turcicus*	n/a

B.4 / ***St. Joseph Bay State Buffer Preserve Timber Management Assessment***

Prepared by Jason Love, Senior Forester, Other State Land Region 1, Florida Forest Service, August 2013

Purpose

This document is intended to fulfill the timber assessment requirement for St. Joseph Bay State Buffer Preserve as required by Section 1. Chapter 253.036, Florida Statutes. The goal of this *Timber Assessment* is to evaluate the potential and feasibility of managing timber resources for conservation and revenue generation purposes.

Background

The St. Joseph Bay State Buffer Preserve (Buffer Preserve) was established in 1996 for the conservation and restoration of environmentally sensitive ecosystems. There have been several other acquisitions that have taken place over the years to bring the Buffer Preserve to where it is now. The Buffer Preserve serves to provide protection for the aquatic resources in St. Joe Bay.

This area has been used since before the arrival of European man. There is evidence on the Buffer Preserve that Native Americans settled and used the areas. It was after the arrival of European settlers that the upland ecosystems have been severely impacted. Pine timber was cut and not replanted. A system of roads, ditches and drainage canals altered the hydrology. Wildfires once burned frequently across the landscape. These naturally occurring fires kept the pine flatwoods open and grassy. Eventually people began building homes, farms and businesses in the area. With the need to protect these structures from burning, fire suppression became a priority. Since the early to mid 1900's, natural wildland fires have been aggressively extinguished. Elimination of fires has radically changed the plant and animal diversity in fire dependent communities and increased fuel loads.

Goals and Objectives

A primary management objective for St. Joseph Bay State Buffer Preserve is to return the area to a more native ecosystem. Areas that are already in natural conditions are being managed to perpetuate the natural communities. Large tracts of protected land with diverse habitat types afford the opportunity to manage for a variety of native plant and animal species. Habitat restoration and reintroduction of periodic fire will allow managers the ability to preserve these natural communities.

General Timber Management Guidelines

Timber management on St. Joseph Bay State Buffer Preserve should be viewed as a tool to facilitate ecosystem restoration and maintenance. The majority of the acreage of the Buffer Preserve is in natural pine communities that would have historically occurred there, but have lacked proper management prior to state ownership.

To better understand timber management methods, knowledge of a few silvicultural terms is useful. The first is Basal Area. An individual tree's basal area is its cross sectional area (in square feet) measured four and one-half feet above the ground. Basal Area per acre (BA) is the sum of the basal area of every tree within a stand divided the number of acres in the stand. A timber stand's tree stocking and density can be expressed in square feet of basal area per acre.

The next term is diameter breast height (DBH). This is the diameter of a tree measured at four and one-half feet above the ground. It is used in calculating the Basal Area and combined with height can determine the volume of each tree.

Fully stocked pine stands have enough trees per acre of a size large enough to utilize the growing space without causing over-crowding. Pine stands with 70 to 100 sq. ft. BA are considered fully stocked. More, smaller diameter trees than larger diameter ones are required to equal one square foot of basal area per acre. (For example: It takes 357 evenly spaced, six-inch diameter breast height trees per acre to equal 70 sq. ft. BA. Whereas, only 89 twelve-inch DBH trees per acre equal the same 70 sq. ft. BA.)

Basal Area can be roughly correlated to crown coverage and therefore needle-cast. About 40 to 60 sq. ft. BA of pine trees should provide sufficient needles to carry periodic fire while allowing adequate sunlight for native grasses to be maintained.

In natural, pine dominated forest systems trees die because they become old and less able to withstand insect and disease attack. (The life expectancy of slash pine is only around 100 years.) Bark beetles invade a weakened tree then multiply and kill some of its neighbors. This creates holes in the canopy of various sizes that allow full sunlight to reach the forest floor. Lightning strikes and windstorms do the same thing. In addition, lightning caused fires burn away leaf litter and expose bare mineral soil. The bare soil and canopy openings permit large numbers of direct sunlight-dependent pine seedlings to become established and grow straight and tall. (Open grown pine trees appear short and have limbs close to the ground. Historical accounts of native pines describe trees that could only have been grown under somewhat crowded conditions.)

Pine seedlings become established in these holes at very high densities. It is not uncommon to have five to ten thousand seedlings per acre in scattered openings. (Visual evidence of this tight spacing has been lost due to past stump harvesting practices and frequent wildfires which burn above ground portions of the stumps.) Recurrent wildfires and competition for sunlight, moisture, and nutrients favor the strongest, fastest growing pine saplings. Trees die off continually over the life of a stand until mortality replaces the survivors with young seedlings in a never ending cycle. The result is an uneven aged stand where each group of trees created by a canopy opening is about the same age. However, the stand as a whole is a mosaic of clusters that have different ages and densities. Ecologically based timber management strives to mimic these natural processes and still be able to harvest trees that are destined to die anyway. The challenge is to capture the value of the timber while minimizing the impact on the system as a whole.

Stands having an adequate number of mature pines but lacking in young trees should have natural regeneration encouraged. Those with an insufficient number of seed trees may require artificial regeneration methods. In either case, palmettos and other underbrush may have to be controlled to facilitate seedling establishment.

Due to shading effects, trees grown in tight spacing produce fewer and smaller lower limbs. Trees with fewer limbs make more desirable timber products. Planting at least 400 seedlings per acre simulates the tight spacing of natural regeneration. It also helps insure the marketability of the pine trees and increases future management options.

Planting activities, group selection openings, underbrush control measures, and natural regeneration in thin stands will produce young trees of various sizes. A well stocked stand of young pine trees will usually require the removal of weak, diseased, and some overcrowded trees beginning by the age of 15 to 20 years. By this time, the crowns have grown together and ground cover begins to get shaded out. The percentage of live crown to total height of the dominant/codominant trees should be about 33% but no less than 25%. Harvesting a portion of the timber maintains healthy pine growth and allows sunlight to the forest floor, providing better conditions for healthy ground cover. Trees removed in the thinning process can be sold to generate revenue to be used in other land management projects. Likely markets for early thinnings from pine stands currently include pulpwood and chip-n-saw.

The need for second and later thinnings will depend on how low the BA was taken in the first thin and the subsequent growth rate of leave trees. If the BA is reduced to 50 to 70 sq. ft. in the first cut, another harvest will probably be needed in ten to fifteen years. Trees removed from the second and succeeding operations produce ever more valuable products and therefore more money. Current market conditions have some second thinning products worth at least five times as much as wood that was cut during the original harvest. Third thinning trees can be worth twice as much as the second thin. All of this revenue can be generated and still have a stand of pine trees and a healthy ecosystem.

Note: All Timber management activities must comply with the current version of the Silviculture Best Management Practices Manual (BMP's) for public lands.

Existing Timber Resources

The majority of the timber resources on St. Joseph Bay State Buffer Preserve are in natural pine (slash pine and longleaf pine) stands on mesic flatwoods. There are some pine plantations on the area that are planted with slash

pine and loblolly pine. There are also areas of marshes, swamps, bogs, and prairie that are not being considered for their timber resource in this assessment because of their value for watershed protection and other species habitat.

Pine Plantations

There are approximately 394 acres of pine plantation on the Buffer Preserve. Most of these plantations are on areas that were former fields. These plantations are a mixture of loblolly and slash pine. The timber in these stands is of merchantable size. There are several different recommendations for these stands. One would be to clearcut the stands and replant with longleaf pine. Another recommendation would be to thin the existing timber and continue to let it grow. A third recommendation is a hybrid of the previous two. It involves thinning the existing stands and clearcutting small patches to be replanted in longleaf pine. This allows for gradual conversion to the desired species composition of these areas.

Natural Pine Timber

There are approximately 2,051 aces of flatwoods on the Buffer Preserve. Most of this is in natural pine stands that have heavy understory of ti-ti. The BA in these stands ranges from under stocked (<10 Sq. Ft/Ac) to overstocked (>90 Sq. Ft/Ac). Approximately 275 acres was thinned in 2009/2010 to reduce the BA as well as to walk down some of the understory. A large portion of this acreage is in blocks that are adjacent to housing in the area. In many cases the houses are built so that they are right up on the property line. The Buffer Preserve has done a good job with the establishment of firelines along their borders, but without some form of mechanical treatment the current fuel loads and lack of space around the homes are a recipe for disaster. These stands need some form of timber harvest in them that includes the use of a chipper/grinder to remove the understory vegetation (ti-ti, gallberry, wax myrtle, holly). This would leave a clean site where prescribed fire could be re-introduced in a safe manner. The goal of the timber harvest would be to reduce the overall BA to 40-60 Sq. Ft./Ac.

Prescribed Burning

Healthy, natural flatwoods communities are characterized by a relatively open overstory of various age classes of slash and longleaf pines with an undergrowth of saw palmetto, gallberry, and wiregrass; and bearing marks of frequent and sometimes intense fires. Fire plays an important role in maintaining flatwoods communities, including reduction of hardwood competition; creating open-ground conditions suitable for the germination and survival of pine species; nutrient recycling; and increased vigor of fire adapted species. Frequently burned flatwoods are open and grassy, with saw palmettos and gallberry that are scattered and low growing

Groundcover conditions have deteriorated from lack of fire and hardwood/shrub competition is moderate to heavy. Dormant season burns need to conducted in these areas until the understory component has become manageable. The burning rotation should be every 2-3 year cycles. Once the understory has become manageable, growing season burns can then safely be conducted.

Special consideration needs to be taken when planning prescribed burns on the Buffer Preserve. The property is located in a populated area and near major roads. Special care needs to be taken to inform the residents of any burning that is going to possibly affect them. Weather is also of special concern because of the proximity to the Gulf of Mexico. Sea breezes can change the wind direction and adversely affect the fire.

Regeneration

Natural

Natural regeneration provides a lower cost alternative to planting, on sites where species conversion/restoration is not desired. Randomly spaced seedling distribution resulting from natural regeneration gives the stand a more natural appearance and the seedlings generally thrive better than planted seedlings because they come from local seed sources that are adapted to the local climate and site conditions.

Drawbacks to natural regeneration are the time that it takes to establish a stand and inconsistency of stocking; that is, often there are either too many seedlings or not enough.. Despite the best efforts of the manager, the cone crop and weather conditions needed for adequate seedling establishment might not come for several years. This could mean repeated site preparation treatments.

The basic guidelines for natural regeneration are as follows:

1. Harvesting the remainder of the stand in a manner that creates openings with adequate sunlight to allow germination to occur.

2. Checking seed trees in the spring of the year to see if they have an adequate cone crop to make natural regeneration likely to occur.

If adequate cones are present, performing site preparation (chopping, burning etc.) during the summer to expose bare mineral soil and minimize vegetative competition to the seedlings.

Evaluating the amount of natural regeneration during the spring of the following year to ascertain that germination has occurred.

Removal of the overstory, if creating a single-aged even-aged stand is the goal.

Reduce the number of seedlings if natural regeneration has been *too successful.*

Artificial

Hand Planting – Hand planting containerized (tubeling) longleaf pine seedlings is probably the best option for reestablishment in areas where an inadequate number of seed trees exists. Bare-root trees are planted in the winter by machine as described below. Tubelings can be planted in winter or summer, thereby extending the planting season. Containerized seedlings planted early in the summer rainy season have shown excellent survival on well prepared sites.

A word of caution is needed about planting seedlings. Adequate site preparation is essential to seedling survival. Brushy vegetation may require broadcast or strip spraying of an appropriate herbicide. Also, competition from grasses for soil moisture during hot, dry weather can cause severe losses of young seedlings. Where grasses are a problem apply a contact herbicide such as Roundup either in 2 foot wide strips or in spots. Any herbicide should be applied far enough in advance of planting time (at least one month) so that the vegetation has time to "brown up." In the case of strip spraying, the dead vegetation indicates where to plant the seedlings.

Machine Planting - Meander planting bare-root or containerized longleaf pine seedlings at an average spacing of 6' X 12' yields about 600 trees per acre. It is more difficult to vary the spacing and make the planting look random with machine planting. This is due primarily to the inability of tree planters to make sharp turns and still pack the soil around the seedlings roots. Tight turns are also hard on the planter's bearings. The desired effect can be obtained by gradually curving the planting rows and varying the distance between and within the rows.

Again competition for soil moisture during dry weather can cause heavy losses of seedlings and waste of planting costs. Where competition is thick, it is best to either herbicide strips as described above or use a V-blade in conjunction with the planter to plant the seedlings. The V-blader should be set to no more than 2 to 3 inches deep and 18 to 24 inches wide. These settings will minimize soil disturbance and maintain continuity of fuels for future prescribed burns, but the seedlings will have a decent chance of survival.

Salvage Sales

On occasion, small volumes of wood may need to be removed due to fire, windstorm, insect or other damage. The decision whether or not to harvest the affected timber will depend on the threat to the surrounding stands, risk of collateral ecological damage, and the volume/value of the trees involved. For example, small, isolated lightning-strike beetle kills are a natural part of a healthy ecosystem and normally would not be cut. However, if a drought caused the insect infestation to spread, the infected trees and a buffer zone might have to be removed.

Access

There is road network currently in place on the Buffer Preserve. Some of the roads were not designed with the thought of having logging trucks traveling over them. Plans need to be in place prior to releasing any timber sale bids for road repair or culvert installation. This need to be in the timber sale bid packages so potential buyers can adjust their bids accordingly.

Appendix C

Public Involvement

C.1 / St. Joseph Bay State Buffer Preserve Management Plan Advisory Committee

The following appendices contain information about who served on the St. Joseph Bay State Buffer Preserve Management Plan Advisory Committee, when meetings were held, copies of the public advertisements for those meetings, and summaries of each meeting.

C.1.1 / List of Members and Their Affiliations

Name	Affiliation
Matt Greene	Lead managing agency
Dewey Blaylock	Private landowner
Jack Stites	Conservation group (The Nature Conservancy)
Patricia Hardman	Conservation group (Coastal Community Association of Gulf County)
Graham Dozier	Tupelo Soil and Water Conservation District
Matt Hortman	Co-managing entity (Florida Fish and Wildlife Conservation Commission)
Mike Jenkins	Co-managing entity (Florida Forest Service)
Shelley Stiaes	Co-managing entity (U.S. Fish and Wildlife Service)
Graham Lewis	Northwest Florida Water Management District
Warren Yeager, County Commissioner	Local elected official

For more information, you may contact: Florida Transportation Commission, 605 Suwannee Street, MS #9, Room 176, Tallahassee, Florida 32399, (850)414-4105.

BOARD OF TRUSTEES OF INTERNAL IMPROVEMENT TRUST FUND

The Florida **Department of Environmental Protection**, Office of Coastal and Aquatic Managed Areas announces a public meeting to which all persons are invited.

DATE AND TIME: Wednesday, June 13, 2012, 9:00 a.m. – 4:00 p.m.

PLACE: St. Joseph Bay State Buffer Preserve Center, 3915 State Road 30-A, Port St. Joe, FL 32456

GENERAL SUBJECT MATTER TO BE CONSIDERED: The purpose is for the members of the Advisory Committee to discuss the revision of the draft St. Joseph Bay State Buffer Preserve Management Plan.

A copy of the agenda may be obtained by contacting: Preserve Manager, Matt Greene, e-mail: Matt.Greene@dep.state.fl.us, by phone: (850)229-1787 or by mail: 3915 State Road 30-A, Port St. Joe, FL 32456.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 5 days before the workshop/meeting by contacting: Matt Greene, (850)229-1787. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

STATE BOARD OF ADMINISTRATION

The **Florida Prepaid College Board** announces a public meeting to which all persons are invited.

DATE AND TIME: Thursday, June 14, 2012, 9:00 a.m. or soon thereafter – until completion

PLACE: The Hermitage Centre, Hermitage Room, 1801 Hermitage Boulevard, Tallahassee, Florida 32308

GENERAL SUBJECT MATTER TO BE CONSIDERED: The purpose of this meeting is to conduct the regular business of the Florida Prepaid College Board Investment Committee.

A copy of the agenda may be obtained by contacting: http://www.myfloridaprepaid.com/ or (850)488-8514.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 5 days before the workshop/meeting by Faxing a written request: Florida Prepaid College Board, (850)488-3555. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

The **Florida Prepaid College Foundation Board** announces a public meeting to which all persons are invited.

DATE AND TIME: Thursday, June 14, 2012, following the adjournment of the Florida Prepaid College Board meeting on June 14, 2012, at the same location – until completion

PLACE: The Hermitage Centre, Hermitage Room, 1801 Hermitage Boulevard, Tallahassee, Florida 32308

GENERAL SUBJECT MATTER TO BE CONSIDERED: The purpose of this meeting is to conduct the regular business of the Florida Prepaid College Foundation Board.

A copy of the agenda may be obtained by contacting: http://www.myfloridaprepaid.com/, (850)488-8514.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 5 days before the workshop/meeting by Faxing a written request: Florida Prepaid College Board, (850)488-3555. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

The **Florida Prepaid College Board** announces a public meeting to which all persons are invited.

DATE AND TIME: Thursday, June 14, 2012, following the adjournment of the Investment Committee of the Florida Prepaid College Board meeting on June 14, 2012, at the same location – until completion.

PLACE: The Hermitage Centre, Hermitage Room, 1801 Hermitage Boulevard, Tallahassee, Florida 32308

GENERAL SUBJECT MATTER TO BE CONSIDERED: The purpose of this meeting is to conduct the regular business of the Florida Prepaid College Board.

A copy of the agenda may be obtained by contacting: http://www.myfloridaprepaid.com/, (850)488-8514.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 5 days before the workshop/meeting by Faxing a written request: Florida Prepaid College Board, (850)488-3555. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

FLORIDA PAROLE COMMISSION

The **Florida Parole Commission** announces a public meeting to which all persons are invited.

DATES AND TIME: Wednesday, May 2, 2012; May 16, 2012, 8:30 a.m.

PLACE: Florida Parole Commission, 4070 Esplanade Way, Tallahassee, FL 32399-2450

St. Joseph Bay State Buffer Preserve Management Plan
Advisory Committee Meeting Summary
June 13, 2012, 9 a.m. - 4 p.m.
Preserve Center at St. Joseph Bay State Buffer Preserve
3915 State Road 30A, Port St. Joe, FL

Advisory Committee Members Present

Dewey Blaylock (local private property owner), Matt Greene (manager), Patricia Hardman (conservation group- Coastal Community Association of Gulf County), Matt Hortman (co-managing entity- FWC), Mike Jenkins (co-managing entity- FFS), Shelley Stiaes (co-managing entity- USFWS), Jack Stites (conservation group- TNC), Warren Yeager (local elected official- county commissioner).

Others Present

Penny Isom, Pam Phillips, Kim Wren, Charla Boggs (Friends of St. Joseph Bay Preserves, Inc.)

Penny Isom, Planning Manager for the Office of Coastal and Aquatic Managed Areas (CAMA), welcomed everyone to the St. Joseph Bay State Buffer Preserve Draft Management Plan Advisory Committee meeting and thanked them for their attendance. Introductions were made around the room and a recap of previous night's public meeting was done. Written comments were distributed to committee members.

- Discussion on revisions to draft management plan. Summary is organized by topic.

Geographic Information System (GIS) data layers

- FWC uses the Land Management Information System (LMIS). U.S. Geologic Survey has partnered with DEP for GIS database.

Prescribed fire

- There's a need for Firewise education … which may be able to be done through South Gulf Coastal Community.
- Check the listing of burn partners and update the list to include all partners, such as TNC.
- Various site prep techniques are used, including mechanical treatments/removal where appropriate.
- Apalachicola Regional Stewardship Alliance (ARSA) may be able to help.
- Tate's Hell State Forest's hydrologic restoration makes it harder to burn.
- An updated fire management and response plan is needed as well as an updated forest inventory. Include Minimum Impact Suppression Strategies (MIST) for wildfire.

Water monitoring

- Surface wells are in place. Need ground water/surface water monitoring. Can work with Northwest Florida Water Management District.

Restoration

- Restoring wetland canopy (cypress) will probably need to be contracted out. It's a low priority.
- Ground cover restoration isn't mentioned in the draft plan.
- There's low longleaf pine regeneration due to hogs. Hogs can be removed as part of resource management.

Archaeology

- Troy Deal comments mention a tour company being on the Deal Tract site with hoses to unearth archaeological items. Need to get law enforcement involved. Sites need to be documented.
- Glass cabinet in the buffer preserve conference room contains items for public education.
- Can educate the community about archaeological resources by contributing a newspaper article. It was suggested to ask Dan Anderson to do an article about the buffer preserve.

Recreation/Ecotourism/Education

- Need a canoe/kayak launch at Money Bayou. A Florida Boater Improvement grant could be a funding source.
- Do an Eco-Tour Education Day (Coastal Training Program). Can get Tourist Development Council involved. The three friends groups could cooperate. It was mentioned that the peninsula group has money to help. Some eco-tour ideas could be taking hikers to listed plant sites, do fire ecology, etc.
- Could have county or prisoners help with maintenance of trails.
- Visitors currently can park horse trailers at south gate.
- Need pedestrian and vehicle counters.
- Is hunting possible? Current Buffer Preserve Rule (18-23, Florida Administrative Code) does not allow it.

- Organized activities can be advertised via a Coastal Community Association E-Current Newsletter for announcements and Chamber of Commerce website. (Participate, and possibly become a member of the Chamber of Commerce.)
- School Day at the buffer preserve would help educate local school children. Could have Coastal Training Program do the activity. Need to factor in a volunteer coordinator position at the buffer preserve to coordinate activities and build a support group.
- Could get the Tourist Development Council and the Gulf Coast State College to train people for ecotourism (grant fund the position). The Coastal Training Program could develop the plan to do it.

Staffing

- In addition to the staff listed in Chapter 6, consider: cooperative personnel (sharing with other agencies), internships and term positions, partnering with the Tourist Development Council to develop an eco-tourism institute in Gulf County, creating a public school academy at the high school.

Species

- Species list will be updated. The rare salamander in close proximity to the buffer preserve is the reticulated flatwoods salamander (*Ambystoma bishopi*).
- Prior to wrapping the meeting up, the next steps in the management plan process were explained and all were thanked for attending. The advisory committee meeting was then adjourned.

C.2 / Formal Public Meeting

The following Appendices contain information about the formal public meeting which was held in order to obtain input from the public about the St. Joseph Bay State Buffer Preserve Draft Management Plan. There are copies of the public advertisements for those meetings, a list of attendees, a summary of the meeting, and a copy of the written comments received.

C.2.1 / Florida Administrative Weekly Posting

DEPARTMENT OF TRANSPORTATION

The **Florida Transportation Commission** announces a telephone conference call to which all persons are invited.

DATE AND TIME: May 14, 2012, 10:00 a.m. (EST) – until conclusion of business

PLACE: Florida Department of Transportation, Executive Conference Room, 605 Suwannee Street, MS #9, Tallahassee, FL 32399. Teleconference: (850)414-4976

GENERAL SUBJECT MATTER TO BE CONSIDERED: FTC Performance Measures Working Group

A copy of the agenda may be obtained by contacting: Lisa O. Stone at (850)414-4316.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 48 hours before the workshop/meeting by contacting: Lisa O. Stone, (850)414-4316. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

For more information, you may contact: Florida Transportation Commission, 605 Suwannee Street, MS #9, Tallahassee, FL 32399 or phone (850)414-4105.

The **Department of Transportation,** District 2 announces a public meeting to which all persons are invited.

DATE AND TIME: May 29, 2012, 4:30 p.m.

PLACE: Shady Grove Community Center, 4225 Alton Wentworth Road, Shady Grove, Florida 32357

GENERAL SUBJECT MATTER TO BE CONSIDERED: This meeting is being held to afford interested persons the opportunity to express their views concerning the location, conceptual design and social, economic and environmental effects of Financial Project ID Number 426073-1, otherwise known as the SR-55 Econfina Bridge Replacement in Taylor County, Florida. The Department is planning to replace the SR-55 Bridge over the Econfina River. The existing two lane bridge will be replaced by a new two lane bridge with paved shoulders. A temporary bridge will be used to carry traffic while the new bridge is constructed. Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status.

A copy of the agenda may be obtained by contacting: Mr. Bill Henderson, District Planning and Environmental Manager, Florida Department of Transportation, District 2, 1109 S. Marion Avenue, MS 2007, Lake City, Florida 32025-5874.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 7 days before the workshop/meeting by contacting: Mr. Bill Henderson, District Planning and Environmental Manager, Florida Department of Transportation, District 2, 1109 S. Marion Avenue, MS 2007, Lake City, Florida 32025-5874, (386)961-7873 or 1(800)749-2967, extension 7873. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

The **Department of Transportation,** District 2 announces a workshop to which all persons are invited.

DATE AND TIME: May 31, 2012, 4:30 p.m.

PLACE: Alachua City Commission Chambers, 15100 N.W. 142nd Terrace, Alachua, Florida 32615

GENERAL SUBJECT MATTER TO BE CONSIDERED: This workshop is being held to afford interested persons the opportunity to express their views concerning the location, conceptual design and social, economic and environmental effects of Financial Project ID Number 424685-1, otherwise known as the I-75/US 441 Interchange project in Alachua County, Florida. The Department is proposing operational improvements be made to the I-75/US 441 Interchange. Improvements will consist of constructing a new US 441 eastbound to I-75 southbound on-ramp. Also included in the improvements is a new Park and Ride facility to be located in the southwest quadrant of the interchange. Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status.

A copy of the agenda may be obtained by contacting: Mr. Bill Henderson, District Planning and Environmental Manager, Florida Department of Transportation, District 2, 1109 S. Marion Avenue, MS 2007, Lake City, Florida 32025-5874.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 7 days before the workshop/meeting by contacting: Mr. Bill Henderson, District Planning and Environmental Manager, Florida Department of Transportation, District 2, 1109 S. Marion Avenue, MS 2007, Lake City, Florida 32025-5874, (386)961-7873 or 1(800)749-2967, extension 7873. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

BOARD OF TRUSTEES OF INTERNAL IMPROVEMENT TRUST FUND

The Florida **Department of Environmental Protection, Office of Coastal and Aquatic Managed Areas** announces a public meeting to which all persons are invited.

DATE AND TIME: Tuesday, June 12, 2012, 6:00 p.m. – 7:30 p.m.

PLACE: St. Joseph Bay State Buffer Preserve Center, 3915 State Road 30-A, Port St. Joe, FL 32456

GENERAL SUBJECT MATTER TO BE CONSIDERED: The purpose is to receive public comment on the draft St. Joseph Bay State Buffer Preserve Management Plan.

A copy of the draft plan will be available for viewing starting May 12, 2012 at www.dep.state.fl.us/coastal. The St. Joseph Bay State Buffer Preserve Advisory Committee will be participating.

A copy of the agenda may be obtained by contacting: Preserve Manager, Matt Greene by e-mail: Matt.Greene@dep.state.fl.us, by phone: (850)229-1787 or by mail: 3915 State Road 30-A, Port St. Joe, FL 32456.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 5 days before the workshop/meeting by contacting: Matt Greene, (850)229-1787. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

STATE BOARD OF ADMINISTRATION

The **State Board of Administration** announces a public meeting to which all persons are invited.

DATE AND TIME: May 14, 2012, 10:00 a.m. until noon

PLACE: Hermitage Conference Room, The Hermitage Centre, 1801 Hermitage Blvd., Tallahassee, Florida

GENERAL SUBJECT MATTER TO BE CONSIDERED: General Business of the Audit Committee.

A copy of the agenda may be obtained by contacting: Loveleen Verma, (850)413-1246 or loveleen.verma@sbafla.com.

DEPARTMENT OF CITRUS

The Florida **Department of Citrus**, Florida Citrus Commission announces a public meeting to which all persons are invited.

DATE AND TIME: Wednesday, May 16, 2012, 9:00 a.m.

PLACE: Florida Department of Citrus, 605 E. Main Street, Bartow, Florida 33830

GENERAL SUBJECT MATTER TO BE CONSIDERED: The Commission will convene for the purpose of standing committee meetings and the regularly scheduled meeting of the Florida Citrus Commission. The Commission will address issues pertaining to budget items and revisions, contracts, advertising programs, program evaluation measurements, licensing, issues pertaining to Chapter 601, F.A.C., rulemaking including, but not limited to, the final hearing on amendments to Rules 20-9.002, 20-60.001 and 20-65.002, F.A.C.; amendment to Rule 20-64.001, F.A.C. and repeal of Rules 20-64.002-.005, 20-64.007-.019 and 20-64.023-.024 of Chapter 20-64, F.A.C.; repeal of Chapters 20-66 and 20-70, F.A.C.; and any other matters addressed during regular meetings of the Commission.

A copy of the agenda may be obtained by contacting: Heather Facey, (863)537-3950 or hfacey@citrus.state.fl.us.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 48 hours before the workshop/meeting by contacting: Dianne Screws, (863)537-3984 or email: dscrews@citrus.state.fl.us. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

If any person decides to appeal any decision made by the Board with respect to any matter considered at this meeting or hearing, he/she will need to ensure that a verbatim record of the proceeding is made, which record includes the testimony and evidence from which the appeal is to be issued.

For more information, you may contact: Heather Facey, (863)537-3950 or email: hfacey@citrus.state.fl.us.

FLORIDA PAROLE COMMISSION

The **Florida Parole Commission** and the **Florida Parole Commission** Qualifications Committee announces a public meeting to which all persons are invited.

DATE AND TIME: May 18, 2012, 2:00 p.m.

PLACE: Via telephone conference call. To hear the telephone conference you may call 1(888)808-6959, Conference Code 4884460

GENERAL SUBJECT MATTER TO BE CONSIDERED: To discuss the applicants for the parole commissioner vacancy.

A copy of the agenda may be obtained by contacting: Florida Parole Commission, Attention: Sarah J. Rumph, 4070 Esplanade Way, Tallahassee, Florida 32399 2450, Telephone: (850)488-4460.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 2 days before the workshop/meeting by contacting: Florida Parole Commission, Attention: Sarah J. Rumph, 4070 Esplanade Way, Tallahassee, Florida 32399, 2450, Telephone: (850)488-4460. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

If any person decides to appeal any decision made by the Board with respect to any matter considered at this meeting or hearing, he/she will need to ensure that a verbatim record of the proceeding is made, which record includes the testimony and evidence from which the appeal is to be issued.

For more information, you may contact: Florida Parole Commission, Attention: Sarah J. Rumph, 4070 Esplanade Way, Tallahassee, Florida 32399 2450; Telephone: (850)488-4460.

Florida Department of Environmental Protection • Office of Coastal & Aquatic Managed Areas

St. Joseph Bay State Buffer Preserve Management Planning

Public Meeting

Tuesday, June 12, 2012, 6:00 pm

St. Joseph Bay State
Buffer Preserve Center
3915 State Road 30-A
Port St. Joe, FL 32456

The Florida Department of Environmental Protection's Office of Coastal and Aquatic Managed Areas (CAMA) is responsible for the management of Florida's 41 aquatic preserves, 3 National Estuarine Research Reserves (NERRs), a National Marine Sanctuary, and the Coral Reef Conservation Program. These protected areas comprise more than 4 million acres of the most valuable submerged lands and select coastal uplands in Florida. CAMA is updating these management plans, and is currently seeking input on the draft St. Joseph Bay State Buffer Preserve plan. Meeting objectives:

1. Review purpose and process for revising the St. Joseph Bay State Buffer Preserve management plan.
2. Present current draft plan with a focus on issues, goals, objectives and strategies.
3. Receive input on the draft management plan.

The information from the meeting will be compiled and used by CAMA in the revision of the draft management plan.

For more information, please contact Matt Greene, (850) 229-1787 / Matt.Greene@dep.state.fl.us or visit our website at www.dep.state.fl.us/coastal/sites/stjoseph_buffer/. Written comments are welcome and can be submitted by fax: (850) 245-2110, Attn: St. Joseph Buffer; or email FloridaCoasts@dep.state.fl.us on or before June 19, 2012.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 5 days before the workshop/meeting by contacting Matt Greene at (850) 229-1787 or Matt.Greene@dep.state.fl.us. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, (800) 955-8771 (TDD) or (800) 955-8770 (Voice).

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THE STAR

Buffer Preserve management planning public meeting

May 31, 2012 11:04 AM

Star Staff Report

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Community MEETINGS

Buffer Preserve management planning public meeting

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Juvenile Justice Council meeting

Star Staff Report

The Gulf County Juvenile Justice Council will meet at 3:30 p.m. ET on Wednesday, June 6 at the Port St. Joe Fire Station. We welcome the public attendance and participation. Point of contact is Amy Rogers, chairperson, at 227-4041.

St. Joseph Bay State Buffer Preserve
Management Plan Public Meeting Summary
June 12, 2012, 6 - 7p.m.
Preserve Center at St. Joseph Bay State Buffer Preserve
3915 State Road 30A, Port St. Joe, FL

Penny Isom, Planning Manager for the Office of Coastal and Aquatic Managed Areas (CAMA), welcomed everyone to the St. Joseph Bay State Buffer Preserve Draft Management Plan public meeting and thanked them for their attendance. Attendees were reminded to sign in, mentioned that agendas were on table at entrance, complete comment cards if desiring to speak and reiterated that agendas were on table at entrance. Introductions were made noting all staff from CAMA in Tallahassee and St. Joseph Bay State Buffer Preserve and it was noted that CAMA staff wore blue name tags if anyone had questions during the public comment part of the meeting. Friends of the Preserves, Inc. board members were recognized and it was noted their name tags were red if anyone wanted to converse with them. Lee Edmiston, Kim Wren and Jessie Kanes from the Apalachicola National Estuarine Research Reserve were introduced and thanked for their attendance. Ms. Isom encouraged attendees to ask questions, make comments and participate in the public comment period as the public's comments are vital in making the management plan a useful, effective tool for guiding the management of the Buffer Preserve over the next ten years.

Matt Greene, Preserves Manager, gave a very informative talk about the Buffer Preserve which included an overview of the Preserve's acquisition history and broad discussion about current management efforts and research goals. Mr. Greene also relayed the ten year resource management goals which include continuing to build upon the management successes to date, while striving to improve the visibility of the Buffer Preserve within the local and regional community. He spoke about prescribed fire and its importance to the natural communities and species which inhabit the Buffer Preserve. He encouraged those attending to utilize the Buffer Preserve trails and encouraged citizens to volunteer which enables staff to provide assistance in completing management actions. He encouraged everyone to join the Friends of the Preserves, Inc., a Citizen Support Organization (CSO) and mentioned two events the CSO sponsors bi-annually; Bay Day, which includes a low country shrimp boil and educational components, stating that volunteers are needed to make such events successful.

Ms. Isom explained how the public comment period would be conducted with stations around the room. Each station had an identified issue that was taken from the draft management plan. A staff member was present at each station to record comments, questions or concerns voiced from the public. The comments would be compiled, evaluated and incorporated where appropriate in the final version of the management plan. Attendees were given the opportunity to visit each station, converse with the station reporter and have their comments included for future consideration. If attendees preferred, they could fill out a comment card and drop it in a box that was provided, or they could fill out the comment card later and fax or e-mail it by June 19, 2012.

After attendees resumed their seats, the next steps in the management plan process were explained. Attendees were reminded that they could send their comments by fax or e-mail to Tallahassee by June 19, 2012. All comments are valuable for incorporation in the final management plan.

In closing, Ms. Isom invited the public to attend the Management Plan Advisory Committee meeting on June 13, 2012 from 9:00 a.m. to 4:00 p.m. Ms. Isom thanked all for their participation, invited them to contact Matt Greene, Preserves Manager, in the future and become a part of the Buffer Preserve's citizen supported organization.

The St. Joseph Bay State Buffer Preserve Draft Management Plan Public Meeting was adjourned.

Public and Advisory Committee Member Attendance: 21

Staff Attendance: 10

Written comments were received from Doug Alderson, Troy Deal, Pallas Gandy, Doug Gilbert, Heather Hitt, Jean Huffman, Alan Knothe, Roy Ogles, Ron Peterson, Jack Rink (April 30 and May 29), and Nancy White.

Goals, Objectives, and Strategies

*D.1 / **Current Goals, Objectives and Strategies Budget Table***

The following table provides a cost estimate for conducting the management activities identified in this plan. The data is organized by year and Management Program with subtotals for each program and year. The following represents the actual budgetary needs for managing the resources of the aquatic preserve. This budget was developed using data from the Florida Coastal Office (FCO) and other cooperating entities, and is based on actual costs for management activities, equipment purchases and maintenance, and for development of fixed capital facilities. This budget assumes optimal staffing levels to accomplish these strategies, and includes the costs associated with staffing such as salary or benefits. Budget categories identified correlate with the FCO Management Program Areas. The Funding Source column depicts the source of funds with "S" designated for state, "F" for federal, and "O" for other funding sources (e.g. non-profit groups, etc.). Dollar figures in red font indicate funding not available at this time.

Goals, Objectives & Integrated Strategies	Mgmt. Program	Implement.Date (Planned)	Length of Initiative	Est. Avg. Yearly Cost	Funding	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26
Issue 1: Restoring Hydrologic Alterations to the Buffer Preserve															
Goal 1: Restore, maintain and protect hydrological functions related to the quality and quantity of water resources and the health of associated wetland and aquatic natural communities.															
Objective 1: Complete a comprehensive hydrologic assessment and restoration plan that identifies habitat restoration needs.															
Strategy 1. Develop a comprehensive hydrological assessment and restoration plan which defines existing hydrological conditions and problems on site, including off-site stormwater impacts and determine best management techniques for completing restoration efforts.	Ecosystem Science	2017	3	$25,000			$25,000	$25,000	$25,000						
Strategy 2. Analyze existing data utilizing GIS and begin comprehensive wetland inventory with special attention shown to restoration needs and/or potential.	Ecosystem Science	2016	2	$2,000	S	$2,000	$2,000								
Strategy 3. Install staff gauges at select wetlands and road crossings.	Resource Mgmt.	Ongoing	Recurring	$750	S	$750	$750	$750	$750	$750	$750	$750	$750	$750	$750
Strategy 4. Conduct threatened or decling amphibians survey.	Ecosystem Science	2017	3	$500	S			$500			$500			$500	
Strategy 5. Monitor existing health, threats and stability of current and proposed shoreline to be acquired.	Ecosystem Science	2017	Recurring	$500	S		$500	$500	$500	$500	$500	$500	$500	$500	$500
Objective 2: Restore hydrology to the fullest extent possible using the best available techniques and maintain restored condition to protect water quality and quantity on the Buffer Preserve as well as in neighboring bodies of water (St. Joseph Bay and Gulf of Mexico) and watersheds (Apalachicola and Depot Creek).															
Strategy 1. Restore remaining ditches that have altered hydrological functioning.	Resource Mgmt.	Ongoing	Recurring	$1, 000	S	$1, 000	$1, 000	$1, 000	$1, 000	$1, 000	$1, 000	$1, 000	$1, 000	$1, 000	$1, 000
Strategy 2. Map, prioritize and restore bulldozer and fire plow lines that have sufficient on-site spoil and that interfere with natural hydrological functioning and with spread of fire across the landscape.	Resource Mgmt.	Ongoing	Recurring	$1,500	S	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500

Goals, Objectives & Integrated Strategies	Mgmt. Program	Implement.Date (Planned)	Length of Initiative	Est. Avg. Yearly Cost	Funding	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26
Strategy 3. Map, prioritize and restore on-site ditches, where possible, and work with neighboring land owners to address ditches which also contribute to observed altered hydrological patterns.	Resource Mgmt.	2017	3	$1,500	S		$1,500	$1,500	$1,500						
Strategy 4. Maintain and advance restoration of previously filled ditches by planting appropriate native vegetation where needed.	Resource Mgmt.	2017	2	$7,500	S		$7,500	$7,500							
Strategy 5. Install and maintain low water crossings and culverts.	Resource Mgmt.	Ongoing	5	$10,000		$10,000	$10,000	$10,000	$10,000	$10,000					
Objective 3: Develop a plan, in coordination with NWFWMD, for the monitoring of ground and surface water.															
Strategy 1. Develop a Hydrologic Monitoring Plan to provide a comprehensive strategy for current and future hydrologic data collection activities for the assessment and characterization of the water resources within the Buffer Preserve.	Ecosystem Science	2020	10	$1,667	S					$1,667	$1,667	$1,667	$1,667	$1,667	$1,667
Strategy 2. Continue existing surface water level monitoring within the Buffer Preserve to gather a record of baseline water levels and the range of variation in water levels that could be used to assess future changes in hydrology.	Ecosystem Science	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 3. Expand surface water level monitoring to include additional sites including Money Bayou.	Ecosystem Science	2017	2	$1,500	S		$1,500	$1,500							
Strategy 4. Review data annually to identify emerging monitoring issues, evaluate the information collected to identify any data gaps affecting monitoring efforts and data processing improvements.	Resource Mgmt.	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 5. Meet with NWFWMD staff annually to collaborate on monitoring efforts, identify data gaps and any additional monitoring needs for future monitoring as part of the district's regional Hydrological Monitoring Plan.	Resource Mgmt.	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 6. Set up system of monitoring ground water in coordination with the NWFWMD to detect potential impacts of water withdrawals.	Resource Mgmt.	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500

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Issue 2: Ecological Restoration and Protection of Native Biodiversity and Ecosystem Functions within the Buffer Preserve															
Goal 1: To protect, restore and maintain native ecosystems within the Buffer Preserve by ensuring natural ecosystem processes.															
Objective 1: Restore natural fire regimes, where feasible, to fire-adapted natural communities through the strategic application of prescribed fire and adaptive wildfire management.															
Strategy 1. Develop a comprehensive fire management plan which includes contingency, mitigation and restoration strategies for the Buffer Preserve's natural communities and management zones.	Resource Mgmt.	Ongoing	2	$5,000	S	$5,000	$5,000								
Strategy 2. Maintain and purchase adequate reliable equipment and ensure staff meet FCO burn standards and actively participate in wildland fire training, including wildfire suppression and prescribed burn operations beyond the Buffer Preserve and education courses to sharpen and extend knowledge and experience base.	Resource Mgmt.	Ongoing	Recurring	$25,000		$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000
Strategy 3. Maintain historically appropriate fire return interval on all fire management zones that are currently in burn rotation. However, emphasis will be on frequent (1-3 year return interval) burning in wet prairies and pine flatwoods where many listed and/or rare plant species have been documented.	Resource Mgmt.	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 4. Identify all wildland urban interface management zones and acres directly available for associated mitigation strategies.	Resource Mgmt.	2016	2	$2,000	S	$2,000	$2,000								
Strategy 5. Use fire as a tool to restore natural processes of critical habitats to support rare and listed species recovery efforts.	Resource Mgmt.	Ongoing	Recurring	$5,000	S	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Strategy 6. Increase the number of acres burned annually within the Buffer Preserve until optimal rates of 2,500 to 3,800 acres are burned annually, based on current Buffer Preserve boundaries.	Resource Mgmt.	Ongoing	Recurring	$7,500	S	$7,500	$7,500	$7,500	$7,500	$7,500	$7,500	$7,500	$7,500	$7,500	$7,500
Strategy 7. Restore fire to long unburned or fire-suppressed zones.	Resource Mgmt.	Ongoing	Recurring	$12,500		$12,500	$12,500	$12,500	$12,500	$12,500	$12,500	$12,500	$12,500	$12,500	$12,500
Strategy 8. Coordinate with other agencies to host training opportunities for wildland and prescribed fire professionals from Florida, the southeast U.S. and nationally.	Resource Mgmt.	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000

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Strategy 9. Initiate and actively meet with local residents, community officials, local fire departments, Emergency Management Services and St. Joseph Peninsula State Park to foster awareness of fire's natural role in maintaining native ecosystems.	Resource Mgmt.	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 10. Produce educational materials that promote Firewise awareness and the benefit of prescribed fire to the Buffer Preserve.	Education/ Outreach	2017	2	$1,000	S		$1,000	$1,000							
Strategy 11. Burn between the months of November and June but emphasize maintenance of areas with recent fire history by conducting burn operations from March through June.	Resource Mgmt.	Ongoing	Recurring	$15,000	S	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000
Objective 2: Restore and protect existing native plant communities by monitoring and restoring dominant or keystone species in areas which are known to have suffered soil disturbance or where natives have been displaced due to infrequent fire.															
Strategy 1. Develop a site wide ecosystem restoration plan for multiple dominant canopy communities (e.g. longleaf, cypress) based on historical reference conditions.	Resource Mgmt.	2018	5	$2,500	S			$2,500	$2,500	$2,500	$2,500	$2,500			
Strategy 2. Conduct inventory and digitize disturbances (e.g. fire suppression plow lines), produce maps and generate and maintain a database of existing disturbance areas and future restoration opportunities.	Resource Mgmt.	2016	3	$2,500	S	$2,500	$2,500	$2,500							
Strategy 3. Restore disturbed areas by employing a variety of restoration techniques including mechanical treatment of existing fuel beds, direct seeding, sowing seed or planting appropriate vegetation.	Resource Mgmt.	Ongoing	Recurring	$10,000		$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000
Strategy 4. Restore longleaf pine dominance by gradual, targeted removal of slash pine and re-establishment of on-site longleaf pine and through direct planting of containerized longleaf pine or longleaf seed capture during mast events.	Resource Mgmt.	2018	8	$5,000	S			$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000

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Strategy 5. Use a combination of fire and mechanical treatments (i.e. mowing, gyro-tracking) to reduce dense and high shrubs and restore herbaceous dominance to areas that have increased shrub and palmetto dominance resulting from past fire suppression and exclusion.	Resource Mgmt.	2017	Recurring	$10,000			$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000
Strategy 6. Seek and acquire alternative funding for restoration projects that are high priority management issues and of critical interest to the Buffer Preserve's conservation goals.	Resource Mgmt.	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 7. Evaluate shoreline areas to identify major erosion areas and restoration needs.	Ecosystem Science	2017	5	$1,000	S		$1,000	$1,000	$1,000	$1,000	$1,000				
Strategy 8. Conduct annual surveys for longleaf pine masting events.	Ecosystem Science	2017	Recurring	$1,000	S		$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Objective 3: Maintain, improve or restore populations of imperiled plant and animal species and habitats and ensure long-term viability of populations of species considered endangered, threatened or of special concern.															
Strategy 1. Track cubic feet, acres restored, and enhanced from groundcover / soil disturbance.	Ecosystem Science	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 2. Establish and maintain optimal fire regimes for rare plants (1-3 year frequency, spring when possible), burning into wet prairie transition zone and burning wetlands when dry for restoration purposes.	Resource Mgmt.	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 3. Continue to monitor and map baseline data on imperiled plants that occur within the Buffer Preserve.	Ecosystem Science	Ongoing	Recurring	$2,000	S	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000
Strategy 4. Complete inventory of imperiled animals that occur within the Buffer Preserve.	Ecosystem Science	2017	Recurring	$1,000	S		$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 5. Where feasible, introduce fire into long-unburned portions of the Buffer Preserve.	Resource Mgmt.	Ongoing	Recurring	*	S	included in G1, O1, S7									
Strategy 6. Investigate the feasibility of red-cockaded woodpecker reintroductions.	Ecosystem Science	2017	2	$1,500	S		$1,500	$1,500							

Goals, Objectives & Integrated Strategies	Mgmt. Program	Implement.Date (Planned)	Length of Initiative	Est. Avg. Yearly Cost	Funding	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26
Strategy 7. Conduct field surveys in conjunction with USFWS in order to determine the presence/absence of the federally endangered reticulated flatwoods salamander.	Ecosystem Science	2017	5	$1,000	S		$1,000	$1,000	$1,000	$1,000	$1,000				
Strategy 8. Promote opportunities to conduct research on wildlife and natural communities within the Buffer Preserve that are relevant to management and restoration.	Resource Mgmt.	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 9. Initiate field survey and historical habitat analyses and studies that will yield information relevant to the documentation, assessment and successful management of all species especially rare, threatened, listed, species of concern or otherwise.	Resource Mgmt.	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 10. Develop customized management plans to protect or benefit specific listed species, if needed.	Resource Mgmt.	2018	2	$2,500	S			$2,500	$2,500						
Strategy 11. Share species information with USFWS, FWC, TNC, FFS, FNAI and others where appropriate.	Resource Mgmt.	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 12. Pursue grants from USFWS, FWC, FFS, NFWF, and other funding sources for land management projects to benefit listed species.	Resource Mgmt.	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 13. Conduct field surveys of the Deal Tract in conjunction with USFWS in order to determine the presence/absence of the federally endangered St. Andrews beach mouse.	Resource Mgmt.	2017	Ongoing	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 14. Develop a gopher tortoise monitoring strategy in conjunction with FWC, as staff and funding are available, and report finding to FWC's Gopher Tortoise Program.	Resource Mgmt.	2017	Ongoing	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Objective 4: Conduct ongoing resource inventories and continue proactive management of existing natural and historical communities.															
Strategy 1. Refine and update current natural community map for the Buffer Preserve.	Ecosystem Science	2016	2	$1,000	S	$1,000	$1,000								

Goals, Objectives & Integrated Strategies	Mgmt. Program	Implement.Date (Planned)	Length of Initiative	Est. Avg. Yearly Cost	Funding	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26
Strategy 2. Continue to update resource inventory and develop species specific management strategies for key focal taxa such as the gopher tortoise, flatwoods salamander, if found present, and/or red-cockaded woodpecker.	Ecosystem Science	2018	Recurring	$1,000	S			$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 3. Demonstrate progress by accelerating compilation of known inventory of existing plants and lichen species, vertebrates, and invertebrates.	Ecosystem Science	Ongoing	Recurring	$1,500	S	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500
Strategy 4. Conduct a comprehensive inventory of all wetland features on the Buffer Preserve.	Ecosystem Science	2018	3	$2,000	S		$2,000	$2,000	$2,000						
Strategy 5. Conduct threatened or declining amphibian surveys to detect presence/absence of rare species.	Ecosystem Science	Ongoing	Recurring	$500	S		$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 6. Coordinate with other agencies and entities and utilize volunteers to conduct frequent BioBlitz events with local experts to identify flora/ fauna areas within the Buffer Preserve to conduct resource inventories.	Ecosystem Science	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 7. Establish an herbarium for researchers and education.	Ecosystem Science	2017	2	$1,500	S		$1,500	$1,500							
Objective 5: Restore natural communities to promote species diversity and ecosystem integrity and function.															
Strategy 1. Develop a site wide ecosystem restoration plan for multiple dominant canopy communities (e.g. longleaf, cypress) based on historical reference conditions.	Ecosystem Science	2017	3	$500	S			$500			$500			$500	
Strategy 2. Restore longleaf pine in xeric flatwoods sites by gradual removal of slash pine and reestablishment of onsite longleaf pine.	Ecosystem Science	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 3. Evaluate need for and methods of restoration of degrated cypress strands; implement restoration if needed.	Ecosystem Science	2017	3	$500	S			$500			$500			$500	
Strategy 4. Develop a plan for restoring pine plantation sites and other areas with unnatuarlly high pine canopy density caused by fire exclusion.	Ecosystem Science	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500

Goals, Objectives & Integrated Strategies	Mgmt. Program	Implement.Date (Planned)	Length of Initiative	Est. Avg. Yearly Cost	Funding	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26
Strategy 5. Seek and acquire alternative funding for restoration projects that are high priority management issues and of critical interest ot the Buffer Preserve's conservation goals.	Ecosystem Science	Ongoing	Recurring	$200	S	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200
Strategy 6. Assess shoreline areas to identify major erosion areas and revegetation needs.	Ecosystem Science	Ongoing	Recurring	$100	S	$100	$100	$100	$100	$100	$100	$100	$100	$100	$100
Issue 3: Controlling Invasive Plant Species															
Goal 1: Reduce or eradicate populations of invasive species currently documented on the Buffer Preserve while monitoring for new populations and/or new species on and/or adjacent to the Buffer Preserve in order to protect natural communities and the rich biodiversity they harbor.															
Objective 1: Protect natural communities through the prevention and control of invasive species which pose a significant threat to the rich botanical diversity protected within the Buffer Preserve.															
Strategy 1. Work collaboratively with local government partners to prevent or reduce the establishment of non-native species.	Resource Mgmt.	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 2. Conduct education and outreach programs for targeted audiences, such as landscape/lawn care providers, natural resource managers, city and county staff, and home owners that incorporate the best available science, identification of non-natives, the value of native plants and associated stewardship practices.	Public Use	2013	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 3. Continue partnership with ARSA's CISMA to provide information, tools, and training opportunities to cooperatively address invasive species in this region of the Panhandle.	Resource Mgmt.	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 4. Develop an interpretive exhibit at the Buffer Preserve Center to inform the general public on the detrimental effects of invasive plants and the value of native species.	Public Use	2017	1	$2,000	S		$2,000								
Strategy 5. Prevent new invasive species from establishing by minimizing introductions and controlling species early.	Resource Mgmt.	Ongoing	Recurring	$1,500	S	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500
Strategy 6. Work toward control and eventual elimination of invasive species that are established in the Buffer Preserve using best management practices.	Resource Mgmt.	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000

Goals, Objectives & Integrated Strategies	Mgmt. Program	Implement.Date (Planned)	Length of Initiative	Est. Avg. Yearly Cost	Funding	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26
Strategy 7. Document and map populations of invasive species to assist with prioritizing control efforts and to provide a baseline for future monitoring of population levels.	Resource Mgmt.	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 8. Maintain GIS database of invasive species, their distribution and treated sites.	Resource Mgmt.	Ongoing	Recurring	$250	S	$250	$250	$250	$250	$250	$250	$250	$250	$250	$250
Strategy 9. Support visiting researchers conducting research on invasive species.	Resource Mgmt.	Ongoing	Recurring	$250	S	$250	$250	$250	$250	$250	$250	$250	$250	$250	$250
Strategy 10. Monitor changes in natural biodiversity in sensitive habitats due to invasive, non-native species.	Resource Mgmt.	Ongoing	Recurring	$250	S	$250	$250	$250	$250	$250	$250	$250	$250	$250	$250
Strategy 11. Maintain and/or acquire appropriate level of training/licensing.	Resource Mgmt.	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 12. Work with adjacent landowners to control invasive species on private lands.	Resource Mgmt.	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 13. Coordinate with other agencies and entities responsible for the maintenance of electrical utilities and roadside right-of-ways.	Resource Mgmt.	2016	1	$500	S	$500									
Issue 4: Protection of Cultural and Historical Resources															
Goal 1: Enhance the understanding, interpretation, and preservation of the Buffer Preserve's cultural resources.															
Objective 1: Increase awareness of legal protections to sites and the importance of archaeological sites.															
Strategy 1. Summarize research information regarding cultural resources for integration into archaeological surveys.	Resource Mgmt.	2017	2	$1,000	S		$1,000	$1,000							
Strategy 2. Working with partners, pursue grant funding to refine information on known archaeological sites and identify prehistoric settlement patterns.	Resource Mgmt.	Ongoing	Recurring	$500	S	$750	$750	$750	$750	$750	$750	$750	$750	$750	$750
Strategy 3. Complete Florida Master Site File forms for all known or discovered, but unrecorded sites.	Resource Mgmt.	Ongoing	Recurring	$250	S	$250	$250	$250	$250	$250	$250	$250	$250	$250	$250
Strategy 4. Provide GIS support for archaeological surveys.	Resource Mgmt.	Ongoing	Recurring	$250	S	$250	$250	$250	$250	$250	$250	$250	$250	$250	$250

Goals, Objectives & Integrated Strategies	Mgmt. Program	Implement.Date (Planned)	Length of Initiative	Est. Avg. Yearly Cost	Funding	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26
Strategy 5. Interpret the results of archaeological surveys through displays, website, fact sheets, posters, K-12 programming and public outreach activities.	Public Use	2017	Recurring	$500	S		$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 6. Raise public awareness to protect these sites by conducting education, training and outreach programs for targeted audiences that incorporate the value of culture resources, the best available science and appropriate resource management practices (e.g. law enforcement training, eco-tour operator series, cultural resource Best Management Practice training).	Public Use	2017	Recurring	$500	S		$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 7. Assemble a panel of experts and convene a workshop at the Buffer Preserve to determine options available to reduce or deter vandalism of cultural resources.	Resource Mgmt.	2017	2	$500	S		$500	$500							
Strategy 8. Replace aging signs while strengthening legal protection language at the Deal Tract and other trailheads.	Public Use	2016	1	$1,000	S	$1,000									
Objective 2: Enhance opportunities for the public to increase their understanding of the significance of the cultural resources on Buffer Preserve lands.															
Strategy 1. Build partnerships with groups, organizations and individuals within Florida and the southeastern U.S. archaeological community.	Public Use	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 2. Partner with Florida Public Archaeological Network to host regular archaeology symposia/outreach events at the Buffer Preserve.	Public Use	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 3. Summarize information regarding cultural resources for integration into the Buffer Preserve's education and stewardship programs. Install adaptable interpretive kiosks and displays to provide up-to-date information on cultural resources for visitors.	Public Use	2018	Recurring	$1,000	S			$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 4. Seek training for staff and volunteers in cultural resource interpretation.	Public Use	2016	2	$500	S	$500	$500								

Goals, Objectives & Integrated Strategies	Mgmt. Program	Implement.Date (Planned)	Length of Initiative	Est. Avg. Yearly Cost	Funding	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26
Strategy 5. Maintain and expand further development of multi-use trails accompanied by interpretive signs and materials.	Public Use	2016	5	$2,500	S	$2,500	$2,500	$2,500	$2,500	$2,500					
Objective 3: Develop an effective approach to maintain and conserve known archaeological sites and their associated artifact assemblage from vandalism, erosion, and other forms of degradation.															
Strategy 1. Regularly assess the condition of known cultural resources.	Resource Mgmt.	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 2. Seek professional assistance to document and determine feasibility of relocation, repair or re-creation of historic structures.	Resource Mgmt.	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Issue 5: Maintain, Preserve and Promote Responsible Use of Public Conservation Land Use and Access															
Goal 1: Increase public access opportunities on Buffer Preserve lands while minimizing adverse impacts to natural and cultural resources.															
Objective 1: Minimize impacts of public use on Buffer Preserve lands.															
Strategy 1. Clearly mark Buffer Preserve boundaries by posting boundary locations and management information.	Public Use	2016	1	$5,000	S	$5,000									
Strategy 2. Design an integrated public access and use plan including a hiking trail system and access to the bay.	Public Use	2017	2	$1,000	S		$1,000	$1,000							
Strategy 3. Install and maintain descriptive signage where appropriate.	Public Use	2013	Recurring	$2,500	S	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
Strategy 4. Establish an enforceable equestrian policy including designated entrances and parking/staging areas and monitor equestrian use areas for possible introduction of invasive species.	Public Use	2017	2	$2,000	S		$2,000	$2,000							
Strategy 5. Maintain and install gates and fences where access is not desired. Conduct routine boundary patrols to assess any damage to natural or cultural resources.	Public Use	Ongoing	Recurring	$2,000	S	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000
Strategy 6. Educate residents/visitors about Buffer Preserve policies through flyers, newsletters and public forums.	Public Use	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 7. Determine carrying capacity for sensitive areas and establish a limited use plan.	Public Use	2018	1	$1,000	S			$1,000							

Goals, Objectives & Integrated Strategies	Mgmt. Program	Implement.Date (Planned)	Length of Initiative	Est. Avg. Yearly Cost	Funding	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26
Strategy 8. Work with local and state officials to discourage inappropriate use in sensitive areas or where public safety is of concern.	Public Use	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Objective 2: Create, maintain and expand sustainable recreational opportunities on the Buffer Preserve managed lands.															
Strategy 1. Designate areas for public use that are compatible with resource management goals of the Buffer Preserve.	Public Use	2016	1	$2,500	S	$2,500									
Strategy 2. Develop and maintain parking areas, trailheads and trails so that visitors can experience a variety of natural communities while minimizing impacts to resources.	Public Use	Ongoing	Recurring	$5,000	S	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Strategy 3. Continue tram tours so that the public can see and hear about the Buffer Preserve firsthand.	Public Use	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 4. Develop a trail at the Deal Tract along existing fire plow line and include interpretive signage.	Public Use	2017	1	$10,000	S		$10,000								
Strategy 5. Create, maintain, and expand trails and walkways for nature appreciation, bird watching and photography.	Public Use	2016	4	$3,000	S	$3,000	$3,000	$3,000	$3,000						
Strategy 6. Add a spotting scope to new observation tower.	Public Use	2016	1	$3,000	S	$3,000									
Strategy 7. Create a loaner optics program.	Public Use	2017	Recurring	$50	S	$50	$50	$50	$50	$50	$50	$50	$50	$50	$50
Strategy 8. Create visitor use field guides for seasonal flower blooms, common birds, etc. found within the Buffer Preserve.	Public Use	2017	1	$10,000	S		$10,000								
Strategy 9. Develop morning bird-watching walks program.	Public Use	2018	Recurring	$400	S		$400	$400	$400	$400	$400	$400	$400	$400	$400
Strategy 10. Develop primitive camping areas where appropriate for pedestrians and paddlecraft enthusiasts.	Public Use	2017	1	$1,000	S		$1,000								
Strategy 11. Utilize Friends of St. Joseph Bay Preserves, students, volunteers, and local citizens to engage and develop projects that promote onsite and nearby sustainable recreational opportunities such as birding hikes and trails with interpretive signage.	Public Use	2014	Recurring	$1,000	O	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000

Goals, Objectives & Integrated Strategies	Mgmt. Program	Implement.Date (Planned)	Length of Initiative	Est. Avg. Yearly Cost	Funding	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26
Issue 6: Promote Scientific Research that Supports the Protection of Native Ecosystems and Natural Community Restoration while Engaging the Local Community to Foster Awareness and Promote Coastal Stewardship															
Goal 1: Promote community awareness and involvement in coastal stewardship to protect coastal and upland resources.															
Objective 1: Promote active stewardship by increasing the community's awareness of the value of the Buffer Preserve's natural resources and of opportunities to access and enjoy Buffer Preserve managed lands.															
Strategy 1. Install and maintain signage within areas that present opportunities for education and outreach about the Buffer Preserve's natural resources.	Education/ Outreach	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 2. Establish an ongoing educational program that seeks to engage students in the work of the Buffer Preserve.	Education/ Outreach	2013	Recurring	$1,500	S	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500
Strategy 3. Provide updated information (i.e. publications, websites, and interpretive exhibits) at the Buffer Preserve Center to educate the public about responsible coastal stewardship.	Education/ Outreach	Ongoing	Recurring	$300	S	$300	$300	$300	$300	$300	$300	$300	$300	$300	$300
Strategy 4. Establish an advisory committee comprised of representatives from local, state and federal government, universities, non-governmental organizations, interested stakeholders including Friends of St. Joseph Bay Preserves and citizens, and other entities that will provide feedback to staff.	Education/ Outreach	2017	Recurring	$250	S		$250	$250	$250	$250	$250	$250	$250	$250	$250
Strategy 5. Raise awareness of stakeholders and local and state decision makers about Buffer Preserve issues.	Education/ Outreach	Ongoing	Recurring	$300	S	$300	$300	$300	$300	$300	$300	$300	$300	$300	$300
Strategy 6. Continue to enlist volunteers to assist with restoration efforts and other activities.	Education/ Outreach	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 7. Provide interpretation of St. Joseph Bay and adjacent ecosystems through installation of an interpretive area (exhibits) at the Buffer Preserve Center.	Education/ Outreach	2017	Recurring	$1,000	S		$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 8. Coordinate with ANERR Coastal Training Program coordinator to provide speakers to address community groups and resource managers interested in the relevance and natural history of local ecosystems.	Education/ Outreach	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500

Goals, Objectives & Integrated Strategies	Mgmt. Program	Implement.Date (Planned)	Length of Initiative	Est. Avg. Yearly Cost	Funding	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26
Strategy 9. Through the CSO, Friends of St. Joseph Bay Preserves, provide special events and activities, such as Bay Day, for the public designed to highlight the importance and value of Buffer Preserve lands.	Education/ Outreach	Ongoing	Recurring	$1,000	O	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 10. Improve integration of the ANERR's stewardship, research and education components to support the Buffer Preserve's programs.	Education/ Outreach	Ongoing	Recurring	$500	S	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 11. Increase efforts to interpret coastal habitats through displays, fact sheets, brochures and public outreach activities, and increase the CSO's presence at local festivals/events.	Education/ Outreach	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 12. Continue to closely coordinate with the CSO.	Education/ Outreach	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 13. Develop a neighbor notification list to inform adjacent landowners and other area residents of issues of natural resource concern pertaining to the Buffer Preserve and adjacent private lands.	Public Use	2015	Recurring	$750	S	$750	$750	$750	$750	$750	$750	$750	$750	$750	$750
Objective 2: Promote scientific research at the Buffer Preserve that supports the protection of native ecosystems and natural communities.															
Strategy 1. Establish the Buffer Preserve as a research station available to natural resource management professionals from multiple disciplines from across the region and the nation.	Education/ Outreach	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 2. Encourage scientific professionals and students to conduct research activities on the Buffer Preserve and communicate research needs to the scientific community.	Education/ Outreach	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 3. Seek grants and other sources of funding to support research and restoration efforts.	Education/ Outreach	2017	Recurring	$500	S		$500	$500	$500	$500	$500	$500	$500	$500	$500
Strategy 4. Continue identifying and evaluating research and restoration needs.	Education/ Outreach	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 5. Facilitate and support research in the Buffer Preserve conducted by visiting researchers and scientists.	Education/ Outreach	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Strategy 6. Host and facilitate visiting researchers, workshops, symposia, classes, field courses and training academies.	Education/ Outreach	Ongoing	Recurring	$1,000	S	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000

*D.2 / **Budget Summary Table***

The following table provides a summary of cost estimates for conducting the management activities identified in this plan.

	Ecosystem Science	Resource Management	Education & Outreach	Public Use	Annual Total
2016-2017	$10,300	$114,750	$12,600	$32,300	$169,950
2017-2018	$46,800	$134,750	$15,350	$48,200	$245,100
2018-2019	$46,300	$137,750	$15,350	$26,700	$226,100
2019-2020	$40,300	$126,250	$14,350	$22,700	$203,600
2020-2021	$14,967	$122,250	$14,350	$19,700	$171,267
2021-2022	$16,467	$112,250	$14,350	$17,200	$160,267
2022-2023	$12,967	$112,250	$14,350	$17,200	$156,767
2023-2024	$12,967	$109,750	$14,350	$17,200	$154,267
2024-2025	$14,467	$109,750	$14,350	$17,200	$155,767
2025-2026	$12,967	$109,750	$14,350	$17,200	$154,267
Ten Year Totals	**$228,502**	**$1,189,500**	**$143,750**	**$235,600**	**$1,797,352**

*D.3 / **Major Accomplishments Since the Approval of the Previous Plan***

- Preserved and protected cultural and historical resources (Deal Tract).
- Developed and maintained nine miles of trails.
- Identified priority parcels in a land acquisition plan to protect water quality, wildlife habitat, rare species and aquatic resources.
- Maintained a prescribed fire management program to restore, maintain and promote natural diversity.
- Developed regional resource management partnerships:
  - Apalachicola Regional Stewardship Alliance
  - The Nature Conservancy
- Completed renovations at Buffer Preserve Center including construction of an observation tower that overlooks the beautiful St. Joseph Bay Aquatic Preserve.
- Acquired additional priority parcels.
- Identified twenty-four species of listed plants.
- Contracted reptile and amphibian study initiated at Buffer Preserve.
- Contracted botanical surveys conducted for rare plants.
- Developed Friends of St. Joseph Bay Preserves group.
- Installed firebreaks around perimeter and interior of Buffer Preserve.
- Increased staff and budget.
- Continued and expanded prescribed burning program.
- Conducted hydrological restoration activities.
- Conducted management actions benefitting rare and listed species.
- Promoted and conducted research on the Buffer Preserve.
- Developed building infrastructure and equipment base necessary for land management operation.
- Initiated surface water level monitoring.

*D.4 / **Eliminated Goals, Objectives and Strategies from Previous Plan***

No goals, objectives or strategies were eliminated from the previous plan.

Division of State Lands/Acquisition and Restoration Council Requirements

*E.1 / **Trustees Lease Agreement and Related Documents***

The Trustees lease agreement for the St. Joseph Bay State Buffer Preserve (Lease 4119), including the legal description can be obtained by contacting the Florida Coastal Office (FCO) at 850/245-2094 or FloridaCoasts@dep.state.fl.us.

*E.2 / **Letter of Compliance of the Management Plan with the Local Government Comprehensive Plan***

Florida Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

Gulf County Planning Department
1000 Cecil G. Costin Sr. Boulevard, Room 311
Port St. Joe, Florida 32456

Dear Planning Department:

Attached is a copy of the draft St. Joseph Bay State Buffer Preserve Management Plan for the 2016-2026 timeframe. The plan was developed with input from the public and the St. Joseph Bay State Buffer Preserve Management Plan Advisory Group. It is anticipated to be reviewed and approved by the Acquisition and Restoration Council at the June 17, 2016 meeting in Tallahassee. We respectfully request, within 30 days of receipt of this letter, your review of the Buffer Preserve plan for its compliance with the Gulf County Comprehensive Plan. Please reply to the physical address (or e-mail address) below regarding whether the management plan is in compliance with the county's comprehensive plan. Thank you in advance for your time and effort in this matter.

If you have any questions, please don't hesitate to contact me at (850)245-2098 or Penny.Isom@dep.state.fl.us.

Sincerely,

Penny Isom
Planning Manger
Florida Department of Environmental Protection
Florida Coastal Office
3900 Commonwealth Blvd., MS 235
Tallahassee, FL 32399-3000

Penny.Isom@dep.state.fl.us

www.dep.state.fl.us

E.3 / ***Management Prospectus***

Taken from the 2004 Florida Forever Five Year Plan, St. Joseph Bay Buffer project, Gulf County (Group A / full fee):

Management Prospectus

Qualifications for state designation - The St. Joseph Bay Buffer project contains extensive salt and fresh water marshes and seagrasses. These areas are major spawning and nursery grounds and are critical in protecting the water quality of the St. Joseph Bay Aquatic Preserve. They qualify the project as a state buffer preserve.

Manager - The recommended manager is the Office of Coastal and Aquatic Managed Areas, Department of Environmental Protection.

Conditions affecting intensity of management - The project generally includes lands that are "low-need" tracts, requiring basic resource management and protection.

Timetable for implementing management and provisions for security and protection of infrastructure - Long-range plans for this property involve its use for research and education and the fulfillment of the management requirements determined by first-year analysis.

Revenue-generating potential - There are no plans for revenue generation at this site.

Cooperators in management activities - The Florida Fish and Wildlife Conservation Commission may be involved in public hunting and fishing on the project.

E.4 / ***Fire Management Statutes and Rules***

St. Joseph Bay State Buffer Preserve Prescribed Fire Statutes and Rules

Staff are currently working on updating the Prescribed Fire Plan for the Buffer Preserve. Updating the fire plan is a high priority goal for the Buffer Preserve and is addressed in the Habitat and Species Management; Issue Two section of the management plan.

The legislature of the State of Florida has recognized the fact that prescribed burning is a valuable land management tool and has addressed this issue with legal requirements associated with prescribed burns. These requirements include laws, rules, and policies administered by the Florida Forest Service, environmental laws, and endangered species laws and rules. The primary laws are covered in Florida Statutes, Chapter 590 and Section 5I-2 of the Florida Administrative Code. A summary of the legal requirements that apply to prescribed fire activity at the St. Joseph Bay State Buffer Preserve are listed below.

Florida Statutes Chapter 590.125, Open Burning Authorized by the Florida Forest Service.

(1) Definitions.--As used in this section, the term:
- (a) "Prescribed burning" means the controlled application of fire in accordance with a written prescription for vegetative fuels under specified environmental conditions while following appropriate precautionary measures that ensure that the fire is confined to a predetermined area to accomplish the planned fire or land-management objectives.
- (b) "Certified prescribed burn manager" means an individual who successfully completes the certification program of the division and possesses a valid certification number.
- (c) "Prescription" means a written plan establishing the criteria necessary for starting, controlling, and extinguishing a prescribed burn.
- (d) "Extinguished" means that no spreading flame for wild land burning or certified prescribed burning, and no visible flame, smoke, or emissions for vegetative land-clearing debris burning, exist.

(2) Noncertified Burning.
- (a) Persons may be authorized to broadcast burn or pile burn pursuant to this subsection if:
  1. There is specific consent of the landowner or his or her designee;
  2. Authorization has been obtained from the Florida Forest Service or its designated agent before starting the burn;
  3. There are adequate firebreaks at the burn site and sufficient personnel and firefighting equipment for the containment of the fire;
  4. The fire remains within the boundary of the authorized area;
  5. The person named responsible in the burn authorization or a designee is present at the burn site until the fire is completed;
  6. The Florida Forest Service does not cancel the authorization; and
  7. The Florida Forest Service determines that air quality and fire danger are favorable for safe burning.
- (b) A new authorization is not required for smoldering that occurs within the authorized burn area unless new ignitions are conducted by the person named responsible in the burn authorization or a designee.
- (c) Monitoring the smoldering activity of a burn does not require an additional authorization even if flames begin to spread within the authorized burn area due to ongoing smoldering.
- (d) A person who broadcast burns or pile burns in a manner that violates this subsection commits a misdemeanor of the second degree, punishable as provided in s. 775.082 or s. 775.083.

(3) Certified Prescribed Burning; Legislative Findings and Purpose.

(a) The application of prescribed burning is a land management tool that benefits the safety of the public, the environment, and the economy of the state. The Legislature finds that:

1. Prescribed burning reduces vegetative fuels within wild land areas. Reduction of the fuel load reduces the risk and severity of wildfire, thereby reducing the threat of loss of life and property, particularly in urban areas.
2. Most of Florida's natural communities require periodic fire for maintenance of their ecological integrity. Prescribed burning is essential to the perpetuation, restoration, and management of many plant and animal communities. Significant loss of the state's biological diversity will occur if fire is excluded from fire-dependent systems.
3. Forestland and rangeland constitute significant economic, biological, and aesthetic resources of statewide importance. Prescribed burning on forestland prepares sites for reforestation, removes undesirable competing vegetation, expedites nutrient cycling, and controls or eliminates certain forest pathogens. On rangeland, prescribed burning improves the quality and quantity of herbaceous vegetation necessary for livestock production.
4. The state purchased hundreds of thousands of acres of land for parks, preserves, wildlife management areas, forests, and other public purposes. The use of prescribed burning for management of public lands is essential to maintain the specific resource values for which these lands were acquired.
5. A public education program is necessary to make citizens and visitors aware of the public safety, resource, and economic benefits of prescribed burning.
6. Proper training in the use of prescribed burning is necessary to ensure maximum benefits and protection for the public.
7. As Florida's population continues to grow, pressures from liability issues and nuisance complaints inhibit the use of prescribed burning. Therefore, the Florida Forest Service is urged to maximize the opportunities for prescribed burning conducted during its daytime and nighttime authorization process.

(b) Certified prescribed burning pertains only to broadcast burning for purposes of silviculture, wildland fire hazard reduction, wildlife management, ecological maintenance and restoration, and agriculture. It must be conducted in accordance with this subsection and:

1. May be accomplished only when a certified prescribed burn manager is present on site with a copy of the prescription and directly supervises the certified prescribed burn until the burn is completed, after which the certified prescribed burn manager is not required to be present.
2. Requires that a written prescription be prepared before receiving authorization to burn from the Florida Forest Service.
   a. A new prescription or authorization is not required for smoldering that occurs within the authorized burn area unless new ignitions are conducted by the certified prescribed burn manager.
   b. Monitoring the smoldering activity of a certified prescribed burn does not require a prescription or an additional authorization even if flames begin to spread within the authorized burn area due to ongoing smoldering.
3. Requires that the specific consent of the landowner or his or her designee be obtained before requesting an authorization.
4. Requires that an authorization to burn be obtained from the Florida Forest Service before igniting the burn.
5. Requires that there be adequate firebreaks at the burn site and sufficient personnel and firefighting equipment to contain the fire within the authorized burn area.
   a. Fire spreading outside the authorized burn area on the day of the certified prescribed burn ignition does not constitute conclusive proof of inadequate firebreaks, insufficient personnel, or a lack of firefighting equipment.
   b. If the certified prescribed burn is contained within the authorized burn area during the authorized period, a strong rebuttable presumption shall exist that adequate firebreaks, sufficient personnel, and sufficient firefighting equipment were present.
   c. Continued smoldering of a certified prescribed burn resulting in a subsequent wildfire does not by itself constitute evidence of gross negligence under this section.
6. Is considered to be in the public interest and does not constitute a public or private nuisance when conducted under applicable state air pollution statutes and rules.
7. Is considered to be a property right of the property owner if vegetative fuels are burned as required in this subsection.

(c) A property owner or leaseholder or his or her agent, contractor, or legally authorized designee is not liable pursuant to s. 590.13 for damage or injury caused by the fire, including the reignition of a smoldering, previously contained burn, or resulting smoke or considered to be in violation of subsection (2) for burns conducted in accordance with this subsection, unless gross negligence is proven. The Florida Forest Service is not liable for burns for which it issues authorizations.

(d) Any certified burner who violates this section commits a misdemeanor of the second degree, punishable as provided in s. 775.082 or s. 775.083.

(e) The Florida Forest Service shall adopt rules for the use of prescribed burning and for certifying and decertifying certified prescribed burn managers based on their past experience, training, and record of compliance with this section.

(4) Certified Pile Burning.—

(a) Certified pile burning pertains to the disposal of piled, naturally occurring debris from agricultural, silvicultural, land-clearing, or tree-cutting debris originating onsite. Certified pile burning must be conducted in accordance with the following:

1. A certified pile burner must ensure, before ignition, that the piles are properly placed and that the content of the piles is conducive to efficient burning.
2. A certified pile burner must ensure that the authorized burn is completed no later than 1 hour after sunset. If the burn is conducted in an area designated by the Florida Forest Service as smoke sensitive, a certified pile burner must ensure that the authorized burn is completed at least 1 hour before sunset.
3. A written pile burning plan must be prepared before receiving authorization from the Florida Forest Service to burn and must be onsite and available for inspection by a department representative.
4. The specific consent of the landowner or his or her agent must be obtained before requesting authorization to burn.
5. An authorization to burn must be obtained from the Florida Forest Service or its designated agent before igniting the burn.
6. There must be adequate firebreaks and sufficient personnel and firefighting equipment at the burn site to contain the burn to the piles authorized.

(b) If a burn is conducted in accordance with paragraph (a), the property owner and his or her agent are not liable under s. 590.13 for damage or injury caused by the fire or resulting smoke, and are not in violation of subsection (2), unless gross negligence is proven.

(c) A certified pile burner who violates this subsection commits a misdemeanor of the second degree, punishable as provided in s. 775.082 or s. 775.083.

(d) The Florida Forest Service shall adopt rules regulating certified pile burning. The rules shall include procedures and criteria for certifying and decertifying certified pile burn managers based on past experience, training, and record of compliance with this section.

(5) Wildfire Hazard Reduction Treatment by the Florida Forest Service.—The Florida Forest Service may conduct fuel reduction initiatives, including, but not limited to, burning and mechanical and chemical treatment, on any area of wild land within the state which is reasonably determined to be in danger of wildfire in accordance with the following procedures:

(a) Describe the areas that will receive fuels treatment to the affected local governmental entity.

(b) Publish a treatment notice, including a description of the area to be treated, in a conspicuous manner in at least one newspaper of general circulation in the area of the treatment not less than 10 days before the treatment.

(c) Prepare and send a notice to all landowners in each area designated by the Florida Forest Service as a wildfire hazard area. The notice must describe particularly the area to be treated and the tentative date or dates of the treatment and must list the reasons for and the expected benefits from the wildfire hazard reduction.

(d) Consider any landowner objections to the fuels treatment of his or her property. The landowner may apply to the director of the Florida Forest Service for a review of alternative methods of fuel reduction on the property. If the director or his or her designee does not resolve the landowner objection, the director shall convene a panel made up of the local forestry unit manager, the fire chief of the jurisdiction, and the affected county or city manager, or any of their designees. If the panel's recommendation is not acceptable to the landowner, the landowner may request further consideration by the Commissioner of Agriculture or his or her designee and shall thereafter be entitled to an administrative hearing pursuant to the provisions of chapter 120.

(6) Florida Forest Service Approval of Local Government Open Burning Authorization Programs.—

(a) A county or municipality may exercise the authority of the Florida Forest Service, if delegated by the Florida Forest Service under this subsection, to issue authorizations for the burning of yard trash or debris from land-clearing operations. A county's or municipality's existing or proposed open burning authorization program must:

1. Be approved by the Florida Forest Service. The Florida Forest Service may not approve a program if it fails to meet the requirements of subsections (2) and (4) and any rules adopted under those subsections.
2. Provide by ordinance or local law the requirements for obtaining and performing a burn authorization that complies with subsections (2) and (4) and any rules adopted under those subsections.
3. Provide for the enforcement of the program's requirements.
4. Provide financial, personnel, and other resources needed to carry out the program.

(b) If the Florida Forest Service determines that a county's or municipality's open burning authorization program does not comply with subsections (2) and (4) and any rules adopted under those subsections, the Florida Forest Service shall require the county or municipality to take necessary corrective actions within 90 days after receiving notice from the Florida Forest Service of its determination.

1. If the county or municipality fails to take the necessary corrective actions within the required period, the Florida Forest Service shall resume administration of the open burning authorization program in the county or municipality and the county or municipality shall cease administration of its program.
2. Each county and municipality administering an open burning authorization program must cooperate with and assist the Florida Forest Service in carrying out the powers, duties, and functions of the Florida Forest Service.

3. A person who violates the requirements of a county's or municipality's open burning authorization program, as provided by ordinance or local law enacted pursuant to this subsection, commits a violation of this chapter, punishable as provided in s. 590.14.

(7) Duties of Agencies.—The Department of Education shall incorporate, where feasible and appropriate, the issues of fuels treatment, including prescribed burning, into its educational materials.

History.—s. 9, ch. 99-292; s. 41, ch. 2002-295; s. 21, ch. 2005-210; s. 56, ch. 2011-206; s. 61, ch. 2012-7; s. 25, ch. 2013-226; s. 150, ch. 2014-150.

Florida Administrative Code 5I-2.006 Open Burning Allowed.

(1) Open Burning in General. Authorization must be obtained from the Florida Forest Service (FFS) for burns relating to agriculture, silviculture and pile burning. Daytime authorizations for these types of burning are issued on the day of the burn or after 4:00 p.m. of the previous day and ignition of the burn will start at 8:00 a.m. (Central Time) or 9:00 a.m. (Eastern Time) on the day stated in the FFS authorization unless approval is given by the FFS District or Center Manager or their designee to begin the burn earlier. The FFS will set special requirements for all types of authorizations, (certified or non-certified), in order to protect public health and safety, including; on site inspections, restricting wind direction, limiting the burning period, within each day or to a specific number of days for those types of authorizations that allow for multiple burning days, halt or limit burning when fire danger is too high in all, or specific parts of the state, and requiring specific personnel e.g., Certified Burners and containment equipment on site. Any authorized burn that goes out of compliance, but has not escaped the authorized area will be allowed a maximum of two hours to be brought into compliance by the person responsible. In the event that the FFS determines that there is a threat to life, public safety or property, immediate suppression action will be taken by the FFS.

(2) Open Burning for Certified Prescribed Burn Managers. All burning conducted under this section is related to broadcast burning for the purposes of: Silviculture, Wildlife Management, Ecological Maintenance and Restoration, and Agriculture. Open burning authorizations under this section require the Certified Prescribed Burn Manager's certification number be presented at the time of the request, and that a Certified Prescribed Burn Manager be on site and directly supervises the certified prescribed burn until the burn is completed, after which the Certified Prescribed Burn Manager is not required to be present.
   (a) Prescription. A prescription for the burn must be completed prior to any ignition and a paper copy must be on site and available for inspection by a Department representative. The prescription will contain, as a minimum, the following:
      1. Stand or Site Description;
      2. Map of the area to be burned;
      3. Fire Breaks (External and Internal) to be Constructed or Re-Worked (Map);
      4. Minimum number of personnel and equipment types to be used on the prescribed burn;
      5. Desired weather factors, including but not limited to surface wind speed and direction, transport wind speed and direction, minimum mixing height, minimum relative humidity, maximum temperature, and the minimum fine fuel moisture;
      6. Desired fire behavior factors, such as type of burn technique, flame length, and rate of spread;
      7. The time and date the prescription was prepared;
      8. The authorization date and the time period of the authorization;
      9. An evaluation and approval of the anticipated impact of the proposed burn on related smoke sensitive areas;
      10. The signature and number of the Certified Prescribed Burn Manager.
   (b) Open Burning Hours.
      1. Daytime Certified Prescribed Burn Manager Authorizations will be issued for the burning to be completed two hours after sunset.
      2. Nighttime Certified Prescribed Burn Manager Authorizations will be issued with a Dispersion Index of 6 or above, for the burning to be conducted between one hour before sunset and must be completed by 8:00 a.m. (CT) or 9:00 a.m. (ET) the following day. Ignition of these fires is authorized up to midnight, however the fire can continue to spread into unburned fuels until 8:00 a.m. (CT) or 9:00 a.m. (ET) the following day. If additional time is required a new authorization (daytime) must be obtained from the FFS. The FFS will issue authorizations at other times, in designated areas, when the FFS has determined that atmospheric conditions in the vicinity of the burn will allow good dispersement of emissions, and the resulting smoke from the burn will not adversely impact smoke sensitive areas, e.g., highways, hospitals and airports.
   (c) A new prescription or authorization is not required for smoldering that occurs within the authorized burn area unless new ignitions are conducted by the Certified Prescribed Burn Manager.
   (d) Monitoring the smoldering activity of a certified prescribed burn does not require a prescription or an additional authorization even if flames begin to spread within the authorized burn area due to ongoing smoldering.
   (e) Burn Manager Certification Process. To become a Certified Prescribed Burn Manager an individual must complete the required training and conduct a successful certification burn.

1. The Florida Certified Prescribed Burn Manager Training Course is approved by the FFS to meet the required training. It is offered in two formats:
   a. The distance learning format is intended for experienced burners and students must meet the following criteria prior to taking the course; have obtained authorizations, as provided in subsection (1), from the FFS and conducted a minimum of three broadcast burns in Florida or participation in five broadcast burns in Florida with recommendation from a current Certified Prescribed Burn Manager, or hold a current prescribed burner certification in another State or hold a current Prescribed Fire Burn Boss Type 2 Certification.
   b. The classroom format is open to individuals of all experience levels. After taking this course trainees must obtain direct experience in three broadcast burns prior to conducting a certification burn. If the student meets the criteria for the distance learning format, then the three burns after the course are not necessary.
2. Certification burn process. Within three years of completing the course (either format), applicants must submit a completed prescription for the proposed certifying burn to their local FFS office prior to the burn for review and approval. After the prescription has been approved the burn described in that prescription must be reviewed by the FFS during the burn operation. The local FFS Center/District Manager (or their designee) will recommend FFS Prescribed Burn Manager Certification to the Forest Protection Bureau upon satisfactory completion of both the prescription and the review of the actual burn.
3. In order to continue to hold the FFS Prescribed Burn Manager Certification the burner must comply with paragraph 5I-2.006(2)(f), F.A.C., or Florida Forest Service Certification will terminate five years from the date of issue.

(f) Certification Renewal. A Certified Prescribed Burn Manager must satisfy the following requirements in order to retain certification.
1. Participation in a minimum of eight hours of FFS approved training every five years relating to the subject of prescribed fire, or participation in a FFS recognized Fire Council Meeting; and
2. The Certified Prescribed Burn Manager has submitted their certification number for two completed prescribed burns in the preceding five (5) years; or
3. Participation in five (5) burns and have this documented and verified in writing to the Forest Protection Bureau's Prescribed Fire Manager of the FFS by a current Certified Prescribed Burn Manager; or
4. Retaking the Florida Certified Prescribed Burn Manager Training Course in either format.

(g) Decertification. A Certified Prescribed Burn Manager's certification shall be revoked if the Burn Manager's actions constitute violations of Florida law and agency rules which equal or exceed 15 points within any two year period using the Certified Prescribed Burn Manager Violations – Point Assessment Table, Version 3.0, July 31, 2014, which is hereby adopted and incorporated by reference and is available at: http://www.flrules.org/Gateway/reference.asp?No=Ref-04586. A decertified Burn Manager must complete the Burn Manager Certification process outlined in paragraph 5I-2.006(2)(c), F.A.C., in order to be recertified.

(3) Open Burning Non-Certified Broadcast Burners. All burning conducted under this section is related to broadcast burning of acreage not conducted as a certified prescribed burn.
(a) Daytime Non-Certified Authorizations must be completed by one hour before sunset.
(b) Nighttime Non-Certified Broadcast Authorizations will be issued with a Dispersion Index of 8 or above, for the burning to be conducted between one hour before sunset and 8:00 a.m. (CT) or 9:00 a.m. (ET) the following morning. Ignition of these fires is authorized up to midnight (CT) or (ET), specific to the time zone where the fire is located; however the fire must be completed by 8:00 a.m. (CT) or 9:00 a.m. (ET) the following day. If additional time is required, a new daytime authorization must be obtained from the FFS.
(c) A new authorization is not required for smoldering that occurs within the authorized burn area unless new ignitions are conducted by the person named responsible in the burn authorization or a designee; and
(d) Monitoring the smoldering activity of a burn does not require an additional authorization even if flames begin to spread within the authorized burn area due to ongoing smoldering.

(4) Pile Burning General. The size and number of piles shall be dictated by the materials to be burned and the time available for burning. All pile burning must adhere to the following:
(a) The moisture content and composition of the materials to be burned shall be favorable to good burning which will minimize emissions. The amount of dirt in the piles or rows shall be minimized to enhance combustion and reduce emissions; and
(b) The pile or windrow burning must be set back one hundred (100') feet from any paved public roadway and the prevailing winds will direct the smoke away from any occupied buildings (other than the landowners) or roads. Pile burning for paved public road maintenance and widening is exempt from the 100 foot set back as long as the visibility on the roadway is not reduced to less than 1,000' feet; and
(c) The pile burning is attended at all times; and
(d) The pile burning must meet one of the following setback requirements:
1. Residential, and Agricultural/Silvicultural pile burning must be set back three hundred (300') feet or more away from any occupied building other than that of the landowner and fifty (50') feet from any wildlands, brush or combustible structure.
2. Non-Residential pile burning without an Air Curtain Incinerator must be set back one thousand (1,000') feet or more away from any occupied building and one hundred (100') feet from any wildlands, brush or combustible structure.

(e) Exception to Setbacks – An exception to the setbacks in subparagraphs 5I-2.006(4)(d)1. and 2., F.A.C., will be granted if all of the affected parties agree in writing to allow the burn to take place.
(f) The burning will not exceed 6 months on the same site from the date of the initial authorization from the FFS, unless the FFS is notified of an exemption by the Department of Environmental Protection (DEP), or unless the authorization is for agricultural citrus spot burning as defined in subsection 5I-2.006(9), F.A.C.

(5) Tree Cutting Debris Burning. Open burning to dispose of tree cutting debris shall be conducted using a DEP permitted air curtain incinerator. Open burning to dispose of tree cutting debris without use of a permitted air curtain incinerator is allowed provided:
(a) The tree cutting debris was generated on residential premises of not more than two family units; and
(b) The open burning is restricted to the site where the tree cutting debris was generated; and
(c) The open burning is conducted in accordance with all provisions applicable to pile burning as set forth by the FFS at paragraphs 5I-2.006(4)(a), (b), (c), subparagraph (d)1. and paragraph (e), F.A.C.; and
(d) The open burning is not prohibited by any local, county, or municipal rule or ordinance or the open burning is conducted in accordance with any such rule or ordinance to the extent that such rule or ordinance is stricter than the provisions of this subsection.

(6) Air Curtain Incinerator Burning. The use of an Air Curtain Incinerator is allowed for the combustion of land clearing debris, provided the incinerator has a DEP air permit or has been specifically exempted from air permitting by the DEP. If an air curtain incinerator has been exempted from air permitting by the DEP, prior authorization to use the incinerator must be obtained from the FFS. Operation of an exempt air curtain incinerator shall be authorized provided that open burning would otherwise be allowed under this chapter and the following conditions are met:
(a) Only kerosene, diesel fuel, drip torch fuel, clean dry wood or lightered pine, virgin oil, natural gas or liquefied petroleum gas may be used to start the fire in the incinerator. The use of used oil, chemicals, gasoline, or tires to start the fire is prohibited.
(b) An air curtain incinerator must be located at least 300 feet from any occupied building and 50' feet from any wildlands, brush, combustible structure, or paved public roadway.
(c) Incinerators equipped with refractory-lined walls, shall begin charging no earlier than sunrise and must complete burning no later than one hour after sunset.
(d) Incinerators not equipped with refractory lined walls must complete burning no later than one hour after sunset.
(e) Regardless of the air curtain incinerator type, after charging ceases, air flow shall be maintained until all material within the air curtain incinerator has been reduced to coals, and flames are no longer visible. A log shall be maintained on site, and available upon request, that documents daily beginning and ending times of charging.
(f) If the air curtain incinerator employs an earthen trench, the pit walls (width and length), shall be vertical, and maintained so that the combustion of the waste within the pit will be maintained at an adequate temperature and with sufficient air re-circulation to provide enough residence time and mixing for proper combustion and control of emissions. Pit width shall not exceed twelve (12') feet.
(g) The waste material shall not be loaded into the air curtain incinerator such that it protrudes above the level of the air curtain in the pit.
(h) Ash shall not be allowed to build up in the pit of the air curtain incinerator to higher than 1/3 the pit depth or to the point where the ash begins to impede combustion, whichever occurs first.
(i) Excessive visible emissions are not allowed except for a period of up to 30 minutes during start ups.
(j) The air curtain incinerator shall be attended at all times while materials are being burned or flames are visible within the incinerator.
(k) Exceptions to the setback requirements from occupied buildings shall be granted by the FFS when the applicant obtains a signed written statement from every affected resident within the setback area that waives their objections to the open burning associated with the land clearing operation and presents the statement to the FFS 48 hours in advance of the burning.
(l) If the owner or operator of the air curtain incinerator, by lease or other means, grants authority to operate the incinerator to a person not in the employ of the owner, the owner shall provide such person with a copy of this rule section's requirements.

(7) Off Site Burning. Any open burning of land clearing debris that is allowed by this chapter is restricted to the site where the material was generated and such material shall not be transported to another property to be burned, unless the land clearing debris has been generated by the person, or their agent, who owns or leases the property where it was generated and to where it is transported, and operates an air curtain incinerator in compliance with all applicable paragraphs of subsection 5I-2.006(6), F.A.C.

(8) Open Burning for Certified Pile Burners. All burning conducted under this section is related to pile burning in Florida regardless of the purpose. The FFS will issue multiple day authorizations up to three days when the Fire Readiness Level has been set to 1 or 2. Certified Pile Burners must comply with the hours of operation listed in paragraph 5I-2.006(8)(b), F.A.C. A three day authorization does not allow for burning past one hour after sunset each day. Open burning authorizations under this section require that the Certified Pile Burner certification number be presented at the time of the request, and that a Certified Pile Burner sign the startup log and shutdown log, indicating that the piles are properly setup and shut down, attached to the burn plan located at each site on a daily basis.

(a) Pile Burn Plan. A plan for the burn must be completed prior to any ignition and a paper copy must be on site and available for inspection by a Department representative. The plan will contain, as a minimum, the following:
1. Burn location;
2. Soil type and moisture;
3. Number of personnel and equipment types to be used on the pile burn;
4. Desired weather factors, including but not limited to surface wind speed and direction, minimum relative humidity, drought index, days since rain, maximum temperature, and the dispersion index;
5. Fuel type and condition (how long has it been drying);
6. The time and date the plan was prepared;
7. The authorization date and the time period of the authorization;
8. An evaluation and approval of the anticipated impact of the proposed burn on related smoke sensitive areas;
9. Adjacent landowners to notify;
10. Special precautions;
11. The signature and number of the Certified Pile Burner.

(b) Open Burning Hours. Certified Pile Burner's authorized burns must be completed by one hour after sunset, if the fire is in or impacting a smoke sensitive area its completion time is one hour before sunset.

(c) Pile Burner Certification Process. Certification to become a Certified Pile Burner is accomplished by:
1. Satisfactory completion of the FFS Certified Pile Burner Course, and
2. Applicants must submit a completed plan for a proposed certifying burn to their local FFS office within one year of completing the classroom training and prior to the certifying burn for review and approval. After the plan has been approved the burn described in that plan must be reviewed by the Florida Forest Service during the burn operation. The local FFS District Manager, or their designee, will recommend Florida Forest Service Pile Burner certification to the Forest Protection Bureau upon satisfactory completion of both the plan and the review of the actual burn.
3. In order to continue to hold the Florida Forest Service Pile Burner Certification the burner must comply with paragraph 5I-2.006(8)(d), F.A.C. or FFS Certification will terminate five years from the date of issue.

(d) Certification Renewal. A Certified Pile Burner must satisfy the following requirements in order to retain certification:
1. The Certified Pile Burner has submitted his or her certification number for five completed pile burns in the preceding five (5) years; or
2. He or she must retake the Pile Burner Certification Training Course.

(e) Decertification. A Certified Pile Burner's certification shall be revoked if the Certified Pile Burner's actions constitute violations of Florida law and agency rules which equal or exceed 15 points within any two year period using the Certified Pile Burner Violations – Point Assessment Table, Version 3.0, July 31, 2014, which is hereby adopted and incorporated by reference and is available at: http://www.flrules.org/Gateway/reference.asp?No=Ref-04585. A decertified Pile Burner must complete the Pile Burner Certification process outlined in paragraph 5I-2.006(8)(c), F.A.C., in order to be recertified.

(9) Citrus spot burning is a Florida Forest Service (FFS) program that includes both certified and non-certified pile burners. In order to participate in this program a burner must submit a Citrus Spot Burner Application, FDACS-11622, Rev. 08/14, which is hereby adopted and incorporated by reference and is available at: http://www.flrules.org/Gateway/reference.asp?No=Ref-04587, to the local FFS District or Center office and have the site where the burning is to be conducted inspected by the FFS prior to any pile burning authorizations being issued for that site. The application must include a map of the burn sites. The person responsible for the burning that is listed on the application must complete Citrus Spot Burning Training prior to conducting the burn. This four-hour training is offered annually by the participating FFS Centers or District Offices and will review proper management of smoke from their citrus spot burns, as well as Section 590.125(2), F.S. and Rule 5I-2.006, F.A.C. Citrus spot burns are required to have a setback of at least 400' feet from combustible vegetation (brush or wildlands).

(10) Open Burning for Non-Certified Pile Burners. The FFS will issue authorizations for one day only for all pile burning, except for those burning citrus. Citrus pile authorizations will be issued for up to three days. Non-Certified Pile Burners must comply with normal hours of operation listed in this section on a daily basis. A three day authorization does not allow for night time burning. Burns for Non-Certified Pile Burners must be completed by one hour before sunset. In smoke sensitive areas the piles must be completed with no visible flame or emissions one hour before sunset.

(11) Recreational Open Burning. Nothing in this chapter shall be construed to prohibit the legal open burning of vegetative debris and untreated wood in a campfire, outdoor fireplace, or other contained outdoor heating or cooking device, or on cold days for warming of outdoor workers. Furthermore, nothing in this chapter shall be construed to prohibit the open burning of vegetative debris or untreated wood in a recreational or ceremonial bonfire, as long as the fire is attended at all times and is completely smothered with no visible flame, smoke or emissions if the area is to be left unattended. The person or persons responsible for the recreational fire shall ensure compliance with any applicable open burning rules adopted by the FFS.

(12) Open Burning Exceptions. The Director of the FFS is authorized to grant exceptions in furtherance of public health, safety and welfare, to the open burning rules within Chapter 5I-2, F.A.C., in the event of an emergency that

would require the destruction of vegetative debris or animal carcasses in the most expeditious means possible. Examples would include the burning of vegetative matter or animal carcasses resulting from an insect or disease infestation, or resulting from storm damage e.g., hurricanes or tornados.

Rulemaking Authority 570.07(23), (28), 590.02(1)(f), 590.125(3)(e), 590.125(4)(d) FS. Law Implemented 570.07(28), 570.548, 590.02(1)(b), (1)(i), 590.125(2), (3) FS. History–New 7-1-71, Formerly 17-5, Amended 7-1-75, Formerly 5I-2.06, Amended 1-9-91, 9-8-93, 8-16-95, 10-18-99, 10-31-05, 12-16-08, 10-19-14.

Wildfire

In the event of a wildfire, response actions should be less disruptive to the land than the disturbance caused by the fire itself. Appropriate strategies may range from direct suppression and minimization of acreage burned, to more direct methods such as containment and confinement. Surveillance is appropriate when the fire is expected to be self-contained within a defined area and when minimal damage to critical resources can be expected (Chapter 525.106 FAC). Reported wildfires will be handled by the Preserve Manager and staff, the Florida Forest Service and the local fire department.

DEP Standards and Procedures

St. Joseph Bay State Buffer Preserve Prescribed Fire program is also guided by the following DEP standards and procedures. These documents are available on the DEP website or upon request.

1. DEP/DRP Resource Management Standard, Fire Management, 2013 http://depapps.floridadep.net/LIBRARY/NCR/Information_Library/Q-R/Res_Mgmt_Standards/Fire_Management_standard.pdf
2. Florida Coastal Office; Prescribed burning procedure, 1999
3. Fire Management Plan for the St. Joseph Bay State Buffer Preserve, 2015

*E.5 / **Management Procedures for Archaeological and Historical Sites and Properties on State-Owned or Controlled Lands** (Revised March 2013)*

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

A. General Discussion

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

B. Agency Responsibilities

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

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

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

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

C. Statutory Authority

Statutory Authority and more in depth information can be found at http://www.flheritage.com/preservation/compliance/guidelines.cfm

D. Management Implementation

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

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

Projects such as additions, exterior alteration, or related new construction regarding historic structures must also be submitted to the Division of Historical Resources for review and comment by the Division's architects. Projects involving structures fifty years of age or older, must be submitted to this agency for a significance determination. In

rare cases, structures under fifty years of age may be deemed historically significant. These must be evaluated on a case by case basis.

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

E. Minimum Review Documentation Requirements

In order to have a proposed project reviewed by the Division, certain information must be submitted for comments and recommendations. The minimum review documentation requirements can be found at: http://www.flheritage.com/preservation/compliance/docs/minimum_review_documentation_requirements.pdf .

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

Deena S. Woodward
Division of Historical Resources, Bureau of Historic Preservation, Compliance and Review Section
R. A. Gray Building, 500 South Bronough Street, Tallahassee, FL 32399-0250
Phone: (850) 245-6425, Toll Free: (800) 847-7278, Fax: (850) 245-6435

*E.6 / **Analysis of Contracting Potential***

The following restoration and management activities have been considered for outsourcing to private entities. In general, most day-to-day operations at the St. Joseph Bay State Buffer Preserve can be handled more efficiently and at a lesser cost with Florida Department of Environmental Protection (DEP) staff. Projects requiring excavation and engineering must be outsourced. In the past five years, outsourced labor has included mainly construction, exhibit design and construction, and some laboratory analysis. The table below contains potentially outsourced activities with categories as follows: “approved” designates items that DEP does not have expertise to complete and/or those that can be done at less cost with equivalent results by outside sources; “conditional” designates items that can be done by DEP or outside sources for equivalent cost and results; “rejected” designates items that can be done with DEP expertise and/or at less cost than outside sources.

Activity	Approved	Conditional	Rejected
Prescribed burning		X	
Fireline & fence installation		X	
Nuisance animal control	X		
Coastal Training Program needs, assessments, and surveys		X	
Nutrient analysis		X	
Upland & hydrological restoration projects (e.g. plowline restoration, ditch reworking)		X	
Listed species mapping and needs assessment		X	
Cleaning & janitorial services	X		
Eradication & control of invasive exotic species		X	
Education facilities, programs, and literature development and printing		X	
Education signs development and installation		X	
Trail & boardwalk installation		X	
Exhibit design and installation		X	
Timber harvesting	X		
Roadwork (capping, maintenance, installation)		X	
Construction of parking area (e.g. capping and future public access)	X		
Native nursery for onsite restoration activities		X	

*E.7 / **Land Management Review Team Recommendations***

Land management review teams were established by Section 259.036, Florida Statutes, to evaluate management of conservation, preservation, and recreation lands titled in the name of the Board of Trustees of the Internal Improvement Trust Fund. The teams determine whether the lands are being managed for the purposes for which they were acquired and in accordance with a land management plan adopted pursuant to s. 259.032, Florida Statutes, by the Board of Trustees of the Internal Improvement Trust Fund, acting through DEP. The Florida Coastal Office (FCO), formerly the Office of Coastal and Aquatic Managed Areas (CAMA), considered the findings and recommendations of the land management review team in finalizing the required 10-year update of this management plan. The land management review team report from the 2002, 2007 and 2012 review of the St. Joseph Bay State Buffer Preserve (Buffer Preserve), including the FCO response to that report, is contained below.

Land Management Review August 8, 2012

The review team made the following determinations:

The land is being managed for the purpose for which it was acquired, and the actual management practices, including public access, were in compliance with the management plan for this site.

CAMA was commended on its:

Efforts of hydrological restoration through filling of ditches, installation of low-water crossings, and fire-plow rehabilitation.

Near eradication of invasive exotic plant species, primarily Chinese tallow.

Team commends the manager on the continuation of prescribed fire management that has noticeably improved habitats since the previous land management review. Progress has been made in spite of urban interface challenges and high fuel loads.

The following recommendations resulted from a discussion and vote of review team members. The management plan must include responses to the recommendations identified below.

There were no recommendations.

The following items received low scores on the review team checklist, which indicates that the text noted in the Management Plan Review does not sufficiently address this issue (less than .5 score on average.). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The management plan must include responses to the checklist items identified below:

1. The review team average score indicates a need for acknowledgement of the protection and maintenance of natural communities, specifically wet prairie/flatwoods, salt marsh, maritime hammock, basin marsh and depression marsh. Please provide documentation in the management plan.
Managing Agency Response: The management plan revision will include discussion of the protections and maintenance of natural communities, specifically wet prairie/flatwoods, salt marsh, maritime hammock, basin marsh and depression marsh.

2. The review team average score indicates a need for acknowledgement of surface water monitoring, specifically water quality. Please provide documentation in the management plan.
Managing Agency Response: The management plan revision will include discussion of surface water monitoring, specifically water quality.

CAMA considered the findings and recommendations of the land management review team in finalizing the required 10-year update of this management plan. The land management review team report from the September 19, 2007 review of the St. Joseph Bay State Buffer Preserve (Buffer Preserve), including the CAMA response to that report, is contained below.

Land Management Review September 19, 2007

The review team made the following determinations:

The land is being managed for the purpose for which it was acquired, and the actual management practices, including public access, were in compliance with the management plan for this site.

CAMA was commended on its:

- Initiation and focus on implementing an active prescribed fire program, including installation of firelines and effective burning that has obtained excellent ecological results.
- Exceptional inventory and monitoring of listed plant species by the staff and by use of outside experts.
- Creative use of volunteers and cooperation with other agencies to achieve needed habitat management and facility upgrades.
- Cooperation with the University of South Florida in completion of Level 1 archaeological and historical survey of the property.
- Outstanding land management that follows the spirit of the original management plan, which did not include the majority of the property now owned.
- Outstanding public education and outreach efforts at the Buffer Preserve, and in promoting and supporting research with numerous universities, agencies and other groups.

The Land Management Review Team's recommendations, CAMA's response at the time and CAMA's current response are listed below.

1. The team recommends that CAMA update the management plan as soon as possible, as the current plan is outdated, and was not developed to address the large additions to the preserve.
Managing Agency Response at the Time: The Buffer Preserve management plan is currently under revision and will be included with the Apalachicola NERR Management Plan also undergoing revision. The large acreage acquired since the last revision will be included.
Current Response: Due to several factors, the management plan revision is past due and is scheduled for final approval in 2013. The plan has not been included in the Apalachicola NERR Management Plan, as originally intended, but is a management plan specifically for the Buffer Preserve and its current acreage.

2. The team recommends CAMA seek funding to acquire adequate equipment and storage facilities for ongoing resource management, particularly with respect to prescribed fire.
Managing Agency Response at the Time: Funding has been secured and a project is underway to complete a field maintenance shop and grounds near the interior man-made pond site. A pole barn sufficient for large equipment storage has been completed.
Current Response: Construction of the field maintenance shop is near completion and is anticipated to be done by the end of 2012.

3. The team recommends the addition of an administrative support and public outreach position, and a field biologist position to the Buffer Preserve.
Managing Agency Response at the Time: The Buffer Preserve manager will prioritize seeking the additional positions as budgetary restraints allow.
Current Response: Current staffing levels and additional staffing priorities for the Buffer Preserve are outlined in Chapter 6 (Administrative Plan).

4. The team recommends that CAMA and manager work with county to explore ways to integrate awareness of prescribed fire needs of the Buffer Preserve into local planning process.
Managing Agency Response at the Time: The Buffer Preserve manager will seek Gulf County government agencies' cooperation in seeking ways to integrate awareness of the prescribed burning needs of the Buffer Preserve, into the local planning process.
Current Response: The Buffer Preserve manager has and will continue to seek Gulf County government agencies' cooperation in finding ways to integrate awareness of the prescribed burning needs of the Buffer Preserve, into the local planning process.

5. The team recommends that CAMA find funding for a hydrologic assessment and restoration plan for the Buffer Preserve.
Managing Agency Response at the Time: CAMA will seek funding through the budget process to fund a complete hydrological assessment and restoration plan for the Buffer Preserve.
Current Response: The need to have a hydrological assessment and restoration plan conducted for the Buffer Preserve has been incorporated in Chapter 5 (Issues).

The following items received low scores on the review team checklist, which indicates that management actions noted during the Field Review (FR) were not considered sufficient (less than 2.5 score on average), or that the text noted in the Management Plan Review (PR) does not sufficiently address this issue (less than .5 score on average.). The management plan must include responses to the checklist items identified below:

1. Discussion in the management plan to address the management issues related to the maritime hammock and scrubby flatwoods. (PR)
Managing Agency Response at the Time: The management plan revision will contain discussion regarding management issues for maritime hammock and scrubby flatwoods.
Current Response: Maritime hammock and scrubby flatwoods are listed in the natural communities section of the management plan.

2. Discussion in the management plan of the listed species including the gopher tortoise, bald eagle, Chapman's rhododendron, aster spinulosus (pine woods aster), telephus spurge, and tropical waxweed. (PR)
Managing Agency Response at the Time: The management plan revision will include discussion of listed species including: gopher tortoise, bald eagle, Chapman's rhododendron, pine-woods aster, telephus spurge and tropical waxweed.
Current Response: Text on the species listed above has been included in the Listed Species section of this management plan.

3. Discussion in the management plan relating to the restoration of ruderal areas including fire line rehabilitation. (PR)
Managing Agency Response at the Time: Discussion of ruderal area restoration, including fire-plow scars, will be included in the management plan revision.
Current Response: Restoration, especially fire line rehabilitation, is mentioned in several areas of this management plan.

4. Discussion in the management plan of the hydrologic/geologic function including roads/culverts, ditches and hydro-period alteration. (PR)
Managing Agency Response at the Time: The management plan revision will include discussion of the hydrologic/geologic function including roads/culverts, ditches and hydro-period alteration.

Current Response: Hydrology and geology are mentioned in several areas of the plan. The need for a hydrologic assessment is being addressed as a major issue/objective in Chapter 5 (Issues) of this plan.

5. Discussion in the management plan of the need to monitor ground water quantity. (FR)
Managing Agency Response at the Time: The management plan revision will include discussion of the need to monitor ground water quantity.
Current Response: Water level monitoring is discussed in the Surface Water Level Monitoring section and is being addressed as a major issue/objective in Chapter 5 (Issues) of this management plan.

6. Discussion in the management plan relating to the resource protection including the signage.(FR)
Managing Agency Response at the Time: The management plan revision will include discussion of resource protection including signage.
Current Response: Boundary marking and signage are discussed in Chapter 5 (Issues) section of this management plan.

7. Discussion in the management plan of public access and education including parking (PR), environmental education/outreach (PR) and kayak/boat access. (FR)
Managing Agency Response at the Time: The management plan revision will include discussion of public access and education including environmental education outreach and kayak/boat access.
Current Response: The Buffer Preserve's current public access (e.g. parking, paddle craft entry points, trails, facilities) as well as future plans are discussed in several areas of this plan as is environmental education/outreach.

8. Discussion in the management plan of the infrastructure including the equipment, staff, and funding. (FR)
Managing Agency Response at the Time: Infrastructure, including equipment, staff and funding, will be discussed in the management plan revision.
Current Response: The Buffer Preserve infrastructure, equipment, and needs are discussed in Chapter 7 (Facilities Plan) and staffing and funding are discussed in Chapter 6 (Administrative Plan) of this plan. Significant progress has been made regarding infrastructure, staffing and equipment since the 2007 Land Management Review.

Land Management Review April 23, 2003

The review team made the following determinations:

The land is being managed for the purpose for which it was acquired, and the actual management practices, including public access, were in compliance with the management plan for this site.

CAMA was commended on its:

- Resource management staff at ANERR for accomplishing an extraordinary amount of work, including their efforts to coordinate volunteers, inventory plants, and implement resource management at the buffer preserve.

Exceptional Management Actions

The following items received high scores on the review team checklist, which indicates that management actions exceeded expectations

Exceptional management actions

- Management and protection the Basin Swamp, Wet Prairie/Flatwoods, Salt Marsh, Maritime Hammock, and Scrub communities.
- Protection and preservation of listed plants and animals.
- Protection, survey and preservation of cultural sites.
- Excellent prescribed fire program including large areas and high quality burns.
- Excellent control of non-native plants and animals.
- Excellent control of soil erosion.
- Exceptional gates and fencing and boundary surveys.
- Exceptional success in acquiring inholdings and additions.
- Excellent parking, roads and recreational opportunities.
- Exceptional environmental education/outreach and interpretive programs.
- Exceptional sanitary facilities and waste disposal program.

Recommendations and Checklist Findings

The management plan must include responses to the recommendations and checklist items that are identified below.

Recommendations

The following recommendations resulted from a discussion and vote of review team members.

1. The team finds that the buffer preserve needs a biologist for resource management, data collection and community education, and an on site manager to adequately manage this site. (VOTE: 6+, 0 -)

Manager's Response: We agree with the recommendation and will appropriately pursue staff needs. Funding however is always contingent on DEP/CAMA budget resources and priorities, and on legislative action.

2. The team recommends that the fire tower and dock be allowed to be used for special events. (VOTE: 6+, 0-)

Manager's Response: We agree and will incorporate modification and special use of the tower site in the management plan update.

3. The team recommends that a historic and current hydrological survey be developed for this site, and a restoration plan with priorities be implemented. (VOTE: 6+, 0 -)
Manager's Response: We agree and will pursue development of the hydrology component.

4. The team recommends that the management plan identify by community type, the resource management goals, and steps needed to achieve those goals. (VOTE: 6+, 0 -)
Manager's Response: We agree...work is underway for that task and it will be reflected in the management plan update.

5. The team recommends that CAMA install property boundary signs to identify that CAMA manages those properties. (VOTE: 6+, 0 -)
Manager's Response: *We agree, and although the public access points have been identified with signage, we will install additional boundary signs along highway frontage areas.*

6. The team recommends that CAMA continue encouraging aggressive land acquisition of surrounding lands to further protect the waters and endangered species in this area. (VOTE: 6+,0-)
Manager's Response: We agree and will continue working with The Nature Conservancy and the acquisition staff of DEP/Division of State Lands in this effort.

The following items received low scores on the review team checklist (see Attachment 1), which indicates that management actions, in the field, were insufficient (f) or that the issue was not sufficiently addressed in the management plan (p). These items need to be further addressed in the management plan update.

1. Discussion in the management plan of the need for a further discussion of the Maritime Hammock and Scrub communities. (p)
Manager's Response: The revised plan will provide further discussion on these and other community types.

2. Discussion in the management plan of the prescription for fire returns intervals for each community type. (p)
Manager's Response: The revised plan will address fire return interval for each community type.

3. Discussion in the management plan of the need for a culverts under roads and restoration of ditches. (p)
Manager's Response: The revised plan will discuss hydrology restoration items including culverts, ditch restoration and low water crossings.

4. Discussion in the management plan of the need for testing ground and surface water quality and quantity. (p,f)
Manager's Response: The revised plan will address ground and surface water testing.

5. Discussion in the management plan of the environmental education and outreach programs at the preserve. (p)
Manager's Response: Environmental education and outreach will be addressed in the revised management plan.

6. Discussion in the management plan of the need for additional staff and funding. (f)
Manager's Response: Staff and funding issues will be addressed in the revised management

*E.8 / **Acquisition and Restoration Council Management Plan Compliance Checklist***

Land Management Plan Compliance Checklist			
Item #	**Requirement**	**Statute/Rule**	**Pg#/App**
Section A: Acquisition Information Items			
1.	The common name of the property.	18-2.018 & 18-2.021	Ex. Sum.
2.	The land acquisition program, if any, under which the property was acquired.	18-2.018 & 18-2.021	Ex. Sum., p. 9-10
3.	Degree of title interest held by the Board, including reservations and encumbrances such as leases.	18-2.021	Ex. Sum., p. 9-10
4.	The legal description and acreage of the property.	18-2.018 & 18-2.021	Ex. Sum., p. 9-10
5.	A map showing the approximate location and boundaries of the property, and the location of any structures or improvements to the property.	18-2.018 & 18-2.021	p. 2, 59
6.	An assessment as to whether the property, or any portion, should be declared surplus. Provide Information regarding assessment and analysis in the plan, and provide corresponding map.	18-2.021	p. 80
7.	Identification of other parcels of land within or immediately adjacent to the property that should be purchased because they are essential to management of the property. Please clearly indicate parcels on a map.	18-2.021	p. 80-84
8.	Identification of adjacent land uses that conflict with the planned use of the property, if any.	18-2.021	p. 44-45

Land Management Plan Compliance Checklist			
Item #	**Requirement**	**Statute/Rule**	**Pg#/App**
9.	A statement of the purpose for which the lands were acquired, the projected use or uses as defined in 253.034 and the statutory authority for such use or uses.	259.032(10)	p. 79, App. E.3
10.	Proximity of property to other significant State, local or federal land or water resources.	18-2.021	p. 41-44
Section B: Use Items			
11.	The designated single use or multiple use management for the property, including use by other managing entities.	18-2.018 & 18-2.021	Ex. Sum.
12.	A description of past and existing uses, including any unauthorized uses of the property.	18-2.018 & 18-2.021	p. 44-45
13.	A description of alternative or multiple uses of the property considered by the lessee and a statement detailing why such uses were not adopted.	18-2.018	
14.	A description of the management responsibilities of each entity involved in the property's management and how such responsibilities will be coordinated.	18-2.018	p. 6-8
15.	Include a provision that requires that the managing agency consult with the Division of Historical Resources, Department of State before taking actions that may adversely affect archeological or historical resources.	18-2.021	App. E.5
16.	Analysis/description of other managing agencies and private land managers, if any, which could facilitate the restoration or management of the land.	18-2.021	App. E.6
17.	A determination of the public uses and public access that would be consistent with the purposes for which the lands were acquired.	259.032(10)	p. 58-60
18.	A finding regarding whether each planned use complies with the 1981 State Lands Management Plan, particularly whether such uses represent "balanced public utilization," specific agency statutory authority and any other legislative or executive directives that constrain the use of such property.	18-2.021	p. 6-8
19.	Letter of compliance from the local government stating that the LMP is in compliance with the Local Government Comprehensive Plan.	BOT requirement	App. E.2
20.	An assessment of the impact of planned uses on the renewable and non-renewable resources of the property, including soil and water resources, and a detailed description of the specific actions that will be taken to protect, enhance and conserve these resources and to compensate/mitigate damage caused by such uses, including a description of how the manager plans to control and prevent soil erosion and soil or water contamination.	18-2.018 & 18-2.021	p. 16-19, 62-68
21.	*For managed areas larger than 1,000 acres, an analysis of the multiple-use potential of the property which shall include the potential of the property to generate revenues to enhance the management of the property provided that no lease, easement, or license for such revenue-generating use shall be entered into if the granting of such lease, easement or license would adversely affect the tax exemption of the interest on any revenue bonds issued to fund the acquisition of the affected lands from gross income for federal income tax purposes, pursuant to Internal Revenue Service regulations.	18-2.021 & 253.036	p. 60
22.	If the lead managing agency determines that timber resource management is not in conflict with the primary management objectives of the managed area, a component or section, prepared by a qualified professional forester, that assesses the feasibility of managing timber resources pursuant to section 253.036, F.S.	18-021	App. B.9
23.	A statement regarding incompatible use in reference to Ch. 253.034(10).	253.034(10)	p. 60
*The following taken from 253.034(10) is not a land management plan requirement; however, it should be considered when developing a land management plan: The following additional uses of conservation lands acquired pursuant to the Florida Forever program and other state-funded conservation land purchase programs shall be authorized, upon a finding by the Board of Trustees, if they meet the criteria specified in paragraphs (a)-(e): water resource development projects, water supply development projects, storm-water management projects, linear facilities and sustainable agriculture and forestry. Such additional uses are authorized where: (a) Not inconsistent with the management plan for such lands; (b) Compatible with the natural ecosystem and resource values of such lands; (c) The proposed use is appropriately located on such lands and where due consideration is given to the use of other available lands; (d) The using entity reasonably compensates the titleholder for such use based upon an appropriate measure of value; and (e) The use is consistent with the public interest.			
Section C: Public Involvement Items			
24.	A statement concerning the extent of public involvement and local government participation in the development of the plan, if any.	18-2.021	App. C
25.	The management prospectus required pursuant to paragraph (9)(d) shall be available to the public for a period of 30 days prior to the public hearing.	259.032(10)	App. E.3

Land Management Plan Compliance Checklist			
Item #	**Requirement**	**Statute/Rule**	**Pg#/App**
26.	LMPs and LMP updates for parcels over 160 acres shall be developed with input from an advisory group who must conduct at least one public hearing within the county in which the parcel or project is located. Include the advisory group members and their affiliations, as well as the date and location of the advisory group meeting.	259.032(10)	App. C
27.	Summary of comments and concerns expressed by the advisory group for parcels over 160 acres	18-2.021	App. C
28.	During plan development, at least one public hearing shall be held in each affected county. Notice of such public hearing shall be posted on the parcel or project designated for management, advertised in a paper of general circulation, and announced at a scheduled meeting of the local governing body before the actual public hearing. Include a copy of each County's advertisements and announcements (meeting minutes will suffice to indicate an announcement) in the management plan.	253.034(5) & 259.032(10)	App. C
29.	The manager shall consider the findings and recommendations of the land management review team in finalizing the required 10-year update of its management plan. Include manager's replies to the team's findings and recommendations.		App. E.7
30.	Summary of comments and concerns expressed by the management review team, if required by Section 259.036, F.S.	18-2.021	App. E.7
31.	If manager is not in agreement with the management review team's findings and recommendations in finalizing the required 10-year update of its management plan, the managing agency should explain why they disagree with the findings or recommendations.		App. E.7
Section D: Natural Resources			
32.	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding soil types. Use brief descriptions and include USDA maps when available.	18-2.021	p. 15-17
33.	Insert FNAI based natural community maps when available.	ARC consensus	p. 19-30
34.	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding outstanding native landscapes containing relatively unaltered flora, fauna and geological conditions.	18-2.021	Ex Sum
35.	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding unique natural features and/or resources including but not limited to virgin timber stands, scenic vistas, natural rivers and streams, coral reefs, natural springs, caverns and large sinkholes.	18-2.018 & 18-2.021	p. 19-30
36.	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding beaches and dunes.	18-2.021	p. 27
37.	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding mineral resources, such as oil, gas and phosphate, etc.	18-2.018 & 18-2.021	p. 16
38.	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding fish and wildlife, both game and non-game, and their habitat.	18-2.018 & 18-2.021	p. 19-33, App. B.4
39.	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding State and Federally listed endangered or threatened species and their habitat.	18-2.021	p. 19-33, App. B.4
40.	The identification or resources on the property that are listed in the Natural Areas Inventory. Include letter from FNAI or consultant where appropriate.	18-2.021	p. 19-33, App. B.4
41.	Specific description of how the managing agency plans to identify, locate, protect and preserve or otherwise use fragile, nonrenewable natural and cultural resources.	259.032(10)	p. 64-70
42.	Habitat Restoration and Improvement	259.032(10) & 253.034(5)	
42-A.	Describe management needs, problems and a desired outcome and the key management activities necessary to achieve the enhancement, protection and preservation of restored habitats and enhance the natural, historical and archeological resources and their values for which the lands were acquired.	259.032(10) & 253.034(5)	p. 62-72
42-B.	Provide a detailed description of both short (2-year planning period) and long-term (10-year planning period) management goals, and a priority schedule based on the purposes for which the lands were acquired and include a timeline for completion.	259.032(10) & 253.034(5)	App. D.1

Land Management Plan Compliance Checklist			
Item #	**Requirement**	**Statute/Rule**	**Pg#/App**
42-C.	The associated measurable objectives to achieve the goals.	259.032(10) & 253.034(5)	App. D.1
42-D.	The related activities that are to be performed to meet the land management objectives and their associated measures. Include fire management plans - they can be in plan body or an appendix.	259.032(10) & 253.034(5)	P. 54-59, App. D.1
42-E.	A detailed expense and manpower budget in order to provide a management tool that facilitates development of performance measures, including recommendations for cost-effective methods of accomplishing those activities.	259.032(10) & 253.034(5)	App. D.1
43.	***Quantitative data description of the land regarding an inventory of forest and other natural resources and associated acreage. See footnote.	253.034(5)	Ex Sum, p. 19-37
44.	Sustainable Forest Management, including implementation of prescribed fire management	18-2.021, 253.034(5) & 259.032(10)	
44-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	18-2.021, 253.034(5) & 259.032(10)	P. 54-59, ch. 4-5, App. D.1
44-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	18-2.021, 253.034(5) & 259.032(10)	App. D.1
44-C.	Measurable objectives (see requirement for #42-C).	18-2.021, 253.034(5) & 259.032(10)	App. D.1
44-D.	Related activities (see requirement for #42-D).	18-2.021, 253.034(5) & 259.032(10)	App. D.1
44-E.	Budgets (see requirement for #42-E).	18-2.021, 253.034(5) & 259.032(10)	App. D.1
	Imperiled species, habitat maintenance, enhancement, restoration or population restoration	259.032(10) & 253.034(5)	
45-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	259.032(10) & 253.034(5)	p. 54-55, 64-68, App. D.1
45-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	259.032(10) & 253.034(5)	App. D.1
45-C.	Measurable objectives (see requirement for #42-C).	259.032(10) & 253.034(5)	App. D.1
45-D.	Related activities (see requirement for #42-D).	259.032(10) & 253.034(5)	App. D.1
45-E.	Budgets (see requirement for #42-E).	259.032(10) & 253.034(5)	App. D.1
46.	***Quantitative data description of the land regarding an inventory of exotic and invasive plants and associated acreage. See footnote.	253.034(5)	p. 33-37
47.	Place the Arthropod Control Plan in an appendix. If one does not exist, provide a statement as to what arrangement exists between the local mosquito control district and the management unit.	BOT requirement via lease language	App. E.9
48.	Exotic and invasive species maintenance and control	259.032(10) & 253.034(5)	
48-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	259.032(10) & 253.034(5)	p. 55-58, 64-68, App. D.1
48-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	259.032(10) & 253.034(5)	App. D.1
48-C.	Measurable objectives (see requirement for #42-C).	259.032(10) & 253.034(5)	App. D.1
48-D.	Related activities (see requirement for #42-D).	259.032(10) & 253.034(5)	App. D.1
48-E.	Budgets (see requirement for #42-E).	259.032(10) & 253.034(5)	App. D.1

Land Management Plan Compliance Checklist			
Item #	**Requirement**	**Statute/Rule**	**Pg#/App**
Section E: Water Resources			
49.	A statement as to whether the property is within and/or adjacent to an aquatic preserve or a designated area of critical state concern or an area under study for such designation. If yes, provide a list of the appropriate managing agencies that have been notified of the proposed plan.	18-2.018 & 18-2.021	p. 1-4
50.	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding water resources, including water classification for each water body and the identification of any such water body that is designated as an Outstanding Florida Water under Rule 62-302.700, F.A.C.	18-2.021	p. 1-4, 16-18
51.	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding swamps, marshes and other wetlands.	18-2.021	p. 19-29
52.	***Quantitative description of the land regarding an inventory of hydrological features and associated acreage. See footnote.	253.034(5)	Ex. Sum
53.	Hydrological Preservation and Restoration	259.032(10) & 253.034(5)	
53-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	259.032(10) & 253.034(5)	App. D.1
53-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	259.032(10) & 253.034(5)	App. D.1
53-C.	Measurable objectives (see requirement for #42-C).	259.032(10) & 253.034(5)	App. D.1
53-D.	Related activities (see requirement for #42-D).	259.032(10) & 253.034(5)	App. D.1
53-E.	Budgets (see requirement for #42-E).	259.032(10) & 253.034(5)	App. D.1
Section F: Historical, Archaeological and Cultural Resources			
54.	**Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding archeological and historical resources. Include maps of all cultural resources except Native American sites, unless such sites are major points of interest that are open to public visitation.	18-2.018, 18-2.021 & per DHR's request	Ex. Sum, p. 37-39
55.	***Quantitative data description of the land regarding an inventory of significant land, cultural or historical features and associated acreage.	253.034(5)	Ex. Sum, p. 37-39
56.	A description of actions the agency plans to take to locate and identify unknown resources such as surveys of unknown archeological and historical resources.	18-2.021	p. 68-70
57.	Cultural and Historical Resources	259.032(10) & 253.034(5)	
57-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	259.032(10) & 253.034(5)	p. 68-70
57-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	259.032(10) & 253.034(5)	App. D.1
57-C.	Measurable objectives (see requirement for #42-C).	259.032(10) & 253.034(5)	App. D.1
57-D.	Related activities (see requirement for #42-D).	259.032(10) & 253.034(5)	App. D.1
57-E.	Budgets (see requirement for #42-E).	259.032(10) & 253.034(5)	App. D.1
**While maps of Native American sites should not be included in the body of the management plan, the DSL urges each managing agency to provide such information to the Division of Historical Resources for inclusion in their proprietary database. This information should be available for access to new managers to assist them in developing, implementing and coordinating their management activities.			
Section G: Facilities (Infrastructure, Access, Recreation)			
58.	***Quantitative data description of the land regarding an inventory of infrastructure and associated acreage. See footnote.	253.034(5)	p. 75-77
59.	Capital Facilities and Infrastructure	259.032(10) & 253.034(5)	
59-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	259.032(10) & 253.034(5)	p. 61-72, App. D.1
59-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	259.032(10) & 253.034(5)	App. D.1

Land Management Plan Compliance Checklist			
Item #	**Requirement**	**Statute/Rule**	**Pg#/App**
59-C.	Measurable objectives (see requirement for #42-C).	259.032(10) & 253.034(5)	App. D.1
59-D.	Related activities (see requirement for #42-D).	259.032(10) & 253.034(5)	App. D.1
59-E.	Budgets (see requirement for #42-E).	259.032(10) & 253.034(5)	App. D.1
60.	*** Quantitative data description of the land regarding an inventory of recreational facilities and associated acreage.	253.034(5)	p. 58-60, 70-71
61.	Public Access and Recreational Opportunities	259.032(10) & 253.034(5)	
61-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	259.032(10) & 253.034(5)	App. D.1
61-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	259.032(10) & 253.034(5)	App. D.1
61-C.	Measurable objectives (see requirement for #42-C).	259.032(10) & 253.034(5)	App. D.1
61-D.	Related activities (see requirement for #42-D).	259.032(10) & 253.034(5)	App. D.1
61-E.	Budgets (see requirement for #42-E).	259.032(10) & 253.034(5)	App. D.1
Section H: Other/ Managing Agency Tools			
62.	Place this LMP Compliance Checklist at the front of the plan.	ARC and managing agency consensus	Front & App. E.8
63.	Place the Executive Summary at the front of the LMP. Include a physical description of the land.	ARC and 253.034(5)	Ex. Sum
64.	If this LMP is a 10-year update, note the accomplishments since the drafting of the last LMP set forth in an organized (categories or bullets) format.	ARC consensus	App. D.3
65.	Key management activities necessary to achieve the desired outcomes regarding other appropriate resource management.	259.032(10)	p. 61-72
66.	Summary budget for the scheduled land management activities of the LMP including any potential fees anticipated from public or private entities for projects to offset adverse impacts to imperiled species or such habitat, which fees shall be used to restore, manage, enhance, repopulate, or acquire imperiled species habitat for lands that have or are anticipated to have imperiled species or such habitat onsite. The summary budget shall be prepared in such a manner that it facilitates computing an aggregate of land management costs for all state-managed lands using the categories described in s. 259.037(3) which are resource management, administration, support, capital improvements, recreation visitor services, law enforcement activities.	253.034(5)	App. D.1
67.	Cost estimate for conducting other management activities which would enhance the natural resource value or public recreation value for which the lands were acquired, include recommendations for cost-effective methods in accomplishing those activities.	259.032(10)	App. D.1
68.	A statement of gross income generated, net income and expenses.	18-2.018	App. E.3, E.6
*** = The referenced inventories shall be of such detail that objective measures and benchmarks can be established for each tract of land and monitored during the lifetime of the plan. All quantitative data collected shall be aggregated, standardized, collected, and presented in an electronic format to allow for uniform management reporting and analysis. The information collected by the DEP pursuant to s. 253.0325(2) shall be available to the land manager and his or her assignee.			

*E.9 / **Arthropod Control***

Spatial data (e.g. shapefiles) for the boundaries of the buffer preserve and adjacent aquatic preserve have been made accessible to the appropriate mosquito control district. The area is deemed highly productive and environmentally sensitive. 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. Mosquito control plans temporarily may be set aside under declared threats to public or animal health, or during a Governor's Emergency Proclamation. Mosquito control plans are typically proposed by local mosquito control agencies when they desire to treat on public lands.

Florida Department of Environmental Protection

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Tallahassee, Florida 32399-3000

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

June 20, 2016

Ms. Penny Isom
Planning Manager
Florida Coastal Office
Florida Department of Environmental Protection
3900 Commonwealth Boulevard, MS 235
Tallahassee, Florida 32399-3000

RE: St. Joseph Bay State Buffer Preserve Management Plan, Lease # 4119

Dear Ms. Isom:

On **June 17, 2016**, the Acquisition and Restoration Council recommended approval of the **St. Joseph Bay State Buffer Preserve** management plan. Therefore, 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 **St. Joseph Bay State Buffer Preserve** management plan. The next management plan update is due June 17, 2026.

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,

Joseph Wilson, Chief
Office of Environmental Services
Division of State Lands

St. Joseph Bay State Buffer Preserve
Management Plan • June 2016

St. Joseph Bay State Buffer Preserve
3915 State Road 30A • Port Saint Joe, FL 32456-7542
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