# MANAGEMENT PLAN HUGUENOT MEMORIAL PARK DUVAL COUNTY

Prepared for: City of Jacksonville 851 North Market Street Jacksonville, Florida 32202-2798

Pursuant to: Chapter 253, Section 253.034 Florida Statutes Satisfying the Criteria of Chapter 18-4, 18-4.007, Florida Administrative Code

> Prepared by: England-Thims & Miller, Inc. The Middlebrook Company 01-035-18LL

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# **EXECUTIVE SUMMARY**

Huguenot Memorial Park (Huguenot) is owned by the State of Florida (approximately 140 acres) and U.S. Federal Government (approximately 206 acres). The land is leased to the City of Jacksonville (City or COJ). The state lease agreement (Lease Agreement No. 3101) conveys management authority for Huguenot and Alimacani Island Park to the City of Jacksonville. The lease with the U.S. Army Corps of Engineers (DA Lease No. DACW17-1-80-2) conveys management authority for its ownership of Huguenot to the City of Jacksonville.

The site is located in Jacksonville, Florida, east of Interstate 95 and State Road 9A, off of Heckscher Drive. Huguenot is surrounded by the St. Johns River, Ft. George Inlet, and Atlantic Ocean. HMP and Alimacani are located inside the Nassau River-St. Johns River Marshes Aquatic Preserve, which is designated an Outstanding Florida Water by the State of Florida. The properties are located adjacent to Ft. George Island Cultural State Park and Little Talbot Island State Park. The properties are located within the boundaries of the Timucuan Ecological and Historic Preserve, a unit of the National Park Service (NPS). Huguenot is also a partner park in the Timucuan Trail State and National Parks, management collaboration between the City, State and National parks. The park partnership was formed in 1999.

Existing amenities include: administrative offices, maintenance compound, Huguenot Security residence, restrooms/storage building, campsites, three picnic pavilions, a new concession stand with restrooms, and a lifeguard shelter. The City proposes to redesign and landscape the campground; add new camping areas; picnic pavilions; informational kiosks; educational signage; a gatehouse at the entrance to the beach; overflow parking; a fish cleaning station; beach driving control structures; a trailhead for the Timucuan multi-use trail; a main road stabilization project; and, remove exotic and invasive species. The City also proposes to repair an existing observation deck. In cooperation with the Florida Department of Transportation, the City plans intersection improvements at the entrance of the park. Plans at Alimacani include improving the boat ramp, improving the parking, and installing a new water taxi dock. The City is also planning to relocate the historic Grey Hotel from New Berlin to Alimacani and renovate it as an interpretative center.

Huguenot serves approximately 370,000 people annually and charges an entrance fee of 50 cents per park visitor. The City proposes to increase the entrance fee to \$3 per vehicle in 2008 (pending approval of Ordinance 2008-540). In addition, visitors can currently purchase an individual annual pass for \$42.80 or a family annual pass for \$85.60 (sales tax included). The City proposes to go to a flat rate annual vehicle pass of \$85.60 to replace the individual and family annual passes (pending approval of Ordinance 2008-540). There is no admission fee at Alimacani or visitation data; however, Alimacani is very busy during the summer months.

A Park Advisory Board ("board") was established for these parks that reviews, comments, and suggests appropriate actions for concerns, issues, or improvements to these parks. Two public meetings to discuss Huguenot and the management plan were

conducted during 2003, one in 2007 and two public meetings in 2008. The board consisted of members from the City of Jacksonville Recreation and Community Services Department; Florida Fish and Wildlife Conservation Commission (FWC); the U.S. Army Corps of Engineers (ACOE); the U.S. Fish and Wildlife Service (FWS); the National Park Service (NPS); the Florida Park Service (FPS); Florida Department of Environmental Protection (DEP); Division of State Lands/Beaches, Coastal Aquatic and Managed Areas (CAMA); St. Johns River Water Management District (SJRWMD); City Council Member for District 11; Citizens Planning Advisory Committee Member for District 6; the Florida Audubon Society; Sierra Club; City of Jacksonville, Soil and Water Conservation Commission; and, The Nature Conservancy (TNC).

The City is also proposing to establish a "Friends of Huguenot Memorial Park," a notfor-profit, to support park activities through fund raising, education and volunteer activities.

# Park Natural Communities

The natural communities include a marine/estuarine tidal marsh and coastal grassland wetland communities. The majority of the site is comprised of beaches and dunes. The beach dune and coastal strand together provide valuable habitat for nesting, migrating, and wintering species of shorebirds and seabirds, including both listed and rare species.

The majority of the sand spit peninsula along the Atlantic Ocean has been designated a Critical Wildlife Area (CWA) by the FWC. Public access to this portion of the property, except for the immediate beachfront water-ward of the frontal dune, is prohibited. The FWS have also designated the entire property as critical habitat for listed species.

The coastal strand and coastal grassland communities will be monitored on an annual basis to assess any shift in vegetative composition. Other natural communities will be monitored on a quarterly basis for overall health as part of a Habitat Conservation Plan.

A maintenance plan will be implemented to regularly remove woody species encroaching upon the open or sparsely vegetated portions of the dune system to maintain optimal habitat for the protected species using this area. Maintenance, including dune stabilization and restoration, will be done during the summer season, prior to the winter migration of shorebirds but after the summer breeding of the terns and other species that nest in the CWA. The marine turtle permit holder shall be notified in advance of any prescribed burn plan. He or she will provide planners with nest locations and/or timelines for either avoidance or a burn postponement.

A prescribed burn is proposed by the FWC within the dune area (approximately five acres) at the north end of the sand spit to improve habitat for nesting royal terns. The prescribed burn will be followed by hand application of herbicide directly to dog fennel plants at and near the tops of those dunes where the royal terns have nested.

Huguenot is considered by the Florida Audubon Society to be the premier birding site in Duval County. The number of nesting species recorded at Huguenot represents some of

the largest rookeries recorded in the state for black skimmers, laughing gulls, and royal terns. In addition to providing nesting habitat, Huguenot is also an important stopover site for migrant shorebirds, including the red knot, federally listed piping plovers, and other passerines.

Alimacani Island was a campground and a fish camp/restaurant for many years until it was acquired by the City of Jacksonville during the Preservation Project Jacksonville. The City site is heavily disturbed and the adjacent state site to the north and part of the lease is primarily a dirt parking lot for the boat ramp and a picnic pavilion. The boat ramp and a portion of the shoreline are heavily armored with rip-rap. There is a small amount of disturbed coastal strand and the island is adjacent to salt marsh communities.

# Park Designated Species

"Designated species" are those that are listed by the Florida Natural Areas Inventory (FNAI); U.S. Fish and Wildlife Service (FWS); Florida Fish and Wildlife Conservation Commission (FWC); and, the Florida Department of Agriculture and Consumer Services (FDA), as endangered, threatened, or of special concern.

Many designated species have been identified on or adjacent to Huguenot. These species include: loggerhead turtle, green turtle, leatherback turtle, Kemp's Ridley turtle, hawksbill turtle, gopher tortoise, American alligator, piping plover, least tern, American oystercatcher, brown pelican, black skimmer, little blue heron, snowy egret, tricolored heron, white ibis, wood stork, reddish egret, roseate spoonbill, osprey, peregrine falcon, and West Indian manatee.

Another shorebird species under management concern is the red knot, which is currently a federal candidate to be designated. Red knots migrate into the Ft. George River region twice annually and frequent inter-tidal areas within and adjacent to Huguenot.

Surveys have shown that the Atlantic loggerhead and green sea turtles have nested or attempted to nest at Huguenot in past years. Leatherback turtles have nested on adjacent properties and could potentially nest on Huguenot in upcoming seasons. Kemp's Ridley and hawksbill sea turtles do not commonly nest in NE Florida, but have been found in offshore waters of the region.

The offshore waters of Huguenot also serve as a winter calving ground for the endangered northern right whale from December 1 through March 31. North Florida is designated as "critical habitat" for the northern right whale by the National Marine Fisheries Service. The boundaries of this area extend from the shoreline to 15 miles offshore (Raichle, Bodge, & Olsen 1997).

Protection and management strategies for Huguenot designated species include: directing public access away from designated the CWAs; seasonal closures of certain segments of Huguenot to beach driving to avoid wildlife/beach-goer conflict; monitoring the designated species; providing educational literature to the public; installing informational signage; and, surveying year round for shorebird non-nesting and nesting behaviors. The

inlet will be cordoned with bollards and rope to allow for a beach driving lane, but will form a barrier to keep vehicles out of the tidal flats in the cove.

The following designated species have been confirmed in the marshes adjacent to Alimacani: snowy egret, wood stork, white ibis, little blue heron; tricolored heron and roseate spoonbill.

Access to the marshes is limited and closed to the public for habitat protection.

# Cultural Resources

Two recorded sites listed under the Florida Master Site File have been found within Huguenot boundaries: Site 8DU7520 lies at the extreme northwestern corner of Huguenot and is described as a "diffuse shell midden." Site 8DU14055 is the granite jetty that enters Huguenot at its southeastern most point and extends three miles east into the Atlantic Ocean. Information from the Site File indicates the structure was originally part of a seawall constructed circa 1880. Current park rules prohibit climbing or walking on the jetty. Any proposed park improvements will ensure that structure, which is beneath ground, will be protected.

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# I. GENERAL INFORMATION

#### A. Common Name of Property

Common name of the property is "Huguenot Memorial Park."

#### **B.** Site History

The site was formally known as "Jacksonville Harbor" and renamed "Huguenot Memorial Park" for the French Huguenot Captain Jean Ribault, who founded Fort Caroline in 1562. The site has been a rustic park with limited development for years, used by the public for fishing, swimming, camping, beach driving, and other recreational activities.

The site, which contains various parcels, was formerly owned by several parties, as evidenced by appended deeds. Presently, Huguenot is owned by the State of Florida, Board of Trustees of the Internal Improvement Trust Fund and U.S. Government, and leased to the City of Jacksonville through two leases (state and federal).

Because the site was previously owned by several parties and because the site has been utilized as a park by local communities long before the state's acquisition, the site as a whole and its geographically diverse areas have in the past been commonly referred to as "Wards Bank," "North Jetty," "Ft. George Inlet," "Xalvis Island," and "Shell Point." However, for consistency and clarity throughout this management plan, the site will be referred to as "Huguenot Memorial Park" or, for the sake of abbreviation, referred to as "Huguenot." Huguenot includes the state and federal lands.

There are three properties on Alimacani Island (one state property and two City properties). The two properties of Alimacani Island adjacent to the Heckscher Drive were a campground and a fish camp/restaurant for many years until it was acquired by the City of Jacksonville during the Preservation Project Jacksonville. The City site is heavily disturbed. The adjacent state site to the north and part of the lease is primarily a dirt parking lot for the boat ramp and picnic pavilion. There is a small amount of disturbed coastal strand and the island is adjacent to salt marsh communities.

# C. General Location

Huguenot is owned by the state, with the adjacent federally leased lands that comprise all of Huguenot. The property, depicted on Duval County, FL U.S. Geological Survey 7.5-minute topographic quadrangle (1992) is adjacent to Ft. George Inlet, the St. Johns River and the Atlantic Ocean in Section 20/37, Township 1S, Range 29E. The site is east of Interstate 95 and State Road 9A off of Heckscher Drive. It is a large L-shaped peninsula surrounded by the

river, ocean, and inlet and connected to the mainland at Huguenot entrance on the western end.

#### **D.** Boundary Map

The state portion of Huguenot consists of approximately 140 acres; the federal portion is approximately 206 acres. Huguenot is located in the northeast portion of Duval County. The state portion of Huguenot is bordered by the Ft. George Inlet to the north, U. S. Government property to the south and southeast, the St. Johns River to the south, State Road A1A, and private ownership to the west. Much of this management plan gives information on Huguenot as a whole (state and federal land) since the entire park is leased by the City. Looking at the Park as a whole will give the reader a better understanding of the management of this park.

Existing structures are illustrated on the boundary map and consist of the administrative offices; maintenance compound; Huguenot security residence; restrooms/storage building; and three picnic pavilions.

Alimacani state portion and part of the lease is approximately 25 acres. It is bounded to the east by the Ft. George River, to the north and west by Haulover Creek and State Road A1A, and the Ft. George River Bridge to the south. Existing structures include a remnant campground with utilities, a security trailer, a boat ramp and a picnic pavilion shelter. (See Location/Boundary, Exhibit A). Site photographs are located in Exhibit N.

# **E. Legal Description**

See Exhibit B for Legal Description.

# F. Length of Waterfront

The majority of the site is comprised of beaches and dunes. Huguenot contains approximately 5,800 linear feet of beach front along the Atlantic Ocean, as well as 6,200 linear feet of beach front along the St. Johns River, and 6,700 linear feet along the cove associated with the Ft. George Inlet. Large dune systems are found both along the Atlantic Ocean and the St. Johns River beaches.

# G. Access Points

The property is accessible by vehicle from Heckscher Drive (State Road 105), which becomes State Road A1A, and by personal watercraft (PWC) from Ft. George Inlet and the St. Johns River. The launching and landing of the PWCs is allowed at the Alimacani boat ramp and an area of Huguenot known as "the Point."

# H. Tidal Range

In the area of Huguenot, the coastal waters of the Atlantic Ocean and the St. Johns River experience a semi-diurnal (twice per day) tidal change in the range of approximately six feet. Strong currents and related eroding forces

have a major effect on shorelines and submerged lands. Tidal shoaling in the Ft. George Inlet and the St. Johns River are considered a dynamic coastal system that can result in dramatic short and long term erosional and depositional changes, typical to that of sea islands. Often, in short periods of time, the area is fully exposed to the effects of coastal storms.

Currently, the Ft. George River channel is shoaling directly east of Alimacani and the river is scouring the eastern bank of the island. The St. Johns River is scouring the southern portion of Huguenot and storms in 2007 and 2008 have significantly eroded the Atlantic beachside dunes.

# I. Development Constraints

The following is a list of characteristics that may influence management options:

- 1. Huguenot is located within the eastern part of the Timucuan Ecological and Historic Preserve and is identified in the City's 2010 Comprehensive Plan as a "Special Management Area" (SMA).
- 2. Many areas will require approval from environmental agencies prior to making improvements. Development/improvements must also adhere to the SMA program.
- 3. Shoreline erosion control along water resources. The shoreline is susceptible to storm surges and natural weather conditions. During 2007, a series of northeasters and subtropical storms dramatically altered the character of the Atlantic Ocean beach front and the shoreline and roads along the St. Johns River.
- 4. Huguenot's northeastern border of saltwater marsh and the southern border along the St. Johns River provide natural habitat for many species of birds and animals, many of which have been designated by FWC and FWS as endangered, threatened, or species of special concern. All of Huguenot is important to imperiled species.
- 5. Certain limitations directed by the State of Florida, Board of Trustees of the Internal Improvement Trust Fund, according to original lease No. 3101, dated January 29, 1979, and the amendment dated March 18, 1988. The U.S. Army Corps of Engineers requires an approved management plan as part of its lease.
- 6. Property adjacent along the western boundary of Huguenot is owned by Michael Hughes. The Hughes property is currently a popular local fishing spot along Haulover Creek and a pristine boundary to Huguenot. The acquisition would not only benefit public users, but would protect two acress of salt marsh and tidal creek that lie within. The City has been approved for a grant from the Florida Communities

Trust to acquire the property if the state, City and owner come to an agreement. Exhibit C identifies the adjacent property. There are no adjacent land uses that conflict with the planned use of the property. If purchased, the property will remain "as is" in its current use (passive) to serve as a pristine boundary of Huguenot. Future proposed alternative uses shall be agreed upon by the established Park Advisory Board.

- 7. The infilling of sand into the Ft. George Inlet continues to change the character of the northern tip of Huguenot as well as the inland flats.
- 8. The sand accreting in the Ft. George River continues to alter the shape and size of Alimacani.

# J. Geographic Significance

The property is bordered by open water to the east, south, and north, with State Road A1A located across from the Ft. George Inlet to the northwest of the property. Little Talbot Island State Park is located directly to the north of the Ft. George Inlet. Residential development is located to the southwest of the site across salt marsh and the open water of Haulover Creek. None of the existing adjacent land uses conflict with the planned use of the property.

Currently, Huguenot serves an estimated 370,000 people during the year. A resident population of more than 225,000 as of 2005 exists within a ten-mile radius of Huguenot. However, an explosion of growth in the area has increased the annual visitation to Huguenot by more than 50,000 persons per year since 2003. (See Exhibit P for park visitation). This number does not reflect camping visitors or children under the age of six, only paying admission customers.

Huguenot provides saltwater marsh area for many species of animals and plants. These natural areas provide a special significance to the area and are connected to a vast network of marshes that exist throughout the Timucuan Preserve.

Huguenot is surrounded by various types of development; for example, single family residential areas, military facilities, federal commercial shipping channels, and undeveloped or agricultural areas. It is accessible by an exit at Interstate 95 and Heckscher Drive (however that exit is temporarily closed for highway construction). It is also accessible from State Road A1A from the east.

Local, state and federal parks and conservation areas such as, Ft. George Island Cultural State Park; Kingsley Plantation; Little Talbot Island State Park; Big Talbot Island State Park; Machaba Balu Preserve; Cedar Point Preserve; and, Ft. Caroline National Memorial are connected by waterways to Huguenot. In addition, Huguenot and Alimacani are part of the Timucuan Ecological and Historic Preserve, the Timucuan Trails State and National Parks partnership, and the Nassau-St. Johns River Aquatic Preserve.

#### K. Title Interest and Purpose for the Acquisition

Fee simple title to the state for this property is held by the Board of Trustees of the Internal Improvement Trust Fund (TIITF). The property was originally acquired by the State of Florida on August 14, 1953, for use and benefit of the Florida Board of Parks and Historic Memorials. (See History of Deed Conveyances, Exhibit D.)

On January 29, 1979, the Board of Trustees conveyed management authority to the Consolidated City of Jacksonville by Lease Agreement No. 3101 (see Exhibit E). On March 18, 1988, a Lease Amendment, Exhibit F, to the original lease was entered into for the purpose of increasing the term from 25 to 38 years from the date of the original agreement. The term of the Lease Agreement No. 3101 will expire on January 29, 2017. The federal lands within Huguenot are located eastward of the state lands at 10980 Heckscher Drive (State Road A1A), at the mouth of St. Johns River. Approximately 206 acres of federal land is leased under agreement DACW 17-1-80-2 that expired in 2005. However, the U.S. Army Corps of Engineers, which is responsible for the lease, has extended the lease until the December 2008. See Exhibit G for Federal Lease.

The property was acquired to protect the natural resources and to provide public recreation for the community. As mentioned previously, approximately 370,000 people visit Huguenot each year. The City has managed the property for public recreation and has provided some management for natural resources. However, the City seeks to improve public safety and natural resource management actions proposed in this plan.

#### L. Land Acquisition Program

This site was not acquired under a specific land acquisition program. Two parcels on Alimacani Island were acquired by the City of Jacksonville during the Preservation Project initiative (in 2002) and shown on Exhibit A.

#### M. Proposed Use

The property is proposed for multi-use management of outdoor recreation and natural resource protection as described in Chapter 253.034, Florida Statutes. Management goals and objectives include public access, recreation, resource protection and conservation, ecosystem maintenance and protection, and protection of threatened and endangered species.

#### **N. Location In Aquatic Preserve**

Huguenot is located in the Nassau River-St. Johns River Marshes Aquatic Preserve, which is also designated an "Outstanding Florida Water" by the State of Florida. The property is located adjacent to Ft. George Island Cultural State Park and Little Talbot Island State Park. The property is located within the boundaries of the Timucuan Ecological and Historic Preserve, a unit of the National Park Service.

Three water bodies, the St. Johns River, Atlantic Ocean, and Ft. George River border Huguenot. According to Chapter 62-302, Florida Administrative Code, "Surface Water Quality Standards," the St. Johns River is classified as a "Class III water body – Recreation, Propagation, and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife." The Ft. George River from the Ft. George Inlet is classified as a "Class II water body – Shellfish Propagation or Harvesting." The Atlantic Ocean does not carry a water quality classification.

# **O.** Port of Jacksonville; Mayport Naval Station

Huguenot contains the St. Johns River North Jetty and adjacent uplands separating the Ft. George River and the Atlantic Ocean from the St. Johns River channel. This land is critical to maintaining the navigational channel for vessel access to the Mayport Naval Station, the Port of Jacksonville, Intracoastal Waterway, and the remainder of the St. Johns River system. Coastal processes and navigation channel maintenance needs will require multiparty cooperation and planning to maintain the present facilities and uses. The Jacksonville Port Authority, the U.S. Army Corps of Engineers, the U.S. Navy, the Florida Department of Environmental Protection, the St. Johns River Water Management District, and the City of Jacksonville will need to coordinate plans for construction to address the compounding forces of rising sea-level, severe storm events, and constant tidal action.

# II. MANAGEMENT AUTHORITIES AND CONSTRAINTS

# A. State and Local Authorities

State level coordination in outdoor recreation and management is provided through the Acquisition and Restoration Council.

The Department of Environmental Protection, Division of State Lands, as the staff of the Board of Trustees of the Internal Improvement Trust Fund, has the responsibility under Chapter 253, Section 253.034, Florida Statutes, for administering a comprehensive plan concerning the acquisition, management, and disposition of all lands vested in the Board of Trustees. See Exhibit H.

Under the Mayor, within the Executive Branch of the City's government, the Recreation and Community Services Department is charged with the administration of Jacksonville's recreational facilities and programs. Huguenot is part of the Waterfront Management and Programming Division, which manages the City's natural resource-based parks. The Planning and Development Department is responsible for long range planning for recreation. A letter from the Chief of the former Planning, Research, and Grants Division of the former Parks, Recreation, and Conservation Department is attached as Exhibit J, which finds the Huguenot Park-State Management Plan consistent with the City of Jacksonville Comprehensive Plan. The City's Comprehensive Plan is being updated concurrently with update of the Huguenot Management Plan

Huguenot is located in City Council District 11 and Planning District 6. City of Jacksonville Resolution 88-287-78, Exhibit K, authorizes the City of Jacksonville to negotiate a management plan with the State of Florida.

#### **B.** Legislative and Executive Constraints

The State Comprehensive Plan was adopted as Chapter 187, Florida Statutes, during the 1985 Legislative Session and updated in 1987, to provide long-range policy guidance for the social, economic, and physical growth of the State.

The City's 2010 Comprehensive Plan provides resource management goals, public/private planning partnership, protective development constraints, land acquisition guidelines, and natural resource protection.

# III. NATURAL AND CULTURAL RESOURCES IDENTIFICATION, PROTECTION, AND MANAGEMENT

#### A. Natural Resources:

#### Topography

The topography varies throughout Huguenot. The elevation along the riverfront ranges from 0-12 feet, in the southern central and southwestern areas from 0-18 feet, and in the northwestern section from 0-6 feet. Topography is quite irregular as a result of its unique formation and secondary dunes. Huguenot was originally an island known as "Ward's Bank," but when the jetties were constructed to protect the shipping channel in the 1890s, sand began accreting and gradually formed the peninsula.

#### Soil Types

The Soil Survey of City of Jacksonville, Duval County, Florida (USDA 1998), identifies six soil types within Huguenot boundaries:

a. Aquic Quartzipsamments, zero to two percent slopes (06). Aquic Quartzipsamments are somewhat poorly drained to moderately well drained, nearly level to gently sloping soils on rises and knolls that have been reworked by manmade dredging and earthmoving operations. They also have formed by natural deposition on islands along the Atlantic coast. Generally, the high water table is at a depth of 18 to 72 inches from January through October. This soil type is mapped within the extreme western portions of the

site between the St. Johns River and a tributary of Haulover Creek. This soil type underlies the coastal strand community and is sparsely vegetated with salt-tolerant vegetation.

- b. *Arents, nearly level (07).* Arents, nearly level, is a poorly drained, nearly level soil found in the flatwoods. Generally, the high water table is at a depth of 18 to 36 inches from January through October. The arents soil type is mapped within the southern portion of Huguenot Park within the coastal strand and coastal grassland communities and is also found underlying the camping and administration areas within Huguenot.
- c. *Beaches, very frequently flooded (10).* Beaches is a poorly drained to very poorly drained soil found on beaches. Generally, the high water table is at a depth of zero to 72 inches for 12 months a year during normal years. The beaches soil type is found on the site along the Atlantic Ocean underlying the beach dune and unconsolidated substrate communities. This soil type is mapped within the tidal portions of the beach shore, as well as within the dunes and vegetated communities adjacent to Ft. George Inlet.
- d. Leon fine sand, zero to two percent slopes, very frequently flooded (33). Leon fine sand, very frequently flooded, is a nearly level, very poorly drained soil found in tidal marshes. Generally, the high water table is at a depth of six to 18 inches from January through October. The surface layer is a very dark gray fine sand about five inches thick. The underlying layers consist of dark gray fine sand extending from five to eight inches, and gray fine sand extending from eight to 18 inches. This soil type is mapped just east of Heckscher Drive and north of the forested hammock communities within Huguenot. Although this soil type is described as found in tidal marshes, due to substrate movement and redeposition within Ft. George Inlet, this area now lies primarily below the mean low water line, with only a small portion of the soil map unit supporting marsh vegetation.
- e. Newhan-Corolla, rarely flooded, complex, gently undulating to hilly, two to 20 percent slopes (42). Newhan-Corolla, rarely flooded, complex consists of deep, gently undulating to hilly, excessively drained, sandy Newhan soil found on dunes affected by salt spray; and, gently undulating to rolling, somewhat poorly drained to moderately well drained, sandy Corolla soil found in dunes affected by salt spray near the Atlantic Ocean. Generally, Newhan soil has a high water table at a depth of more than 72 inches during normal years. The surface layer is white fine sand about seven inches thick. The underlying layer consists of very pale brown fine sand extending from seven to 80 inches. Generally, Corolla soil has a high water table at a depth of 18 to 42 inches from January through October. Its surface layer is a very pale brown fine sand about six inches thick. The underlying layer consists of pale brown fine sand extending from six to 12 inches. This soil type is found within the beach dune and coastal strand communities along the Atlantic Ocean.

- f. *Tisonia mucky peat, zero to one percent slopes, very frequently flooded (68).* Tisonia mucky peat is a nearly level, very poorly drained organic soil found in tidal marshes. Generally, the high water table is at or near the surface and areas are flooded twice daily by fluctuating tides for very brief periods during normal years. The surface layer is a dark grayish brown mucky peat about 18 inches thick. This soil type is mapped within the tidal marshes associated with Haulover Creek.
- g. Arents, Tisonia and Mandarin are found on Alimacani.

# Natural Communities: Swamps, Marshes, and other Wetlands

**Identification:** Two wetland communities are found within Huguenot boundaries. Marine/estuarine tidal marsh is found within the western portions of the site adjacent to Heckscher Drive; it occurs in association with tributaries of Haulover Creek and along the western portions of the cove associated with the Ft. George Inlet. The marsh community supports black needlerush (*Juncus roemerianus*) and saltmarsh cordgrass (*Spartina alterniflora*) within its interior, with shrubs and woody species such as wax myrtle (*Myrica cerifera*), saltbush (*Baccharis halimifolia*), southern red cedar (*Juniperus silicicola*), and sea-oxeye daisy (*Borrichia frutescens*) along the periphery.

The coastal interdunal swale community is found along the landward side of the beach dunes fronting the Atlantic Ocean. This depressional area is characterized by a dominance of herbaceous wetland species including salt grass (*Distichlis spicata*), sea purslanes (*Sesuvium spp.*), and glasswort (*Salicornia virginica*), with sea-oxeye daisy (*Borrichia frutescens*) found along the sloping edges between the grassland community and the coastal strand.

Wetlands provide foraging habitat for listed species, especially wading birds such as wood storks, herons, and rare and protected shorebirds. In addition, wetlands provide valuable water quality functions by removing excess nutrients from the surrounding waters.

**Protection and/or Management Strategy:** The wetland communities found on site, including coastal grassland and marine tidal marsh communities, are environmentally sensitive areas. These wetlands fall under the jurisdiction and regulation of the DEP, the SJRWMD, and the ACOE. Any activities proposed within wetlands require authorization from these agencies. Wetlands are sensitive to changes in hydrology, water quality and vegetative composition, and will be maintained in their current state with minimal disturbance. No activities are planned to occur within these wetland areas.

#### Natural Communities: Coastal Strand, Coastal Grassland, Beaches and Dunes

**Identification:** The coastal strand community within the sand spit peninsula along the Atlantic Ocean provides important habitat for many listed wildlife species and should be considered an "environmentally sensitive area." Throughout the property, beach dunes are found to act as a protective barrier against wave and tidal action. Beach dunes protect the areas behind them from wave action and saltwater intrusion during storm events.

The coastal strand and coastal grassland communities located away from the developed areas of the property contain native landscapes in excellent natural condition. These landscapes, as well as the beach dune community, are considered unique habitat by the FWC. The coastal strand and coastal grassland communities are listed as imperiled G2/S3 by FNAI.

The inter-tidal areas, especially on the inlet side of Huguenot and off the north tip of the sand spit, are extremely important feeding areas for all seabird and shorebird species. Portions of this habitat within Huguenot are within the designated wintering habitat of the federally threatened piping plover. The beach areas above the mean high water line also are important resting areas for the birds and important nesting areas for sea turtles.

The majority of the sand spit peninsula along the Atlantic Ocean has been designated as a CWA by the FWC. Public access to this portion of the property, except for the immediate beachfront waterward of the frontal dune, is prohibited. The restriction of public access has allowed the continued existence of an unaltered dune system and coastal strand community that attracts nesting shorebirds each spring and summer and migrating shorebirds in the winter. In addition, the protected cove found to the west of the peninsula attracts wading birds as well as shorebirds, ducks, loons, and gannets.

Audubon of Florida has designated the entire project area as an "Important Bird Area" (IBA). An IBA is a site that supports significant populations of one or more species of native birds, or a significant diversity of species. Audubon Society members and state and park officials have documented over 180 species of birds on the property.

The majority of the site comprises beaches and dunes. Huguenot contains approximately 5,800 linear feet of beach front along the Atlantic Ocean as well as 6,200 linear feet of beach front along the St. Johns River, and 6,700 linear feet along the cove associated with Ft. George Inlet. Large dune systems are found both along the Atlantic Ocean and along the St. Johns River beaches.

Dune vegetation plays an important role in the formation and stabilization of dunes. Common dune vegetation found on Huguenot, such as sea oats (*Uniola paniculata*), prevent wind erosion and trap and hold sand particles to

build up the dunes. Harvesting or disturbing sea oats is prohibited by state law (Chapter 161.242, Florida Statutes). Beach dunes and dune vegetation are highly sensitive to human disturbance. The removal of dune vegetation can have significant effects on the shape and stabilization of the dune, which in turn, can affect the natural communities found behind the dune. The beach dune and coastal strand together provide valuable habitat for nesting shorebirds, including both listed and rare species.

Resources on the property identified by FNAI include several element occurrences of natural communities and rare species. The natural communities listed on the property are the beach dune and coastal grassland. FNAI has classified these communities as rare natural communities with an S2 ranking, which describes the statewide status of these communities as imperiled because of rarity or because of vulnerability to extinction due to some natural or human factor. The coastal grassland community is located throughout the site (see FNAI community map at Exhibit Q). An FNAI letter is shown in Exhibit L.

The FNAI community map on Exhibit Q gives approximate acreages for the natural communities determined from the Geographic Information System.

**Protection and/or Management Strategy:** Vegetative communities on Huguenot will also be managed to maintain the ecological integrity of the community. The coastal strand and coastal grassland communities will be monitored on an annual basis to assess any shift in vegetative composition. In particular, the coastal strand area located within the CWA will be monitored for the overabundance of woody species, including trees and shrubs that may alter the overall landscape. Communities will be monitored on a quarterly basis for overall health. Results from the monitoring activities will be used to direct subsequent management activities directed toward conserving and enhancing the natural resources in Huguenot.

The public will be steered away from highly environmental sensitive areas, to other areas of Huguenot via access points and trails. Limiting access to these highly environmental sensitive areas will help protect these resources.

A maintenance plan will be implemented to regularly remove woody species encroaching upon the open or sparsely vegetated portions of the dune system to maintain optimal habitat for the protected species using this area. However, managers will avoid the dune and coastal strand habitats during the nesting season when birds are nesting or appearing to nest.

Public access to the CWA portion of the property is prohibited and will remain prohibited.

A prescribed burn is proposed by the FWC within the dune area at the north end of the sand spit to improve habitat for nesting royal terns. The prescribed burn will reduce the amount of above-ground vegetation within the dunes. The area to be burned would be approximately five acres. The prescribed burn will be followed by hand application of herbicide directly to dog fennel plants at and near the tops of those dunes where the royal terns have nested. The prescribed burn is planned for 2009 whenever the conditions are appropriate. Prescribed burns will be performed every three years.

In Florida, prescribed burns are a highly utilized land management tool and may be used as necessary following the 2008 burn, in cooperation with FWC and other local land management agencies.

Signage and fencing will be increased or upgraded where necessary to further inhibit pedestrian and vehicle access to the dune and other closed interior areas of the sand spit peninsula, especially in low-lying areas on the inlet side and where storm surge has caused washouts in the face of the dunes. All appropriate field permits will be obtained prior to any coastal construction.

#### **Natural Communities: Exotic Species**

**Identification:** Few exotic species were identified on the site during the preliminary survey. Ornamental citrus trees planted along the main entrance road have been removed. Ecological monitoring of the site is planned to continue identifying problem areas of exotic species.

**Protection and/or Management Strategy:** The vegetative management of the property will include the management of the natural communities for invasive and exotic species, and management for appropriate vegetative composition and density that mimics unaltered systems. A program of invasive or exotic plant removal or an environmentally sensitive chemical treatment will be installed. The natural communities will be initially surveyed for the presence and extent of invasive or exotic species as identified by the Florida Exotic Pest Plant Council (www.fleppc.org). The survey will indicate location and densities of exotic plants. The plants will then be removed through mechanical or chemical means. Continued monitoring of any identified areas will be utilized and repeated removal treatments will be used as necessary.

Vegetated areas within the actively utilized areas of Huguenot will be monitored for any unnecessary disturbance or removal of plant material and will be addressed on an as-needed basis. Northeast Florida native plants will be selected whenever feasible over non-proliferating ornamental species when installing landscape plants around existing or future public use areas.

#### Fish and Wildlife Species and Their Habitat

**Identification:** Huguenot is considered by the Duval Audubon Society to be the premier birding site in Duval County. Not only does the property provide habitat for listed species (as described below), but the natural communities on

site also provide nesting habitat for a variety of rare shorebirds. In an FWC report summarizing results from a series of winter shorebird surveys, Huguenot was ranked as the second most important survey site along the northeast coast of Florida. Significant occurrences as recorded by the Duval Audubon Society and verified by FWC include nesting by laughing gulls, royal terns, gull-billed terns, sandwich terns, American oystercatchers, Wilson's plovers and black skimmers. The number of nesting individuals recorded on Huguenot represents some of the largest rookeries recorded in the state for black skimmers (2,026 individuals, 1985), laughing gulls (4,700 individuals, 1999), and royal terns (1,850 individuals, 1999). The City implemented a Shorebird Management Plan in January 2007 and surveyed weekly the species of birds found in Huguenot. (See Exhibit S for the plan and Exhibit T for 2007 data; Exhibit U for a shorebird species guide; all photographs in Exhibit U).

In addition to providing nesting habitat, Huguenot is also an important stopover site for migrant shorebirds and passerines. Winter and spring migrations bring many non-resident birds to the area and finding optimal foraging habitat during migration is a necessity for migrant birds. The beach and inter-tidal areas within Huguenot provide excellent foraging habitat for shorebirds. Inter-tidal habitats are important for feeding and loafing/resting to all seabird and shorebird species throughout the year. Park staff will regularly monitor the habitats year round.

Huguenot encompasses coastal strand, dune, beach, and inter-tidal habitats, which are increasingly rare in Florida. As a result, these habitats are some of the most important habitats in Florida for nesting, migrating and wintering shorebird and seabird species.

Wildlife and their habitats were derived from the following sources: species observed during site visits; wildlife surveys conducted during the development of the management plan; species observed by Park staff and reported to FWC staff; FWC wildlife observation database; species observed and compiled by the Duval Audubon Society; and species that have been identified on adjacent properties. These occurrences are identified in the following table:

#### Species

Common Name

Scientific Name

<u>Fish</u>

American Shad Atlantic Croaker Atlantic Thread Herring Barracuda Blacktip Shark Alosa sapidissima Micropoganius undulatus Opisthonema oglinum Sphyraena barracuda Carcharhinus limbatus Bluefish Bonnethead Shark Cobia Florida Pompano King Mackerel Ladyfish Red Fish Sheepshead Southern Flounder Southern Stingray Spanish Mackerel Spotted Seatrout Striped Mullet Tarpon Tripletail Pomatomus saltatrix Sphyrna tiburo Rachycentron canadum Trachinotus carolinus Scomberomorus caualla Elops saurus Sciaenops ocellatus Archosargus probatocephalus Paralichthys albigutta Dasyatis americana Scomberomorus maculatus Cynoscion nebulosus Mugil cephalus Megalops atlanticus Lobotes surinamensis

<u>Amphibians</u> Eastern Narrowmouth Toad Eastern Spadefoot Toad Green Treefrog Southern Chorus Frog Southern Cricket Frog Southern Leopard Frog Southern Spring Peeper Southern Toad Squirrel Treefrog

Gastrophryne carolinensis Scaphiopus holbrookii Hyla cinerea Pseudacris nigrita Acris gryllus Rana sphenocephala Hyla crucifer bartramiana Bufo terrestris Hyla Squirella

Reptiles Atlantic Loggerhead Turtle Caretta caretta caretta American Alligator Alligator mississippiensis Broad-headed Skink *Eumeces laticeps* Corn Snake Elaphe quttata quttata Cuban Brown Anole Anolis sagrei sagrei Diamondback Terrapin Malaclemys terrapin tequesta **Dusky Pigmy Rattlesnake** Sistrurus miliarius barbouri Eastern Diamondback Rattlesnake Crotalus adamanteus Eastern Glass Lizard **Ophisaurus** ventralis Eastern Slender Glass Lizard **Ophisaurus** attenuatus longicaudus Florida Box Turtle Terrapene carolina bauri Florida Snapping Turtle Chelydra serpentina osceola Thamnophis sirtalis Garter Snake **Gopher** Tortoise Gopherus polyphemus Green Anole Anolis carolinensis

ARC Approved- December 18, 2008

Green Turtle Ground Skink Leatherback Turtle Peninsula Ribbon Snake Rough Green Snake Six-lined Racerunner Southeastern Five-lined Skink Southern Black Racer Striped Mud Turtle Yellow Rat Snake Chelonia mydas Scincella lateralis Dermochelys coriacea Thamnophis sauritus sackeni Opheochrys aestivus Cnemidophorus sexlineatus Eumeces inexpectatus Coluber constrictor priapus Kinosternon baurii Elaphe obsoleta quadrivittata

Mammals Bobcat Cotton Mouse Eastern Cottontail Eastern Mole Gray Squirrel Hispid Cotton Rat Marsh Rabbit Nine-banded Armadillo Raccoon River Otter Virginia Opossum West Indian Manatee

Lynx rufus Peromyscus gossypinus Sylvilagus floridanus Scalopus aquaticus Sciurus carolinensis Sigmodon hispidus Sylvilagus palustris Dasypus novemcinctus Procyon lotor Lutra canadensis Didelphis virginiana Trichechus manatus latirostris

American Avocet American Golden-plover American Goldfinch American Kestrel American Oystercatcher American Pipit American Redstart American Robin American White Pelican American Wigeon Anhinga Baird's Sandpiper Black-And-White Warbler Bald Eagle Barn Swallow **Bar-Tailed Godwit** 

Recurvirostra americana Pluvialis dominica *Carduelis tristis* Falco sparverius Haematopus palliatus Anthus rubescens Setophaga ruticilla Turdus migratorius Pelecanus erythrorhynchos Anas americana Anhinga anhinga Calidris bairdii Mniotilta varia Haliaeetus leucocephalus Hirundo rustica Limosa lapponica

Birds

**Belted Kingfisher** Black Crowned Night-Heron Black Skimmer Black Tern Black Vulture **Black-Bellied Plover** Black-Legged Kittiwake Black-Throated Blue Warbler Black-Throated Green Warbler Blue Jav Blue-Headed Vireo **Blue-Winged Teal Blue-Winged Warbler Boat-Tailed Grackle** Bonaparte's Gull Bridled Tern Brown Pelican Brown Thrasher **Buff-Breasted Sandpiper** Bufflehead **Burrowing Owl** Cape May Warbler Carolina Wren Carolina Chickadee Caspian Tern Cattle Egret Cedar Waxwing Chestnut-Sided Warbler **Chimney Swift** Clapper Rail Common Eider Common Grackle Common Ground-Dove Common Loon Common Merganser Common Tern Common Yellowthroat Cooper's Hawk **Double-Crested Cormorant** Downy Woodpecker Dunlin Eastern Kingbird Eastern Meadowlark Eastern Phoebe Eastern Towhee **European Starling** Fish Crow

Ceryle alcyon Nycticorax nycticorax Rynchops niger Chlidonias niger Coragyps atratus Pluvialis squatarola Rissa tridactvla Dendroica caerulescens Dendroica virens Cvanocitta cristata Vireo solitarius Anas discors *Vermivora pinus* Quiscalus major Larus philadelphia Sterna anaethetus Pelecanus occidentalis Toxostoma rufum Tryngites subruficollis Bucephala albeola Athene cunicularia Dendroica tigrina Thryothorus ludovivianus Poecile carolinensis Sterna caspia Bubulcus ibis Bombycilla cedorum Dendroica pensylvanica Chaetura pelagica Rallus longirostris Somateria mollissima Quiscalus quiscula *Columbina passerina* Gavia immer Mergus merganser Sterna hirundo Geothlypis trichas Accipiter cooperii Phalacrocorax carbo Picoides pubescens Calidris alpina Tyrannus tyrannus Sturnella magna Sayornis phoebe Pipilo erythrophthalmus Sturnus vulgaris Corvus ossifragus

Forester's Tern Glaucous Gull Glossy Ibis Gray Catbird Gray Kingbird Great Black-Backed Gull Great Blue Heron Great Cormorant Great Crested Flycatcher Great Egret Great Horned Owl Greater Scaup Greater Yellowlegs Green Heron Green-Winged Teal Gull-Billed Tern Harlequin Duck Herring Gull Hooded Merganser Hooded Warbler Horned Grebe Horned Lark House Wren Iceland Gull Killdeer Lapland Longspur Lark Sparrow Laughing Gull Least Sandpiper Least Tern Lesser Black-Backed Gull Lesser Scaup Lesser Yellowlegs Loggerhead Shrike Long-Billed Curlew Magnificent Frigatebird Magnolia Warbler Mallard Marbled Godwit Marsh Wren Merlin Mockingbird Mourning Dove Nelson's Sharp-Tailed Sparrow Northern Flicker Northern Cardinal Northern Gannet

Sterna fosteri *Larus hyperborues* Plegadis falcinellus Dumetella carolinensis Tvrannus dominicensis Larus marinus Ardea herodias Phalacrocorax carbo Myiarchus crinitus Ardea alba Bubo virginianus Aythya marila Tringa melanoleuca Butorides virescens Anas crecca Sterna nilotica Histrionicus histrionicus Larus argentatus Lophodytes cucullatus Wilsonia citrina Podiceps grisegena Eremophila alpestris Troglodytes aedon Larus glaucoides Charadrius vociferus Calcarius lapponicus Chondestes grammacus Larus atricilla Calidris minutilla Sterna antillarum Larus fuscus Aythya affins Tringa flavipes Lanius ludovicianus Numenius americanus Fregata magnificens Dendroica magnolia Anas platyrhynchos Limosa fedoa *Cistothorus palustris* Falco columbarius *Mimus polyglottos* Zenaida macroura Ammodramus nelsoni Colartes auratus Cardinalis cardinalis Morus bassanus

Northern Harrier Northern Parula Northern Waterthrush Orange-Crowned Warbler Osprey Pacific Loon Painted Bunting Palm Warbler Parasitic Jaeger Pectoral Sandpiper Peregrine Falcon Pied-Billed Grebe Piping Plover Pomarine Jaeger Prairie Warbler Prothonotary Warbler Purple Martin Purple Sandpiper Red Knot Red-Bellied Woodpecker **Reddish Egret** Red-Eyed Vireo **Red-Tailed Hawk** Red-Throated Loon **Red-Winged Blackbird Ring-Billed Gull Ring-Necked Duck** Rock Dove Roseate Spoonbill Royal Tern **Ruby-Crowned Kinglet** Ruddy Turnstone Sabine's Gull Saltmarsh Sharp-Tailed Sparrow Sanderling Sandwich Tern Savannah Sparrow Semipalmated Plover Semipalmated Sandpiper Sharp-Shinned Hawk Short-Billed Dowitcher Short-Eared Owl Snow Bunting Snow Goose Snowy Egret Song Sparrow Sooty Tern

Circus cvaneus Parula americana Seiurus noveboracensis Vermivora celata Pandion haliaetus *Gavia pacifica* Passerina ciris *Dendroica palmarum* Stercorarius parasiticus Calidris melanotos Falco peregrinus Podilymbus podiceps Charadrius melodus Stercorarius pomarinus Dendroica discolor Protonotaria citrea Progne subis Calidris maritima Calidris canutus *Melanerpes carolinus* Egretta rufescens Vireo olivaceus Buteo jamaicensis Gavia stellata Agelaius phoeniceus Larus delawarensis Avthva collaris Columba livia Ajaia ajaja Sterna maxima *Regulus calendula* Arenaria interpres Xema sabini Ammodramus caudacutus Calidris alba Sterna sandvicensis Passerculus sandwichensis Charadrius semipalmatus *Calidris pusilla Accipiter striatus* Limnodromus griseus Asio flammeus *Plectrophenax nivalis* Chen caerulescens Egretta thula Melospiza melodia Sterna fuscata

Porzana carolina
Caldris himantopus
Melospiza georgiana
Tachycineta bicolor
Egretta tricolor
Baeolophus bicolor
Cathartes aura
Pooecetes gramineus
Rallus limicola
Calidris mauri
Numenium phaeopus
Eudocimus albus
Zonotrichia leucophyrs
Vireo griseus
Zonotrichia albicollis
Catoptrophorus semipalmatus
Charadrius wilsonia
Mycteria americana
Dendroica petechia
Sphyrapicus varius
Coccyzus americanus
Dendroica coronata

See Exhibit U for a complete summary of the shorebirds that regularly use Huguenot.

<u>Plants</u>					
Abnormal Phyllanthus	Phyllanthus abnormis				
Adam's Needle	Yucca filamentosa				
Alamo Vine	Merremia dissecta				
American Cupscale Grass	Sacciolepis striata				
American Elm	Ulmus americana				
American Holly	Ilex opaca				
Andropogon	Andropogon longiberbis				
Angle-Pod	Matelea gonocarpa				
Annual Blue Grass	Poa annua *				
Annual Blue-Eyed Grass	Sisyrinchium rosulatum				
Annual Garden Phlox	Phlox drummondii				
Arrowleaf Sida	Sida rhombifolia				
Asiatic Bellflower	Wahlenbergia marginata *				
Bahia Grass	Paspalum notatum *				
Baldwin's Whitlow-Wort	Paronychia baldwinii				
Ball-Moss	Tillandsia recurvata				
Bay Lobelia	Lobelia feayana				
Beach Morning-Glory	Ipomoea imperati				

**Beach** Tea **Beard Grass** Bear's Foot Beautyberry **Beggar-Lice** Bermuda Grass **Black Cherry Black Highbush Blueberry Black Medic Black Nightshade** Blanket Flower Blueberry Blueberry Blueheart Bog Hemp **Bog Rush** Bracken Fern Brazil Vervain **Brazilian Pusley Broad-Leaf Pink Purslane** Broomsedge Broomsedge **Buckthorn Bushy Beard Grass** Butterfly-Pea Butterfly-Pea Buttonweed Cabbage Palm Caesar-Weed Cakile Camphor Weed Carolina Holly Carolina Laurel Cherry Carolina Willow Catbrier Chaffweed Chapman's Oak Cherokee Bean Christmasberry Cinnamon Fern **Climbing Aster** 

Croton punctatus Andropogon gyrans Polymnia uvedalia Callicarpa americana Desmodium glabellum Cynodon dactylon \* Prunus serotina Vaccinium fuscatum Medicago lupulina \* Solanum nigrescens \* Gaillardia pulchella Vaccinium corymbosum Vaccinium myrsinites Buchnera americana Boehmeria cylindrica Juncus elliottii Pteridium aquilinum Verbena brasiliensis \* Richardia brasiliensis \* Portulaca amilis \* Andropogon virginicus var. glauca Andropogon virginicus var. virginicus Rhamnus caroliniana Andropogon glomeratus Centrosema virginianum Clitoria mariana Dioda virginiana Sabal palmetto Urena lobata *Cakile edentula* Heterotheca subaxillaris Ilex ambigua Prunus caroliniana Salix caroliniana Smilax bona-nox Anagallis minima Quercus chapmanii Erythrina herbacea Lycium carolinianum Osmunda cinnamomea Aster carolinianus

**Climbing False Buckwheat** Climbing Hempweed **Clustered Diamond Flower** Coastal Cockspur Coastal Cynanchum Coastal Plain Pennywort **Coastal Plain Seedbox** Coinwort **Common Cattail** Common Ragweed **Common Sixweeks Grass** Common Sow Thistle Common Vetch Coontie Coral Honeysuckle Cottonweed Cranesbill Creeping Cucumber Creeping Indigo Cross-Vine Crotalaria Crowfootgrass Cudweed **Cut-Leaved Evening Primrose** Cylindric Sedge Dahoon Holly Day-Flower Deerberry Devil-Joint Devil's Walking Stick Dewberry Dodder Vine Dog Fennel Dogwood Downy Milk-Pea Duckweed Duckweed Dune Elder **Dwarf Dandelion** Dye Bedstraw Eastern Red Cedar

Persicaria convolvulus \* Mikania scandens Hedyotis uniflora Echinochloa walteri Cynanchum angustifolium Hydrocotyle bonariensis Ludwigia maritima Centella asiatica Typha latifolia Ambrosia artemisiifolia Vulpia octoflora Sonchus oleraceus \* Vicia sativa \* Zamia pumila Lonicera sempervirens Froelichia floridana Geranium carolinianum Melothria pendula Indigofera spicata \* Bignonia capreolata Crotalaria pumila Dactyloctenium aegyptium \* Gnaphalium pensilvanicum Oenothera laciniata Cyperus retrorsus Ilex cassine Commelina erecta Vaccinium stamineum **Opuntia** pusilla Aralia spinosa Rubus trivialis Cuscuta indecora Eupatorium capillifolium Cornus foemina Galactica volubilis Lemna obscura Lemna valdiviana Iva imbricata Krigia virginica Galium tinctorium Juniperus virginiana

**Ebony Spleenwort** Elderberry **English Ryegrass Fairy Footprints False Dandelion** False Foxglove False Nut Sedge **Finger Grass** Fireweed Flat Sedge Florida Violet Florida Yellow Wood-Sorrel Forestiera Fringed Panicum Fringerush Fringerush Frog Fruit Frost-Weed Gaylussacia **Giant Bristlegrass** Giant Reed **Glades Morning-Glory** Globe Sedge Golden Polypody Goose Grass Gopher Apple Grass-Leaved Ladies' Tresses Green Dragon Green-Fly Orchid Ground-Cherry Groundsel Tree Hackberry Hair Sedge Hairgrass Hairy Beach Sunflower Hairy Bluestem Hairy Indigo Harsh Verbena Heart-Leaf St. John's Wort Hercules-Club Highbush Blackberry

Asplenium platyneuron Sambucus canadensis Lolium perenne \* Hedyotis procumbens Pyrrhopappus carolinianus Agalinis fasciculata Cyperus strigosus Eustachys petraea Erechtites hieracifolia Cyperus odoratus Viola affinis Oxalis florida Forestiera ligustrina Panicum ciliatum Fimbristylis caroliniana Fimbristylis castanea Lippia nodiflora Verbesina virginica Gaylussacia tomentosa Setaria magna Arundo donax Ipomoea sagittata Cyperus globulosus Phlebodium aureum Eleusine indica \* Licania michauxii Spiranthes praecox Arisaema dracontium *Epidendrum conopseum* Physalis walteri Baccharis halimifolia Celtis laevigata Bulbostylis ciliatifolia Muhlenbergia capillaris Helianthus debilis Andropogon longiberbis Indigofera hirsuta \* Verbena scabra Hypericum tetrapetalum Zanthoxylum clava-herculis Rubus argutus

Hog Plum Hogbrier Hop-Hornbeam Horse Mint Horseweed Huckleberry Indian Clover Iresine **Knotroot Foxtail** Lantana Large-Headed Rush Laurel Oak Little Buckthorn Lizard's-Tail Loblolly Bay Loblolly Pine Lyre-Leaved Sage Maidencane Marsh Elder Marsh Pennywort Marshhay Cordgrass Marshland Flat Sedge Match-Head Mermaid Weed Mexican Tea Milk Purslane Mistletoe Mistletoe Mock Bishop's Weed Morning-Glory Mouse-Eared Chickweed **Muscadine** Grape Myrtle Oak Needle Rush Nuttall's Thistle Oenothera Old World Diamond Flower Painted Leaf Partridge Berry Partridge Pea Partridge-Pea

Prunus umbellata Smilax tamnoides Ostrya virginiana Monarda punctata Conyza canadensis Gaylussacia dumosa Melilotus indica Iresine diffusa Setaria geniculata Lantana depressa Juncus megacephalus Quercus hemisphaerica Sageretia minutiflora Saururus cernuus Gordonia lasianthus Pinus taeda Salvia lyrata Panicum hemitomon Iva frutescens Hydrocotyle umbellata Spartina patens Cyperus distinctus Phyla nodiflora Proserpinaca pectinata Chenopodium ambrosoides \* Chamaesyce maculata Phoradendron serotinum Phoradendron leucarpum Ptilimnium capillaceum Ipomoea cordatriloba *Cerastium glomeratum* Vitis rotundifolia Quercus myrtifolia Juncus roemerianus Cirsium nuttallii *Oenothera humifusa* Hedyotis corymbosa Euphorbia cyathophora Mitchella repens Cassia chamaecrista Chamaecrista fasciculata

Passion Flower Pearlwort Pellitory Pepper-Grass Pepper-Vine Perennial Glasswort Persimmon **Pignut Hickory Pineland False Foxglove** Pineweed **Pink Purslane** Pinweed Poison Ivy Pokeberry Pokeberry Pond Pine Pony-Foot Poor Joe Prairie Wedgescale Prickly-Pear Cactus **Procession Flower** Puncture Weed Purple Galium Purple Lovegrass **Purple Sand Grass** Purslane Rabbit-Bells Railroad-Vine Rattan Vine Rattlesnake Master Red Lovegrass **Red Mulberry** Redbay **Redtop Panicum Resurrection Fern** Rhynchospora **Rock Finger Grass Rock-Rose** Rock-Rose Rosemary Royal Fern

Passiflora incarnata Sagina decumbens Parietaria floridana Lepidium virginicum Ampelopsis arborea Salicornia virginica Diospyros virginiana Carya glabra Agalinis divaricata Hypericum gentianoides Portulaca pilosa Lechea mucronata Toxicodendron radicans Phytolacca americana Phytolacca rigida Pinus serotina Dichondra caroliniensis Dioda teres Sphenopholis obtusata **Opuntia** stricta Polygala incarnata Tribulus terrestris \* Galium hispidilum Eragrostis spectalbilis Triplasis purpurea Portulaca oleracea \* Crotalaria rotundiflora Ipomoea pes-caprae Berchemia scandens Eryngium yuccafolium Eragrostis secundiflora Morus rubra Persea borbonia Panicum rigidulum Polypodium polypodioides Rhynchospora megalocarpa Chloris petraea Helianthemum corymbosum Helianthemum georgianum Ceratiola ericoides Osmunda regalis

**Russian Thistle** Rustweed Salt Marsh Bulrush Saltgrass Saltmarsh Cordgrass Saltmarsh Fleabane Saltwort Sand Bean Sand Cordgrass Sand Dune Spurge Sand Vetch Sandwort Sandwort Saw Palmetto Scaleseed Scrub Live Oak Sea Daisies Sea Oats Sea Purslane Seabeach Orach Seashore Dropseed Seashore Mallow Seaside Goldenrod Seaside Panicum Seaside Spurge Sedge Sedge Seedbox Shore Rush Slash Pine Sleepy Catch-Fly **Small-Fruited Pawpaw Smut Grass** Soapberry Soft Rush Sourdock Southern Cattail Southern Fleabane Southern Gaura Southern Grape Fern Southern Magnolia

Salsola kali \* Polypremum procumbens Scirpus robustus Distichlis spicata Spartina alterniflora Pluchea odorata Batis maritima Strophostyles helvola Spartina bakeri Chamaesyce bombensis Vicia acutifolia Arenaria lanuginosa Polycarpon tetraphyllum Serenoa repens Spermolepsis echinata Quercus geminata Borrichia frutescens Uniola paniculata Sesuvium portulacastrum Atriplex pentandra Sporobolus virginicus Kosteletzkya virginica Solidago sempervirens Panicum amarum Chamaesyce polygonifolia Cyperus polystachyos Cyperus tetragonus Ludwigia octovalvis Juncus marginatus Pinus elliottii Silene antirrhina Asimina parviflora Sporobolus indicus Sapindus saponaria Juncus effusus Rumex hastatulus Typha domingensis Erigeron quercifolius Gaura angustifolia Botrychium biternatum Magnolia grandiflora

Southern Plantain Southern Red Cedar Southern Red Maple Southern Sandspur Southern Sea Blite Spanish Dagger Spanish Moss Spanish Needles Sparkleberry Spiderwort Spikerush Spiny Hornwort Spiny-Leaved Sow Thistle Spreading Scaleseed Spring Coralroot Spring Ladies' Tresses Spurge Squirrel Sixweeks Grass St. Andrew's Cross Staggerbush Staggerbush **Standing Cypress** Star Sabatia Strawberry Bush Summer Grape Surinam Sedge Swamp Pennywort Sweet Bay Sweet Clover Sweet Goldenrod Sweetgum Sweetleaf; Horse Sugar Switchgrass Tall Ironweed Tall Nut-Rush Tansy Mustard Tar Flower Thin Paspalum Thistle Three-Seeded Mercury Toad Rush

Plantago virginica Juniperus silicicola Acer rubrum Cenchrus echinatus Suaeda linearis Yucca aloifolia Tillandsia usneoides Bidens alba Vaccinium arboreum Tradescantia ohiensis Eleocharis montevidensis Ceratophyllum echinatum Sonchus asper \* Spermolepsis divaricata Corallorhiza wisteriana Spiranthes vernalis Chamaesyce opthalmica Vulpia sciurea Hypericum hypericoides Lyonia ferruginea Lyonia fruticosa Ipomopsis rubra Sabatia stellaris Euonymus americanus Vitis aestivalis Cyperus surinamensis Hydrocotyle verticillata Magnolia virginiana Melilotus alba \* Solidago odora Liquidambar styraciflua Symplocos tinctoria Panicum virgatum Veronia gigantea Scelaria triglomerata Descurainia pinnata Befaria racemosa Paspalum setaceum Cirsium horridulum Acalypha gracilens Juncus bufonius

Toadflax **Tough Bumelia Tough Bumelia** Tread Softly **Tropic Croton Tropical Sage** Two-Flowered Venus' Looking-Glass **Two-Parted Rush** Vasey Grass Venus' Looking-Glass Virginia Chain Fern Virginia Creeper Virginia Live Oak Virgin's Bower Water Arrowhead Water Ash Water Meal Water Oak Water Pimpernel Water Primrose Wax Myrtle Weak-Leaf Yucca Whisk Fern White Sea Blite White Water-Lily White-Top Sedge Wild Bamboo Wild Cherry Wild Olive Wild Onion Wild-Petunia Wineflower Winged Sumac Wood Grass Wood Sage Yaupon Holly Yellow Jessamine Yellow Nut Sedge Yellow Passionflower Yellow Wood-Sorrel

Linaria canadensis Bumelia tenax Sideroxylon tenax Cnidoscolus stimulosus Croton glandulosus Salvia coccinea Triodanis biflora Juncus dichotomus

Juncus dichotomus Paspalum urvillei Triodanis perfoliata Woodwardia virginica Parthenocissus quinquefolia Quercus virginiana Clematis virginiana Sagittaria stagnorum Ptelea trifoliata Wolffia columbiana Quercus nigra Samolus valerandi Ludwigia repens Myrica cerifera Yucca flaccida Psilotum nudum Suaeda maritima Nymphaea odorata Rhynchospora colorata Smilax auriculata Prunus serotina Osmanthus americanus Allium canadense Ruellia caroliniensis Boehavia diffusa Rhus copallina **Oplismenus** hirtellus Teucrium canadense *Ilex vomitoria* Gelsemium sempervirens Cyperus esculentus \* Passiflora lutea Oxalis stricta

Plant species list generated from Big and Little Talbot Island State Park Management Plan.

**Protection and/or Management Strategy:** Huguenot is an extensively used recreational fishing area. Huguenot is currently patrolled by FWC and agency personnel, who periodically inspect the fishing areas to ensure regulations are being followed by the fishermen. Huguenot will continue coordination with FWC to comply with local and state fishing regulations.

All bird species utilizing Huguenot's habitats will be protected from disturbance by park management to the greatest extent possible. Birds at Huguenot are protected under the Federal Migratory Bird Treaty Act of 1918, many of which are also protected under state and federal designations as either "threatened, endangered, or species of special concern." The inter-tidal habitats and other beach habitats, as well as the fore-dune and dune habitats required by nesting, migrating, and wintering shorebirds will be managed and protected as stated in the "Coastal Strand, Coastal Grassland, Beaches and Dunes" Section of this management plan. Management goals include: 1) minimal disturbance of shorebirds and seabirds that utilize inter-tidal, beach, dune and coastal strand habitats; and, 2) recreational activities in Huguenot do not result in the taking, killing, harming, pursuing, molesting, or harassing of seabirds and shorebirds, including all other bird species present in Huguenot.

State and federal law require Huguenot to take steps to eliminate conflicts between protected wildlife and park visitors. These steps include temporary seasonal closures to driving and pedestrian use of certain sections of the beach due to wildlife activity. These temporary seasonal closures are more fully described in the section of the management plan addressing carrying capaCity. Seasonal closures will be posted and closely monitored by staff and law enforcement agencies to ensure compliance. Fines and/or penalties may result from non-compliance of posted closures. Future interpretative information is discussed later in the plan.

Beach driving is permitted from 6:00 a.m. (after ensuring there are no sea turtles present on the beach during turtle season) to 8:00 p.m. during Daylight Savings Time. During the winter season, beach driving will be from 6:00 a.m. to 6:00 p.m. Night beach driving is no longer permitted.

# State and federally listed endangered or threatened species and their habitat Identification:

<u>American Alligator</u>. The American alligator (*Alligator mississipiensis*) is designated as a "species of special concern" by FWC and "threatened" by FWS. The habitat utilized by the American alligator within the project site comprises the salt marshes adjacent to Haulover Creek in the western portion of the park. The American alligator feeds opportunistically on fish, small mammals, and other reptiles or amphibians.

<u>Sea Turtle</u>. Sea turtles commonly utilizing beaches along the Atlantic coast are the leatherback turtle (*Dermochelys coriacea*), loggerhead sea turtle (*Caretta caretta*), and green sea turtle (*Chelonia mydas*). All three species have been confirmed nesters within Duval County. Designated sea turtle nesting season begins May 1 and ends October 31. Sea turtle nests have been confirmed on Huguenot along the beachfront. In 2007, two loggerhead sea turtle nests were found in Huguenot and monitored according to Huguenot's Sea Turtle Management Plan (Exhibit V). Sea Turtle data is shown in Exhibit W.

<u>Manatee</u>. Manatees utilize the Atlantic Ocean, Ft. George Inlet, and St. Johns River in the vicinity of Huguenot during the warmer months (April to November) of the year. Manatees are listed as "endangered" by the state and federal government. Manatees aggregate near sources of warm water and food sources in both fresh and saltwater habitats. No preferred food sources or warm water sources are known on or near Huguenot; however, manatees occur as transients at Huguenot as they travel the surrounding waterways.

Piping plover. The piping plover (Charadrius melodus) is a small shorebird similar in appearance to a sandpiper and characterized by sandy colored breeding plumage with black bands across the forehead and around the neck; the distinctive bands are not visible during the winter season. The wintering populations of the piping plover have been identified as "threatened" by FWS and FWC and are protected under the Migratory Bird Treaty Act and the Endangered Species Act. Piping plovers are found along the Atlantic and Gulf coasts during the winter months, typically from September to March, where they winter on or near coastal community beaches, mudflats, and sandflats. In past years, piping plovers have been confirmed to have returned to Huguenot as early as July. Florida, along with Texas and Louisiana, has one of the highest concentrations of wintering piping plovers. FWS has identified Critical Habitat (CH) Unit FL-35 for the piping plover in Duval County from Huguenot north to Nassau Sound, incorporating the beaches of Little Talbot and Big Talbot Island State Parks (50 CFR Part 17, published in Federal Register, July 10, 2001).

The wintering plovers feed on beaches, salt marshes, and mud flats, all of which are found within Huguenot. Breeding and wintering plovers feed on exposed wet sand in wash zones; inter-tidal ocean beach; wrack lines; wash-over passes; mud, sand, and algal flats; and shorelines of streams, ephemeral ponds, lagoons, and salt marshes where they probe for invertebrates at or just below the surface. They use beaches adjacent to foraging areas for roosting and preening. Small elevation changes, debris, and sparse vegetation within adjacent beaches provide shelter from wind and extreme temperatures. Inter-tidal habitats are not only important for feeding and loafing/resting to the piping plover, but to all seabird and shorebird species.

The greatest identified threat to wintering plovers is increasing recreation along beachfronts and shoreline development. The fore-dunes are the preferred roosting habitat during the winter season. Rare species listed by FNAI on the property include the piping plover. See letter from FNAI dated February 3, 2003, is attached as Exhibit L.

<u>Least tern</u>. The least tern (*Sterna antillarum*) nests along the beaches of Huguenot in colonies that typically return to the same nesting beach year after year. The least tern is listed as a "threatened species" within Florida due to its declining populations in the late 20<sup>th</sup> Century. Least tern nesting season can begin as early as April and extend into September. The beachfront at the northern end of the Huguenot peninsula has been identified as a nesting site for least terns. Least terns feed along the beach on small fish, shrimp and marine worms. Rare species listed by FNAI on the property include the least tern. See letter from FNAI dated February 3, 2003, is attached as Exhibit L.

<u>Wood stork</u>. The wood stork (*Mycteria americana*) is a large, heavy-billed wading bird found throughout Florida and the Gulf Coast states. The wood stork is listed as an "endangered" species by both FWC and FWS. The wood stork uses the salt marsh and mud flat habitats adjacent to Huguenot for foraging. No nesting or roosting areas have been identified on the property.

Rare species listed by FNAI on the property also include the black skimmer, Wilson's plover and royal tern. See letter from FNAI dated February 3, 2003, is attached as Exhibit L.

The complete list of known confirmed occurrences of state and federally listed
species and their habitats within Huguenot include the following:

Species	Federal Status <sup>a</sup>	State Status	FNAI Presence	Habitat
Reptiles				
American Alligator Alligator mississippiensis	T(SA)	SSC	C	Marine/estuarine tidal marsh
Atlantic Loggerhead Turtle	Т	Т	N	Atlantic Ocean, estuaries
Caretta caretta				
Atlantic Green Turtle	Е	E		Atlantic Ocean, estuaries
Chelonia mydas				
Gopher Tortise	Т	SSC		
Gopherus polyphemus				
Birds				
Piping Plover	Т	Т	C	Coastal strands
Charadrius melodus				

Least Tern	-	Т	С	Beach dunes, tidal marshes
Sterna antillarum				
American Oystercatcher	-	SSC	С	Beach dunes and mollusk reefs
Haematopus paaliatus				
Brown Pelican	-	SSC	Р	Marine/estuarine, tidal marshes,
Pelecanus occidentali				open water
Black Skimmer	-	SSC	Р	Beach dunes, marshes, large lakes
Rynchops niger				
Little Blue Heron	-	SSC	С	Tidal marshes, ponds, swamps
Egretta caerulea				
Snowy Egret	-	SSC	С	Tidal marshes, ponds, swamps
Egretta thula				
Tricolored Heron	-	SSC	С	Tidal marshes, ponds, swamps
Egretta tricolor				
White Ibis	-	SSC	С	Estuarine tidal marsh
Eudocimus albus				
Wood Stork	Е	Е	С	Marshes, ponds, and cypress
Mycteria Americana				swamps
Reddish Egret	-	SSC	-	Tidal marshes, ponds, swamps
Egretta rufescens				
Osprey	-	SSC		Open water, estuarine tidal marsh
Padion haliatus				
Roseate Spoonbill	-	SSC		Estuarine tidal marsh
Platalea ajaja				
Peregrine Falcon	-	E		Coastal grasslands
Falco peregrinus				
Red Knot	*	-	-	Coastal sandy beaches, shoals, and
Calidris canutus				mudflats. Nests on artic tundra
Mammals				
West Indian Manatee	Е	Е	С	Atlantic Ocean, St. Johns River,
Trichecus manatus				Intracoastal Waterway, Fort George
				River, and nearby estuaries
Northern Right Whale	Е	Е		Atlantic Ocean
Eubalaena glacialis				

<sup>a</sup> Source: U.S. Fish and Wildlife Service. 1999. 50 CFR IB Part 17.11. Endangered and threatened wildlife. (Incorporating reclassification of Candidate categories published in *Federal Register* 61(40), February 28, 1996.)

Verified by review of U.S. Fish and Wildlife Service web page, http://www.fws.gov/r4jafl/. April 2003.

E = Endangered

T = Threatened

\* = Candidate

<sup>b</sup> Florida Game and Fresh Water Fish Commission. 1997. Florida's Endangered Species, Threatened Species and Species of Special Concern: Official Lists. Tallahassee, FL 15 p.

E = Endangered

- T = Threatened
- SSS = Species of Special Concern
- <sup>c</sup> Source: Florida Natural Areas Inventory. 1997. County Distribution and Habitats of Rare and Endangered Species in Florida. 150p. + appendix

C = Confirmed P = Potential N = Nesting (based on nesting occurrences of sea turtles)

### **Protection and/or Management Strategy:**

<u>Sea turtles</u>. Sea turtle management will be dictated through the continued coordination with FWC and FWS. Huguenot has implemented a Sea Turtle Management Plan and is part of an umbrella Marine Turtle Permit covering Hanna Park and Mayport Naval station. The permit allows for a trained person from park staff or the public, and up to 24 other qualified individuals listed under the permit holder, to survey the beach during nesting season, mark the nests with protective barriers, and inventory the nests after hatching. During the nesting season, nests will be sufficiently marked to prevent motor vehicles from driving over the nest area during the daytime. Under the permit, marine turtle nests cannot be moved for convenience of pedestrian or vehicular traffic.

Further, campfires will not be permitted on the nesting beach at night during nesting season. Night beach driving is prohibited year round. Any fixed lights from the campground area(s) will be directed away from the beach front and/or meet FWC's sea turtle lighting guidelines, so that lighting is not visible from the nesting beach. (See Exhibit W for sea turtle data from 2006 and 2007).

<u>Manatees.</u> Manatees utilize the Atlantic Ocean, Ft. George Inlet, and St. Johns River in the vicinity of Huguenot. The Duval County Manatee Protection Plan includes a 300-foot, slow-speed buffer zone from the shoreline within the St. Johns River. No boat mooring is allowed within this area of Huguenot. Huguenot will acknowledge the speed zone and provide an educational or informational sign about the manatee in a conspicuous area to educate park visitors. New signs will be installed to mark the slow-speed zone.

<u>Wading birds and shorebirds.</u> Wading birds utilize both the Atlantic beachfront areas as well as the shoreline found south of the Ft. George Inlet for foraging and resting. Huguenot will provide monofilament disposal bins in popular fishing spots for park visitors to properly dispose of their fishing line, and signage will be installed to encourage park visitors to properly dispose of their fishing line.

Shorebirds and seabirds nesting and foraging on the property are present throughout the year at Huguenot. Management for these species is to conserve and protect the inter-tidal beach and fore-dune habitats for migratory and wintering species, with fore-dunes used by nesting species.

Least terns, royal terns, black skimmers, laughing gulls and gull-billed terns nest within portions of Huguenot during the summer. The nesting area is

roped off and signage is present restricting access to this area throughout the year. The signage and rope barriers will be maintained. In addition, surveys will be conducted during the nesting season to locate any nesting areas outside the existing restricted access areas, and the barriers will be adjusted accordingly to include these areas within the protected nesting area. According to park staff, nesting pairs are counted by FWC each year within the designated CWA. The CWA in the northern area of Huguenot, known as the Point, will be expanded by 150 feet on approval of this management plan. Huguenot staff will continue coordination with FWC as needed. See Exhibit O.

Migratory and non-migratory shorebirds use the fore-dunes within the CWA as well as beach and inter-tidal habitats as wintering sites during their migration, ranging from October through mid-March. This area is also designated as Critical Habitat (CH) for the wintering piping plover by FWS. Any activities planned within designated CH that require federal approval will be commented on by FWS. If the dunes and adjacent coastal strand become too densely vegetated or if human recreational activities are allowed within the CWA, these factors could affect the utilization of the CWA by imperiled Managing and monitoring of the existing communities and species. vegetation densities within the CWA are important in maintaining optimal habitat for the nesting shorebirds. Vehicle control structures (bollards and signage) will be installed to protect the tidal flats to keep vehicle traffic out of the habitat area. The area is generally described as running from the entrance to the Atlantic Ocean, known as the Flats, along the inlet side of Huguenot beyond an area known as Hog Hill. There will also be seasonal closing of the beach on the Atlantic side of the park depending on the activity of the threatened shorebirds. (See Exhibit O for Huguenot master plan).

During shorebird nesting and migration, an educational pamphlet is distributed to the public upon entry to Huguenot. The pamphlet was prepared by Huguenot staff and informs the public of the protected birds on Huguenot and how the public can help protect them while visiting Huguenot.

Resource law enforcement measures will be taken to prevent disturbing and taking of migratory birds, listed species, and other species within the park.

Also, the FWC has installed two kiosks to educate the public on shorebird protection.

Feral cats and other natural predators can also pose a threat to nesting terns and wintering plovers. The proximity of the site to residential development increases the risk of the presence of feral cats. Park staff currently monitors the property for the presence of feral cats, traps the animals, and coordinates with City of Jacksonville Animal Care and Control as needed. Trapping and removing of feral cats will continue as needed. Trash cans will be raised and secured in all park areas to prevent scavengers, such as raccoons, from foraging in the trash.

Pets are required to be restrained on leashes and must be well behaved at all times within Huguenot boundaries to prevent any disturbance of nesting or foraging wildlife. The maximum leash length is eight feet. Leash lengths are subject to be measured by park staff or any other law enforcement agency assisting within the park. Updated standardized signage is planned for the park, as funding is available, interpretative pet information will be implemented to educate park visitors of pet impacts to sensitive natural communities, as well as identify the sensitive areas within the park. Specific areas also may be designated as non-pet areas, if wildlife area is prone to pet disturbance. Pet restricted areas will be posted and monitored by staff and law enforcement. Currently, pet owners receive regulatory information as they enter the gate and are required to dispose of pet waste properly in trash receptacles. Patrons are encouraged to carry their own pet waste disposal bags.

While dogs will be allowed in the campgrounds and other common areas of the park, dogs will not be allowed on most of the beaches within the park including Family Beach, the inlet, and most of the Atlantic Ocean beaches. A dog zone will be established on the Atlantic beach running from the entrance to the beach south to the jetties and along the river shoreline. Elsewhere, dogs will not be permitted on the beaches. All pet regulations apply to the dog zone. Park staff will monitor the dog zone throughout the year to ensure compliance of pet regulations. Each visitor with a dog will receive educational and regulation literature upon entry to the park. See Exhibit O.

#### Water Resources

**Identification:** Three water bodies, the St. Johns River, Atlantic Ocean, and Ft. George River border Huguenot. According to Chapter 62-302, Florida Administrative Code, Surface Water Quality Standards, the St. Johns River is classified as a "Class III water body – Recreation, Propagation, and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife." The Ft. George River from the Ft. George Inlet is classified as a "Class II water body – Shellfish Propagation or Harvesting (Prohibited)." The Atlantic Ocean does not carry a water quality classification.

All the water bodies surrounding Huguenot are within the Nassau River-St. Johns River Marshes Aquatic Preserve and are designated as "Outstanding Florida Waters" by the State of Florida. The property is located adjacent to Ft. George Island Cultural State Park and Little Talbot Island State Park. Huguenot is located within the boundaries of the Timucuan Ecological and Historic Preserve, a unit of the National Park Service.

Erosion is an issue that the Ft. George Inlet has dealt with since development began to occur in this area. The inlet is a constantly shifting body of water. Huguenot faces two unique problems: erosion along the St. Johns River and Atlantic Ocean coastline, and shoaling within the estuary between State Road A1A and the peninsula of Huguenot.

**Water Quality:** Huguenot is one of many sample collection points (SP3) in Duval County that is tested for *enterococcus* and *fecal coliform* by the Florida Department of Health (FDH). Sampling data and water quality advisory information is available through the FDH website. Should any future water quality issue occur, COJ will work with FDH and other agencies to take appropriate actions and advise the public of conditions (see Customer Early Alert Section).

**Protection and Management Strategy:** No drainage problems or sources of water pollution are known on the property. During any future construction, standard erosion, sediment and turbidity control measures will be implemented. These measures will include, but are not limited to, silt fences and/or hay bales along all unaffected areas. Best management practices for site clearing and erosion control will be employed in all phases of development.

In 1999, the FDEP considered the Ft. George Inlet a Critical Erosion Area, and the shoreline was renourished. FDEP and the ACOE have also been addressing the persistent erosion of the south end of Little Talbot Island. Borrow areas that could provide potential renourishment for beaches were identified in and around the Ft. George Inlet. Florida Department of Transportation is installing a launchable revetment to stabilize a segment of the north bank of the Ft. George inlet channel in the vicinity of the eastern end of the State Road A1A bridge just across from Huguenot. Huguenot will continue to coordinate with state and federal agencies to control and prevent erosion.

As Little Talbot Island continues to erode, sand is accreting in the Ft. George Inlet at alarming levels. The river channel has narrowed and shoaling adjacent to Huguenot has increased significantly. In 2007, Congress authorized a \$750,000 study to examine the feasibility of creating a permanent sand bypass system to alleviate the problem within the inlet. The provision is contained in the Water Resources Development Act (WRDA). As of July 2008, Congress has not funded WRDA.

Due to extreme currents and tidal conditions, no swimming will be allowed in the shoal area. Currently this is an unguarded area, and patrons are advised to only swim in guarded areas. Photographs of the erosion at Huguenot are shown in Exhibit X.

Erosion of soil from the beach dunes is lessened from the unaltered vegetation and lack of human disturbance that occurs on the dunes on the Atlantic Ocean. Approximately eight feet of dune was lost during Spring 2007 after a series of nor'easters and subtropical storms. Huguenot will continue to prohibit activity on the beach dunes through staff patrols and interpretative materials.

Areas along the St. Johns River of the park experienced some erosion. Shoreline stabilization of this area is also proposed and shown on Exhibit O.

The water quality management of Huguenot will be maintained through local and state stormwater management regulations.

#### **Agricultural/Timber Mineral Resource Rights**

**Identification:** Mineral resources, such as oil, gas, and phosphate - no mineral resources have been identified on the property.

Unique Natural Features, Such As Coral Reefs, Natural Springs, Caverns, Large Sinkholes, Virgin Timber Stands, Scenic Vistas, Natural Rivers or Streams

**Identification:** This property is one of the few publicly owned properties in Duval County that offers scenic vistas of the Atlantic Ocean and the St. Johns River, as well as public beach access to enjoy the onsite resources. The property itself provides scenery of undeveloped coastal strand amid native vegetation.

**Protection and Management Strategy:** The City plans to rehabilitate and repair an existing wildlife observation platform to better view the natural scenic vistas and safely view the protected wildlife. See the conceptual site plan for wildlife observation platform locations.

Outstanding native landscapes containing relatively unaltered flora, fauna, and geological conditions

**Identification:** The coastal strand and coastal grassland communities located away from the developed areas of the property contain native landscapes in excellent natural condition. These landscapes, as well as the beach dune community, are considered unique habitat by FWC.

**Protection and Management Strategy:** The majority of the sand spit peninsula along the Atlantic Ocean has been designated a Critical Wildlife Area (CWA) by FWC. Public access to this portion of the property, except for the immediate beachfront waterward of the frontal dune, is prohibited.

The restriction of public access has allowed the continued existence of an unaltered dune system and coastal strand community that attracts nesting shorebirds each spring and summer and migrating shorebirds in the winter. In addition, the protected cove west of the peninsula attracts wading birds as well as shorebirds, ducks, loons, and gannets.

#### Resources listed in the Natural Area Inventory

Resources on the property identified by FNAI include several element occurrences of natural communities and rare species. The natural communities listed on the property are the beach dune and coastal grassland. FNAI has classified these communities as rare natural communities with a G3/S2 ranking, which describes the statewide and global status of these communities as imperiled because of rarity or because of vulnerability to extinction due to some natural or human factor. The beach dune community is found along the Atlantic Ocean and the St. Johns River. The coastal grassland community is located throughout the site (see FNAI community map attached on Exhibit Q). These communities comprise a major portion of the total land area of the site. Rare species listed by FNAI on the property are documented in Huguenot's shorebird survey, Exhibit T.

#### **B.** Cultural Resources:

The state sovereign submerged lands surrounding Huguenot are designated by the State of Florida as an aquatic preserve. All historic and cultural resources are protected by law. Early American inhabitants were known to utilize the area and evidence of shell middens and artifacts are likely to occur. Early European exploration and later plantation-era activity may have left remnants that could be found in the area.

**Identification:** Information from the Florida Master Site File was reviewed and revealed 32 previously recorded historic and/or prehistoric sites in the general vicinity of Huguenot, the majority of which are found on Ft. George Island. Two previously recorded sites are found within Huguenot boundaries.

8DU7520 lies at the extreme northwestern corner of Huguenot and was recorded as the Huguenot parking lot site in 1992. This site is within the state-owned land portion of Huguenot and is currently located in the vicinity of the observation platform. The site file describes the site as a diffuse shell midden; however, only a portion of a shell tool was recovered. Due to a lack of diagnostic artifacts during the study of this site, it could not be ascribed to a specific prehistoric time period.

8DU14055 is the granite jetty that enters Huguenot at its most southeastern point and extends three miles east into the Atlantic Ocean. This site is within the federally-owned portion of Huguenot. It was recorded in February 2002 as part of the Mayport Village Historic Site Survey. Information from the site file indicates the structure was originally part of a seawall constructed circa 1880. During the 1930's, the ACOE incorporated the seawall into a jetty built by the addition of granite boulders. The site file states that this structure is eligible for local registry of significant sites.

See Exhibit M for Florida Historical Master Site File Map and Letter. The historical site areas comprise approximately three acres of the park.

**Protection and/or Management Strategy:** No active management is planned for the known archaeological sites on the property. These areas will be left undisturbed and preserved. The public will be steered away from the significant archaeological and historic sites to other areas of Huguenot through access points and trails. Limiting access to these sites will help protect these resources. The City does not plan to survey unknown archaeological and historical resources at Huguenot unless items of historical significance are found by park staff or visitors, or during construction of new facilities.

# IV. RECREATIONAL FACILITIES

# A. Existing Facilities and Uses (prior to 1994 Management Plan)

See Exhibit O for location of existing facilities. These existing recreational facilities and their proposed uses are described as follows:

- 1. Administration Offices and a separate Maintenance Compound – utilized as an entrance building. No proposed change of use.
- 2. Park Security Residence doublewide mobile home that is a residence for on-site security. No proposed change of use.
- 3. Store/Restrooms the current structure is a T-111 building. No proposed change of use.
- 4. Picnic Pavilions utilized by visitors for a variety of activities. No proposed change of use.
- 5. Existing Road extends access from the main entrance northwest to parking area and along southern boundary to adjacent United States Government property. The road is currently being used and continued erosion from the St. Johns River will require regular maintenance and a possible relocation. Driving is currently allowed on the beaches. The maximum speed limit on the beach is 5 mph. Driving in other areas of the park, according to Section 804.641 of the City's ordinance code, is limited to 15 mph.

See Exhibit N for photos of the site. See Exhibit BB for an impervious area map and infrastructure map. Impervious area and buildings are described by approximate number of acres.

# **B.** Existing Facilities and Accomplishments (from 1994 to present):

A water plant was constructed on the site in November 2004. A new concession stand and restrooms opened in 2007.

# C. Proposed Facilities (Master Plan)

The City is proposing multiple improvements to the park as well as constructing vehicle control barriers. Many of the improvements are not currently funded but because this is a 10-year management plan, the City felt the improvements should be listed. It is possible that some of the larger capital construction projects may never be funded.

The City, however will fund the improvements necessary for public safety and resource protection as soon as the plan is approved. See Exhibit O for the conceptual master plan with existing and proposed facilities.

- Installation of bollards connected by rope to prevent vehicle entry (Exhibit Y for bollard photographs and location map). Estimated cost: \$30,000;
- Renovation of existing bird observation platform and boardwalk. Estimated cost: \$3,000;
- Reconfiguration of the entrance gate to allow for recreational vehicle parking during campground check-in. Estimated cost: to be determined;
- Repair and stabilization/relocation of the existing main park road and/or stabilization of the river shoreline along the St. Johns River. Estimated cost: \$325,000-\$2,000,000;
- Redesign and replacement of Huguenot administrative fee station building at entrance.

Estimated cost: \$30,000;

- Redesign of the original park store as campground supply store, and renovations to original restrooms and showers in campground; Estimated cost: \$30,000;
- Redesign of the existing campground and the possibility of separating users in two alternate locations (See Exhibit O). Estimated cost: to be determined;
- Construction of a day-use parking lot for use when the beach has reached its carrying capaCity. See Exhibit Y for parking plan. Parking plan may need to be revised pending determination of road relocation;

Estimated cost: to be determined;

- The City plans to construct some type of life guard tower beachside near the entrance/exit to the beach. Estimated cost: \$400.000:
- Trailhead and Timucuan Multi-use Trail segment near the entrance to Huguenot. See Exhibit Z for the Timucuan Multi-use Trail System. Estimated cost: \$4.25million;

- Intersection improvements at the park's entrance. Estimated cost: to be determined;
- Alimacani improvements:
  - Improve personal watercraft launch area. Cost: \$125,000;
  - Move the historic Grey Hotel to the island to serve as a visitor contact station and interpretative center; Cost to be determined.
  - Roadway repair and improvements. Cost: \$75,000;
  - Convert former campground into a grassed parking lot. Cost to be determined;
  - Construct a board walk and dock for the Kingsley Plantation to Alimacani water taxi. Cost: \$400,000 (funded).

# V. BEACH DRIVING PLAN

# A. Visitor Admissions

Each year, the admissions to Huguenot have continued to remain high.

Huguenot Park (Year)	Admissions
2004	396,004
2005	367,511
2006	410,798
2007	370,050

The Huguenot entrance fee of 50¢ has been imposed for all park visitors since October 1, 1991. This fee helps fund the maintenance and daily operation of Huguenot.

The city instituted, pursuant to City Council approval of Ordinance 2008-540, a rate increase to \$3 per vehicle. An annual vehicle pass is set at \$80. The email correspondence with the ACOE on the fee schedule is included in Exhibit AA.

The rates for camping are as follows (Duval County residents receive a 10% discount off fees):

RV/waterside (St. Johns River) - \$15 (non-Duval County resident); \$13.49 (Duval County resident);

Main campground: \$10 for tent camping (non-Duval County resident); \$9.00 (Duval County resident).

There is no current day-use fee, proposed day-use fee or traffic data for Alimacani Island. Water taxi fees have not been established as of this management plan.

# B. Allowable areas for beach driving

Huguenot has approximately 18,700 linear feet of beach frontage or approximately 3.5 miles, located on the St. Johns River, the Atlantic Ocean and the cove associated with the Ft. George Inlet.

Beach driving at Huguenot will be permitted along the Atlantic Ocean side of Huguenot stretching from the jetties at the St. Johns River north to an area known as The Point and along the shoreline of the cove area associated with the Ft. George Inlet. The section along the cove will allow vehicle flow; however, the tidal flats area will be restricted to vehicle access at all times with use of bollards strung with rope. See Exhibit Y for bollard photographs and proposed location map. Parking maps are also shown in Exhibit Y. Periodic closures of certain areas to beach driving may be necessary to protect state and federally listed or imperiled species habitats. Please refer to Section V(E) on pages 43-44 for temporary restriction protocols relating to nesting and/ or imperiled species protection.

Beach driving is permitted from 6:00 a.m. – after ensuring there are no sea turtles on the beach during turtle nesting season – to 8:00 p.m. during Daylight Savings Time. During the winter season, beach driving is permitted from 6:00 a.m. to 6:00 p.m.. Night beach driving is no longer permitted.

# C. Beach Driving

A conservation zone will be established on the Atlantic Ocean beach. The zone will extend 15 feet from the toe of the dune eastward. Vehicles are prohibited in the conservation zone. The establishment of the conservation zone is to protect the fore-dune from disturbance by vehicles.

Beach driving and parking zones will be established from the conservation zone extending waterward 150 feet toward the ocean from the cut out north to the point. No vehicles will be allowed east of the beach driving zone. The zone will be clearly marked with signs every 125 feet from the flats or crossover to east of the point. The beach driving zone will be in effect from March 1 through September 30.

From the crossover south to the jetties, driving and parking will be allowed and not designated by signage, with the exception of the 15-foot conservation zone. Signs will not be posted in this area due to potential safety hazards to recreational surfing activities.

Certain vehicles will not be allowed to access the beach: school buses, tractor trailers, and any vehicle with more than one rear axle. However, recreational vehicles with a valid disabled parking permit will be allowed beach driving access

along the Atlantic Ocean running from the crossover entrance to the beach south to the jetties. A valid disabled parking permit includes a handicap placard (certified by an authorized practitioner or agency), or license plate with the international wheelchair user symbol or a disabled veterans ADV license plate. Recreational vehicles will not be permitted driving or parking access north of the Atlantic Beach crossover to the point or the cove area north of the crossover.

The amount of vehicles allowed on the beach at any given time will be at the discretion of the Huguenot management staff who will consider tides, weather, protection of wildlife and other conditions. Staff will use the following protocols as a guide for setting daily carrying capacities influenced by tidal, weather conditions, protection of wildlife and/or other conditions which may adversely affect the safety of park visitors.

#### Tidal or weather related protocol:

- Staff will be stationed on the lifeguard tower to monitor tide conditions one hour before high tide;
- Staff or JSO will be directed to contact beachgoers to instruct them of tidal conditions that may threaten their vehicle;
- Staff or Jacksonville Fire and Rescue will ensure that a rescue lane is still available as tidal conditions change;
- When areas become hazardous, JSO will be instructed to direct incoming traffic to the beach to move to less congested areas of the beach;
- When the beach reaches capacity based on tides, staff will be stationed at each end of the flats;
- Staff on the east side shall alert visitors leaving the beach that they will not be allowed back on the beach until one hour after high tide;
- Staff on the west side of the flats shall direct traffic toward the Point but only if zone 14 (Hog Hill) is free of obstruction;
- If the beach at zone 14 is too soft, only four-wheel drive vehicles will be allowed to access the point;
- Staff will also be staged at the inlet flats to direct inbound traffic, Family Beach and the parking areas behind the shelters;
- When the park reaches capacity based on conditions, two people will be positioned at the front entrance and barricades will be used to stop vehicles from entering;
- The office staff will notify local businesses and Little Talbot Island State Park that they can expect an influx of customers;
- Entries at this stage are only allowed for shelter and campground reservations;

• Within one hour after high tide, depending on conditions, the park will reopen.

Protection protocol for wildlife:

- During periods of heavy public visitation park staff will monitor and inform management when wildlife are in areas that are in eminent danger of encouragement by vehicles;
- Staff or enforcement personnel will be directed by management to contact visitors to instruct them that their actions may be threatening to wildlife;
- Staff or enforcement personnel will advise the visitor(s) that they are required to move their vehicle to another area of the park;
- The area that is to be temporarily restricted will be marked with sandwich board signage by park staff;
- The area will remain restricted until the wildlife has left the area, upon which signage will be removed by staff and the area reopened.

Vehicles will not be allowed to access any emergent shoals. Shifting sands and unpredictable currents make these areas very dangerous for vehicles and swimmers. Swimming will not be allowed in this area and signage prohibiting swimming will be posted.

Beach pedestrian activities will be directed to use the beach east of the driving lanes. Park visitors will be asked not to impede the traffic lanes.

As tidal conditions warrant, Huguenot staff will notify park visitors of the opportunity to leave Huguenot before the driving lanes are inundated by the tide. Once the driving lanes have been encroached, beach driving will cease until the tidal event is over.

# D. Overflow parking or day-use lot

The City will redesign the campground to meet State Department of Health Standards. At the same time, it will investigate the feasibility of establishing an overflow or day-use parking lot east of the existing campground and investigate the feasibility of setting up a shuttle to carry customers to the beach. The design would require an environmental study and consent from the property owner, ACOE and appropriate regulatory agencies. See Exhibit Y.

# E. Partial beach closures (seasonal)

As various species of migratory shorebirds inhabit Huguenot, local, state and federal laws, particularly the Migratory Bird Treaty Act (MBTA) and the Endangered Species Act, requires COJ to take steps to protect the shorebirds. This will require COJ to establish temporary zones where certain beach activities will be prohibited.

Process for establishing the restricted zones for nesting species:

- Each year COJ will establish a Shorebird Management Team, which will consist of biologists from COJ, FWC, FWS, Little Talbot Island State Park, Audubon and the park manager.
- The management team will at meet at Huguenot once the weekly shorebird monitoring team has detected that species have arrived and are nesting.
- COJ will monitor the nesting sites daily to detect the presence of flightless juveniles.
- The management team will then discuss measures to protect the flightless birds to include establishing a temporary zone where beach driving will be restricted.
- COJ staff will monitor the zone to document any fatalities within the zone and for evidence that the juvenile birds are able to fly.
- The management team will then meet on site again to determine if it is safe for wildlife to remove the restrictions.

Other species, particularly the red knot, visit Huguenot seasonally to forage but not nest. When those species appear, COJ will be required to make measures to protect them.

Process for establishing restricted zones for imperiled shorebird and seabird species:

- Once the shorebird monitoring team has determined that imperiled species have arrived in significant enough numbers (more than 50) and are foraging in unprotected areas of the park, the shorebird management team will convene on site to establish temporarily restricted areas.
- Once the zones have been established, COJ staff will use cones or sandwich boards or other measures to alert patrons that those areas are temporarily restricted from swimming, wading, and kite surfing.
- These restricted zones only occur during low tides when the sandy shoals are exposed and are being used by shorebirds for foraging.
- The areas primarily affected are the emergent shoals north of the Point near the Ft. George Inlet and the exposed shoals east of Zone 12. Regular beach activities will not be affected, just access to the shoals.
- The management team will reconvene once the shorebird monitors have reported that the imperiled birds have departed Huguenot.

Additional partial beach closures may result from storm events, seasonal events, unsafe conditions, erosional hazards, hazardous material wash up, wildlife protection, natural resource restoration, beach renourishment, water quality, red tide, and any area management deems necessary to protect the public or natural communities of the park.

The City will provide officers and auxiliary officers from the Jacksonville Sheriff's Office during the high visitation season, March 1 to Labor Day, and one off-duty FWC officer during high visitation weekends.

The City will provide a biological part-time staff person <u>or</u> a contracted biological consultant assigned to the division to provide lead support for the shorebird management program. Primary responsibilities to include monitoring, protection, public outreach and reporting duties at Huguenot Memorial Park during periods of the nesting season and during times when imperiled species heavily occupy the park (herein referred to as "active bird season"). Responsibilities described above will be primarily located at Huguenot Memorial Park during the active bird season, however during periods outside of the active bird season assignments will include other duties and locations related to natural resource management in parks assigned to the division.

In addition, the City will investigate whether its code enforcement laws can be amended to include park rules and will train Huguenot staff so that they can issue citations when rules are broken.

# F. Beach monitoring

Cameras monitoring the surf, weather, tides and driving conditions will be installed on the lifeguard tower to provide real time data to the park manager and staff on the condition of the tide. The monitors will be used to help the park manager alert visitors when the driving lanes will be encroached by the tide.

COJ will annually assess the level of the beach to determine how fast tides will rise and fall.

Surf cameras will be linked to COJ's website so customers can assess the condition of the beach along with the tidal data.

# G. Customer early alert system

The Internet will be a primary tool for communicating with the public. For those who do not have access to the Internet, COJ will establish a phone line for the public to receive tidal data and beach capaCity information.

COJ will devise a highway sign system during peak seasons to alert the public who may be headed to Huguenot and unaware of tide or capaCity conditions.

COJ will investigate the feasibility of an \*HMP phone system to allow cell phone users to check park conditions while on the way to Huguenot.

# VI. CONFORMANCE WITH STATE AND LOCAL PLANS

# A. Management Plan Objectives

The management plan documents existing conditions on Huguenot properties; identifies the plans and objectives for developing Huguenot; outlines specific requirements for restoring and preserving the property for public education and recreation; defines areas of responsibility for the agencies involved in supervision of Huguenot; and, gives information on project costs and schedules. Appendices provide more detailed information.

This management plan will conform to the requirements of Chapters 253.034 and 259.032, Florida Statutes. The planned uses proposed in this plan comply with the State Lands Management Plan adopted by the Trustees on March 17, 1981.

# **B.** Lease Goals

Huguenot is leased by COJ and is being supported by the Division of Waterfront Management and Programming for the following reasons:

- To preserve land from development, for the surrounding community to enjoy, thus providing areas for the public to enjoy outside of the growing urban density;
- To provide suitable habitats for protection of endangered and other listed animal species;
- To provide nature study opportunities for site visitors;
- To provide for and enhance environmental education for area students:
- To enable restoration of property by removing trash and invasive/exotic plants and animals;
- To provide diverse camping areas for visitors to experience the lands along the great First Coast;
- Protect and monitor water quality.

The proposed future uses for Huguenot are consistent with these purposes. The project site will be managed only for conservation, protection, and enhancement of natural resources and for public outdoor recreation that is consistent with the conservation, protection, and enhancement of the site. Proposed future uses include: enhanced camping along the coastline and in the interior of Huguenot; nature study and nature education programs; a bird observation area; picnic shelters; road improvements; camp area improvements (water, electric); and, a restroom/concession/service facility.

# C. Management Objectives

The management plan for Huguenot addresses five key management activities:

- Protect natural resources, including protected plant and wildlife species and their habitats;
- Restore and enhance disturbed areas on the site;
- Provide public access to the site;
- Provide outdoor recreation and open space areas for the community;
- Establish on-site environmental education programs;

• Coordinate with management plans and resource conservation initiatives of other land managers.

# D. Reporting

In order to successfully implement the management plan goals and objectives the progress of implementation will be reported to the Division of State Lands, Office of Environmental Services acting as agent for the Board of Trustees of the Internal Improvement Trust Fund, and to the Army Corps of Engineers acting as an agent of the federal lessors. Annual progress reports describing the condition of goals and objectives pursuant to Exhibit EE will be submitted on an annual basis. If the annual report reveals a deficiency(ies) in plan implementation, the report shall include the remedy(ies) that COJ proposes to adopt and make effective upon approval by the state and federal lessors.

# E. Applicable Comprehensive Plan Directives

The management activities listed above focuses on five key elements of the *City* of Jacksonville 2010 Comprehensive Plan relating to environmentally sensitive land lease programs and to protecting and preserving natural resources:

Conservation/Coastal Management (CCM) Recreation and Open Space (ROS) Future Land Use (FLU) Historic Preservation (HP) Inter-governmental Coordination (IGC).

The specific comprehensive plan policies for each of the elements applicable to Huguenot are listed below.

# **Conservation Coastal Management (CCM) Element**

Leasing this project site will implement and further the 2010 Comprehensive Plan objectives and policies that protect natural areas and open space through public lease of lands for public use and enjoyment.

Conservation and Coastal Management Policies 2.8.3; 3.1.2; 3.3.1; and, 3.3.3 commit the City to acquire land (through purchase or lease) to protect natural resources, to provide parks and open space areas, and to protect environmentally sensitive lands. Recreation and Open Space Policy 2.1.7 commits the City to apply for available state, federal, regional and private funds for the acquisition/lease of environmentally sensitive lands.

The project site contains environmentally sensitive lands, including marine and estuarine tidal marsh, coastal grassland, coastal strand, beach dune and the ever-changing acreage of the unconsolidated substrate. See Exhibit N for National Communities Map.

Conservation and Coastal Management Element, Objective 6.3 and Policy

6.3.1 direct the City to ensure that access to beaches and shorelines are available to the public.

The project site will provide enhanced public access to water bodies including Ft. George Inlet, the St. Johns River and the Atlantic Ocean on the project site and further the comprehensive plan objectives and policies to provide public access to shoreline areas and water bodies for recreational use.

Lease of the project site will implement and further the 2010 Comprehensive Plan objectives and policies that ensure the preservation of natural communities or listed animal species habitat.

Coastal and Conservation Element Policies 3.3.2 and 3.3.3 direct the City to acquire and protect native communities and promote wildlife preservation and conservation of natural systems and the long-term maintenance of natural systems.

Coastal and Conservation Element Policies 3.5.1 and 3.5.5 and Objective 3.6 direct the City to continue programs to protect listed and non-listed species, and protect natural communities.

#### **Recreation and Open Space (ROS) Element**

Lease of the project site will provide acreage and recreational facilities necessary to maintain and improve adopted level of service standards in the comprehensive plan.

Recreation and Open Space Policy 1.1.1 requires the City to maintain an adopted level of service standard of 1.5 acres of park land per 1,000 people by Planning District by the year 2005. The Policy establishes additional level of service standards to increase the acreage of park land every five years by Planning District. This project site adds 161 acres of state lands.

Lease of the project site will implement and further the 2010 Comprehensive Plan objectives and policies to restore or enhance degraded natural areas.

Recreation and Open Space Policy 3.1.2 directs the City to develop a resource protection plan that incorporates the removal of non-native and invasive species from natural areas. See phase schedule under Section IV (B) of this management plan for species removal.

Recreation and Open Space Policy 3.1.3 directs the City to incorporate into park design, plans, strategies and programs for natural resource restoration or enhancement.

The lease and proposed management of this project site will further these directives because the City will remove non-native species from part of the disturbed portions of the upland areas. Any affected wetland buffers will be re-established with native vegetation.

Lease of the project site will implement and further the 2010 Comprehensive Plan objectives and policies to preserve historical, cultural or archaeological features.

Recreation and Open Space Objective 7.1 and Policy 7.1.1 direct the City to protect and preserve historical and cultural sites. There are three sites either within or less than 1/4 mile from the project site. See Exhibit M for Florida Master Site File Map.

Lease and proposed management will protect these sites.

#### **Future Land Use (FLU) Element**

Lease of the project site will implement and further the 2010 Comprehensive Plan objectives and policies that provide for new or enhanced public access to water bodies.

Future Land Use Objective 2.7 and Policies 2.7.1 and 2.7.3 direct the City to protect and enhance shoreline areas for recreational uses, including creating a river corridor open space system, and providing public access/easements along water bodies.

Future Land Use Policy 2.8.1 requires the City to coordinate with all levels of government and non-profit groups to increase available areas for parks and recreation facilities using joint acquisition/lease and management agreements.

Future Land Use Policy 1.5.3 directs the City to protect habitat areas and significant natural areas and limit activities with the potential to contaminate soil, ground or surface waters. Proposed management of the project site will further this policy. The City proposes to restore native landscaping on the property to improve the overall quality of the system. See phases schedule under Section IV (B) of this management plan for schedule of proposed restoration.

#### **Intergovernmental Coordination (IGC) Element**

Intergovernmental Coordination Policies 1.2.1, 1.3.3, and 1.3.4 direct the City to: a) use existing coordination mechanisms to provide informal intergovernmental coordination and information sharing, b) use the Duval County Water Quality Coordination Committee to encourage the St. Johns River Water Management District to build upon and coordinate its Surface Water Improvement and Management (SWIM) plan with the 2010 Comprehensive Plan and meet with the District staff for the specific purpose of identifying mutual goals and programs to achieve these goals, and c) coordinate with Nassau and St. Johns Counties in the management of marine resources by participating in existing cooperative programs established by the St. Johns River Water Management District and the Northeast Florida Regional Council such as the SWIM Plan.

Lease of this site will assist in implementing the goals of the SWIM plan, which include improving the water quality and overall health of the Lower St. Johns River ecosystem. Use of the site will be coordinated with the SWIM plan.

# VII. GENERAL PARK MANAGEMENT AND MAINTENANCE

Management responsibilities are designated in the lease between the Board of Trustees of the Internal Improvement Trust Fund, the ACOE and the City.

The City's Recreation and Community Services Department has the primary responsibility of managing and operating Huguenot. This responsibility includes the delivery of diverse outdoor recreational and leisure opportunities and the protection and conservation of all natural resources. The City will consult with the Department of State, Division of Historical Resources (Bureau of Historical Research) before taking actions that may adversely affect archaeological or historic resources.

Management will be coordinated with various other state and local agencies.

# A. Site and visitor protection

- a. Roadways and parking areas have been designated to provide authorized vehicular travel. Fencing and barricades have been erected as needed to prohibit unauthorized vehicle access to sensitive or jurisdictional areas. Barriers have been erected to close numerous dune cuts and allow natural re-vegetation.
- b. Park staff and local law enforcement officials patrol the site as necessary to ensure public safety, the adherence to park rules, and the protection of wildlife. The JSO has assigned officers from May through September to patrol Huguenot.
- c. 'No Trespassing' and 'Protected Area' signs have been erected to alert visitors to sensitive areas.

Campers entering the park receive a "rules and regulations" printout that also identifies protected areas and day-use visitors are informed of park rules and protected areas by signage.

# B. Maintenance responsibility

The City's Recreation and Community Services Department is responsible for maintaining Huguenot. Huguenot has set up its own budget for maintenance responsibilities approved by City council. Daily inspections include, but are not limited to, cleaning and upkeep of park grounds and facilities and safety inspections by park maintenance personnel.

Long-term preventative maintenance of recreational facilities will be performed in accordance with manufacturer's recommendations, applicable codes and industry standards.

Fire management is the preferred tool for managing the upland. A fire management plan will be prepared in coordination with the Florida Division of Forestry and the FWC if needed on the site. Any burning program or fuel-load reduction methods, as well as methods to control vegetative composition, will be coordinated with the Florida Division of Forestry.

# C. Public education

COJ will establish a program, in coordination with partners, to educate the community about the park's natural resources, the migratory shorebirds, and sea turtles who visit Huguenot beaches. The program will include brochures, public service announcements, and more prominent signage within Huguenot. Park Naturalists will provide at least one interpretive program a month at Huguenot on varying themes and topics.

#### **D.** Vendors and certifications

Vendors operating their business at Huguenot must be licensed annually by the City and attend four hours of shorebird and public safety training. Currently this training requirement is not in the vendor's scope; it will be added once their contracts are up for re-bid.

#### E. Training

All City employees at Huguenot, including JSO and lifeguards, will attend annual updates regarding the status of the wildlife within Huguenot.

Senior park managers should be certified through the Florida Master Naturalist Program.

# VIII. PUBLIC INVOLVEMENT IN PLAN DEVELOPMENT

#### A. Advisory Boards

The Huguenot Park Advisory Board reviews, comments, and suggests appropriate actions for concerns, issues, or improvements to major recreational sites such as Huguenot Park. The advisory board met on November 8, 2007, May 15, 2008, and July 17, 2008. Different agency representatives have attended these meetings, as well as members of the

public. The following agencies have been represented (See Exhibit R for the board comments and public meeting notices):

Huguenot Memorial Park management COJ – staff Jacksonville Sheriff's Office COJ – District Council Member Florida Fish and Wildlife U.S. Fish and Wildlife Service Duval Audubon Florida Audubon COJ – CPAC – District 6 U.S. Army Corps of Engineers The Nature Conservancy The National Park Service Jacksonville Port Authority St. Johns River Water Management District NE Florida Sierra Club Florida Park Service Florida Department of Environmental Protection - CAMA Surfrider Foundation Sea Bull Marine Members of the general public