

ITEM 10:

Consider a Management Plan for St. Joseph Bay Aquatic Preserve.

LOCATION:

Gulf County

APPLICANT:

Office of Resilience and Coastal Protection

STAFF REMARKS:

Background

Under the Aquatic Preserve Resolution of 1969 and then in Chapter 258, Part II, Florida Statutes, aquatic preserves are set aside to be maintained in essentially the natural condition for the benefit of future generations. St. Joseph Bay Aquatic Preserve (SJBAP) was one of the aquatic preserves designated in 1969.

SJBAP comprises 55,000 acres including most of St. Joseph Bay itself, and the Gulf of Mexico waters immediately west of St. Joseph Peninsula. St. Joseph Bay is one of the few bodies of water in the eastern Gulf of Mexico that isn't significantly influenced by the flow of freshwater. Because of this, the coastal waters of the bay are clearer with sandier sediments. These conditions are ideal for lush seagrass communities, the dominant natural community of the bay.

The Florida Department of State's Division of Historical Resources has identified 27 archaeological and historical sites near SJBAP including the Confederate Salt Works, the Black's Island Lighthouse, a shipwreck, and Richardson Hammock, a large well-preserved shell midden.

Management Plan Overview

The hallmark of Florida's Aquatic Preserve Program is that each site's natural resource management efforts are designed in direct response to unique local and regional issues. In this management plan, SJBAP characterizes its issues and delineates the unique goals, objectives, and strategies that will set the framework for meeting the challenges presented by these issues. The goals, objectives, and strategies employed to address issues of SJBAP are specific to the ecological and socioeconomic conditions present within and around this site.

The management plan identifies the following issues and objectives:

- Water Quality– Objectives
 - Sustain a strategic long-term water quality monitoring program that includes biotic and abiotic parameters, and compile data to evaluate status and trends.
 - Analyze and interpret the status and trends of water quality in SJBAP to identify potential impacts to natural resources.
 - Provide timely and accurate water quality data and information to the public and other entities/agencies.
- Protection of Seagrass Habitat – Objectives
 - Monitor the status and trends of seagrass distribution within SJBAP to determine the overall health and identify potential threats to the habitat.

- Ensure the sustainability of scallop, fish, and other concerned species along with saltmarsh and seagrass habitats.
- Develop and implement a seagrass restoration plan for SJBAP.
- Identify, locate and protect cultural resources within and adjacent to seagrass habitats in SJBAP.
- Promote the importance of seagrass habitats through education and outreach targeted to recreational, commercial, and scientific user groups operating in SJBAP.
- Sustainable Public Use – Objectives
 - Inform residents and visitors of actions they can take to conserve and restore resources of LJBAP, such as Leave No Trace principles.
 - Examine public use patterns and trends within SJBAP to proactively identify potential resource/public use conflicts.
 - Increase awareness of non-consumptive use opportunities such as paddle boarding, sailing, kayaking, canoeing, swimming and snorkeling.
 - Reduce the amount of debris, contaminants and other resource damages associated with user groups.

Public Involvement

An advisory committee meeting was held online on Tuesday March 23, 2021, and public meetings were held at the St. Joseph Bay State Buffer Preserve Visitor Center on Thursday, September 9, 2021, and online on Thursday, September 16, 2021, to obtain public input about the SJBAP draft management plan. Top concerns at the meetings were about water quality, and user conflicts/overuse of the bay.

STAFF RECOMMENDATION:

Approve the management plan.

ARC RECOMMENDATION:

() **APPROVE**

() **APPROVE WITH MODIFICATIONS:** _____

() **DEFER**

() **WITHDRAW**

() **NOT APPROVE**

() **OTHER:** _____

Executive Summary

Lead Agency: Florida Department of Environmental Protection's (DEP) Office of Resilience and Coastal Protection (ORCP)

Common Name of Property: St. Joseph Bay Aquatic Preserve

Location: Gulf County, Florida

Acreage: 55,675

Management Agency: DEP's ORCP

Designation: Aquatic Preserve

Unique Features: St. Joseph Bay Aquatic Preserve (SJBAP) encompasses more than 55,000 acres of sovereign submerged lands. St. Joseph Bay is one of the only bodies of water in the eastern Gulf of Mexico not significantly influenced by the inflow of freshwater. Because of this, these coastal waters tend to be clearer with sandier sediments than in the north central Gulf of Mexico. These conditions make the bay ideal habitat for the growth of lush seagrass communities. Much of the productivity of the region is attributed to the nearshore salt marsh and seagrass habitats that serve as nursery and foraging grounds for a variety of commercial and recreational fish and invertebrate species, sea turtles, scallops and birds.

Archaeological/Historical Sites: The Division of Historical Resources has identified 27 archaeological sites and historical structures in the immediate vicinity of St. Joseph Bay Aquatic Preserve although there are likely to be additional sites (Appendix B.5). Known sites include the Confederate Salt Works (GU00013), the Black's Island Lighthouse (GU00011), a shipwreck believed to be the remains of a mid-nineteenth century steamer, the S.S. Florida (GU00109), old military sites, and old settlement/camp sites. Two of the more notable sites are the Old Cedar site (GU00085), a largely intact Weeden Island shell midden; and Richardson Hammock (GU00010), a large, well preserved shell midden site representative of the Deptford, Swift Creek, Weeden Island, and Fort Walton cultural periods (300 B.C. to A.D. 1500) (DEP, 2016).

Management Needs

Ecosystem Science

SJBAP has and continues to develop monitoring programs that focus on health of seagrass beds, changes in water quality, and the need to protect critical/sensitive habitats.

Resource Management

Resource management activities have focused on both the impacts of an individual action, as well as the cumulative impacts of all changes and actions on the natural system. SJBAP staff review and comment on proposed environmental regulatory permits, Minimum Flows and Levels, Total Maximum Daily Loads (TMDLs), land acquisition projects, and adjacent state lands management reviews.

Education and Outreach

Education and outreach programs conducted by SJBAP are designed to promote the goal of maintaining aquatic preserves at their current level of environmental quality for future generations. Coordinating and participating in education and outreach events proves difficult at times due to a lack of staff and budget. Common target audiences for education and outreach events include landowners and developers, commercial and recreational resource users, students at all grade levels, organized groups, the public, and government agencies (local, regional, state, and federal).

Public Use

SJBAP encourages sustainable use of natural resources while minimizing user impacts. The major use of SJBAP continues to revolve around recreational activities. The clear and shallow waters of the aquatic preserve offer excellent fishing opportunities due to the lush seagrass habitat that supports a variety of commercial and recreational fish species.

Public Involvement

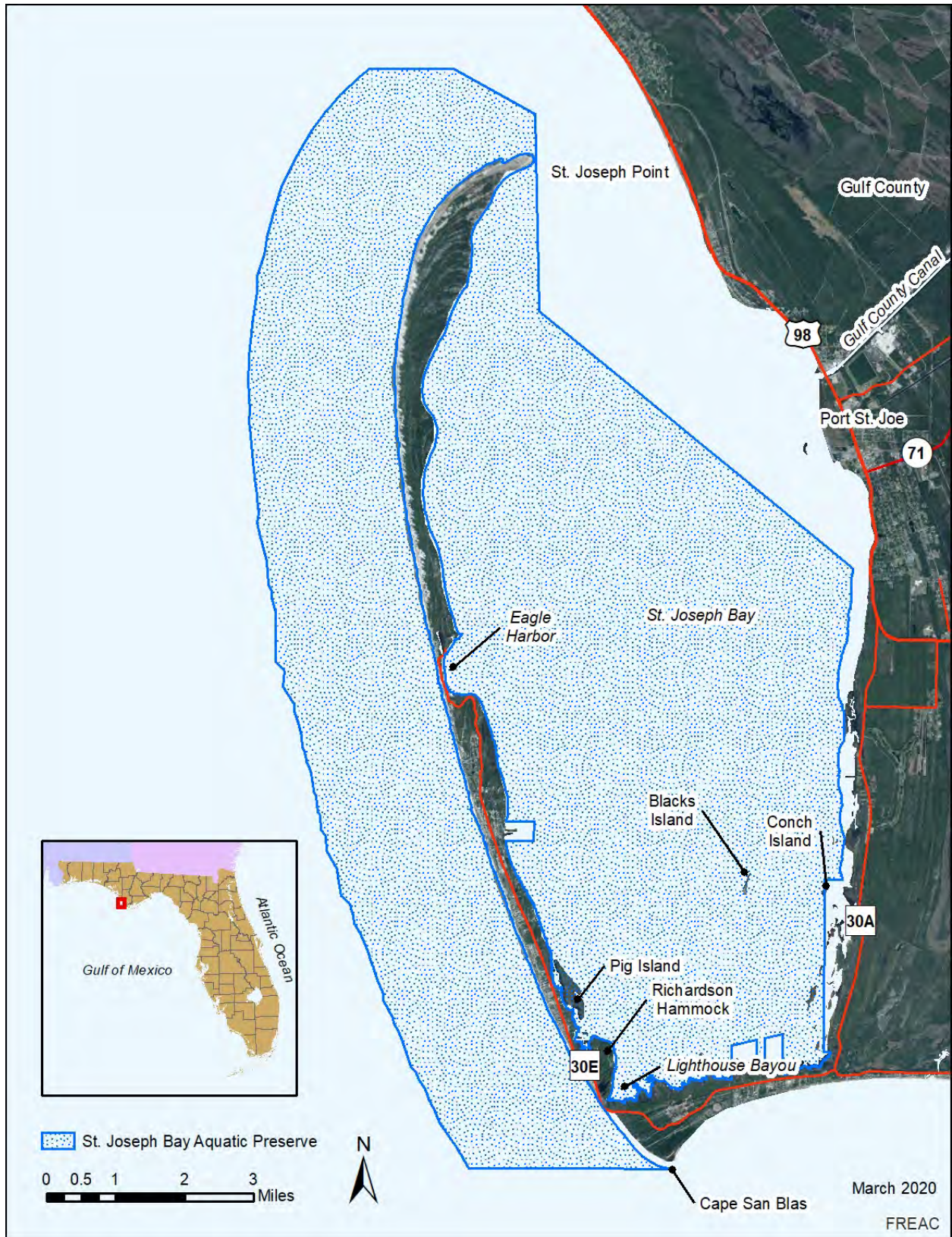
Public support is vital to the success of conservation programs. The goal is to foster understanding of the problems facing these fragile ecosystems and the steps needed to adequately manage this important habitat. St. Joseph Bay Aquatic Preserve staff will hold an advisory committee meeting and a public meeting at a location near the aquatic preserve to receive input on the draft management plan. An additional public meeting will be held in Tallahassee when the Acquisition and Restoration Council (ARC) reviews the management plan.

Coastal Zone Management Issues

To ensure that water quality does not degrade, it is imperative to preserve the wetlands directly adjacent to the bay. Continued land acquisitions for the purposes of conservation in areas that directly protect the neighboring wetlands from nonpoint sources of pollution will ensure a high level of water quality. As human populations continue to concentrate along the coastline, impacts to seagrass habitats increase through nutrient loading, light reduction, increased boat traffic, and more direct vessel impacts such as propeller scarring. Deterioration in seagrass habitat has been attributed to both natural and human-induced disturbance, but human-induced disturbance is now the most serious cause of seagrass loss worldwide. A combination of storm events and beach erosion has resulted in narrowed beach widths and minimal or non-existent dunes adjacent to the aquatic preserve on St. Joseph Peninsula. These conditions provide inadequate protection to upland property from damage due to storm-induced erosion. Further, the narrowed beaches are often inadequate to support recreational use and constitute stressed habitat for sea turtles, beach mice, shorebirds, and other marine life. Continued erosion on the peninsula has significantly reduced the amount of beach available for public use and recreation, leading to increased user conflicts.

Goals

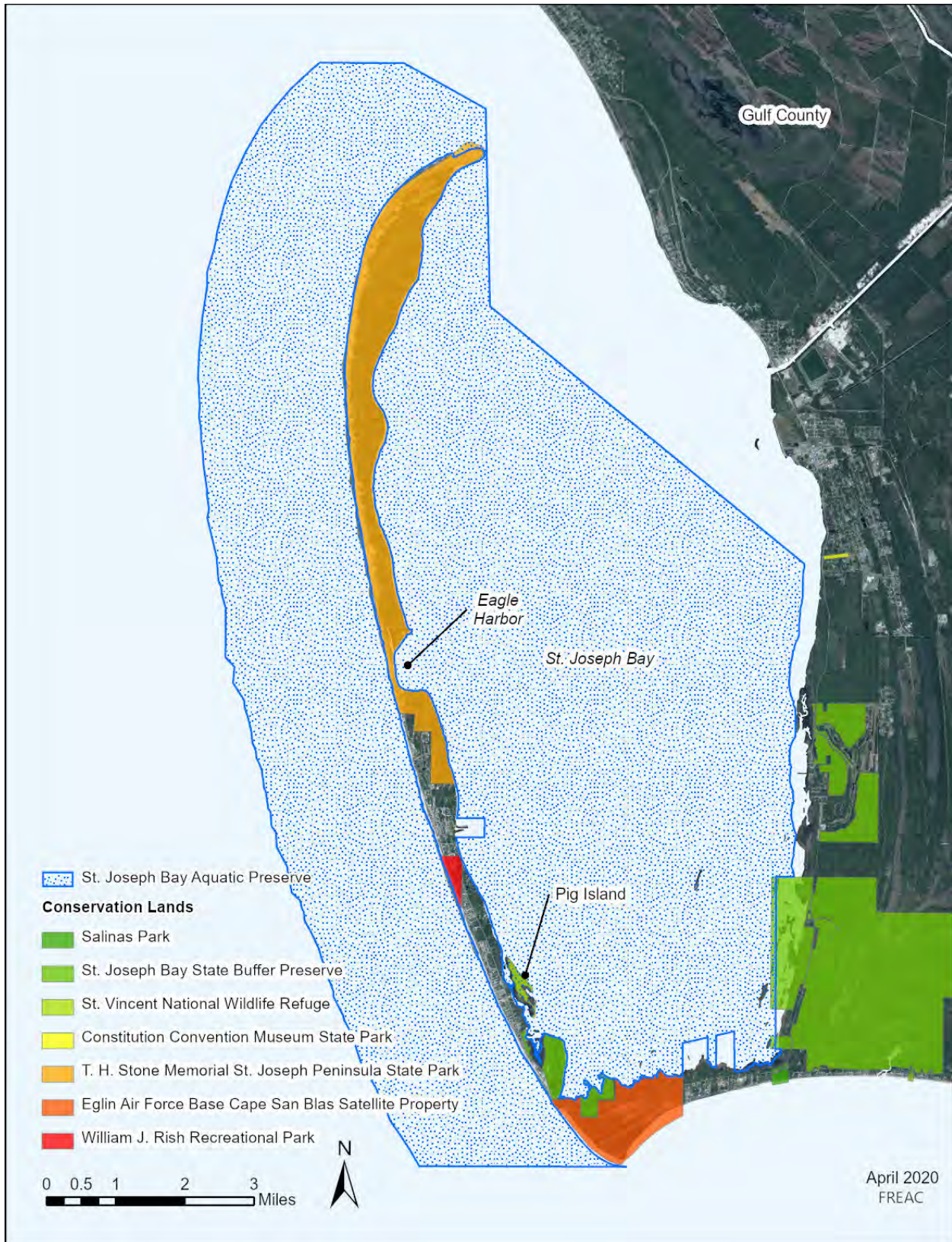
St. Joseph Bay Aquatic Preserve aims to protect and enhance the ecological integrity of the aquatic preserve, restore areas to their natural condition, encourage sustainable use and foster active stewardship by engaging local communities in the protection of aquatic preserves, and improve management effectiveness based on sound science, consistent evaluation, and continual reassessment. Through these strategies, a cohesive management program that leads to the long-term conservation of the natural system may be attained.

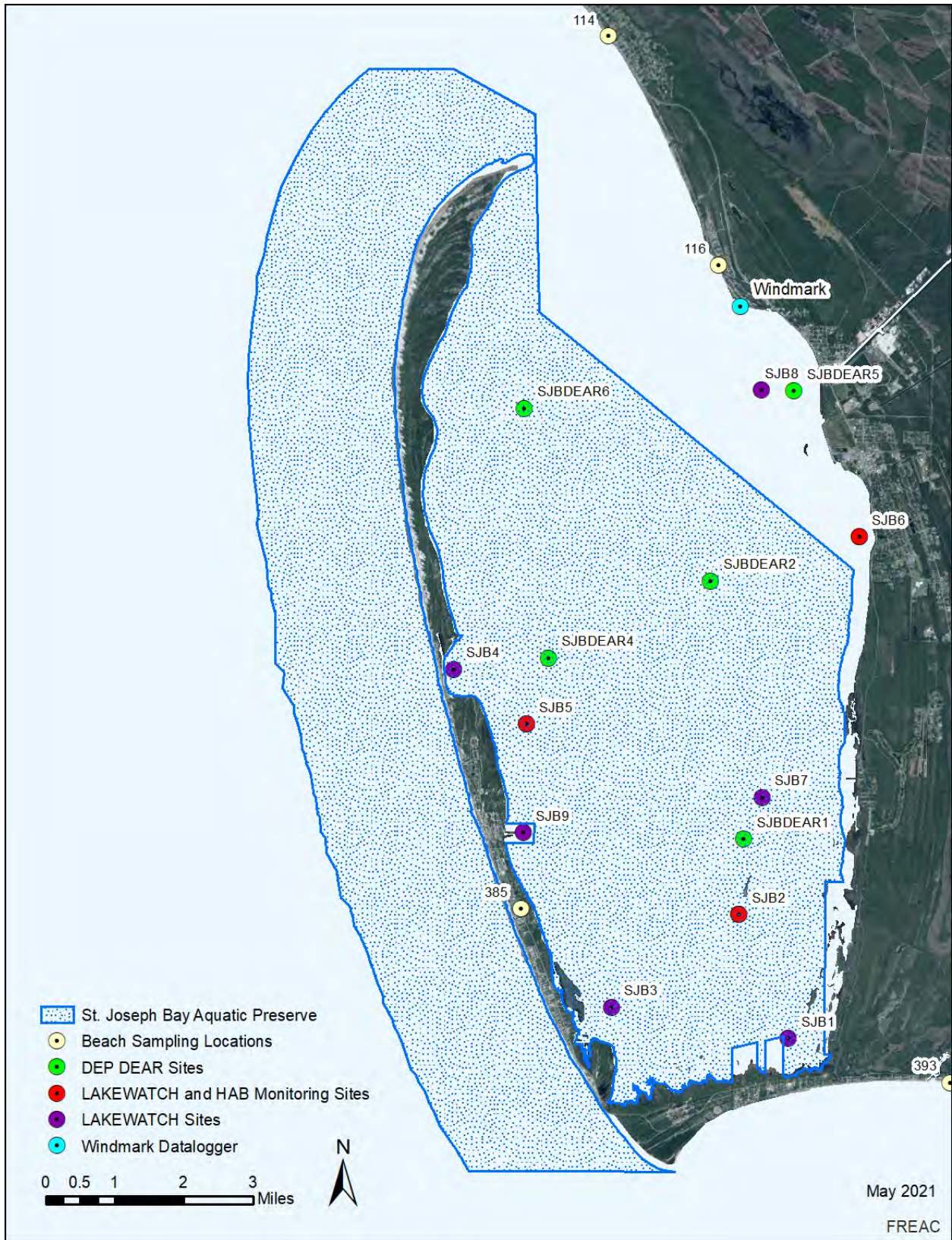


Map 2 / St. Joseph Bay Aquatic Preserve.

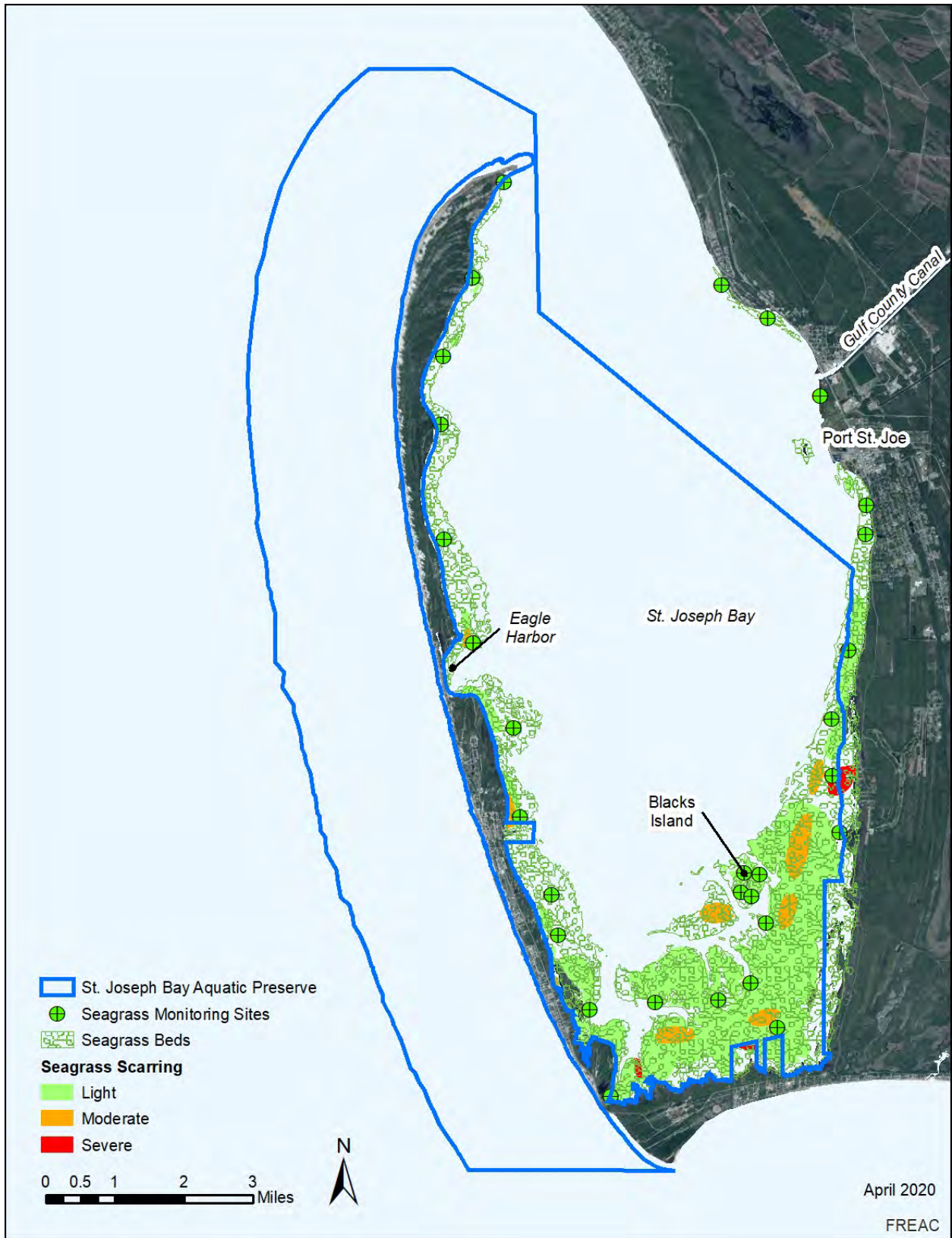


Map 7 / Florida Natural Areas Inventory natural communities in St. Joseph Bay Aquatic Preserve.





Map 11 / Water quality monitoring stations in St. Joseph Bay Aquatic Preserve.



Map 12 / Seagrass monitoring in St. Joseph Bay Aquatic Preserve.